



Introduction to the Cisco ASAv

The Cisco Adaptive Security Virtual Appliance (ASAv) brings full firewall functionality to virtualized environments to secure data center traffic and multi-tenant environments.

You can manage and monitor the ASAv using ASDM or CLI. Other management options may be available.

- [Prerequisites for the ASAv, page 3](#)
- [Guidelines for the ASAv, page 3](#)
- [Licensing for the ASAv, page 4](#)
- [ASAv Interfaces and Virtual NICs, page 6](#)

Prerequisites for the ASAv

For hypervisor support, see *Cisco ASA Compatibility*:

<http://www.cisco.com/c/en/us/td/docs/security/asa/compatibility/asamatrix.html>

Guidelines for the ASAv

Context Mode Guidelines

Supported in single context mode only. Does not support multiple context mode.

Failover Guidelines

For failover deployments, make sure that the standby unit has the same model license; for example, both units should be ASAv30s.

Unsupported ASA Features

The ASAv does not support the following ASA features:

- Clustering
- Multiple context mode
- Active/Active failover
- EtherChannels
- Shared AnyConnect Premium Licenses

Licensing for the ASAv

9.3(2) and Later

In 9.3(2), ASAv licensing has moved to Cisco Smart Software Licensing. For detailed information about Smart Software Licensing, see the [general operations configuration guide](#).

Model	License Requirement
ASAv5	Standard license See the following specifications: <ul style="list-style-type: none"> ■ 100 Mbps Throughput ■ 1 vCPU ■ 2 GB RAM ■ vCPU Frequency Limit of 5000 MHz ■ 100,000 concurrent firewall connections
ASAv10	Standard license See the following specifications: <ul style="list-style-type: none"> ■ 1 Gbps Throughput ■ 1 vCPU ■ 2 GB RAM ■ vCPU Frequency Limit of 5000 MHz ■ 100,000 concurrent firewall connections
ASAv30	Standard license See the following specifications: <ul style="list-style-type: none"> ■ 2 Gbps Throughput ■ 4 vCPUs ■ 8 GB RAM ■ vCPU Frequency Limit of 20000 MHz ■ 500,000 concurrent firewall connections <p>Note: If you choose to deploy 2 or 3 vCPUs, then see the following values:</p> <p>2 vCPUs—4 GB RAM, vCPU Frequency Limit of 10000 MHz, 250,000 concurrent firewall connections.</p> <p>3 vCPUs—4 GB RAM, vCPU Frequency Limit of 15000 MHz, 350,000 concurrent firewall connections.</p>

Note: You must install a smart license on the ASAv. Until you install a license, throughput is limited to 100 Kbps so you can perform preliminary connectivity tests. A smart license is required for regular operation.

9.3(1)

In 9.3(1), ASAv licensing uses product authorization key (PAK) licenses. For detailed information about PAK Licensing, see the [general operations configuration guide](#).

Model	License Requirement
ASAv10	<ul style="list-style-type: none"> ■ VPN Licenses for AnyConnect 4 and Later: 250 SSL VPN sessions, Advanced Endpoint Assessment, AnyConnect for Cisco VPN Phone, AnyConnect for Mobile. The number of simultaneous users and VPN features are controlled by the AnyConnect license, available separately. VPN licenses are enabled to the maximum level on the ASA. ■ VPN Licenses for AnyConnect 3 and Earlier: <ul style="list-style-type: none"> – Standard license: 2 SSL VPN sessions. – Premium license: 250 SSL VPN sessions, Advanced Endpoint Assessment, AnyConnect for Cisco VPN Phone, AnyConnect for Mobile. <p>See the following specifications:</p> <ul style="list-style-type: none"> ■ 1 Virtual CPU ■ 2 GB RAM ■ vCPU Frequency Limit of 5000 MHz ■ 100,000 concurrent firewall connections
ASAv30	<ul style="list-style-type: none"> ■ VPN Licenses for AnyConnect 4 and Later: 750 SSL VPN sessions, Advanced Endpoint Assessment, AnyConnect for Cisco VPN Phone, AnyConnect for Mobile. The number of simultaneous users and VPN features are controlled by the AnyConnect license, available separately. VPN licenses are enabled to the maximum level on the ASA. ■ VPN Licenses for AnyConnect 3 and Earlier: <ul style="list-style-type: none"> – Standard license: 2 SSL VPN sessions. – Premium license: 750 SSL VPN sessions, Advanced Endpoint Assessment, AnyConnect for Cisco VPN Phone, AnyConnect for Mobile. <p>See the following specifications:</p> <ul style="list-style-type: none"> ■ 4 Virtual CPUs ■ 8 GB RAM ■ vCPU Frequency Limit of 20000 MHz ■ 500,000 concurrent firewall connections <p>Note: If you apply an ASAv30 license, but choose to deploy 2 or 3 vCPUs, then see the following values:</p> <p>2 Virtual CPUs–4 GB RAM, vCPU Frequency Limit of 10000 MHz, 250,000 concurrent firewall connections.</p> <p>3 Virtual CPUs–4 GB RAM, vCPU Frequency Limit of 15000 MHz, 350,000 concurrent firewall connections.</p>

Note: You must install a model license on the ASAv. Until you install a license, throughput is limited to 100 Kbps so you can perform preliminary connectivity tests. A model license is required for regular operation.

ASAv Interfaces and Virtual NICs

As a guest on a virtualized platform, the ASAv utilizes the network interfaces of the underlying physical platform. Each ASAv interface maps to a virtual NIC (vNIC).

- [ASAv Interfaces, page 6](#)
- [Supported vNICs, page 6](#)

ASAv Interfaces

The ASAv includes the following Gigabit Ethernet interfaces:

- Management 0/0
- GigabitEthernet 0/0 through 0/8. Note that the GigabitEthernet 0/8 is used for the failover link when you deploy the ASAv as part of a failover pair.

Supported vNICs

The ASAv supports the following vNICs:

vNIC Type	Hypervisor Support		ASAv Version	Notes
	VMware	KVM		
e1000	Yes	Yes	9.2(1) and later	VMware default.
Virtio	No	Yes	9.3(2.200) and later	KVM default.