

Release Notes

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Junos[®] OS Evolved Release 22.1R2

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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 22.1R2 for ACX7100-32C, ACX7100-48L, and ACX7509 routers. They describe new features, limitations, and known 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 22.1R2-S1

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- [Network Management and Monitoring | 2](#)

Learn about what changed in this release for ACX Series routers.

Network Management and Monitoring

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

What's Changed in Release 22.1R2

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Interfaces and Chassis

- **JNP10K-PWR-DC2 power supplies installed in PTX10008 and PTX10016 routers display as online when the power supplies are switched off**— JNP10K-PWR-DC2 power supplies installed in PTX10008 and PTX10016 routers in which Junos OS Release 21.4R1 or Junos OS Evolved Release 21.4R1 is installed display as online in the output of the command `show chassis environment psm` when the input power feeds are connected, but the power switch on the power supplies are switched off.

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.](#)]

OpenConfig

- OpenConfig container names for Point-to-Multipoint per interface ingress and egress sensors are modified for consistency from "signalling" to "signaling".

User Interface and Configuration

- When you configure `max-cli-sessions` at the `[edit system]` hierarchy level, it restricts the maximum number of CLI sessions that can coexist at any time. Once the `maximum-cli-sessions` number is reached, new CLI access is denied. The users who are configured to get the CLI upon login, are also denied new login.

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

- PTP to PTP noise transfer fails for frequencies:
 - 0.03125 HZ
 - 0.123125 HZ

[PR1608786](#)

- On ACX7100-48 devices, enabling or disabling of PTP TC or BC causes all the interfaces to flap at once.[PR1609927](#)
- The syncE to PTP and syncE to 1pps noise transfer tests fails for frequencies on ACX7100-32C device:
 - 0.00781 HZ
 - 0.01563 HZ
 - 0.03125 HZ
 - 0.06156 HZ
 - 0.12313 HZ

[PR1611911](#)

- G.8275.1- G.8273.2 1PPS cTE performance test might be outside class-C when using channelized 10G ports for PTP BC on ACX7100-32C. On each reboot, the 1PPS cTE measurement might be within the class-C measurement threshold, or might randomly be out of it by a few nanoseconds.[PR1629819](#)
- G.8275.1- G.8273.2 1PPS cTE performance test might be outside class-C when using channelized 25G ports with 100G ports for PTP BC on ACX7100-32C. On each reboot, the 1PPS cTE measurement might be within the class-C measurement threshold, or might randomly be out of it by a few nanoseconds.[PR1637268](#)

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.

General Routing

- On ACX7509 devices, some of the interfaces from 16x100G and 20XSFP56 does not go down after evo-pfemamd restart. [PR1592388](#)
- The Supercon-core 0000:xx:xx:x: Supercon scratch error messages gets generated in the boot log of the backup Routing Engine. The errors are observed only during booting of the backup Routing Engine and do not have any functional impact. These messages must be ignored. [PR1594136](#)
- The `show system processes extensive` command might display high short term CPU utilization. Values can range from 50 percent or higher for evo-pfemamd. This is a single cpu view. As the ACX7509 device is a multi-core CPU, this has no impact on performance. [PR1603899](#)
- G.8275.1- G.8273.2 1PPS cTE performance test might be marginally outside class-C for PTP BC on ACX7100-48L, especially for mixed speed port testing with combinations of 10G or 25G channelized ports and 100G ports. On each reboot, the 1PPS cTE measurement might be within the class-C measurement threshold or randomly be out of threshold by a few nanoseconds. [PR1607381](#)
- On ACX7509 device, 1GE interface does not comes up with copper 1G SFP-T optics and this issue is specific to copper 1G cables [PR1614286](#)
- MAC aggregated Ethernet interfaces software index was 128. Hence, a failure occurs when configure with 218 interfaces. Since, we increase the max indexes to 255. [PR1618337](#)
- After picd or rpdagent application restart multipile object-info anomalies for evo-pfemamd process. [PR1628843](#)
- On ACX7509 device and in a scaled setup, if we do fpc restart, FPC gets struck in the OnLine stste after ungraceful FPC OIR. [PR1633117](#)
- With combination of triggers like restart rpd and fpc, route obect leaks in the Packet Forwarding Engine. [PR1641947](#)
- On ACX7509 devices after multiple FPC online or offline switching, FPCs goes in to the Fault state. [PR1616227](#)

Layer 2 Features

- On a platform running Junos OS Evolved 21.4 release with VPLS instances at some scale, if the RPD process gets killed, it could lead to inconsistency for some instances in lsi information between control and forwarding planes. Specifically, the `show vpls connections instance <>` and `show ethernet-switching table instance <>` command, traffic drops due to incorrect VPLS label imposed at ingress. One might have restart rpd and/or l2ald gracefully to recover. [PR1627593](#)

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.

EVPN

- VXLAN encapsulation might fail to forward traffic to remote devices. [PR1639204](#)

General Routing

- On ACX7509 device, the picd process generates core files when you restart fpc with 700,000 scaled MAC. [PR1602352](#)
- The rpd-agent process might generate core files with a high scale of member nexthops. [PR1640224](#)
- On ACX7509 devices, the picd process generates core files (0x00007f3d44b115da) when you restart FPC with 32,000 ECMP groups scale. [PR1609389](#)
- On ACX7509 devices, the z130642 PLL Input Failure, z130642 PLL LOCK Failure & z130642 PLL OCX0 failure alarms gets generated and gets cleared during FEB/FPC Online. [PR1615688](#)
- On ACX7509 devices, none of the port in slot 7 comes up till you configure 13 port with 16x100G-FPC. [PR1620425](#)

- On ACX7509 device, the PCI Device missing FPC[0] FPC Supercon FPGA alarm gets generated on all FPCs. [PR1627348](#)
- Traffic loss occurs after the VRRP mastership switch. [PR1633986](#)
- On ACX7509 devices, the PICs of JNP-FPC-20Y (20x1/10/25/50-SFP56) and JNP-FPC-16C (16x100G-QSFP) gets stuck in the online state on when you restart FPC resulting in none of the interfaces coming up. [PR1635941](#)
- The hardware process generates core files at HwdAppStopObserver after upgrade to Junos OS Evolved 21.4R1.13 release. [PR1636243](#)
- On ACX7100 and ACX7509 devices, few control packets gets forwarded on the ERPS discarding port leading to traffic loop. [PR1641454](#)
- DC or SP configuration ospfv2/v3 with a WAN router from mclag node gets stuck in the init, exchange, or exstart. [PR1643295](#)
- 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](#)

Interfaces and Chassis

- On ACX7509 devices, there is a limitation while adding more than 64 member links in 1 LAG, whereas from ASIC, there is no limitation. [PR1627951](#)

User Interface and Configuration

- The traffic might not flow after deleting or adding the VLAN configurations with the load override command. [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 22.1R2 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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- [What's Changed in Release 22.1R2-S1 | 9](#)
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Learn about what changed in these releases for PTX Series routers.

What's Changed in Release 22.1R2-S1

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- [Network Management and Monitoring | 9](#)

Learn about what changed in this release for PTX Series routers.

Network Management and Monitoring

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

What's Changed

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Learn about what changed in this release for PTX Series routers.

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.

Interfaces and Chassis

- **JNP10K-PWR-DC2 power supplies installed in PTX10008 and PTX10016 routers display as online when the power supplies are switched off**— JNP10K-PWR-DC2 power supplies installed in PTX10008 and PTX10016 routers in which Junos OS Release 21.4R1 or Junos OS Evolved Release 21.4R1 is installed display as online in the output of the command `show chassis environment psm` when the input power feeds are connected, but the power switch on the power supplies are switched off.

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.](#)]

OpenConfig

- OpenConfig container names for Point-to-Multipoint per interface ingress and egress sensors are modified for consistency from "signalling" to "signaling".

User Interface and Configuration

- When you configure `max-cli-sessions` at the `[edit system]` hierarchy level, it restricts the maximum number of CLI sessions that can coexist at any time. Once the `maximum-cli-sessions` number is reached, new CLI access is denied. The users who are configured to get the CLI upon login, are also denied new login.

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

- If multiple SIBs are in the offline state and halt the primary Routing Engine, the SIBs can be stuck in the offline state for sometime. Eventually the SIBs go to offline state. The CLI command `show chassis sibs` can be used to check the state of the SIBs. [PR1584712](#)

Network Management and Monitoring

- Junos OS Evolved has a feature to block or deny all hidden commands. Users can get this feature by configuring `set system no-hidden-commands`. However when this is configured and committed, Junos OS Evolved blocks or denies new netconf or unscript XML sessions. As a workaround users can delete `system no-hidden-commands` configuration statement and start the new netconf or junoscript sessions. [PR1590350](#)
- When an ephemeral instance is being edited, if `show ephemeral-configuration merge` command is run from another terminal, then the uncommitted changes in the ephemeral instance being edited also appear in the output of `show ephemeral-configuration merge` command. [PR1629013](#)

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

- In Junos OS Evolved 22.1R2, fabsopke-fchip core file can be seen if fabsopke-fchip restarts and sib offline happens one after the other simultaneously. Any previous alarm does not get cleared. [PR1525577](#)
- 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](#)
- No functionality impact as NSR gets enabled again quickly on all protocols after the error messages. Also errors are mostly seen when rpd-agent crashes. [PR1627625](#)
- MTS-MCAST: [PTX10003] Auto RP base verification fails with multiple RPs with same group range. [PR1634982](#)
- System reboot or boot up with traffic could result in init time fabric link crc errors and cause traffic drop. [PR1635178](#)
- ON_CHANGE Telemetry is not supported in Junos OS Evolved release 20.4X80-D12, 21.2X80-D20, and 21.2X80-D21 for sensors under below path: **/components/component/integrated-circuit/backplane-facing-capacity/**. Only periodic streaming of these sensors are supported in Junos OS Evolved release 20.4X80-D12, 21.2X80-D20, and 21.2X80-D21. [PR1635606](#)
- On Junos OS Evolved PTX platforms, next-header match in IPv6 firewall filter does not work as expected. Next-header matches the payload-protocol (last-header) on Junos OS Evolved PTX platform. [PR1645401](#)
- Junos OS Evolved PTX Series supports a set of supported matches only. Any match combination that is not supported leads to the incorrect filter behavior. Please remove and readd the original filter to get to the consistent state. [PR1648923](#)
- Junos OS Evolved PTX10003 : Unsupported bit-op-type message seen for tcp flag match - **(syn & ack) & !(syn & ack & rst)**. [PR1649253](#)
- Classification override configuration statement does not work for queue 0 to 3 for both IPv4 and IPv6 release.
 - set class-of-service forwarding-policy class to_bronze classification-override forwarding-class bronze

- set class-of-service forwarding-policy class to_platinum_v6 classification-override forwarding-class platinum

[PR1650622](#)

- Classification override configuration statement does not work for queue 0 to 3 for both IPv4 and IPv6 release.
 - set class-of-service forwarding-policy class to_bronze classification-override forwarding-class bronze
 - set class-of-service forwarding-policy class to_platinum_v6 classification-override forwarding-class platinum
- Multiple rewrite rules aggregated Ethernet: (mpls-any and mpls-inet-both-non-vpn are not supported on PTX Series running BT ASIC). The order of applying the rewrite rules is not correct. The non-VPN rewrite rule gets effect for the VPN traffic. See [Rewriting MPLS and IPv4 Packet Headers](#).[PR1655653](#)
- On all Junos OS Evolved platforms, an error log from rpd/kernel corresponding to **JSR backup registration failed** might be observed during extreme scenarios of rpd restart. [PR1660685](#)
- Firewall rule configuration of lo0 interface with option next-header on the egress direction is not supported. Configuring it could cause drop of other protocol traffic. Refer AT 76 for an example of mentioned configuration.[PR1672315](#)

Infrastructure

- On all Junos OS Evolved platforms, near-end port is not within RFC or IANA standards as ephemeral or dynamic port range has been modified. [PR1602717](#)
- On PTX10003 series platforms, the device might panic with vmcore under high memory pressure situations when kernel memory allocation fails.[PR1646610](#)

Interfaces and Chassis

- The memory usage of the rpd process on the backup Routing Engine might increase indefinitely due to leak in krt_as_path_t.[PR1614763](#)
- On Junos OS Evolved platforms during lacpd process restart, child physical interface indexes from the port options physical interface based data which gets stored in kernel by lacpd, might not get reused due to old indexes that are not freed. When this occurs, new indexes might be generated repeatedly

which can cause the port numbers exhaustion problem in aggregated Ethernet interface bundle.[PR1647145](#)

Juniper Extension Toolkit (JET)

- In Junos OS Evolved, there are two different gRPC Python files for each JAPI file. The names of the files are **pb2_grpc.py** and **pb2.py**. The stub creation functions are present in **pb2_grpc.py**.
[PR1580789](#)
- Until Junos OS Evolved Release 21.3 mgd is 32-bit binary. The libsi can only be linked with 64-bit binaries. To access data or WAN ports in Junos OS Evolved we need libsi to be linked with the binary. By default the shell on the Junos OS Evolved device includes libsi, but it is not available to CLI commands as CLI makes mgd invoke cscript to run a Python script through CLI. [PR1603437](#)

Routing Policy and Firewall Filters

- On Junos OS Evolved 20.4R3 Release, the unsupported configuration of BGP flow spec **interface-group exclude** might lead to some errors and Packet Forwarding Engine corruption which does not permit filter bind. [PR1639391](#)

Routing Protocols

- When two routers have different system time, with different active auth keys the IS-IS adjacency does not go down. This scenario happens when we enable IS-IS authentication key-chain having multiple keys between routers. The IS-IS adjacency is up because both routers have the same key active. When we manually change the system time in such a way that routers have different keys active in the key chain, the IS-IS adjacency must go down. However, that is not happening.
[PR1572441](#)
- On 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](#)

User Interface and Configuration

- Passwordless authentication successful for configured user even after deleting ssh public key details from user login hierarchy. [PR1625032](#)
- Configuration archival (transfer-on-commit) over FTP protocol does not work in Junos OS Evolved. The reason it does not work is, internally a FreeBSD utility (fetch) is used to transfer the archived file. Junos OS Evolved is based on Linux and the fix or solution is to use a utility (cURL here) that is present in Linux. Example config:

```
user@host# show system archival
configuration {
  transfer-on-commit;
  archive-sites {
    "
ftp://regress:MaRtInI@sgrpca://var/tmp/"

password "$9$rtneWX7NbY4J-VJUi.zFu0B"; ## SECRET-DATA
  }
}
```

[PR1625937](#)

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 Layer 2: In scaled Layer 2 networks, error logs are printed for MAC Creation. MAC-learning works as expected. [PR1491933](#)
- The cosd core might be observed after Routing Engine switchover. [PR1620758](#)
- PTX Junos OS Evolved : DDoS filter does not classify OSPF packets as OSPF-Hello and OSPF-Data packets. [PR1628889](#)
- Config-Sync failure alarm. [PR1629952](#)
- [fabric] [generic_evo] : [[Junos OS Evolved-PTX10008] : PDT: ERB : VxLAN: The aggregated Ethernet lacp member link stuck in detached state on PTX10008. [PR1633849](#)
- Traffic loss is seen after the VRRP mastership switch. [PR1633986](#)
- Label stack might be corrupted after Packet Forwarding Engine restart. [PR1635130](#)
- NPU util sensor to include FLT consumption for ZX and BT based PTX Series devices. [PR1638487](#)
- Multicast packet drop might be seen when the outgoing interface flaps. [PR1640294](#)
- [[Junos Telemetry Interface tag] Verification of DB data collection fails after executing the Junos Telemetry Interface decoder. [PR1640442](#)
- [Telemetry] Filtering option for components name (CHASSIS, SIB) fails with /components/component sensor subscription. [PR1641949](#)
- Junos OS Evolved: In an MPLS scenario upon receipt of a specific IPv6 packet, an FPC crashes. [PR1642721](#)
- Traffic Loss might be observed when deactivating or activating the firewall filter. [PR1643187](#)
- The addition of new member to LAG might result in FPC crash. [PR1643308](#)
- Unicast traffic drop is seen on non-designated forwarder node. [PR1644458](#)
- The interfaces might remain down and loopback wedge error might be seen. [PR1645431](#)
- The Routing Engine primary role might not transfer on each rpd crash. [PR1645611](#)
- MAC learning might not happen on Junos OS Evolved PTX platforms. [PR1647332](#)

- PTX10003 is unable to forward traffic after the Layer 2 topology change. [PR1647560](#)
- High inter-packet delay and throughput performance degrade for Packet Forwarding Engine sensors. [PR1648133](#)
- Junos OS Evolved adding configuration hash-key family inet layer-4 disables inet Hash-key Protocol. [PR1648156](#)
- Firewall counters might not increment for a long time. [PR1649324](#)
- PTX10008 Junos OS Evolved SyncE clock hold-off-time configuration does not work due to incorrectly computed timer value. [PR1649358](#)
- Null pointer during resiliency get-state commands if an ASIC raises a fatal interrupt when **evo-cda-bt** does not start properly. [PR1649612](#)
- The BFD session might flap in some scaled system with churn. [PR1651473](#)
- An error might be seen when the member link on an aggregated Ethernet bundle is deleted. [PR1651932](#)
- P2MP traffic loss might be seen when link protected LSP reverts to the primary path. [PR1652651](#)
- DCF8: PTX10008: EVPN VXLAN intra-VLAN known unicast traffic floods due to MAC installation failure on Packet Forwarding Engine. [PR1652876](#)
- PTX10008 Junos OS Evolved : show snmp mib get CLI returns incorrect value on jnxLED MIB OIDs. [PR1654455](#)
- When disabling or removing warm standby configuration and enabling or adding NSR, split into two separate configuration commits. [PR1655249](#)
- pkid core file seen and can see interfaces lost. [PR1655949](#)
- Wrong transmit HW priority for CLI priority medium-low. [PR1656837](#)
- 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](#)
- The rpd might fail on backup Routing Engine on Junos OS Evolved platforms. [PR1657797](#)
- The packetio might generate core file when router reboots or FPC reboot is triggered [PR1658839](#)
- PTX10008 Junos OS Evolved : hwdre core file is generated after Routing Engine switchover. [PR1659377](#)
- The rpd after kill -9 < bfd_pid>, sees JSR backup registration failed for task BGP_64510.100.160.24.79 error: Returned Generic Error Invalid argument. [PR1660685](#)

- The BGP session might be flap on Junos OS Evolved platforms. [PR1660805](#)
- Channelized interface might go down if low-light-alarm or low-light-warning is enabled. [PR1661215](#)
- PDT: network-instance name for streaming telemetry to be changed from default to DEFAULT to align with CONFIG stanza. [PR1662999](#)
- The rpd agent crash might be triggered after the interface flap for the backup Routing Engine. [PR1652595](#)
- The SNMP counters might get stuck. [PR1663713](#)
- The lo0 egress filter with next-header option is not supported. [PR1672315](#)
- JDI-REG: [Junos OS Evolved REGRESSION] : [PTX10003] : evo-aftmand-zx.re core file is seen @JexprStatsGrpcCntrFarm::scan,JexprStatsOverflowMgrInst::scan,JexprStatsOverflowManager::scan,JexprStatsOverflowManager::ovfPeriodic [PR1674724](#)

Infrastructure

- Configuring family MTU explicitly on an interface might cause host traffic to drop. [PR1654140](#)

Interfaces and Chassis

- The evo-aftmand process causes increase in memory utilization. [PR1615000](#)
- [PTX10003] SSD DGM28-B56D81BCBQ || Routing Engine 0 SSD Primary minimum supported firmware version mismatch. [PR1654762](#)

User Interface and Configuration

- The addition or deletion of the gRPC configuration might cause a memory leak in the EDO app. [PR1619974](#)
- Observing configd object-info anomalies at net::juniper :: config :: interface :: IFDCEtherOptionsCommon. [PR1643192](#)
- CCL:NGPR: configd core file observed during configd app restart test. [PR1658688](#)

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

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These release notes accompany Junos OS Evolved Release 22.1R2 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 22.1R2-S1 | 20](#)
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Learn about what changed in these releases for QFX Series switches.

What's Changed in Release 22.1R2-S1

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

Network Management and Monitoring

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

What's Changed

IN THIS SECTION

- [Interfaces and Chassis | 20](#)
- [Junos OS API and Scripting | 21](#)
- [OpenConfig | 21](#)
- [User Interface and Configuration | 21](#)

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

Interfaces and Chassis

- **JNP10K-PWR-DC2 power supplies installed in PTX10008 and PTX10016 routers display as online when the power supplies are switched off**— JNP10K-PWR-DC2 power supplies installed in PTX10008 and PTX10016 routers in which Junos OS Release 21.4R1 or Junos OS Evolved Release 21.4R1 is installed display as online in the output of the command `show chassis environment psm` when the input power feeds are connected, but the power switch on the power supplies are switched off.

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.](#)]

OpenConfig

- OpenConfig container names for Point-to-Multipoint per interface ingress and egress sensors are modified for consistency from "signalling" to "signaling".

User Interface and Configuration

- When you configure `max-cli-sessions` at the `[edit system]` hierarchy level, it restricts the maximum number of CLI sessions that can coexist at any time. Once the `maximum-cli-sessions` number is reached, new CLI access is denied. The users who are configured to get the CLI upon login, are also denied new login.

Known Limitations

IN THIS SECTION

- [General Routing | 22](#)

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

- On QFX5220-32CD, VLANs between 3968 and 4095 are reserved for Layer 3 interfaces by default. So, these VLANs cannot be used for Layer 2 interfaces. As of now there is no commit check added for this purpose. You need to take care of this while configuring VLANs for Layer 2. [PR1423468](#)

Open Issues

IN THIS SECTION

- [General Routing | 22](#)

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 QFX5700 platforms few interfaces do not come up after removing channelization through single commit, that is by using `delete interfaces`. [PR1592238](#)
- On QFX5700 ungraceful removal (OIR) of FPC or an FPC fault might result in a PCIE MAJOR alarm **PCI Uncorrected error on dev 0000:00:03.0** which does not get cleared. The only way to clear this alarm is reboot of the device. There are 2 situations in which this alarm can be seen:
 1. FPC is faulty: In rare FPC fault cases, the PCI Uncorrected error alarm might be seen along with FPC going to a fault state as indicated by the `show chassis fpc` command. This is accompanied by other FPC major alarms. Once the faulty FPC is replaced with a good one, the alarm is still seen, and a reboot is required to clear this alarm. Post identification of the fault and FPC replacement, this alarm is harmless, and FPC state can be confirmed through the `show chassis fpc` command.
 2. Ungraceful OIR: The ungraceful removal of FPCs is not recommended on QFX5700. This operation might result in PCI Uncorrected Error alarm. Use one of the following two methods to do a graceful FPC OIR removal:

- Execute the request `chassis fpc slot <slot #> offline` command from the CLI.
- Press the offline button for one second on the FPC to offline the FPC. Once the FPC is gracefully offlined, both LEDs - PWR and STS go off. The FPC can be removed at this point.

[PR1620197](#)

- TOS (DSCP+ECN) bits do not get copied from the inner Layer 3 header to outer VXLAN header at the ingress VTEP. Because of this in the core, ECN marking and DSCP classification do not work.[PR1658142](#)
- Autoneg enabled at one end of the link and disabled at the other end of the link make the link go down on QFX5130-32CD, QFX5220-32CD, QFX5220-128C and QFX5700 platforms.[PR1668137](#)
- On Junos OS Evolved QFX, transit NTP packets are trapped to CPU. [PR1661855](#)

Resolved Issues

IN THIS SECTION

- [General Routing | 23](#)
- [Infrastructure | 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 network, error logs are printed for MAC Creation. The MAC-learning works as expected. [PR1491933](#)
- QFX5220-128C : MDIO forward download fails after image upgrade. [PR1636181](#)
- After sigkill or app crash, jstatsd app does not come up. [PR1641229](#)

- FEC corrected errors which are cleared with `clear statistics` command show up as huge value after ISSU. [PR1641583](#)
- A forced reboot might be observed when SSD is not detected during a script call. [PR1648117](#)
- Junos OS Evolved adding configuration hash-key family `inet layer-4` disables inet Hash-key Protocol. [PR1648156](#)
- Junos OS Evolved QFX **EvoPfemand-main** process memory leaks. [PR1652873](#)
- Junos OS Evolved white space in optics serial number in `show chassis hardware display xml` or `json`. [PR1665229](#)

Infrastructure

- QFX5220: Change in the output for L3VPN.inet6 route table in `show route forwarding-table summary | display xml` command. [PR1653182](#)

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

IN THIS SECTION

- [Self-Help Online Tools and Resources | 27](#)
- [Creating a Service Request with JTAC | 27](#)

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 4, Junos OS Release 22.1R2 for the ACX7100-32C, ACX7100-48L, ACX7509, PTX10001-36MR, PTX10003, PTX10004, PTX10008, PTX10016, QFX5130-32CD, QFX5220, and QFX5700 Devices.

20 July 2023—Revision 3, Junos OS Release 22.1R2 for the ACX7100-32C, ACX7100-48L, ACX7509, PTX10001-36MR, PTX10003, PTX10004, PTX10008, PTX10016, QFX5130-32CD, QFX5220, and QFX5700 Devices.

24 November 2022—Revision 3, Junos OS Release 22.1R2 for the ACX7100-32C, ACX7100-48L, ACX7509, PTX10001-36MR, PTX10003, PTX10004, PTX10008, PTX10016, QFX5130-32CD, QFX5220, and QFX5700 Devices.

11 August 2022—Revision 2, Junos OS Release 22.1R2 for the ACX7100-32C, ACX7100-48L, ACX7509, PTX10001-36MR, PTX10003, PTX10004, PTX10008, PTX10016, QFX5130-32CD, QFX5220, and QFX5700 Devices.

8 August 2022—Revision 1, Junos OS Release 22.1R2 for the ACX7100-32C, ACX7100-48L, ACX7509, PTX10001-36MR, PTX10003, PTX10004, PTX10008, PTX10016, QFX5130-32CD, QFX5220, and QFX5700 Devices.

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