

# Release Notes

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## Junos OS Evolved Release 22.2R2

### Introduction

Use these release notes to find new and updated features, software limitations, and open issues for Junos OS Evolved Release 22.2R1.

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

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

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These release notes accompany Junos OS Evolved Release 22.2R2 for 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

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

## What's Changed in Release 22.2R2-S2

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## Network Management and Monitoring

- **Support for the `junos:cli-feature` YANG extension (ACX Series, PTX Series, and QFX Series)**—The `cli-feature` YANG extension identifies certain CLI properties associated with some command options and configuration statements. The Junos YANG modules that define the configuration or RPCs include the `cli-feature` extension statement, where appropriate, in schemas emitted with extensions. This extension is beneficial when a client consumes YANG data models, but for certain workflows, the client needs to generate CLI-based tools.

[See [Understanding the Junos DDL Extensions YANG Module](#).]

## What's Changed in Release 22.2R2

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- [Junos OS API and Scripting | 2](#)
- [General Routing | 2](#)

## Junos OS API and Scripting

- **Deprecated functions in the `libpyvrf` Python module (ACX Series, PTX Series, and QFX Series)**—The `libpyvrf` Python module no longer supports the `get_task_vrf()` and `set_task_vrf()` functions.

[See [How to Specify the Routing Instance in Python 3 Applications on Devices Running Junos OS Evolved](#).]

## General Routing

- sFlow configuration? sFlow configuration is allowed only on et, xe, and ge interfaces in EVO-based platforms. All other interfaces are blocked for configuring sFlow on EVO platforms. A cli error will be thrown if sFlow is configured on any other interface other than et, xe or ge interface.

- **In order to monitor vmhost storage usage**— A new minor alarm, VMHost RE 0 Disk 1 inode usage breached threshold is introduced. The existing minor alarm, VMHost RE 0 Disk 1 Usage is above threshold is changed to VMHost RE 0 Disk 1 Size usage breached threshold.

## Known Limitations

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Learn about known 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 you issue show system processes extensive or show chassis routing-engine, idle CPU usage is around 75% in ACX7024. Evo-pfemand process usage is in the range of 9-19%. This is because of the polling threads in evo-pfemand. This behaviour is common across platforms and not ACX7024 specific. The CPU usage numbers are aggravated due to low CPU in ACX7024. There would not be any functional impact because of this. [PR1656732](#)
- Junos OS Evolved follows Make-Before-Break (MBB) mechanism to program next-hop and route to achieve faster convergence. The mechanism installs new forwarding table entry before deleting old one, minimizing traffic loss during route convergence. However, it temporarily increases the number of forwarding paths programmed in the Packet Forwarding Engine depending on number of times nexthop or route changes in a short period of time. MBB is applied during link-flaps, graceful restarts (ldp), session flaps (ldp) etc.

For deployments where the network device is running on the higher end of the tunnel scale limits, a link flap can easily exceed the scale of the device. Once Packet Forwarding Engine exceeds its forwarding table capacity any new nexthop add for a tunnel is ignored, resulting in traffic silent packet drop for those NHs. A link flap though, triggers MBB for only the tunnels associated with that particular link. If we take a worst-case situation that all the links flap at once and all the tunnels are

hence undergoing MBB, we have to keep the tunnel limit to half to be absolutely sure not to exceed the limit. [PR1660472](#)

## Open Issues

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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.

## EVPN

- On all Junos OS Evolved platforms that support EVPN-MPLS (Ethernet Virtual Private Networks - Multiprotocol Label Switching) services, during switchover or layer 2-learning restart, some EVPN next hops are not correctly associated with routing-instance in Routing Engine impacting the traffic forwarding. [PR1633344](#)
- On performing Graceful Routing Engine switchover on ACX7509 platform with EVPN services, some logical interfaces are missing. The logical interfaces come up post reboot. [PR1646722](#)
- On ACX7024 devices, pseudo wire setup and tear down rate might be low. This is due to system CPU limitation. [PR1659593](#)

## General Routing

- On ACX7509 devices, some of the interfaces from 16x100G and 20XSFP56 do not go down after evo-pfemand restart. [PR1592388](#)

- On ACX7509 devices, after multiple FPC online or offline, FPCs go to fault state.[PR1616227](#)
- When the original flow is egressing out through an AE (aggregate Ethernet) interface, the corresponding sampled sflow frame does not reflect the correct egress port number. This happens only when the flow is egressing out through an AE interface. For non-AE egress interface, this works fine and the sflow frame reflects the correct egress port. [PR1647870](#)
- On an ACX7509 device with dual Routing Engines and FEB, when there is a power fault of primary FEB, a switchover must happen and backup Routing Engine and FEB take up the primary role. Post switchover a VMCore might be generated in the new backup Routing Engine. This failure must not impact the system uptime. Post Vmcore backup Routing Engine reboots and comes back online. [PR1671198](#)
- If a FEB goes to fault state due to a power-fault (real or artificially triggered for testing), then the subsequent FEB offline can take a few minutes (instead of completing within a minute for a normal offline). There is no other collateral due to this. A FEB online subsequent to the delayed offline works normally and the FEB becomes fully functional again. [PR1671719](#)
- On ACX7000-32C, ACX7100-48L platforms, `vlan-id all` configuration option is not supported in VPLS `vlan` configuration. [PR1679972](#)
- Sometimes when the access interface is deactivated and reactivated in quick succession DHCPv6 packets get dropped in the Routing Engine. It does not recover automatically, the DHCP process has to be restarted to recover from this situation. [PR1692278](#)

## User Interface and Configuration

- The system might ask for your password when you try to save configuration file.[PR1665008](#)

## 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

- Junos OS Evolved, ACX platforms when fixed classifier is detached all default classifiers must be re-attached. [PR1649163](#)

## General Routing

- On ACX7509 devices, interfaces mapped to same BCM port group flapping when any one of the interfaces' speed is modified. [PR1608223](#)
- PTP performance might randomly become bad for 30 minutes. [PR1614309](#)
- In ACX7509 devices, on multiple FPC restart, link is not coming up with huge FEC errors. [PR1639666](#)
- [sw-evo-infra-utils] show system core-dumps routing-engine both CLI command does not display anything on ACX7509 platform. [PR1646266](#)
- Non standard optics causing picd core issue. [PR1649925](#)
- On ACX7509 devices, :: picd/evo-pfemand core is observed occasionally when we perform restart FPCs with multi-D system scale. [PR1650302](#)
- The classification-override functionality will not work for IPv6 traffic. [PR1650622](#)
- On ACX7100 and ACX7509 devices, OAM link fault management (LFM) discovery state is not correct. Discovery state is either Active Send Local or Fault. [PR1651580](#)
- [timing] [ptp] G.8275.2.enh- T-BC stuck in acquiring with bad CF values in channelized ports. [PR1657531](#)
- On ACX7509 devices, clockd core and interfaces going down might be observed after repeated switchover operations. [PR1657981](#)
- ACX7100-32C:ACX7100-48L::jdhcpd core file seen on boot. [PR1658327](#)
- The object-info anomalies reported for picd relating to pfeE while testing switchover. [PR1662411](#)

- On ACX7509 devices, interface flaps are observed on performing primary role switchover. [PR1668509](#)
- The hwdre and evo-pfemand applications might crash if idmd, fabtoken and hwdre are restarted immediately after a FEB offline. [PR1669130](#)
- Switchover caused by primary RCB power-fault might cause links to go down. [PR1669162](#)
- Rare traffic stall in scaled scenarios on FEB offline and online. [PR1669211](#)
- The show system alarm CLI command shows **Optics does not support configured speed** minor alarm for few 1G optics. [PR1671200](#)
- ACX7509 HA: Backup FEB1 links down after primary FEBO restart. [PR1673274](#)
- [PDT-SP-METRO]: EVO - ACX : Fixed classification on aggregate Ethernet interface does not work on system reboot or PFE restart. [PR1676103](#)
- JDI-RCT: EVPN-VXLAN-ERB: ACX7100-48L-ACX7100-32C: Ipv4/Ipv6 EP-Type2 intra-vni traffic getting failed on leaf device after loading Junos OS Evolved BO profile configurations. [PR1680253](#)
- The rpd-agent process might crash with a high scale of member nexthops. [PR1640224](#)

## User Interface and Configuration

- The traffic might not flow after deleting or adding VLAN configuration with load override. [PR1647853](#)

# 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 22.2R2 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

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Learn about new features introduced in this release for PTX Series routers.

### Routing Protocols

- **Keep bypass tunnels operational during configuration changes (PTX10001-36MR, PTX10003, PTX10004, PTX10008, and PTX10016)**—Starting in Junos OS Evolved Release 22.2R2, you can configure the operating system to keep bypass tunnels operational until the tunnels are no longer carrying local repair traffic, even during configuration change. Bypass tunnels that are carrying local repair traffic are in the `BackupActive` state. When you change the bypass-related configuration on software releases containing this feature, the OS keeps any bypass tunnels that are in `BackupActive` state up. When the bypass tunnels are no longer in `BackupActive` state, the operating system tears down the bypass tunnels. This feature ensures all local repair traffic reaches its destination and prevent traffic loss on label-switched paths (LSPs).

Configure this feature at the `[edit protocols rsvp interface all link-protection]` hierarchy level. Use the `show rsvp session bypass` command to check whether the bypass routes protecting an interface remain operational in `BackupActive` state after the configuration changes.

## Additional Features

We have extended support for the following feature to the platform within parentheses:

- **next-header and payload-protocol** (PTX10003)—Support for match conditions next-header and payload-protocol to filter IPv6 packets based on Next Header (NH) values. With this update, now the next-header match condition will match the first NH of the IPv6 fixed header and payload-protocol will match the last NH of the last extension header. next-header matches on intermediate extension headers are not supported. The payload-protocol match is applicable only if the first extension header is Hop-by-Hop.

[See [Firewall Filter Match Conditions for IPv6 Traffic](#).]

## What's Changed

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

### What's Changed in Release 22.2R2-S2

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## Network Management and Monitoring

- **Support for the `junos:cli-feature` YANG extension (ACX Series, PTX Series, and QFX Series)**—The `cli-feature` YANG extension identifies certain CLI properties associated with some command options and configuration statements. The Junos YANG modules that define the configuration or RPCs include the `cli-feature` extension statement, where appropriate, in schemas emitted with extensions. This

extension is beneficial when a client consumes YANG data models, but for certain workflows, the client needs to generate CLI-based tools.

[See [Understanding the Junos DDL Extensions YANG Module](#).]

## What's Changed in Release 22.2R2

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## Class of Service (CoS)

- For PTX Series devices running Junos OS Evolved, software priority `medium-low` maps to hardware priority `medium` for normal scheduling mode and `low` for strict priority scheduling mode.
- Starting in Junos OS Evolved Releases 22.1R3, 22.2R2, and 22.3R1, QFX5130 switches don't copy the Type of Service (ToS) field when encapsulating a VXLAN packet by default. You can enable copying the ToS field upon VXLAN encapsulation using the `vxlan-tos-copy-filter` statement at the `edit forwarding-options` hierarchy. This statement copies both the DSCP and ECN values in the ToS field from the IP header of a packet to the outer IP header of the VXLAN packet.

## General Routing

- **Change in the `help syslog PFE command output`**—In Junos OS Evolved, the output for `help syslog PFE` command is fixed to be consistent with Junos OS output on PTX10008 device. ERRMSG tags in EVO are named as `SFLOWD_` whereas in Junos they are named as `PFE_SFLOW_`.
- **sFlow configuration?** sFlow configuration is allowed only on `et`, `xe`, and `ge` interfaces in EVO-based platforms. All other interfaces are blocked for configuring sFlow on EVO platforms. A cli error will be thrown if sFlow is configured on any other interface other than `et`, `xe` or `ge` interface.
- In order to monitor `vmhost` storage usage: ? A new minor alarm, `VMHost RE 0 Disk 1 inode usage breached threshold` is introduced ? The existing minor alarm, `VMHost RE 0 Disk 1 Usage is above threshold` is changed to `VMHost RE 0 Disk 1 Size usage breached threshold`.

- **Change in the help syslog PFE command output**—In Junos OS Evolved, the output for help syslog PFE command is fixed to be consistent with Junos OS output on PTX10008 device. ERRMSG tags in EVO are named as SFLOWD\_ whereas in Junos they are named as PFE\_SFLOW\_.

## Junos OS API and Scripting

- **Deprecated functions in the libpyvrf Python module (ACX Series, PTX Series, and QFX Series)**—The libpyvrfPython module no longer supports the get\_task\_vrf() and set\_task\_vrf() functions.  
[See [How to Specify the Routing Instance in Python 3 Applications on Devices Running Junos OS Evolved](#).]

## MPLS

- Starting with Junos Evolved Release 21.4R3 a CSPF LSP uses a new instance ID when attempting to re-signal a down LSP.

## User Interface and Configuration

- **Support for temperature sensor (PTX10001-36MR)**—We support the temperature sensor statement at the **edit chassis cb** hierarchy level. You can use the temperature sensor statement to increase the fan speed and customize the temperature threshold. We recommend certain values for ZR and ZR-M modules to work which helps the temperature to remain within the thresholds.

[See [temperature-sensor](#).]

## Known Limitations

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Learn about known 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.

## General Routing

- On all PTX Series platforms running Junos OS Evolved, addition or deletion of the filter configuration in the loopback interface might result in error messages with some packet drop for short duration, which might be self-recovered.[PR1589296](#)
- 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 flexible algorithm. [PR1648490](#)

## Routing Policy and Firewall Filters

- IPv4 unsupported filter match **fragment-flags reserved** must not be used, as it matches dont fragment traffic pattern as well.[PR1676517](#)

## 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

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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.

## General Routing

- Support switchover-on-routing-crash configuration statement during abnormal termination of rpd. This has impact only when routing daemon crashes and does not have impact on rest of the NSR support. [PR1561059](#)
- For PTX10001-36MR, the software driver reads the voltage threshold erroneously causing the **Host 0 Voltage Threshold Crossed** alarm to be present on the device. [PR1592258](#)
- Junos OS Evolved:JDI\_FT\_REGRESSION: PTX10008 [Firewall][SRTCM] : Queue statistics for yellow packets is incorrect after configuring single packet rate tricolor policer, policer\_mpls with committed-information-pps : 40000,committed-packet-burst : 4000, excess-packet-burst : 5000. [PR1634974](#)
- SR statistics : Per-interface egress and per-sid egress sensor statistics do not take MPLS label length into account in the output octet calculations. [PR1646799](#)
- The following RPC is not supported in this release:

```
// KillProcess kills an OS process and optionally restarts it.  
rpc KillProcess(KillProcessRequest) returns (KillProcessResponse) {}
```

[PR1655652](#)

- On all Junos OS Evolved platforms, an error log from rpd or kernel corresponding to **JSR backup registration failed** might be observed during extreme scenarios of rpd restart. [PR1660685](#)
- GNOI API SetPackage through remote download is not supported. [PR1665185](#)
- Sometimes BGP and RSVP sessions remain down after quick arpd process disabling and enabling. Whenever customer encounters such scenario, system can be recovered from erroneous state by executing restart routing gracefully in CLI. [PR1665362](#)

- Configd-streamer generates core files during commit of wild-carded groups related configuration. The core is only seen with the wild-carded configuration which is used in the reported fusion test case. [PR1674890](#)
- Fragmented packets have an additional NH (frag) that causes the FLT to not match on ICMPv6 headers for lo0 filters. Workaround is to change the loopback MTU size. [PR1675820](#)

## Infrastructure

- On all Junos Evolved platforms, the device might panic with vmcore under high memory pressure situations when kernel memory allocation fails. [PR1646610](#)

## Interfaces and Chassis

- Sometimes 400G-ZR link does not come up when changed to channelized mode. [PR1646915](#)

## Network Management and Monitoring

- When `maximum-password-length` is configured and the user tries to configure password and the length exceeds configured `maximum-password-length`, error is thrown, along with error `<ok>` tag is also emitted. (Ideally `<ok>` tag must not be emitted in an error scenario.) The configuration does not get committed. [PR1585855](#)
- The mgd can crash when an invalid value is configured for identityref type leafs or leaf-lists while configuring Openconfig or any other third-party YANG. The problem happens with json and xml loads. [PR1615773](#)
- When `jnxCos` mib is polled at a very high rate and if response from FPCs (evo-aftmand) is delayed (takes around 1 minute) then `snmpd-subagent` might generate a core file. [PR1683517](#)

## Routing Protocols

- On all Junos OS Evolved platforms, when configuring the network instance for openconfig, an error might be observed while executing a commit if the configured network instance type is `default_instance`, however the instance name is not default. [PR1644421](#)

- When l2cpd (in the context of xSTP) clears the entries that it has programmed on ppmd, that is when you delete xSTP configurations from the device, there can be a possibility of ppmd core file generation. If ppmd is in distributed mode then there is no service impact, else there can be service impact as packet transmission for various protocols happen if ppmd is in centralized mode.[PR1660299](#)

## User Interface and Configuration

- When evo-cda-bt is killed, fpc restarts. We might see agentd crash due to ungraceful FPC restarts. This issue is not seen in a normal working scenario and is seen only upon ungraceful fpc restarts.[PR1655441](#)
- The system might ask for your password when you are trying to save configuration file.[PR1665008](#)

## Resolved Issues

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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.

## General Routing

- PTX10003: In scaled Layer 2 network, error logs are printed for MAC Creation, mac-learning works as expected [PR1491933](#)

- MTS-MCAST: [PTX10003] Auto RP base verification fails with multiple RPs with same group range. [PR1634982](#)
- Sensors under /components/component/integrated-circuit/backplane-facing-capacity/state/ are not exported in UDP through WAN port, however exporting in UDP through management port works. [PR1649876](#)
- The classification-override functionality does not work for IPv6 traffic. [PR1650622](#)
- After configuring rpf-check on lag interface, the lag interface might go down. [PR1652623](#)
- The protocol state sync on backup Routing Engine is affected. [PR1655249](#)
- UEFI BIOS Key synchronization tool - efitools.service fails after optics diagnostics test. [PR1655537](#)
- The Junos OS Evolved cda process might crash which leads to line-card or router reboot. [PR1655949](#)
- Wrong transmit hardware priority for CLI priority medium-low. [PR1656837](#)
- rpm-postinst fails on boot. [PR1657278](#)
- The evo-aftmand-bt crash might be observed on Junos OS Evolved platforms. [PR1657532](#)
- PTX10008 Junos OS Evolved : Family MPLS Firewall filter does not work on ingress. [PR1657584](#)
- Routes in RIB and FIB table might go out of sync on all Junos Evolved platforms and causes a traffic impact. [PR1658426](#)
- The packetio might generate a core file when router reboots or FPC reboot is triggered. [PR1658839](#)
- The license might get out of sync between the primary and backup Routing Engines. [PR1658869](#)
- The BGP session might flap on Junos OS Evolved platforms. [PR1660805](#)
- Channelized interface might go down if low-light-alarm or low-light-warning is enabled. [PR1661215](#)
- The network-instance name for streaming telemetry to be changed from default to DEFAULT to align with configuration stanza. [PR1662999](#)
- Junos OS Evolved: PTX Series: An attacker can cause a kernel panic by sending a malformed TCP packet to the device (CVE-2022-22192). [PR1663201](#)
- PTX10003 load balance v4\_dscp and v6\_dscp is enabled by default. [PR1665131](#)
- MVRP enabled trunk ports might go into blocked or designated state on Junos OS Evolved PTX Series platforms. [PR1666921](#)
- On a platform running Junos Evolved software, snmp get for FPC MIBs might intermittently return "0" instead of the real value. [PR1668285](#)

- The icmpd application might crash and generate a core file post assert being raised. [PR1669088](#)
- The hwdre and evo-pfemand applications might crash if idmd, fabtoken and hwdre are restarted immediately after a FEB offline. [PR1669130](#)
- The process fabspoked-pfe crash might be observed while executing CLI commands for fabric statistics. [PR1669435](#)
- Traffic loss might be seen when multicast route changes. [PR1669498](#)
- PTX10008: show snmp mib walk CLI fails at jnxLED mib if snmp mib walk is performed with multiple parallel sessions. [PR1669624](#)
- Layer 2 filters matching DMAC or Etype takes no effect on Layer 2 SP-style aggregated Ethernet interface. [PR1669718](#)
- The rpd-agent process might restart post mastership switchover [PR1669767](#)
- Multicast traffic drop might be seen on PTX10008, PTX10016, PTX10001-36MR, and PTX10K-LC1202-36MR platforms. [PR1669740](#)
- PTX10004:PTX10008:PTX10016 Junos OS Evolved : transmit-rate is not achieved on queue and traffic is dropped in oversubscription mode. [PR1670859](#)
- Fragment frames errors are seen on the 400G interface. [PR1671065](#)
- Default DDOS rate limit for LLDP packets is 20,000 PPS. [PR1671196](#)
- Junos OS Evolved NSR: Do not send unreplicated message to backup during switchover. [PR1671458](#)
- JDI-RCT:Junos OS Evolved:PTX10004:PTX10008:PTX10016 - evo-aftmand-bt.fpc core file seen. [PR1672512](#)
- The new primary Routing Engine could reboot on it's own after the kernel crashes on an old primary Routing Engine. [PR1673306](#)
- Crash is observed when many Packet Forwarding Engines go down at the same time. [PR1674724](#)
- PTX10004:PTX10008:PTX10016 Junos OS Evolved : LSP Link-protection takes longer time. [PR1675282](#)
- PTX10003: The fragment-offset-except firewall match condition does not work for offset-1 value. [PR1675482](#)
- PTX10004:PTX10008:PTX10016 Junos OS Evolved : jnxOperatingDRAMSize value displayed in Kilo bytes instead of Bytes. [PR1675811](#)
- GNOI rpc statistics incorrect permission value. [PR1676942](#)

- PTX10008 Junos OS Evolved ZTP : HTTP GET fails in downloading configuration file. [PR1677231](#)
- Unexpected storage media comsumption caused by system application log. [PR1677295](#)
- Disk usage monitoring and log clean up does not cover zookeeper log. [PR1678880](#)

## Infrastructure

- Traffic drop might be seen due to slow TCP reestablishment after a topology change. [PR1661210](#)
- On Junos Evolved platforms, no connectivity between the default routing instance and other routing instance might happen. [PR1671024](#)

## Network Management and Monitoring

- The SNMP counters might get stuck. [PR1663713](#)
- The snmpd core file might be observed with filter-duplicates configuration. [PR1669510](#)

## Routing Policy and Firewall Filters

- The firewalld process might crash when nested filters are used as input list. [PR1651411](#)
- lo0 egress filter with next-header option not supported. [PR1672315](#)
- The aftmand process crash might be observed. [PR1683361](#)

## User Interface and Configuration

- Junos OS Evolved: syslog regex matching backslash and punctuations unable to filter output. [PR1663346](#)

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

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These release notes accompany Junos OS Evolved Release 22.2R2 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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- [What's Changed in Release 22.2R2 | 21](#)

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

## EVPN

- Starting in Junos OS Evolved Releases 22.1R3, 22.2R2, and 22.3R1, QFX5130 switches don't copy the Type of Service (ToS) field when encapsulating a VXLAN packet by default. You can enable copying the ToS field upon VXLAN encapsulation using the `vxlan-tos-copy-filter` statement at the `edit forwarding-options` hierarchy. This statement copies both the DSCP and ECN values in the ToS field from the IP header of a packet to the outer IP header of the VXLAN packet.
- AR replicators with OISM install multicast states only on the OISM SBD (QFX5130-32CD and QFX5700)—In an EVPN-VXLAN ERB fabric with many VLANs, QFX5130-32CD and QFX5700 switches running as assisted replication (AR) replicators with optimized intersubnet multicast (OISM) might have scaling issues when they install multicast (\*,G) states (with IGMPv2) or (S,G) states (with IGMPv3). As a result, these switches only install these multicast states on the OISM supplemental bridge domain (SBD) VLAN. They don't install these states on all OISM revenue bridge domain VLANs. On those devices, you see multicast group routes only on the SBD in `show multicast snooping route` command output.
- Starting in Junos OS Evolved Releases 22.1R3, 22.2R2, and 22.3R1, QFX5130 switches don't copy the Type of Service (ToS) field when encapsulating a VXLAN packet by default. You can enable copying the ToS field upon VXLAN encapsulation using the `vxlan-tos-copy-filter` statement at the `edit forwarding-options` hierarchy. This statement copies both the DSCP and ECN values in the ToS field from the IP header of a packet to the outer IP header of the VXLAN packet.

## General Routing

- sFlow configuration? sFlow configuration is allowed only on `et`, `xe`, and `ge` interfaces in EVO-based platforms. All other interfaces are blocked for configuring sFlow on EVO platforms. A cli error will be thrown if sFlow is configured on any other interface other than `et`, `xe` or `ge` interface.

## Junos OS API and Scripting

- **Deprecated functions in the `libpyvrf` Python module (ACX Series, PTX Series, and QFX Series)**—The `libpyvrf` Python module no longer supports the `get_task_vrf()` and `set_task_vrf()` functions.

[See [How to Specify the Routing Instance in Python 3 Applications on Devices Running Junos OS Evolved](#).]

## User Interface and Configuration

- **Support for temperature sensor (PTX10001-36MR)**—We support the temperature sensor statement at the `edit chassis cb` hierarchy level. You can use the temperature sensor statement to increase the fan speed and customize the temperature threshold. We recommend certain values for ZR and ZR-M modules to work which helps the temperature to remain within the thresholds.

[See [temperature-sensor](#).]

### What's Changed in Release 22.2R2-S2

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## Network Management and Monitoring

- **Support for the `junos:cli-feature` YANG extension (ACX Series, PTX Series, and QFX Series)**—The `cli-feature` YANG extension identifies certain CLI properties associated with some command options and configuration statements. The Junos YANG modules that define the configuration or RPCs include the `cli-feature` extension statement, where appropriate, in schemas emitted with extensions. This extension is beneficial when a client consumes YANG data models, but for certain workflows, the client needs to generate CLI-based tools.

[See [Understanding the Junos DDL Extensions YANG Module](#).]

### What's Changed in Release 22.2R2

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- [General Routing | 22](#)
- [Junos OS API and Scripting | 22](#)
- [User Interface and Configuration | 23](#)

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

## EVPN

- Starting in Junos OS Evolved Releases 22.1R3, 22.2R2, and 22.3R1, QFX5130 switches don't copy the Type of Service (ToS) field when encapsulating a VXLAN packet by default. You can enable copying the ToS field upon VXLAN encapsulation using the `vxlan-tos-copy-filter` statement at the `edit forwarding-options` hierarchy. This statement copies both the DSCP and ECN values in the ToS field from the IP header of a packet to the outer IP header of the VXLAN packet.
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## General Routing

- **sFlow configuration?** sFlow configuration is allowed only on `et`, `xe`, and `ge` interfaces in EVO-based platforms. All other interfaces are blocked for configuring sFlow on EVO platforms. A `cli` error will be thrown if sFlow is configured on any other interface other than `et`, `xe` or `ge` interface.
- **In order to monitor vmhost storage usage**—A new minor alarm, `VMHost RE 0 Disk 1 inode usage breached threshold` is introduced. The existing minor alarm, `VMHost RE 0 Disk 1 Usage is above threshold` is changed to `VMHost RE 0 Disk 1 Size usage breached threshold`.

## Junos OS API and Scripting

- **Deprecated functions in the `libpyvrf` Python module (ACX Series, PTX Series, and QFX Series)**—The `libpyvrf` Python module no longer supports the `get_task_vrf()` and `set_task_vrf()` functions.  
[See [How to Specify the Routing Instance in Python 3 Applications on Devices Running Junos OS Evolved](#).]

## User Interface and Configuration

- **Support for temperature sensor (PTX10001-36MR)**—We support the temperature sensor statement at the `edit chassis cb` hierarchy level. You can use the temperature sensor statement to increase the fan speed and customize the temperature threshold. We recommend certain values for ZR and ZR-M modules to work which helps the temperature to remain within the thresholds.

[See [temperature-sensor](#).]

## 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

### IN THIS SECTION

- [General Routing | 23](#)
- [User Interface and Configuration | 24](#)

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

- On the QFX5130-32CD platform running Junos OS Evolved, you cannot clear or reset the disk option specified in the scheduled request node reboot command. The node reboots with the disk option last specified. [PR1517596](#)

- On QFX5700 platforms, a few interfaces do not come up after removing channelization through single commit, that is by using `delete interfaces`. [PR1592238](#)
- On QFX5700, 400G DAC flap might be seen after OIR, FPC restart, device reboot, enabling or disabling interface. [PR1618488](#)
- 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** that does not get cleared. [PR1620197](#)
- 400G LR4-10 link does not come up after deleting disable interface configuration when port is disabled followed by system reboot. [PR1625494](#)
- If the device is power cycled or restarted with 10G Active DAC cable connected, the port might take more than five minutes to link up after the device boots. [PR1664207](#)

## User Interface and Configuration

- The system might ask for your password when you are trying to save the configuration file. [PR1665008](#)

## Resolved Issues

### IN THIS SECTION

- [General Routing | 24](#)

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

- In scaled Layer 2 networks, error logs are printed for MAC Creation. The `mac-learning` works as expected. [PR1491933](#)

- Unified led scheme for QFX5220 or QFX5130. [PR1616209](#)
- QFX5220-128C : MDIO forward download failed after image upgrade. [PR1636181](#)
- QFX5220 platform might experience system reboot or shutdown in rare cases. [PR1638961](#)
- After sigkill or app crash, jstatsd app does not come up. [PR1641229](#)
- QFX5130-32CD, QFX5220-32CD : Unexpected carrier transitions are seen on JNP-100G-2X50G-xM after plug out and plug in. [PR1642744](#)
- Non standard optics causes pcid core file issue. [PR1649925](#)
- QFX5130: Few macs are missing from show ethernet-switching table. [PR1650329](#)
- TOS(DSCP+ECN) bits do not get copied from the inner Layer 3 header to outer VXLAN header. [PR1658142](#)
- QFX Junos OS Evolved : Transit NTP packets are trapped to CPU. [PR1661855](#)
- Junos OS Evolved white space in optics serial number in show chassis hardware display xml or json. [PR1665229](#)
- QFX5130 sends a flow sample with the wrong value of **flow record** in sflow sampled packet. [PR1666434](#)
- TPI-101526 :Junos OS Evolved:QFX5700 : 100% Layer 2 MC traffic is not forwarded to the CE interfaces from the core on QFX5700. [PR1668921](#)
- On QFX5130-32CD and QFX5700 platforms, IPv6 neighborships fail to establish if IPv6 loopback filters are configured. [PR1671730](#)
- The interface does not come back to default port speed when ZTP is aborted. [PR1672101](#)

## Upgrade Your Junos OS Evolved Software

Products impacted: 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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- [Self-Help Online Tools and Resources | 28](#)
- [Creating a Service Request with JTAC | 29](#)

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/content/dam/www/assets/resource-guides/us/en/jtac-user-guide.pdf>.
- Product warranties—For product warranty information, visit <https://support.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://support.juniper.net/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://supportportal.juniper.net/s/knowledge>
- Download the latest versions of software and review release notes: <https://support.juniper.net/support/downloads/>
- Search technical bulletins for relevant hardware and software notifications: <https://supportportal.juniper.net/s/knowledge>
- Join and participate in the Juniper Networks Community Forum: <https://www.juniper.net/company/communities/>
- Create a service request online: <https://supportportal.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://support.juniper.net/support/requesting-support/>
- 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

10 August 2023—Revision 3, Junos OS Evolved Release 22.2R2

20 July 2023—Revision 3, Junos OS Evolved Release 22.2R2

24 November 2022—Revision 2, Junos OS Evolved Release 22.2R2

9 November 2022—Revision 1, Junos OS Evolved Release 22.2R2

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