Release Notes for SONiC on Cisco 8000 Series Routers, Release 202405c.2.1.0

Contents

SONiC on Cisco 8000 Series Routers, Release 202405c.2.1.0

Cisco SONiC Release 202405c.2.1.0 introduces support for EVPN Segmented Headend and Multi-Homing. This release enhances the SONiC platform on Cisco 8000 Series routers by providing advanced Ethernet VPN capabilities that improve network segmentation and redundancy.

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-0
- 8101-32FH-0
- 8122-64EHF-0

New software features

Table 1. SONiC on Cisco 8000 Series Routers, Release 202405c.2.1.0

Product impact	Feature
Network Efficiency	Headend replication support for BUM traffic
Software Reliability	L3VNI support
Software Reliability	IPv6 VTEP support
Software Reliability	L2VNI support
Ease of Use	In-transit packet capture with rate-limiter creation
Software Reliability	IPv6 VTEP for L2/L3 VNI
Software Reliability	BGP IPv4 underlay for EVPN overlay
Software Reliability	BGP IPv6 underlay link-local address
Software Reliability	BGP IPv6 underlay support
Software Reliability	IPv4 VTEP for layer 2/layer 3 VNI
Network Efficiency	L3 aliasing with BGP multipath
Software Reliability	Route server support (eBGP)
Software Reliability	EVPN eBGP signaling
Software Reliability	Host routing
Software Reliability	RT2 - MAC/IP advertisement route
Ease of Setup	eBGP signaling for underlay and overlay
Software Reliability	VLAN-based service interface
Network Efficiency	Single-homing

Product impact	Feature
Network Availability	BUM ingress replication
Hardware Reliability	MAC mobility
Network Availability	Support for BFD hardware offload with BGP and Express Boot (Q200)

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 202405c.2.1.0

Known Issues	Description
Host mobility	On the 8102-64H-0, 8101-32FH-0, and 8122-64EHF-0 platforms, host movement between two distinct Ethernet segments connected to the same dual-homed peers does not function as expected. This is caused by incorrect flag settings, which prevent proper route synchronization.
Process Restart	Intermittently, BGP or SWSS process restarts may cause the system to crash.
BFD	Bidirectional Forwarding Detection (BFD) is not supported on the 8122-64EHF-0 platform.
Q-Pair Hashing	On the 8102-64H-0, 8101-32FH-0, Q-Pair hashing support is not available for bridging flows. (we support Q-pair hashing for bridging flows in 8122-64EHF-0 routers) On the 8102-64H-0, 8101-32FH-0, and 8122-64EHF-0 routers, the configuration sudo config platform cisco udf-hash set -qpid is not persistent after a configuration reload or reboot.
ARP rate	On the 8122-64EHF-0 router, ARP packet processing may be slow under high ARP traffic conditions. The platform supports a maximum ARP processing rate of 500 packets per second.
VXLAN Fabric Uplink Flap	On the 8122-64EHF-0 router, in a VXLAN fabric, bridge traffic may be duplicated if a VTEP uplink flap occurs.
L3 Traffic Duplication on VLAN	On the 8102-64H-0, 8101-32FH-0 and 8122-64EHF-0 routers, momentary Layer 3 traffic duplication may occur after removing and re-adding a VLAN.
Portchannel	On the 8102-64H-0, 8101-32FH-0, and 8122-64EHF-0 routers, packets may be ingressed on a port channel even when the port channel is down. These packets are processed in the pipeline; however, the control plane handles them as expected.

Known Issues	Description
BGP	In the 8102-64H-0, 8101-32FH-0, 8122-64EHF-0, for an iBGP IPv6 neighbor, if the interface flaps but fast failover is not enabled, the IPv6 global next-hop needs to be reprogrammed. However, since the BGP session itself does not flap, no reprogramming based on the socket name occurs. When the interface comes up and an IPv6 address is added, reprogramming is only done for interface-based neighbors—not for IPv6 host-based peers.

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 202405c.2.1.0

Component	Version
Linux Kernel	6.1.0-11-2-amd64
SAI API	1.14.0
FRR	8.5.4
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~deb12u4
redis-tools version	5:7.0.15-1~deb12u4
eventd version	1.0.0-0
mgmt-framework version	1.0-01

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 202405c.2.1.0

Part Number	Description
8101-32FH-O	Cisco 8100 1 RU Chassis with 32x400G QSFP56-DD with 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.
8201-32FH-O	Cisco 8200 32x400G QSFPDD 1RU Fixed System w/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.
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.

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