Release Notes for SONiC on Cisco 8000 Series Routers, Release 202405.1.3.0

Contents

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This release introduces incremental quality enhancements across all supported Cisco 8000 Series platforms.

New software features

This release adds support for displaying fan IDPROM serial number, version, and fan direction information in the **show platform inventory** command for the 8122-64EH and 8122-64EHF platforms.

Supported hardware

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

Table 1. Supported Product IDs for SONiC 202405.1.3.0

Product ID	Description
8101-32FH-O	Cisco 8100 1 RU Chassis with 32x400G QSFP56-DD 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.
8102-64H-O	Cisco 8100 2 RU Chassis with 64x100G QSFP28 with Open Software and without HBM on Q200 Silicon.
8122-64EH-O	Cisco 8100 2 RU Chassis with 64x800G or 128x400GbE QSFP-DD800 with Open Software and without HBM.
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.
8102-28FH-DPU-O	This first-generation Smart Switch features the Cisco Silicon One Q200L switching processor and an AMD DSC-200 Data Processing Unit (DPU) in a two-rack unit form factor. It provides a total network bandwidth of 12.8 Tbps, consisting of 11.2 Tbps for switching and 1.6 Tbps for DPU processing. The switch is equipped with 28 QSFP-DD 400 GbE ports.

Compatibility

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

Table 2. Component version for SONiC 202405.1.3.0

Component	Version
Linux Kernel	6.1.0-22-2-amd64

Component	Version
SAI API	1.13.0
FRR	8.5.4-sonic-0
LLDP	1.0.16-1+deb12u1
TeamD	1.31-1
SNMPD	5.9.3+dfsg-2
Python	3.11.2-1+b1
SYNCD	1.0.0
swss	1.0.0
Radvd	1:2.19-1+b1
ISC-DHCP	4.4.3-P1-2
sonic-gnmi version	0.1
redis-server	5:7.0.15-1~deb12u3
redis-tools version	5:7.0.15-1~deb12u3
eventd version	1.0.0-0
mgmt-framework version	1.0-01

Open issues

This table lists the open issues for the product IDs 8122-64EH-O and 8122-64EHF-O in this release:

Table 3. Open issues for SONiC 202405.1.3.0

Known Issue	Description
Stricter policer policy	The Cisco 8122-64EH-O router enforces a stricter policer policy. To compensate, configure the Class of Service (CoPP) policy to accommodate a rate 1.7 times the anticipated punt rate (in packets per second).
MTU modification and drop counters	The default Maximum Transmission Unit (MTU) modification functions as expected on the Cisco 8122-64EH-O router; however, drop counters do not increment.

Known Issue	Description

QoS configuration on PIE ports	If the DEVICE_NEIGHBOR table lacks port entries, QoS configuration is incorrectly applied to all ports, including PIE ports, which do not support QoS.
	SONiC does not handle errors when QoS configuration fails on PIE ports.
	The necessary fix is missing from the SONiC branch (see Pull Request #21036 on the sonic-net/sonic-buildimage repository: " *Exclude PIE ports from buffer and qos configuration*").
	
	Workaround:
	To prevent QoS and buffer configuration issues on unsupported ports, define the ports in the DEVICE_NEIGHBOR table before applying QoS and buffer configurations. For example:"
	For example:
	"DEVICE_NEIGHBOR": {
	"Ethernet32": {
	"name": "Ixia",
	"port": "Card1/Port1"
	},
	"Ethernet96": {
	"name": "Ixia",
	"port": "Card1/Port2"
	}
	}

MAC learning	Line card VLANs with port channels might have missing MAC entries in the Forwarding Database (FDB) table.
Build-Your-Own (BYO) bundle compatibility	The Build-Your-Own (BYO) bundle for the 8122-64EH and 8122-64EHF platforms is compatible with the 202405 Azure SONiC build image up to SHA1 ec0742534c45bc012bcd0551adc8029d7d9f87ed (dated April 4, 2025) or earlier. To ensure compatibility with newer SHA1 versions, Azure SONiC build image PR #21924 must be reverted during the SONiC image build process.

Related resources

Table 4. Additional content

Document	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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