Release Notes for SONiC on Cisco 8000 Series Routers, Release 202505

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SONiC on Cisco 8000 Series Routers, Release 202505

Cisco SONiC Release 202505 further strengthens the Cisco 8000 Series platform by introducing static weighted ECMP, enhanced VxLAN MAC rewrite capabilities, reliable MAC fault error reporting, simplified IPinIP tunnel termination configuration, and advanced SRv6 uN shift-forward support. These enhancements improve software reliability, hardware reliability, ease of setup, and API experience for demanding enterprise and service provider environments.

In this release, Cisco supports installing Software for Open Networking in the Cloud (SONiC) on these Product IDs on the Cisco 8000 series routers.

- 8102-64H-O
- 8101-32FH-O-C01
- 8101-32FH-O
- 8122-64EHF-O
- 8201-32FH-O
- 8101-DPU-O

New software features

Table 1. SONiC on Cisco 8000 Series Routers, Release 202505

Product impact	Feature
Software Reliability	Support for static weighted ECMP in 8122-64EHF-O
Software Reliability	Ability to rewrite inner source MAC of VxLAN encapsulated packet in 8101-DPU-O
Hardware Reliability	Support to indicate MAC local and remote fault error reporting in SAI
Ease of Setup	Destination and Source IP subnet mask as tunnel termination qualifier for IPinIP packets
API Experience	Support for SRv6 uN shift-forward in 8122-64EHF-O

New hardware

There is no new hardware introduced in this release.

Changes in behavior

There are no changes in behavior in this release.

Open issues

There are no open issues in this release.

Known issues

Table 2. Known issues for SONiC on Cisco 8000 Series Routers, Release 202505

Known Issues	Description
QoS buffer update	For the correct QoS buffer configuration on the Cisco 8122-64EHF-O, add **x86_64-8122_64ehf_o-r0** to the **gr2_pid_list** in the following file: **/usr/share/sonic/device/x86_64-8122_64ehf_o-r0/Cisco-8122-O128S2/globals.j2** After updating the file, run the following commands to apply the changes: • sudo config qos clear • sudo config qos reload • sudo config save -y
PFC watchdog state impact	When the 8122-64EHF-O device enters a PFC Watchdog stormed state, the **show pfcwd stats** counters may display incorrect values during and after the storm recovery.
Fast reboot limitation	Fast Reboot is not supported

Compatibility

This table outlines the versions of various components included in this release.

Table 3. Component version for SONiC on Cisco 8000 Series Routers, Release 202505

Component	Version
Linux Kernel	6.1.0-29-2-amd64
SAI API	1.16.1 – ASIC G200 1.16.0 – ASIC Q100 and Q200
FRR	10.3
Python	3.11.2
swss	1.0.0
Syncd	1.0.0
Sonic-gnmi	0.1
TeamD	1.31-1
LLDP	1.0.16-1+deb12u1
eventD	1.0.0-0
Sonic-mgmt-framework version	1.0-01
ISC-DHCP-Relay	4.4.3-P1-2

Component	Version
Redis-server	5:7.0.15-1~deb12u5
Redis-Tools	5:7.0.15-1~deb12u5
radvd	1:2.19-1+b1

Supported hardware

Table of supported hardware components and the minimum required software versions.

Table 4. Supported hardware for SONiC on Cisco 8000 Series Routers, Release 202505

Part Number	Description
8102-64H-O	Cisco 8100 2 RU Chassis with 64x100G QSFP28 with Open Software and without HBM on Q200 Silicon.
8101-32FH-O-C01	Cisco 8100 1 RU Chassis with 32x400G QSFP-DD, Open Software, and without HBM on Q200 Silicon.
8101-32FH-O	Cisco 8100 1 RU Chassis with 32x400G QSFP56-DD with Open Software and without HBM on Q200 Silicon.
8122-64EHF-O	Cisco 8100 2 RU Chassis with 64x800G or 128x400GbE OSFP800 with open Software without HBM based on G200 ASIC with 112Gb Serdes
8201-32FH-O	Cisco 8200 32x400G QSFPDD 1RU Fixed System w/HBM
8102-28FH-DPU-O	Cisco 8100 28x400G QSFPDD DPU enabled, 2RU Fixed Switch, with open Software without HBM

Related resources

Table 5. Related resources

Resource	Description
Explore SONiC on Cisco 8000 Series Routers	Provides documentation for installing and deploying SONiC on Cisco 8000 Series Routers.
Explore Cisco 8000 SONiC on Interactive Python Notebooks	Introduces use-case-based documentation for SONiC through Learning Labs, offering guidance on use cases and configurations to facilitate deployment. Additionally, it enables experimentation and customization to meet specific network requirements.
Install SONiC on Cisco 8000 Routers	Provides guidance on installing a new SONiC image on Cisco 8000 series routers, covering two installation methods: Open Network Install Environment (ONIE) and the sonic-installer command.
Cisco 8000 Series Routers Data Sheet	Provides detailed specifications and feature information for Cisco 8000 Series Routers in the Data Sheet.
Cisco Software Download Center	Provides SONiC image download options for Cisco 8000 Series Routers.

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Legal information