

Recommended Computing Resources for Cisco SD-WAN Controller Release 20.8.x (Customer Cloud Hosted on Azure Deployment)

Single Tenant

The supported hardware specifications for the Cisco vBond Orchestrator, Cisco vManage, and the Cisco vSmart Controller for Azure are as follows:

Note The controller and the device version should be the same, to achieve the below scale.

Table 1: Cisco SD-WAN Manager Recommended Computing Resources

Devices	Aggregated Statistics from Edge Devices	Nodes and Deployment Models	vCPUs *	RAM*	Storage Size*	Azure Instance Sizing
**** Cisco SD-WAN Application Intelligence Engine (SAIE) Disabled**						
<250	Disabled	One Node vManage (All Services)	16 vCPUs	32 GB RAM	500 GB	Standard_F16s_v2
250-1000	Disabled	One Node vManage (All Services)	32 vCPUs	64 GB RAM	1 TB	Standard_F32s_v2
1000-1500	Disabled	One Node vManage (All Services)	32 vCPUs	128 GB RAM	1 TB	Standard_F64s_v2
1500-2000	Disabled	Three Node vManage Cluster (All Services)	32 vCPUs	64 GB RAM	1 TB	Standard_F32s_v2
2000-5000	Disabled	Three Node vManage Cluster (All Services)	32 vCPUs	128 GB RAM	1 TB	Standard_F64s_v2

Devices	Aggregated Statistics from Edge Devices	Nodes and Deployment Models	vCPUs *	RAM*	Storage Size*	Azure Instance Sizing
5000-7000	Disabled	Six Node vManage Cluster (3 Nodes with ConfigDB) and all nodes messaging server, stats, and AppServer	32 vCPUs	128 GB RAM	1 TB	Standard_F64s_v2
**** Cisco SD-WAN Application Intelligence Engine (SAIE) Enabled**						
<500	50 GB/Day	One Node vManage (All Services)	32 vCPUs	128 GB RAM	10 TB	Standard_F64s_v2
500-2000	100 GB/Day	Three Node vManage Cluster (All Services)	32 vCPUs	128 GB RAM	10 TB	Standard_F64s_v2
2000-7000	2.0 TB/Day**	Six Node vManage Cluster (3 Node with ConfigDB) and all nodes messaging server,Stats, and AppServer	32 vCPUs	128 GB RAM	10 TB	Standard_F64s_v2

Note

- *For a larger dataset per day, run Stats on all the servers.
- ** Along with the SAIE, the Approute statistics are also considered in the recommendations.
- * vCPU, RAM, and Storage Size numbers are on per Cisco SD-WAN Manager basis. The Storage Size numbers are the maximum tested values by Cisco, you can allocate smaller storage sizes.

** For a larger dataset per day, have Stats running on all servers.

To achieve scale beyond the above mentioned numbers, deploy multiple overlays.

Note In Cisco vManage Release 20.5.1 and earlier releases, You can modify the **DPI** size to the desired value to achieve the above mentioned storage size numbers.

Note Starting from Cisco vManage Release 20.6.1, you can achieve the above mentioned storage size numbers by modifying the aggregated DPI size. The aggregated DPI size is unidimensional and varies when the deployment includes edge devices that run on a mix of releases (Cisco SD-WAN Release 20.6.x and earlier releases). The aggregated DPI also varies when on-demand troubleshooting is enabled for the devices.

Ensure that both the DPI and aggregated DPI index sizes are configured to enable on-demand troubleshooting.

To modify the aggregated DPI value,

1. From the **Cisco vManage** menu, choose **Administration** > **Settings**.
2. Click **Edit** next to **Statistics Database Configuration**.
3. Modify the **Aggregated DPI** size to the desired value based on your DPI traffic, the default disk size allocation is 5 GB.

Note When DPI is enabled, you must set the Statistics Collection timer to 30 minutes or higher.

To set the Statistics Collection timer,

1. From the **Cisco vManage** menu, choose **Administration** > **Settings**.
2. Click **Edit** next to **Statistics Configuration**.
3. Modify the **Collection Interval** minutes to the desired value based on your DPI traffic, the default collection interval is 30 minutes.
4. Click **Save**.

Table 2: Cisco Catalyst SD-WAN Validator Recommended Computing Resources

Devices	vCPUs	RAM	OS Volume	vNICs	Azure Instance Sizing
1-50	2	4 GB	10 GB	2 (one for tunnel interface, one for management)	Standard_F4s_v2
51-250	2	4 GB	10 GB	2 (one for tunnel interface, one for management)	Standard_F4s_v2
251-1000	2	4 GB	10 GB	2 (one for tunnel interface, one for management)	Standard_F4s_v2
1001 -1500	4	8 GB	10 GB	2 (one for tunnel interface, one for management)	Standard_F4s_v2

Table 3: Cisco Catalyst SD-WAN Controller Recommended Computing Resources

Devices	vCPUs	RAM	OS Volume	vNICs	Azure Instance Sizing

1-50	2	4 GB	16 GB	2 (one for tunnel interface, one for management)	Standard_F2s_v2
51-250	4	8 GB	16 GB	2 (one for tunnel interface, one for management)	Standard_F4s_v2
251-1000	4	16 GB	16 GB	2 (one for tunnel interface, one for management)	Standard_F8s_v2
1001 -1500	8	16 GB	16 GB	2 (one for tunnel interface, one for management)	Standard_F8s_v2