

This document summarizes the recommended resources for running Orchestrator versions 9.3.x when deployed on prem.

- These requirements do not include the resources needed by the hypervisor itself, which will require additional dedicated dedicated core cpu, memory, and storage to operate.
- CPU and Memory must be reserved for virtual appliances to function optimally.
- For non-VMware hypervisors, an extra core should be reserved for hypervisor tasks.
- Using HDD requires RAID or other techniques to increase read/write throughput. HPE Nimble storage is one option.
- When using Hyper-V, Windows Server 2019 is needed for a virtual machine to use 8 or more virtual processors.
- Ensure the CPU hardware Virtualization Technology (VT) feature is enabled in the BIOS and the BIOS is set to maximize performance. Refer to the CPU vendor’s documentation for guidance on enabling VT in the BIOS. When using VMware vSphere, an Enterprise Plus license is needed for a virtual machine to use 8 or more virtual processors.

Host System Requirements: Local Stats Collection

Orchestrator VM (with integrated legacy stats collection and backup)

EdgeConnect Gateways (Maximum)	vCPU Processors* (Recommended)	Memory (Gigabytes) (Recommended)	Comments
Up to 25	4	24	HPE Aruba Networking highly recommends using distributable stats collectors for improved performance, advanced functionality, and simpler lifecycle operation.
Up to 50	6	24	
Up to 150	6	24	
Up to 200	8	32	

Configurations with more than 200 EdgeConnect appliances and require Mesh topology should consider deploying new stats collectors to use the distributed method. See table below for Distributed Stats Collector data.

Host System Requirements: Distributed Stats Collection

Main Orchestrator VM (with backup)

Supported Version	EdgeConnect Gateways	vCPU Processors	Memory (GB)	Orch Disk	#Stats Collector	vCPU Processors	Memory (GB)	SC Disk	Comments
R9.3.x	Up to 25	4	24	525 GB	Use Local DSC				Small network deployments can utilize the local distributed stats collector (part of the Orchestrator VM)
R9.3.x	Up to 50	6	24	1 – 2.TB	Use Local DSC				
R9.3.x	Up to 150	6	24	3 – 4 TB	Use Local DSC				
R9.3.x	Up to 200	8	32	700 GB	2	4	8	7 TB	
R9.3.x	Up to 500	12	32	2 TB	4	4	16	7 TB	Large network deployments require multiple distributed stats collectors The local DSC should be disabled for networks containing more than 200 EdgeConnect Gateways
R9.3.x	Up to 1000	14	32	3 TB	7	4	16	7 TB	
R9.3.x	Up to 2000	32	64	5 TB	14	6	16	7 TB	
R9.3.x	Up to 3000	32	64	5 TB	20	6	16	7 TB	

- Max tunnels per SD-WAN Fabric is 3 million tunnels.
- **Host System Requirements data is based on configurations of 4 Mesh overlays with 2 underlays and 1 internet breakout per branch in Mesh topology using 150 ECs per Stats Collector.**
- **1000 EdgeConnect gateways:** we recommend using 2 regions, (each region supporting up to 500 ECs) to stay below the maximum number of SD-WAN tunnels and tunnels per gateway.
- **2000 EdgeConnect gateways:** we recommend using 8 regions (each region supporting up to 250 ECs) to stay below the maximum number of SD-WAN tunnels and tunnels per gateway.
- **3000 EdgeConnect gateways:** we recommend using 20 regions (each region supporting up to 150 ECs) to stay below the maximum number of SD-WAN tunnels and tunnels per gateway.
- Numbers are rounded to the next value

Supported Hypervisor Version

Hypervisor	Hardware Compatibility List
VMware ESXi/ESX 6.7 VMware ESXi/ESX 7.0	http://www.vmware.com/resources/compatibility/search.php
Microsoft Hyper V 10.0	http://technet.microsoft.com/en-us/library/cc816844(WS.10).aspx http://technet.microsoft.com/en-us/library/hh831531.aspx
Citrix Xen Server 8.1	http://hcl.vmd.citrix.com/
Red Hat KVM 8.x KVM, QEMU 4.x	https://access.redhat.com/ecosystem/search/#/category/Server

This table shows exact versions tested by HPE-Aruba Networking. Newer versions are verified, but not officially tested.

Per Statistics Collector VM

Gateways	Topo	vCPU	Memory
up to 150	Mesh	6	16 GB
Up to 300	Hub-Spoke	6	24 GB

