



Cisco Application Virtual Switch Release Notes, Release 5.2(1)SV3(1.5c)

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This document describes the features, caveats, and limitations for the Cisco Application Virtual Switch (AVS) software.

Contents

This document includes the following sections:

- [Cisco AVS, page 1](#)
- [Cisco AVS Software Compatibility, page 2](#)
- [New and Changed Information, page 2](#)
- [Limitations and Restrictions, page 3](#)
- [Using the Bug Search Tool, page 3](#)
- [Caveats, page 4](#)
- [Related Documentation for Cisco AVS, page 4](#)
- [Related Documentation for Cisco APIC, page 4](#)
- [Documentation Feedback, page 6](#)
- [Obtaining Documentation and Submitting a Service Request, page 6](#)

Cisco AVS

The Cisco AVS is a hypervisor-resident distributed virtual switch that is specifically designed for the Cisco Application Centric Infrastructure (ACI) and managed by the Application Policy Infrastructure Controller (APIC). Cisco AVS implements the OpFlex protocol for control plane communication.



The Cisco AVS supports two modes of traffic forwarding: local switching and no local switching. The forwarding mode is selected during Cisco AVS installation.

The Cisco AVS is supported as a vLeaf for the Cisco APIC with the VMware ESXi hypervisor. It manages a data center defined by the vCenter Server.

The Cisco AVS is compatible with any upstream physical access layer switch that complies with the Ethernet standard, including Cisco Nexus switches. The Cisco AVS is compatible with any server hardware listed in the [VMware Hardware Compatibility List \(HCL\)](#).

Cisco AVS Software Compatibility

The Cisco AVS Release 5.2(1)SV3(1.5c) is supported as a vLeaf for the Cisco APIC with releases 5.1 and 5.5 of the VMware ESXi hypervisor.



Note When you choose a Cisco AVS VIB, you need to choose the one compatible with the version of VMware ESXi hypervisor that you use. ESXi 5.1 uses xxx.3.1.1.vib, and ESXi 5.5 uses xxx.3.2.1.vib.

The following table lists the compatibility of the Cisco AVS with the Cisco APIC.

Table 1 *Cisco AVS and Cisco APIC Compatibility*

Cisco AVS Version	Recommended Compatible Cisco APIC Versions	Compatible Cisco APIC Versions
5.2(1)SV3(1.5c)	1.1(1s)	1.1(1o), 1.1(1j), 1.0(4q), 1.0(4o), 1.0(4h)
5.2(1)SV3(1.5)	1.1(1o)	1.1(1j), 1.0(4q), 1.0(4o), 1.0(4h)
5.2(1)SV3(1.3c)	1.0(4q)	1.0(4o), 1.0(4h), 1.0(3f), 1.0(2m), 1.0(2j), 1.0(1n), 1.0(1k), 1.0(1h), 1.0(1e)
5.2(1)SV3(1.3b)	1.0(4h)	1.0(3f), 1.0(2m), 1.0(2j), 1.0(1n), 1.0(1k), 1.0(1h), 1.0(1e)
5.2(1)SV3(1.3)	1.0(3o)	1.0(3f), 1.0(2m), 1.0(2j), 1.0(1n), 1.0(1k), 1.0(1h), 1.0(1e)
5.2(1)SV3(1.2)	1.0(2m)	1.0(2j), 1.0(1n), 1.0(1k), 1.0(1h), 1.0(1e)
5.2(1)SV3(1.1)	1.0(1n)	1.0(1k), 1.0(1h), 1.0(1e)
4.2(1)SV2(2.3)	1.0(1n)	1.0(1k), 1.0(1h), 1.0(1e)

New and Changed Information

Distributed Firewall

Distributed Firewall is a new feature in Cisco AVS Release 5.2(1)SV3(1.5). It is a hardware-assisted firewall that supplements—but does not replace—other security features in the Cisco ACI fabric.

Part of Cisco AVS, Distributed Firewall resides in the ESXi (hypervisor) kernel and is in learning mode by default. No additional software is required for the Distributed Firewall to work. However, you must configure policies in the Cisco APIC to work with the Distributed Firewall.

For information about Distributed Firewall, see the *Cisco ACI Virtualization Guide*.

Microsegmentation with Cisco AVS

Microsegmentation with Cisco AVS is a new feature in Cisco AVS Release 5.2(1)SV3(1.5). It provides the ability to automatically assign VMs to logical security zones called endpoint groups (EPGs) based on VM, network, or custom attributes.

Microsegmentation policies used by the Cisco AVS are centrally managed by the Cisco APIC and enforced by the fabric.

For information about Microsegmentation with Cisco AVS, see the *Cisco ACI Virtualization Guide*.

Limitations and Restrictions

No Direct Upgrade to Release 5.2(1)SV3(1.5) or 5.2(1)SV3(1.5c)

You cannot upgrade Cisco AVS Release 4.2(1)SV2(2.3), 5.2(1)SV3(1.1), or 5.2(1)SV3(1.2) directly to Release 5.2(1)SV3(1.5) or 5.2(1)SV3(1.5c). If you want to upgrade one of these releases you must upgrade Cisco AVS to Release 5.2(1)SV3(1.3), 5.2(1)SV3(1.3b), or 5.2(1)SV3(1.3c) and then upgrade Cisco AVS to Release 5.2(1)SV3(1.5) or 5.2(1)SV3(1.5c).

No Support in Release 5.2(1)SV3(1.5) or 5.2(1)SV3(1.5c) for Set VLAN feature

The set VLAN feature, which allows you to assign a particular VLAN ID to an EPG for a particular VMM domain, appears in the Cisco APIC GUI; however, the feature is not supported for Cisco AVS in Release 5.2(1)SV3(1.5) or 5.2(1)SV3(1.5c).

VXLAN Load Balancing and Microsegmentation with Cisco AVS not Supported on the Same vCenter Domain

If VXLAN load balancing is enabled in the VMware vCenter domain profile, Microsegmentation with Cisco AVS cannot be enabled on the domain.

Using the Bug Search Tool

Use the Bug Search tool to search for a specific bug or to search for all bugs in a release.

Step 1 Go to <http://tools.cisco.com/bugsearch>.

Step 2 At the Log In screen, enter your registered Cisco.com user name and password; then, click **Log In**. The Bug Search page opens.



Note If you do not have a Cisco.com user name and password, you can register for them at <http://tools.cisco.com/RPF/register/register.do>.

Step 3 To search for a specific bug, enter the bug ID in the Search For field and press **Return**.

- Step 4** To search for bugs in the current release:
- In the Search For field, enter a problem, feature, or a product name and press **Return**. (Leave the other fields empty.)
 - When the search results are displayed, use the filter tools to find the types of bugs you are looking for. You can search for bugs by modified date, status, severity, and so forth.



Tip To export the results to a spreadsheet, click the **Export Results to Excel** link.

Caveats

The following table lists the bug ID and headlines of resolved caveats in the Cisco AVS Release 5.2(1)SV3(1.5c).

Table 2 *Resolved Caveats*

Bug ID	
CSCuw57985	Cisco AVS: CDP packets from VMs crash ESXi host.

Related Documentation for Cisco AVS

This section lists the documents used with the Cisco AVS and available at the following URL:

<http://www.cisco.com/c/en/us/support/switches/application-virtual-switch/tsd-products-support-series-home.html>

- *Cisco Application Virtual Switch Installation Guide*
- *Cisco Application Virtual Switch Configuration Guide*
- *Cisco Application Virtual Switch Documentation Overview*
- *Cisco Application Virtual Switch Troubleshooting Guide*

Related Documentation for Cisco APIC

This section lists the documents used with the Cisco APIC and available at the following URL:

<http://www.cisco.com/c/en/us/support/cloud-systems-management/application-policy-infrastructure-controller-apic/tsd-products-support-series-home.html>

Cisco APIC documentation includes *Cisco ACI Virtualization Guide*, which includes detailed information about Distributed Firewall and Microsegmentation with Cisco AVS.

Web-Based Documentation

- *Cisco APIC Management Information Model Reference*

- *Cisco APIC Online Help Reference*
- *Cisco APIC Python API and SDK*
- *Cisco ACI MIB Support List*

Downloadable Documentation

- *Cisco ACI Fundamentals*
- *Cisco APIC Getting Started Guide*
- *Cisco APIC REST API User Guide*
- *Cisco APIC Command Line Interface User Guide*
- *Cisco ACI Switch CLI Command Reference, NX-OS Release 11.0*
- *Cisco APIC Faults, Events, and Error Messages Guide*
- *Cisco ACI System Messages Reference Guide*
- *Cisco ACI Troubleshooting Guide*
- *Cisco NX-OS to APIC Mapping Guide*
- *Cisco APIC Layer 4 to Layer 7 Device Package Development Guide*
- *Cisco APIC Layer 4 to Layer 7 Services Deployment Guide*
- *Cisco ACI MIB Quick Reference*
- *Cisco ACI Fabric Hardware Installation Guide*
- *Cisco ACI MIB Quick Reference*
- *Cisco ACI Verified Scalability Guide*
- *Cisco ACI Virtualization Guide*
- *Using Puppet with the APIC*
- *OpFlex API User Guide*
- *Cisco ACI Simulator Installation Guide*
- *Cisco ACI Simulator Getting Started Guide*
- *Cisco ACI Simulator Release Notes*
- *Cisco APIC Release Notes*
- *Cisco Application Centric Infrastructure Release Notes*

Documentation Feedback

To provide technical feedback on this document or report an error or omission, please send your comments to avs-docfeedback@cisco.com. We appreciate your feedback.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at: <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

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