# Hardware and Software Requirements for Branch

*For supported software information, click here.*

This article describes the hardware and software required to install a Versa Networks branch device.

## Hardware Requirements

You can deploy a Versa Operating System™ (VOS™) branch device on bare-metal platforms, on white-box appliances, on AWS and Azure cloud platforms, and as ESXi and KVM virtual machines (VMs).

For information about the hardware requirements for white-box appliances, contact Versa Networks Customer Support.

For information about AWS, Azure, and Google cloud instances that have been qualified by Versa Networks and that you can use for headend and VOS devices, see Qualified AWS, Azure, and Google Cloud Instances.

### Bare-Metal Platforms

For bare-metal platforms, if hyperthreading is enabled in the BIOS, you must disable it. For information about how to disable hyperthreading, see the vendor manual for the white box.

To check whether hyperthreading is enabled, issue the following command:

```
admin@CPE:~$ lscpu | grep Thread
```

The output must show a value of 1. If the number of threads per core is 2 or more, hyperthreading is enabled. The following example output shows that hyperthreading is disabled:

```
admin@CPE:~$ lscpu | grep Thread
Thread(s) per core:    1
```

For platforms that serve a constant high rate of incoming traffic, such as hubs and large branch devices, it is recommended that you issue the following command to isolate the CPU, which optimizes the platform's performance. After you issue this command, you must reboot the device.

```
cli> request system isolate-cpu enable
```

For more information about the hardware requirements for bare-metal platforms, contact Versa Networks Customer Support.

## Virtual Machine Platforms

For virtual machine (VM) deployments, you must allocate a dedicated CPU and memory (with 1:1 provisioning) to the Versa branch components. Depending on the number of sockets present in the host, you might need to use CPU pinning. To improve deterministic performance, it is recommended that you turn off hyperthreading at the host level, by disabling hyperthreading in the host's BIOS. When hyperthreading is enabled, the number of available cores doubles. To verify the number of active cores, issue the **lscpu** command in the host's operating system.

The following table lists the VM software supported for VOS devices.

| Software Type | Supported Software |
|---|---|
| Cloud Platforms | Amazon Machine Image (AMI)<br>Google Cloud Platform<br>Microsoft Azure VHD<br>Oracle Cloud Infrastructure (OCI) |
| Hypervisors | KVM<br>Ubuntu 18.04+<br>VMware vSphere 6.7.0 Update 2 and later |

# Software Requirements

All VOS branch devices must run the same Versa software version as the Versa headend components. For example, if the headend components are running Release 21.2.2, you must install the Release 21.2.2 software on the VOS devices.

All VOS devices need two NICs (that is, two interfaces) to operate. This requirement applies to devices in private networks and in public clouds, and to bare-metal devices and a virtual machines (VMs), such as a platform running KVM or VMware.

In addition, for VMs, the minimum requirements for running the VOS software are four cores, 8 GB of RAM, and 80 GB of hard disk drive.

**Note**: Versa Networks does not support the installation of any software packages other than what is contained in the software packages provided by Versa Networks. Installation of non-Versa Networks software packages would render void any service agreement from Versa technical support.

# Supported Software Information

Releases 21.2 and later support all content described in this article.

## Additional Information

Branch Initial Software Configuration
Branch Overview
Hardware and Software Requirements for Headend
Qualified AWS, Azure, and Google Cloud Instances