

Configuring and Using the Profiler Application

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Adding a Server to the Profiler

Adding vCenter to the ESXi Profiler

At the first login following installation of Hx Workload Profiler, you are redirected to the landing page where you can find the + **Add Workload** option on the top right corner of the page. You can select vCenter, then you can add multiple vCenters.

To calculate the metrics for a host, the Profiler captures the metrics for all the VMs on the Host. You then need to select the VM to be profiled. By default none of the VM's are selected.

The workflow includes:

- Node details tab: Records your vCenter details and then connects to the vCenter. If the connection succeeds, the **Next** button displays enabling you to select the hosts for profiling.
- Select Hosts tab: Provides the vCenter details in hierarchy of vCenter, Datacenters, Clusters, and Hosts, with the option to select hosts to Profile. Default: All hosts in vCenter are selected.
- Profiling Setting tab, which provides:
 - Profile Name: for specifying the name of the profile which must be unique.
 - Profile period: for specifying the period of profiling. Default value is 7days and the minimum value is 1day.
 - Polling Interval: for specifies the frequency for which polling should occur.
 - Quick Profile: for a quick estimate
 - Detailed Profile: for detailed end-to-end profile results.

Step 1 Log in to the Profiler. See Logging in to the ESXi Profiler.

Step 2 Follow the steps provided to enter values for the following options:

ltem	Description
vCenter Name	Name of the vCenter you are adding.
User Name	Name of the user as part of the login credentials for the vCenter.
	Note HxProfiler uses VMware SDK to collect different performance metrics. This requires connecting to the VMware vSphere server using an user account that has either administrator privileges or with Server Manager role, which has the access privileges to get the performance data.
Password	The password set as part of the login credentials for the vCenter.
Polling Interval	The interval at which you want polling to occur. The default is 20 seconds. You can change the interval to between 20-120 seconds, based on the number of hosts and VMs being polled in that vCenter.

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O Ceneral		Add host details and credentials to configure workload			
Select Hosts					
Profiling Settings		Node Details			
		Node Name *			
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E Progress		Step 3 Profiling Settings	
(1) General		Add profile details and polling interval to start profiling	
2 Select Hosts		Settings	
Profiling Settings		Profile Name * profile1	
		Profile Period *	
		7 Days × 🖾	
		Poling Interval * 20 0	
		hxprofiler.label.generateProfile	
		Detailed Profile Quick Profile	
< Back	Close		Start Profiling

Step 3Click Start Profiling. The Profiler service starts automatically.
When the connection status indicates successful connection, click Next.

Step 4 On the **Poll filter** tab, review the hierarchy values.

Adding Windows Bare Metal to the Profiler

cisco HX Profiler	WORKLOADS > Add				V4.0 ③ &
		:	Select Host Infrastructure Ty	pe	
		-	vCenter	<u>e</u> 1	
		2	Windows Bare Metal	⊙	
		-	Linux Bare Metal	0	
Cancel			Start		

At the first login following installation of Hx Workload Profiler, you are redirected to + Add Workflow. You can select Windows Bare Metal to add Windows Bare Metal to the workload.

SUMMARY STEPS

- **1.** Log in to the Profiler.
- 2. On the Node details tab, enter values for the following options:

- **3.** If you select the Host Name/IP address option, click **Save**. If the given credentials / IP is valid, then workload will be added successfully. In case of any error, recheck and update the provided details, then click Save to add the workload successfully.
- **4.** If you select the IP Address Range, click **Validate**. Given IP range and credentials are validated, and if any of the VMs are not reachable, any error details will be updated in tabular format.
- **5.** If no errors are observed, click **Save**. If there are errors, please check the respective error VM details, rectify them manually and then click on **Revalidate**. Click **Save** to add the workload.

DETAILED STEPS

- **Step 1** Log in to the Profiler.
- **Step 2** On the **Node details** tab, enter values for the following options:

Item	Description
Windows Cluster Name	Name of the cluster you are trying to add
Host Name/IP Address	To enter a single host / different IPs
IP Address Range	To enter a range of VM IPs
User Name	Login username for windows baremetal
Password	Login password for windows baremetal
Polling Interval (seconds)	Default 20 seconds

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Progress	General Add host details and credentials to configure		ŕ
General	woncos		
Profiling Settings	Note : Supported and tested version of Windows Servers 2012R2, 2016 and 2019		
	Cluster Details		
	Windows Cluster Name *		
	Host		
	Host Name / IP IP Address Range		
	Host IP * +		- 1
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2 Profiling Settings		0.00	protiling		
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	Prof	lie Period *			
	7 0.	ays		× 🔟	
	Poll 20	ing Interval *		00	
< Back	Close				Start Profiling

- **Step 3** If you select the Host Name/IP address option, click **Save**. If the given credentials / IP is valid, then workload will be added successfully. In case of any error, recheck and update the provided details, then click Save to add the workload successfully.
- **Step 4** If you select the IP Address Range, click **Validate**. Given IP range and credentials are validated, and if any of the VMs are not reachable, any error details will be updated in tabular format.
- **Step 5** If no errors are observed, click **Save**. If there are errors, please check the respective error VM details, rectify them manually and then click on **Revalidate**. Click **Save** to add the workload.

Adding Linux Bare Metal to the Profiler

At the first login following installation of Hx Workload Profiler, you are redirected to + Add Workflow. You can select Linux Bare Metal to add Linux Bare Metal to the workload.

diada HX Profiler	WORKLOADS > Add				V4.0 🕥 🚨
		s	elect Host Infrastructure Ty	гре	
		-	vCenter	0	
		-	Windows Bare Metal	0	
		-	Linux Bare Metal	⊙	
Cancel			Start		

SUMMARY STEPS

- **1.** Log in to the Profiler.
- 2. On the Node details tab, enter values for the following options:
- **3.** If you select the Host Name/IP address option, click **Save**. If the given credentials / IP is valid, then workload will be added successfully. In case of any error, recheck and update the provided details, then click Save to add the workload successfully.
- **4.** If you select IP Address Range, click **Validate**. Given IP range and credentials are validated, and if any of the VMs are not reachable, any error details will be updated in tabular format.
- **5.** If no errors are observed, click **Save**. If there are errors, please check the respective error VM details, rectify them manually and then click on **Revalidate**. Click **Save** to add the workload.

DETAILED STEPS

- **Step 1** Log in to the Profiler.
- **Step 2** On the **Node details** tab, enter values for the following options:

Item	Description
Linux Cluster Name	Name of the cluster you are trying to add
Host Name/IP Address	To enter a single host / different IPs
IP Address Range	To enter a range of VM IPs
User Name	Login username for Linux baremetal
Password	Login password for Linux baremetal
Polling Interval	Default 20 seconds

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E Progress		Step 1			^
Ceneral Profiling Settings		General Add host details and credentials to configure workload			
		Linux Cluster Name *			
		Host			
		Host Name / IP IP Address Range			
		Host IP * +			
		Credentials			- 1
		Domain Username * Password * @ +	+		
K Back		lose		Next	

disco HX Profiler	WORKLOADS > Add V4	.0 ()	٨
Progress	Step 2 Profiling Settings		
General Profiling Settings	Add profile details and polling interval to start profiling		
	Settings		
	Profile Name * profile1		
	Profile Period * X To Days		
	Polling Interval * Q o		
< Back	Close	Start Profile	ng

- **Step 3** If you select the Host Name/IP address option, click **Save**. If the given credentials / IP is valid, then workload will be added successfully. In case of any error, recheck and update the provided details, then click Save to add the workload successfully.
- **Step 4** If you select IP Address Range, click **Validate**. Given IP range and credentials are validated, and if any of the VMs are not reachable, any error details will be updated in tabular format.
- **Step 5** If no errors are observed, click **Save**. If there are errors, please check the respective error VM details, rectify them manually and then click on **Revalidate**. Click **Save** to add the workload.

Adding Hyper-V to the Profiler

At the first login following installation of the Hx Workload Profiler, you are redirected to the landing page where you can find the+Add Workload option on the top right corner of the page. Select HyperV to add multiple HyperV.

To calculate the metrics for a host, the Profiler captures the metrics for all the VMs on the Host. Select the VM to be profiled (by default none of the VMs are selected).

The workflow includes:

• Node details tab: Records your Hyper-V details and then connects to the Hyper-V. If the connection succeeds, details regarding the profile named appear. You can also specify and save the profile period time for profiling by clicking on the start profile button to start profiling.

Step 1 Log in to the Profiler. See Logging in to the Hyper-V Profiler.

Step 2 On the **Node details** tab, enter values for the following options:

Item	Description
Hyper-V Cluster Name	Name of the Hyper-V you are adding.
Host IP	IP address of the Hyper-V node. The Add button allows you to add multiple Hyper-V host IP addresses.

Item	Description			
User Name	Name of the user as part of the login credentials for the Hyper-V.			
	Note The User Name must have the Admin role assigned to it.			
Password	Password being set as part of the login credentials for the Hyper-V. The Add button allows you to add all the username and passwords for the IPs mentioned in the Host IP section.			
	Note If the username and password is same for all the Hyper-Vs or any 2 or more Hyper-Vs, then there is no need to mention it again.			
Polling Interval (seconds)	The interval at which you want polling to occur. Default: 20 seconds. You can change the interval to between 20 and 120 seconds.			

vision HX Profiler WORKLOADS > Add		V 4.0	۲	<i>.</i> .
Progress General Profiling Settings	Step 1 General Add host details and credentials to configure workload			4
	Note : Supported and tested version of Windows Servers 201282, 2016 and 2019 Cluster Details hxprofiler.label.hypervClusterName *			
	Host IP * +			
< Back Cancel	Domain Username * Password * @ +		Next	

cisco HX Profiler	WORKLOADS > Add		V4.0 🕥 🚊
Progress General		Step 2 Profiling Settings Add profile details and polling interval to start profile	
2 Profiling Settings	Settings Profile Name * profile 1 Profile Period * 7 Days	× 🗎	
	Polling Interval * 20	<u>₿0</u>	
< Back	Cancel		Start Profiling

Step 3 Click Save.

Configuring and Using the Profiler Application

Starting Data Profiling

Starting ESXi Data Profiling

Following the successful addition of a vCenter Server, the new vCenter displays on the Data Inventory (home) page. You configure the profiling attributes by providing the profile name and duration.

Table 1: Profiling Operation Options

ltem	Description
Delete (trash can)	Deletes a previously added vCenter.
Edit (pen)	Edit vCenter properties to add or remove hosts for polling.
Stop (symbol)	Stops the profiling so you can resume it later.
Reset (refresh symbol)	Performs a reset operation, which creates a new profile and starts polling. When you trigger reset, the profiler stops the active/running profile and creates a new one. A prompt asks for confirmation.
View Collection	Opens the View Collection page so you can browse through the collected data as part of the profiling to review the HOST and VM level data.

Polling starts as soon as you enter the profiler name ,days and polling period.

Step 1 In the dialog that displays, perform the following steps:

- a) Enter a name for the profile.
- b) Select a duration value from the Profiling Period down-drop list.
- c) Click **Ok**.

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Progress	Step 3 Des Gilles Catilines			- î
() General	According Settings According details and politing interval to start profiling			
2 Select Hosts	Settings			- 1
Profiling Settings	Profile Name * profile1			
	Profile Period * X 🗊			
	Puting Interval*			
	20			
	hxprofiler.label.generateProfile			
	Detailed Profile Quick Profile			
< Back	Close	Start	Profiling	

cisco HX Profiler	WORKLOADS						V4.0 🖸 🐣
Total Workloads : 1							+ Add Workload
vCenter							8
Host Reachability InitiaEzing	VM Power Status	Profiling Summary Initializing	Profiling Status In Progress Remaining Duration	6d 23h 59m	Profile Name Interval Total Duration Elapsed Duration Initial Start Time	profile1 20 Sec 7d 1s Jan 20, 2021 12:28 PM	View Collection
alt alter and a state							
cisco HX Profiler	WORKLOADS						V4.0 🕐 🐰
Total Workloads : 1							+ Add Workload
Center							00/0
Host Reachability	T VM Power Status	Profiling Summary	Profiling Status		Profile Name	profile1	0010
Reachable 4		11	In Progress		Interval Total Duration	20 Sec 7d	View Collection
 Not Reachable 0 	294 • Off 229	SUCCESSFUL	Remaining Duration	6d 23h 56m	Elapsed Duration Initial Start Time	3m 32s Jan 20, 2021 12:28 PM	Download ~

Following successful profile creation, the Profiler begins polling the selected hosts and all the VMs on those hosts. When the polling starts, the data collector runs as a background process. The Datacenter Inventory page displays information about the hosts and polling, showing number of hosts and the status of the polling.

- **Step 2** (Optional) To stop an in-progress profiling operation so you can resume it later, see Stopping the Profiler Service.
- **Step 3** (Optional) To stop an in-progress profiling operation, click **Reset**. You can then start a new one.
- **Step 4** (Optional) To browse through the collected data, see Viewing an ESXi Collection, on page 23.
- **Step 5** (Optional) To download profiling data, see Downloading ESXi Profiling Results, on page 14.

Starting Windows Bare Metal Data Profiling

Following the successful addition of a Windows Bare Metal, the newly added Windows Bare Metal displays on the Data Inventory (home) page. You can configure the profiling attributes by providing the profiling name and duration.

I

ltem	Description
Delete (trash can)	Deletes the selected Windows Bare Metal workload / node
Edit (pen)	Edit Windows Bare Metal to add / remove existing VM/hosts for profiling.
Stop (symbol)	Stops the profiling
Refresh	Performs a reset operation, which creates a new profile and starts the polling. When reset is clicked, profiler stops the active/running profile and creates a new one. A prompt asks for confirmation.
View Collection	Opens the View Collection page so you can browse through the collected data as part of the profiling to review the HOST and VM level data.

Table 2: Profiling Operation Options

Windows Bare Metal wind		© ⊂ / î
Host Reachability Reachabile 1 Reachable 0 Frofiling Summary Successful	Profileng Status Profile Name profile1 Interval 20 Sec Total Duration 7d Elapsed Duration 31s Initial Start Time Mar 1, 2021 12	View Collection Download ~

SUMMARY STEPS

- **1.** (Optional) To stop an in-progress profiling operation so you can resume it later, see Stopping the Profiler Service
- 2. (Optional) To stop an in-progress profiling operation, click **Reset**. You can then start a new one.
- 3. (Optional) To browse through the collected data, see Viewing an ESXi Collection, on page 23.
- 4. (Optional) To download profiling data, see Downloading ESXi Profiling Results, on page 14.

DETAILED STEPS

Step 1	(Optional) To stop an in-progress profiling operation so you can resume it later, see Stopping the Profiler Service
04	

- **Step 2** (Optional) To stop an in-progress profiling operation, click **Reset**. You can then start a new one.
- **Step 3** (Optional) To browse through the collected data, see Viewing an ESXi Collection, on page 23.
- **Step 4** (Optional) To download profiling data, see Downloading ESXi Profiling Results, on page 14.

Starting Linux Bare Metal Data Profiling

Following the successful addition of a Linux Bare Metal, the newly added Linux Bare Metal displays on the Data Inventory (home) page. You can configure the profiling attributes by providing the profiling name and duration.

Item		Description		
Delete (trash can)		Deletes selected Linux Bare Metal workload / node		
Edit (pen)		Edit Linux Bare Metal to add / remove existing VM/hosts for profiling.		
Stop (symbol)		Stops the profiling		
Refresh		Performs a reset operation, which creates a new profile and starts the polling. When reset is clicked, profiler stops the active/running profile and creates a new one. A prompt asks for confirmation.		
View Collection		Opens the View Collection page so you can browse through the collected data as part of the profiling to review the HOST and VM level data.		
Linux Bare Metal IIn-215		◎ C /		
Host Reachability Profiling Summary Reachability	Profiling Status In Progress	Profile Name profile1 Interval 20 Sec View Collection		

SUMMARY STEPS

1. (Optional) To stop an in-progress profiling operation so you can resume it later, see Stopping the Profiler Service

Total Du

Elapsed Duration

nitial Start Time

31s

Mar 1, 2021 12:52 PM

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0%

6d 23h 59m

- 2. (Optional) To stop an in-progress profiling operation, click **Reset**. You can then start a new one.
- 3. (Optional) To browse through the collected data, see Viewing an ESXi Collection, on page 23.

Remaining Duration

4. (Optional) To download profiling data, see Downloading ESXi Profiling Results, on page 14.

DETAILED STEPS

- Step 1 (Optional) To stop an in-progress profiling operation so you can resume it later, see Stopping the Profiler Service
- Step 2 (Optional) To stop an in-progress profiling operation, click **Reset**. You can then start a new one.
- Step 3 (Optional) To browse through the collected data, see Viewing an ESXi Collection, on page 23.

2

- Not Reachable 0

Step 4 (Optional) To download profiling data, see Downloading ESXi Profiling Results, on page 14.

Starting Hyper-V Data Profiling

Following the successful addition of a Hyper-V Server, the new Hyper-V displays on the Data Inventory (home) page. You configure the profiling attributes by providing the profile name and duration.

Table 3: Profiling Operation Options

Item	Description
Delete (trash can)	Deletes a previously added Hyper-V.
Edit (pen)	Edit Hyper-V properties to add or remove hosts for polling.
Stop (symbol)	Stops the profiling so you can resume it later.
Reset (refresh symbol)	Performs a reset operation, which creates a new profile and starts polling. When you trigger reset, the Profiler stops the active/running profile and creates a new one. A prompt asks for confirmation.
View Collection	Opens the View Collection page so you can browse through the collected data as part of the profiling to review the HOST and VM level data.

Step 1 In the dialog that displays, perform the following steps:

- a) Enter a name for the profile.
- b) Select a duration value from the Profiling Period down-drop list.
- c) Click Ok.

cisco HX Profiler	WORKLOADS > Add	V 4.0		ھ
E Progress	Step 2			
1 General 2 Profiling Settings	Profiling Settings Add profile details and polling interval to start profiling			
	Settings			
	Profile Name * profile1			
	Profile Period * X			
	Polling Interval*			
< Back	Cancel	Star	t Profilin	g

								Û
Host Reachability	VM Power Status	Profiling Summary Initializing	0	Profiling Status In Progress Remaining Duration 6d 23h 5	0% 6 9m 1	Profile Name Interval Total Duration Elapsed Duration Initial Start Time	profile1 20 Sec 7d 1s Feb 9, 2021 11:39 AM	View Collection
-								00/8
Host Reachability Reachable 1 Not Reachable 0	VM Power Status	Profiling Summary 2 successPuk	0	Profiling Status In Progress Remaining Duration 6d 23h St	р р р р т р т р т р т р т р т р т р т р	Profile Name Interval Fotal Duration Elapsed Duration nitial Start Time	profile1 20 Sec 7d 1m 1s Feb 9, 2021 11:39 AM	View Collection

Following successful profile creation, the Profiler begins polling the selected hosts and all the VMs on those hosts. When the polling starts, the data collector runs as a background process. The Datacenter Inventory page displays information about the hosts and polling, showing the number of hosts and the status of the polling.

- **Step 2** (Optional) To stop an in-progress profiling operation so you can resume it later.
- **Step 3** (Optional) To stop an in-progress profiling operation, click **Reset**. You can then start a new one.
- **Step 4** (Optional) To browse through the collected data, see Viewing a Hyper-V Collection, on page 30.
- **Step 5** (Optional) To download profiling data, see Downloading Hyper-V Profiling Results, on page 16.

Downloading Profiling Results

Downloading ESXi Profiling Results

Step 1	On the Datacenter Inventory page,	locate and select the profile	e whose data you want to download.
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Option	Description
All Data Collection	Downloads 30-day host summary, time series, and CVS for both the host and VM
Summary Report for HxSizer Upload	Collects the historic 30-day information from vCenter and does not require any active polling. The download provides the output in CSV format and can be directly uploaded to the Compute and Capacity Workload of HxSizer.
Profiler Sample Data	 Downloads the sampled data for the selected profile in the following formats: Summarized host data (CVS) Summarized VM data (CVS) Time series data of host (zipped CSV file) Time series data of VM (zipped CSV file)

Option	Description
Profiler Summary PDF	PDF download

cisco HX Profiler	WORKLOADS					V4.0 🕥 🚨
Total Workloads : 1						+ Add Workload
vCenter 10.81.1.240						⊕ C / B
Host Reachability Reachable 4 Not Reachable 0	VM Power Status (294) • On 65 • Off 229 • Off 229 • Off 229	Profiling Stat In Progress Remaining Do	us ration 6d 23h 39m	Profile Name Interval Total Duration Elapsed Duration Initial Start Time	profile1 20 Sec 7d 20m 34s Jan 20, 2021 12:28 PM All Data Collection	View Collection
					Summary Report Fo Profiler Sample Data Profiler Summary PO	HXSizer Upload
					0 0	/ û
Profiling In Progr Remaini	9 Status ess ong Duration 6d 23h 39m	Profile Name Interval Total Duration Elapsed Duration Initial Start Time	profile1 20 Sec 7d 20m 34s Jan 20 <u>, 2021 1</u> All D	12:28 PM ata Collectio	View Co Downk	llection Dad ~
			Sumi Profi Profi	mary Report ler Sample (ler Summar	t For HXSizer Uple Data y PDF	bad

Step 3 You can still download the profiling results when viewing the compute, storage and network data of various hosts and VMs by clicking on the **Download** button on the top right corner of the UI.

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Overview Host Compute Metrics Host Storage Metrics VM Compute Metrics VM Storage Metrics		Download -
vCenter		00/8
 Host Reachability VM Power Status Reachable 4 On 65 Off 229 Off 229 Successful 	Profiling Status Profile Name profile Interval 20 Sec Total Duration 7d Elapsed Duration 28m 5s Initial Start Time Jan 20,	2021 12:28 PM
30 Day Sizing Summary O		
CPU 188.8 MHz 80 TOTAL CLOCK SPEED PHYSICAL COMES 0 VCPUs 0 0n 236 Off 677 Overprovisioning Ratio 11.4	Image: Second system 0 Effective Capacity (T 640 • Used 284 16.31	 ● Used 10.6 ● Unused 5.71
Aggregate Compute & Storage Dynamic Metrics \circ		
CPUIIIIiization / RAMIIIiization Read IDPS Write IDPS	Read Threathrea Write Threathrea Read Lateory (Write Latency (

Downloading Hyper-V Profiling Results

Option	Description					
All Data Collection	Downloads time series and CVS for both the host and VM					
Sizer Upload Summary	Collects the host summary information from Hyper-V. The download provides the output in CSV format and can be directly uploaded to the Compute and Capacity Workload of HxSizer.					
Profiler sampled data	Downloads the sampled data for the selected profile in the following formats:					
	Summarized host data (CVS)					
	Summarized VM data (CVS)					
	• Time series data of host (zipped CSV file)					
	• Time series data of VM (zipped CSV file)					
Profiler summary	PDF download					

dited. HX Profiler WORGOADS				V40 0 &
Total Workloads : 3				+ Add Workload
cisco				00/8
Host Reachability Reachability Not Reachable 0 VM Power Status VM Power Status Not Reachable 0 VM Power Status Not Reachable 0 VM Power Status Profiling Summary SuccessRy, SuccessRy, SuccessRy, SuccessRy, SuccesRy, SuccessRy, SuccesRy, SuccessRy,	T T T T T T T T T T T T T	us	Profile Name profile Interval 20 Sec Total Duration 7d End Time Feb 4; Initial Start Time Jan 28,	View Collection 2021 07:02 PM 2021 07:02 PM Download ~ All Data Collection
Host Reachability Profiling Summary	Profiling Status In Proceess	Profile Name Interval	profile1 20 Sec	Summary Report For HXSizer Upload Profiler Sample Data Profiler Summary PDF
Profiling Status	Profile Name	profile1		
Completed	Interval	20 Sec		View Collection
① 1 Stops	End Time	70 Feb 4, 2021	07:02 PM	Download V
	Initial Start Time	Jan 28 <u>, 202</u>	21 07:02 PM	
		A	II Data Collection	
		s	ummary Report Fo	r HXSizer Upload
		P	rofiler Sample Data	a
Profile Name Interval	profile1 20 Sec	P	rofiler Summary Pl	

Step 3 You can still download the profiling results when viewing the compute, storage and network data of various hosts and VMs by clicking on the **Download** button on the top right of the UI.

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Overview Host Compute Metrics Host Storage Metrics VM Compute Metrics VM Storage Metrics							
cisco					00/0		
Host Reachability WM Power Status Profiling Summary Profiling Status Pro							
Aggregate Compute & Storage Dynamic Metri	cs ©						
RAM Utilization (GiB) :	Read IOPS :	Write IOPS :	Read Throughput (MBps)	Write Throughput (MBps) :	Latency (ms) :		
Average 31.6	0	1	0	0	0.1		
95th Percentile 34	0	3.7	0	0	0.2		
Peak 34.3	1399.8	85.5	21.5	14.7	110.7		
Compute Trends and Metrics							

Viewing Data Collections from Servers

Viewing ESXi Data Collections from vCenter Servers

The View Collection page has five tabs at the top left of the page, Overview, Host Compute Metrics, Host Storage Metrics, VM Compute Metrics, VM Storage Metrics. When clicked, they show summary data described in his section. The View Collection page also provides the summarized data for Compute Summary and Storage Summary of individual host and VMs. You can also fetch the data for specific period of profiling using the predefined filter present on the top right corner of the page with the minimum being 30minutes or the user can also use the time line to select the time period. The following sections describe the summary data shown through filter tool use and in that shown in each tab and view.

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Total Workloads : 1	+ Add Workload
vCenter 10.81.1.240	● ⊂ / ≞
Host Reachability VM Power Status Profile Summary Profile Status Profile Name profile 1 • Reachable 4 • On 64 • On 7230 • On 64 • On 7230 • On 723 • On 724	View Collection Download >
-divelue HX Profiler WORKLOADS > vCenter-	V4.0 🕥 🚊
Overview Host Compute Metrics Host Storage Metrics VM Compute Metrics VM Storage Metrics	Download -
vCenter	00/8
 Host Reachability VM Power Status Profiling Summary Reachable 0 VM Power Status Profiling Summary Profiling Status Profiling Status Profile Name p	8s 21 06:52 PM
30 Day Sizing Summary 💿	
O CPU O VCPUs O RAM (GB) Effective Capacity (TB) 188.8 MHz 80 TOTAL CLOCK SPEED 913 • On 232 • Off 681 Overgrovisioning Ratio 11.4 • Used 284 • Unused 356 • Used 284 • Unused 356	• Used 10.59 • Unused 5.72
Aggregate Compute & Storage Dynamic Metrics o	
CPU Utilization (_ : RAM Utilization _ : Read IOPS : Write IOPS : Read Throughpu_ : Write Throughpu_ : Read Latency (_ :	Write Latency (:
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Item	Description
Aggregation	Filters to view the summarizations based on peak or average selections. Your selection determines the display of the table metrics and trends. The summarized values represent the following:
	• Peak: Peak value of all the metrics in the selected interval
	• Average: Averages of all the values in the selected interval

You can filter Host metrics using the search option by host name only. For VM metrics, you can filter either by the Host name to which the VM belongs or directly with the VM name, using the search option.

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Host and VM Summarized Metrics

Based on your time period and parameters selections, the Profiler computes and populates the compute and storage metrics. Metrics display for the following values:

Host View Compute Table

- Host_Name
- Processor Type
- Clock (GHz)
- #Physical Cores
- HT ON/OFF
- CPU Util (MHz)
- CPU Util (%)
- #VMs
- vCPU of active VMs/pCore Ratio
- RAM (GB)
- RAM Util (GB)
- Network Throughput- Rx (Mbps)
- Network Throughput- Tx (Mbps)

Host View Storage Table

- Provisioned Capacity (TB)
- Used Storage Capacity (TB)
- Read Throughput (MBps)
- Write Throughput (MBps)
- Read (%)
- Write (%)
- Read IOPS
- Write IOPS
- Read Block Size (KB)
- Write Block Size (KB)
- Seq (%)
- Read Latency (ms)
- Write Latency (ms)

VM View Compute Table

- VM Name
- Status
- Host Name

- vCPUs
- CPU Util (MHz)
- CPU Util (%)
- RAM (GB)
- RAM Util (GB)
- Network Throughput- Rx (Mbps)
- Network Throughput- Tx (Mbps)

VM View Storage Table

- VM Name
- Host_Name
- Disk Capacity (GB)
- Disk Used (GB)
- Read Throughput (MBps)
- Write Throughput (MBps)
- Read (%)
- Write (%)
- Read IOPS
- Write IOPS
- Read Block Size (KB)
- Write Block Size (KB)
- Seq (%)
- Read Latency (ms)
- Write Latency (ms)

Host and VM Trends

The View Collection page provides trend charts and an overview of various parameters at a host level and VM level for both compute and storage parameters. The overview provides information aggregate storage and compute matrix along with a 30-day sizing summary. You can view the trend charts by selecting the host or the VM from the table.

Metrics for the following values display in the trend charts:

Host View Compute Trends

- CPU Utilization (MHz)
- CPU Utilization (%)
- CPU Overprovisioning Ratio (%)

- RAM Utilization (%)
- RAM Overprovisioning Ratio (%)
- Receive Rate (Mbps)
- Transmit Rate (Mbps)

VM View Compute Trends

- Receive Rate (Mbps)
- Transmit Rate (Mbps)

Host and VM View Storage Trends

- Read Throughput (MBps)
- Write Throughput (MBps)
- Read Ratio
- Write Ratio
- Read IOPS
- Write IOPS
- Read Seq (%)
- Write Seq (%)
- Read Latency (ms)
- Write Latency (ms)
- Provisioned Capacity (TB)
- Used storage Capacity (TB)

Histogram Charts

- Read Block Size Histogram
- Write Block Size Histogram



Note

You can plot the storage parameter charts for two comparable charts either from the Trend Line chart or from the Histogram chart.

Viewing an ESXi Collection

You can also use the filter and search tool in the Hosts and VM views to display only those hosts and VMs that you want to see.

You can also use the filter tool in the Hosts and VM views to display only those hosts and VMs you want to see.

- **Step 1** In the Datacenter Inventory page, click **View Collection** to browse through the collected data.
- Step 2 In the View Collection page, select between Host Compute Metrics, Host StorageMetrics, VM Compute Metrics or VM Storage Metrics.
- **Step 3** In the **Select VMs** tab, select or unselect the toggle switch for the VMs you want to view, then click **Next**. All VMs are selected by default.
- **Step 4** To view data for a different time period, select from the options in the top right corner with the default minimum value of 30 minutes. Use the time slider above the fixed time period selection to view data for a specific time range from the selected time period.





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Viewing Data Collections from Hyper-V Servers

The View Collection page has five tabs at the top left of the page, Overview, Host Compute Metrics, Host Storage Metrics, VM Compute Metrics, VM Storage Metrics. When clicked, they show summary data described in his section. The View Collection page also provides the summarized data for Compute Summary and Storage Summary of individual hosts and VMs. You can also fetch the data for a specific period of profiling using the predefined filter present on the top right corner of the page with the minimum being 30minutes. You can also use the time line to select the time period. The following sections describe the summary data shown through filter tool use and in that shown in each tab and view.

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Peak	34	0	3.7	21.5	0	110.7
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Table 5: Host View Filter Drop-Down Options

ltem	Description
Aggregation	 Filters to view the summarizations based on peak or average selections. Your selection determines the display of the table metrics and trends. The summarized values represent the following: Peak: Peak value of all the metrics in the selected interval Average: Averages of all the values in the selected interval

You can filter Host metrics using the search option by host name only. For VM metrics, you can filter either by the Host name to which the VM belongs or directly with the VM name, using the search option.

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Host and VM Summarized Metrics

Based on your time period and parameters selections, the Profiler computes and populates the compute and storage metrics. Metrics display for the following values:

Host View Compute Table

- Host Name
- Processor Type
- Clock (GHz)
- #Physical Cores
- Hyper Threading ON/OFF
- CPU Util in %
- #VMs
- vCPU of active VMs/pCore Ratio
- RAM (GB)
- RAM Util (GB)
- Network Throughput- Rx (Mbps)
- Network Throughput- Tx (Mbps)

Host View Storage Table

- Host Name
- Provisioned Capacity (TiB)
- Used Storage Capacity (TiB)
- Read Throughput (MBps)
- Write Throughput (MBps)
- Read (%)
- Write (%)
- · Read IOPS
- Write IOPS
- Latency (ms)

VM View Compute Table

- VM Name
- Status
- Host Name
- vCPUs
- CPU Util (MHz)
- CPU Util (%)
- RAM (GB)

- RAM Util (GB)
- Network Throughput- Rx (Mbps)
- Network Throughput- Tx (Mbps)

VM View Storage Table

- VM Name
- Host Name
- Disk Capacity (GB)
- Disk Used (GB)
- Read Throughput (MBps)
- Write Throughput (MBps)
- Read (%)
- Write (%)
- Read IOPS
- Write IOPS
- Latency (ms)

Host and VM Trends

The View Collection page provides trend charts and an overview of various parameters at a host level and VM level for both compute and storage parameters. The overview provides information related to aggregate storage and compute matrix. You can view the trend charts by selecting the host or the VM from the table.

Metrics for the following values display in the trend charts:

Host View Compute Trends

- CPU Overprovisioning Ratio (%)
- RAM Utilization (GB)
- RAM Overprovisioning Ratio (%)
- Receive Rate (Mbps)
- Transmit Rate (Mbps)

VM View Compute Trends

- RAM Utilization (GB)
- Receive Rate (Mbps)
- Transmit Rate (Mbps)

Host View Storage Trends

• Read Throughput (MBps)

- Write Throughput (MBps)
- Read Ratio
- Write Ratio
- Read IOPS
- Write IOPS
- Read Seq (%)
- Write Seq (%)
- Read Latency (ms)
- Write Latency (ms)

VM View Storage Trends

- Read Throughput (MBps)
- Write Throughput (MBps)
- Read Ratio
- Write Ratio
- Read IOPS
- Write IOPS



Note You can plot the storage parameter charts for two comparable charts from the Trend Line chart.

Viewing a Hyper-V Collection

You can view a summary of compute and storage parameters for the hosts and VMs available in the Hyper-V through the View Collections page as part of the profiling operation.

You can also use the filter and search tool in the Hosts and VM views to display only those hosts and VMs you want to see.

- **Step 1** In the Datacenter Inventory page, click **View Collection** to browse through the collected data.
- Step 2In the View Collection page, select between Host Compute Metrics, Host Storage Metrics, VM Compute Metrics or
VM Storage Metrics.
- **Step 3** In the **Select VMs** tab, select or unselect the toggle switch for the VMs you want to view, then click **Next**. All VMs are selected by default.
- **Step 4** To view data for a different time period, select from the options in the top right corner with the default minimum value being 30 minutes. Use the time slider above the fixed time period selection to view data for a specific time range from the selected time period.

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