

This document summarizes the recommended resources for running Orchestrator versions through 9.2.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 for On-Prem Orchestrator

Main Orchestrator VM

Supported Version	EdgeConnect Gateways	vCPU Processors* (Recommended)	Memory (Gigabytes) (Recommended)	Orch Disk Requirements	#Stats Collector	SSD Disk Required Per SC	Comments
R9.1+	Up to 25	8	24	512 GB	Use Local DSC		Small network deployments can utilize the local distributed stats collector (part of the Orchestrator VM).
R9.1+	Up to 50	16	32	700 GB	Use Local DSC		
R9.1+	Up to 100	16	32	3.0 TB	Use Local DSC		
R9.1+	Up to 200	24	48	700 GB	2	3.0 — 3.3 TB	The local DSC should be disabled for networks containing more than 200 EdgeConnect Gateways.
R9.1+	Up to 500	32	48	1.4 TB	4	3.2 — 3.5 TB	Large network deployments require multiple distributed stats collectors.
R9.2+	Up to 1000	48	64	2.6 TB	7	3.2 — 3.5 TB	
R9.2+	Up to 2000	48	64	5.0 TB	14	3.2 — 3.5 TB	Follow the recommended settings in the Orchestrator Advanced Properties table to increase functionality.
R9.2+	Up to 3000	48	64	7.5 TB	20	3.2 — 3.5 TB	

- 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.
- Max tunnels per SD-WAN Fabric is 3 million tunnels.
- **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.

Orchestrator Advanced Properties

Navigate to Orchestrator > Advanced Properties and configure the following properties to increase functionality.

EdgeConnect Gateways	ParallelActionTasks	ParallelOrchestrationTasks	ParallelReachabilityTasks	ParallelStatsTasks
<200	Defaults	Defaults	Defaults	Defaults
200-500	100	50	25	20
500-1000	200	100	50	30
1000-3000	200	100	50	<Enable DSC>

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 Stats Collector VM

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

