

# Release Notes

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## Junos OS Evolved Release 23.4X100-D30

### Introduction

Use these release notes to find new features, software limitations, and open issues for Junos OS Evolved Release 23.4X100-D30.

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



**NOTE:** Junos OS Evolved 23.4X100-D30 is a controlled release available only on the following platforms:

- QFX5130-32CD
- QFX5130-48CM
- QFX5220-32CD or 128C
- QFX5230-64CD
- QFX5240-OD or QFX5240-QD

If you are looking for this release, contact your Juniper Networks Account Team for more information.

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These release notes accompany Junos OS Evolved Release 23.4X100-D30 for QFX5130-32CD, QFX5130-48CM, QFX5220-32CD, QFX5220-128C, QFX5230-64CD, QFX5240-OD, and QFX5240-QD switches. 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 QFX Series switches.

### Authentication and Access Control

- **Password complexity and hardening for local users (QFX5220, QFX5230-64CD, QFX5240-64OD, and QFX5240-64QD)**—Enhance password security for local users with the minimum-reuse and maximum-

lifetime options at the [edit system login password] hierarchy level. These options ensure encrypted passwords meet reuse criteria and expire after a specified duration.

Use the CLI command `show system login password-expiry-information` to view password expiration details. Root users can see expiration data for all users, while non-root users can view their own password status.

[See [password \(Login\)](#).]

- **Dynamic IPv6 address assignment for GPU interfaces with 802.1X authentication (QFX5230-64CD, QFX5240-64OD, and QFX5240-64QD)**—You can manage large-scale GPU fabric with multi-tenancy using an IPv6-based design. This involves dynamically assigning IPv6 addresses based on authentication, identifying tenants via IPv6 addresses, and applying **ACLs** to prevent tenant-to-tenant communication. The dynamic IPv6 address is derived from a combination of static and dynamic attributes during the 802.1X authentication process, encoding network location and customer-specific information.

## Forwarding Options

- **Default queue pair inclusion in hash calculation for RDMA flows (QFX5230-64CD, QFX5240-64OD, and QFX5240-64QD)** —

By default, queue pair (QP) will be included as part of hash calculation for remote direct memory access (RDMA) traffic (both IPv4 and IPv6). To exclude QP from hash calculation, use the `no-queue-pair` configuration as in the below example.

```
set forwarding-options enhanced-hash-key inet no-queue-pair
```

```
set forwarding-options enhanced-hash-key inet6 no-queue-pair
```

## Routing Policy and Firewall Filters

- **Support for wildcard mask match condition (QFX5230-64CD and QFX5240-64OD)**

—Support is added for specifying wildcard mask match condition for source-address and destination-address match conditions for the IPv6 address family.

- **INET6 source-address**

```
set firewall family inet6 filter f1 term t1 from source-address
2001:0000:2001:0000:abcd:1234:3456:1234/ffff:0000:ffff:0000:ffff:ffff:ffff:ffff
```

- INET6 destination-address

```
set firewall family inet6 filter f1 term t1 from destination-address
2001:db8::abcd:0:0:1234/ffff::0
```

## Storm Control

- **Storm control (QFX5220, QFX5230, and QFX5240)**—Storm control enables a switch to monitor traffic levels and drop broadcast, multicast, and unknown unicast packets when traffic exceeds a specified level, called the storm control level. This feature prevents packets from proliferating and thereby degrading the LAN.

[See [Understanding Storm Control](#).]

## Additional Features

We've extended support for the following features to the platforms shown in parentheses:

- **EVPN-VXLAN with an IPv6 underlay (QFX5230-64CD, QFX5240-64OD, and QFX5240-64QD)**

[See [EVPN-VXLAN with an IPv6 Underlay](#).]

- **Supported transceivers, optical interfaces, and DAC cables**—Select your product in the [Hardware Compatibility Tool](#) to view supported transceivers, optical interfaces, and direct attach copper (DAC) cables for your platform or interface module. We update the HCT and provide the first supported release information when the optic becomes available.

## What's Changed

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

## System Management

- **Changes to show system alarms command output (QFX5130 and QFX5220)**—When the current version of the firmware is less than the minimum supported version, you can now see alarms for this mismatch in the output of the command. These alarms were not shown previously. For example, when you have a firmware version mismatch, you should now see output similar to the following: `user@host>show system alarms` 18 alarms currently active Alarm time Class Description 2024-09-09 04:55:00 PDT Minor CHASSIS 0 BIOS ROM minimum supported firmware version mismatch 2024-09-09 04:55:20 PDT Minor CHASSIS 0 Fan CPLD minimum supported firmware version mismatch 2024-09-09 04:55:19 PDT Minor CHASSIS 0 Optics CPLD minimum supported firmware version mismatch

## Known Limitations

Learn about known limitations in Junos OS Evolved Release 23.4X100-D30 for QFX Series switches

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

## Open Issues

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Learn about open issues in Junos OS Evolved Release 23.4X100-D30 for QFX Series switches

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## General Routing

- On QFX5230 and QFX5240, scope of native-vlan-id is at the system level. Native vlan configured on one port, cannot be used as trunk vlan on some other port. It must be used as native vlan across all the ports. [PR1827669](#)
- Link with the DAC (SFP56-50G-DAC-3M ) comes up with 25G default speed configuration when switch is rebooted. Hence, When 50G speed config is applied , peer side sees the link flap. [PR1836697](#)
- On QFX5230-64CD device, channelisation 4x100g >>4x25g>>4x100g , 4x100g >> 4x10g>> 4x100g does not work in D30 image.
  - If customer wants to move, 4x100g to 4x25g, the work around is to move back to default configuration 400g, then try again required channelisation. e.g. 4x100g to 400g again 400g to 4x25g.
  - If QFX5230-64CD is already in issue state "4x100G (UP) >> 4x25G >> 4X100G (issue state) >> 400G >> 4x100G (down)", restart evo-pfemad is only way to recovery.

[PR1862413](#)

- Ungraceful swapping a 400G DAC with 400G optic (or vice-versa) might lead to traffic loss on QFX5000 Junos Evolved platforms. To avoid this issue, please follow the recommended steps to swap DAC/Optic:

1. Mark the port as unused from CLI configuration.

```
set interfaces et-0/0/<x> unused
```

2. Swap the module (Optic/DAC).
3. Delete unused CLI configuration on the port.

```
delete interfaces et-0/0/<x> unused
```

[PR1862711](#)

- QFX5130-32CD: 4x100G-DACBO - Traffic forwarding might fail to recover after manual ungraceful OIR of DAC cable To avoid this issue, please follow the recommended procedure to change the DAC cable: Recommended steps to change the DAC cable:
  1. Mark the port as unused from CLI configuration:

```
set interfaces et-0/0/<x> unused
```

2. Remove the DAC cable.
3. Insert the DAC cable.
4. Delete **unused** CLI configuration on the port.

```
delete interfaces et-0/0/<x> unused
```

[PR1862893](#)

## Interfaces and Chassis

- In all Junos-Evolved Operating Systems (OS), special characters entered in the description field of the `set interfaces` command in the Command Line Interface (CLI) might not be correctly encoded in XML outputs. This is a cosmetic issue. [PR1824753](#)
- On QFX5240 `set interfaces interface-range et-all member et-0/0/` configuration is not supported. [PR1853302](#)
- Rx Signal Power does not get displayed on executing the following command: `show interfaces transport pm optics current`. Alternatively this can be looked up with the DOM CLI. [PR1861680](#)

## Junos Telemetry Interface

- The following list of telemetry sensor subscription paths have changed in order to be compliant with OpenConfig model definitions. A few of the sensors which were earlier in the OpenConfig hierarchy migrate to a newer Juniper native state model in the future releases.

Table 1:

Old Sensor Path	New Sensor Path
/interfaces/interface/if_name	/interfaces/interface/name
/interfaces/interface/snmp_if_index	Not available. Will be moved to native path in a future release
/interfaces/interface/state/parent_ae_name	/interfaces/interface/state/parent-ae-name



Table 1: (Continued)

Old Sensor Path	New Sensor Path
/interfaces/interface/state/init_time	/interfaces/interface/state/init-time
/interfaces/interface/state/if_operational_status	/interfaces/interface/state/oper-status
/interfaces/interface/state/if_high_speed	/interfaces/interface/state/high-speed
/interfaces/interface/state/if_transitions	Not available. Will be moved to native path in a future release
/interfaces/interface/state/if_last_change	Not available. Will be moved to native path in a future release
/interfaces/interface/state/counters/if_in_pkts	/interfaces/interface/state/counters/in-pkts
/interfaces/interface/state/counters/if_in_octets	/interfaces/interface/state/counters/in-octets
/interfaces/interface/state/counters/if_in_uc_pkts	/interfaces/interface/state/counters/in-unicast-pkts
/interfaces/interface/state/counters/if_in_mc_pkts	/interfaces/interface/state/counters/in-multicast-pkts
/interfaces/interface/state/counters/if_in_bc_pkts	/interfaces/interface/state/counters/in-broadcast-pkts
/interfaces/interface/state/counters/if_in_pause_pkts	/interfaces/interface/state/counters/in-pause-pkts
/interfaces/interface/state/counters/if_out_pkts	/interfaces/interface/state/counters/out-pkts
/interfaces/interface/state/counters/if_out_octets	/interfaces/interface/state/counters/out-octets
/interfaces/interface/state/counters/if_out_uc_pkts	/interfaces/interface/state/counters/out-unicast-pkts

Table 1: (Continued)

Old Sensor Path	New Sensor Path
/interfaces/interface/state/counters/if_out_mc_pkts	/interfaces/interface/state/counters/out-multicast-pkts
/interfaces/interface/state/counters/if_out_bc_pkts	/interfaces/interface/state/counters/out-broadcast-pkts
/interfaces/interface/state/counters/ if_out_pause_pkts	/interfaces/interface/state/counters/out-pause-pkts
/interfaces/interface/state/counters/if_in_1sec_pkts	Not available. Will be moved to native path in a future release
/interfaces/interface/state/counters/ if_in_1sec_octets	Not available. Will be moved to native path in a future release
/interfaces/interface/state/counters/ if_out_1sec_pkts	Not available. Will be moved to native path in a future release
/interfaces/interface/state/counters/ if_out_1sec_octets	Not available. Will be moved to native path in a future release
/interfaces/interface/state/error-counters/ if_in_errors	/interfaces/interface/state/counters/in-errors
/interfaces/interface/state/error-counters/ if_out_errors	/interfaces/interface/state/counters/out-errors
/interfaces/interface/state/error-counters/ if_in_discards	/interfaces/interface/state/counters/in-discards
/interfaces/interface/state/error-counters/ if_out_discards	/interfaces/interface/state/counters/out-discards
/interfaces/interface/state/error-counters/ if_in_resource_errors	/state/interfaces/interface/state/counters/in-resource-drops

Table 1: (Continued)

Old Sensor Path	New Sensor Path
/interfaces/interface/state/error-counters/ ecn_ce_marked_pkts	/state/interfaces/interface/state/counters/out-ecn- ce-marked-pkts
/interfaces/interface/state/error-counters/ if_in_frame_errors	Not available. Will be moved to native path in a future release
/interfaces/interface/state/error-counters/ if_in_discards	Not available. Will be moved to native path in a future release
/interfaces/interface/state/error-counters/ if_in_runts	Not available. Will be moved to native path in a future release
/interfaces/interface/state/queue-counters/queue	Not available. Will be moved to native path in a future release
/interfaces/interface/state/queue-counters/txPkts	Not available. Will be moved to native path in a future release
/interfaces/interface/state/queue-counters/txBytes	Not available. Will be moved to native path in a future release
/interfaces/interface/state/queue-counters/ tailDropPkts	Not available. Will be moved to native path in a future release
/interfaces/interface/state/queue-counters/ tailDropBytes	Not available. Will be moved to native path in a future release
/interfaces/interface/state/bmon-data/if_name	Not available. Will be moved to native path in a future release
/interfaces/interface/state/bmon-data/index	Not available. Will be moved to native path in a future release
/interfaces/interface/state/bmon-data/start_ts	Not available. Will be moved to native path in a future release

Table 1: (Continued)

Old Sensor Path	New Sensor Path
/interfaces/interface/state/bmon-data/tx_bytes	Not available. Will be moved to native path in a future release
/interfaces/interface/state/bmon-data/rx_bytes	Not available. Will be moved to native path in a future release
/interfaces/interface/state/bmon-data/ tx_peak_byte_rate	Not available. Will be moved to native path in a future release
/interfaces/interface/state/bmon-data/tx_peak_ts	Not available. Will be moved to native path in a future release
/interfaces/interface/state/bmon-data/ rx_peak_byte_rate	Not available. Will be moved to native path in a future release
/interfaces/interface/state/bmon-data/rx_byte_ts	Not available. Will be moved to native path in a future release
/interfaces/interface/state/pfc-counter/priority	/state/interfaces/interface/state/counters/pfc/ priority
/interfaces/interface/state/pfc-counter/rx_pkts	/state/interfaces/interface/state/counters/pfc/in- pkts
/interfaces/interface/state/pfc-counter/tx_pkts	/state/interfaces/interface/state/counters/pfc/out- pkts
/interfaces/interface/state/subinterfaces/if_name	/interfaces/interface/state/subinterfaces/name
/interfaces/interface/state/subinterfaces/index	/interfaces/interface/state/subinterfaces/index
/interfaces/interface/state/subinterfaces/init_time	/interfaces/interface/state/subinterfaces/init-time
/interfaces/interface/state/subinterfaces/ if_last_change	/interfaces/interface/state/subinterfaces/last- change

Table 1: (Continued)

Old Sensor Path	New Sensor Path
/interfaces/interface/state/subinterfaces/ snmp_if_index	/interfaces/interface/state/subinterfaces/ifindex
/interfaces/interface/state/subinterfaces/ if_operational_status	/interfaces/interface/state/subinterfaces/oper-status
/interfaces/interface/state/subinterfaces/ if_high_speed	/interfaces/interface/state/subinterfaces/high-speed
/interfaces/interface/state/subinterfaces/ subinterface/	/interfaces/interface/state/subinterfaces/ subinterface/
/interfaces/interface/state/subinterfaces/ subinterface/parent_ae_name	/interfaces/interface/state/subinterfaces/ subinterface/parent-ae-name
/interfaces/interface/state/subinterfaces/ subinterface/counters/if_in_pkts	/interfaces/interface/state/subinterfaces/ subinterface/counters/in-pkts
/interfaces/interface/state/subinterfaces/ subinterface/counters/if_in_octets	/interfaces/interface/state/subinterfaces/ subinterface/counters/in-octets
/interfaces/interface/state/subinterfaces/ subinterface/counters/if_out_pkts	/interfaces/interface/state/subinterfaces/ subinterface/ counters/out-pkts
/interfaces/interface/state/subinterfaces/ subinterface/counters/if_out_octets	/interfaces/interface/state/subinterfaces/ subinterface/ counters/out-octets

[PR1861665](#)

- Some of the interface telemetry subscription paths do not work when subscribed at the leaf level.

[PR1862765](#)

## Network Management and Monitoring

- IPv4/v6, PFC, ECN and Ingress Resource Drops related traffic counters moved to a new sensor - '/state/interfaces/interface/counters/'. Earlier these counters were part of '/junos/system/linecard/interface/traffic/' sensor & '/interfaces/interface/' sensor

[PR1825952](#)

## Licensing

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

The major components of the framework are:

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

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

## Finding More Information

- **Feature Explorer**—Juniper Networks Feature Explorer helps you to explore software feature information to find the right software release and product for your network.

<https://apps.juniper.net/feature-explorer/>

- **PR Search Tool**—Keep track of the latest and additional information about Junos OS open defects and issues resolved.

<https://prsearch.juniper.net/InfoCenter/index?page=prsearch>

- **Hardware Compatibility Tool**—Determine optical interfaces and transceivers supported across all platforms.

<https://apps.juniper.net/hct/home>



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

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

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

## Requesting Technical Support

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

- **JTAC policies**—For a complete understanding of our JTAC procedures and policies, review the JTAC User Guide located at <https://www.juniper.net/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

12 February 2025—Revision 2, Junos OS Evolved Release 23.4X100-D30

5 February 2025—Revision 1, Junos OS Evolved Release 23.4X100-D30

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