Add a Hyper-V Host Server

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Not planning to do this module? You can skip to the next one...

This module consists of the following exercises:

Module	Description	Time required
Add Your Hyper-V Host Server	Use Auto Discovery to import a Hyper-V Host Server and its inventory of VMs.	1 slice
Validation Step 1: Explore the Monitored Inventory	Understand how Uptime Infrastructure Monitor organizes an imported and synchronized Hyper-V Server inventory.	1 slice
Validation Step 2: View the Hyper-V Server Inventory	Understand how Uptime Infrastructure Monitor allows you to focus on the parts of the Hyper-V Server that you actually want to monitor.	1 slice
Validation Step 3: View Metrics for the Hyper-V host server and a guest VM	View metrics available on a summary page for a host server, as well as a guest VM.	½ slice

Add Your Hyper-V Host Server

- 1. In the Uptime Infrastructure Monitor Web interface, begin by clicking Infrastructure.
- 2. Begin adding your Hyper-V host server as an Uptime Infrastructure Monitor Element. In the Infrastructure view, click Add System/Network Device.
- 3. In the Add System window, select Hyper-V Server from the Type of System/Device drop-down. This reveals configuration fields specific to this type of monitored Element.
- 4. Complete the fields similar to those below:

With Uptime, a system (or element application.	nt) can have a different display name than the hostname. This way, hostnames are stored in Uptime but a meaningful name will be displayed in the
Add System/Network Device	
Display name in Uptime	sa-hv-1.uptimedemo.com
Description	
Type of System/Device	Hyper-V Server
Options	
Host Name	sa-hv-1.uptimedemo.com
	Use Hyper~V Global Credentials
Group	My Infrastructure
Service Group	Choose one
Virtual Machines Group	Discovered Virtual Machines
Sync Settings - Virtual Machines	
Collect Virtual Machine data	V
Collect Uptime Agent data	
Collect WMI Agentless data	
Notify on newly discovered VMs	
Alert Profile	Uptime-Alert
Action Profile	Uptime-Action
	Cancel Save

- The Display Name is used throughout the Uptime Infrastructure Monitor interface, as well as reports.
- The Description can contain any extra information such as the version number or IP address.

• The **Options** fields tell Uptime Infrastructure Monitor how to find and access your Hyper-V server.

- The Group fields tell Uptime Infrastructure Monitor in which element group you want to place discovered virtual machines.
- You can leave the **Sync Settings** options at their defaults.

A Stick to the Basics

By default, the **Collect Uptime Agent data** check box is clear. For this exercise, clear the **Collect WMI Agentless data** check box as well. This means the metrics Uptime Infrastructure Monitor retrieves for each monitored VM is what the Hyper-V server itself collects and provides to Uptime Infrastructure Monitor. For these "basic VMs," their metrics are a subset of what can be collected from the guest operating system using the Uptime Infrastructure Monitor Agent or using WMI. For simplicity in this guide, we work with a "basic" Hyper-V server inventory. You can learn more about agent- and WMI-based data collection in the next module, where you are adding physical servers.

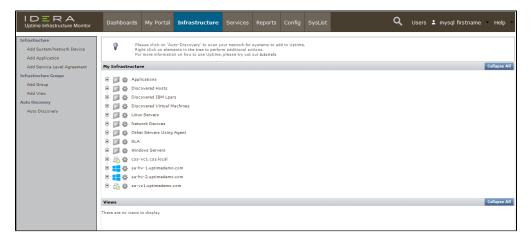
5. Click **Save**. Uptime Infrastructure Monitor searches for your Hyper-V server and imports its inventory of VMs as Uptime Infrastructure Monitor Elements. This can take a minute or more, depending on how large your server inventory is.



6. Uptime Infrastructure Monitor informs you when the Hyper-V server is added. Click Done to close the Add System window.

Validation Step 1 > Explore the Monitored Inventory

After adding the Hyper-V server and closing the Add System window in the previous section, the main UI window displays the Infrastructure view:



If you look at your Uptime Infrastructure Monitor inventory, you can see that part of the Hyper-V server import process included the automatic creation of a top-level *Element Group* (which are folders and subfolders used to organize Uptime Infrastructure Monitor Elements): **Discovered Virtual Machines**. This Element Group includes the virtual machines managed by Hyper-V, and these contents can be further rearranged in Uptime Infrastructure Monitor, for example, by platform or function.

Alongside the Infrastructure Group, the Hyper-V server itself appears as a top-level Element in Infrastructure. It includes the list of VMs that comprise the Hyper-V server inventory. Click the + icon beside your Hyper-V server to expand its view.

Consider this example:

💷 🇊 🔯 Discovered Virtual Machines
🕀 🇊 🔯 Linux Servers
🕀 🗊 🕸 Network Devices
🕀 🇊 🔯 Other Servers Using Agent
🕀 🇊 🕸 SLA
🕀 🗊 🕸 Windows Servers
🕀 👘 css-vc1.css.local
🖃 📻 🎄 sa-hv-1.uptimedemo.com
sa-hv-w2012r2.uptimedemo.com
- 실 🎄 sa-hv-rhel72.uptimedemo.com
🎂 🎪 sa-hv-ub1604.uptimedemo.com
🖃 📻 🎄 sa-hv-2.uptimedemo.com
- 🥩 🏟 sa-hv2-w732.uptimedemo.com
🛁 🎄 sa-hv2-ub1404-d.uptimedemo.com
🗄 🔂 🏟 sa-vc1.uptimedemo.com

Virtual machines can be moved elsewhere in Infrastructure, but the hierarchy remains intact as a reflection of the Hyper-V server:

note 🔨

Depending on the size of your Hyper-V Server inventory, importing one could exceed your Uptime Infrastructure Monitor license. If this were to happen, you might see the following:

- VMs that you may expect to see do not respectively appear in the Discovered Virtual Machines infrastructure group.
- Correspondingly, the expanded Hyper-V Server hierarchy may not display some objects. VMs that are not monitored due to exceeding the license do not appear here.

In this scenario, you need not worry. Uptime Infrastructure Monitor has in fact imported these; it is simply ignoring them. We learn more about this in the next section.

Validation Step 2 > View the Hyper-V Server Inventory

This validation step can be particularly enlightening if your Hyper-V Server import exceeded your license, and resulted in automatic exclusion of VMs from the monitored inventory in Uptime Infrastructure Monitor.

- 1. While in the Infrastructure view, click the Hyper-V server's gear icon, then in the pop-up menu, click View.
- 2. In the left menu, the Info tab is active. Click Inventory. This displays a list of all of your Hyper-V server's inventory. It is divided into two main groups: Elements that are monitored by Uptime Infrastructure Monitor, and Elements that are currently ignored. Initially, during the Hyper-V server import, VMs that were imported after the Uptime Infrastructure Monitor license was exceeded were placed in the Ignored Elements section. You can use this Inventory view to ignore monitored Elements, and begin monitoring currently ignored Elements.

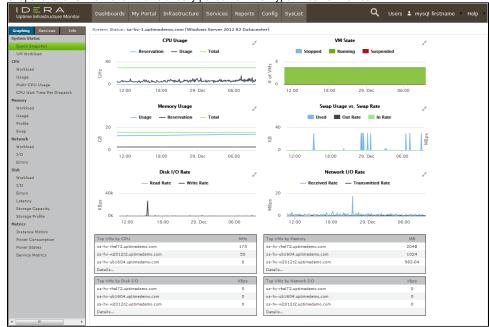


You can also use this **Inventory** view to **Enable Monitoring** for a Hyper-V server Element. This can be done when an Uptime Infrastructure Monitor Agent is installed on a VM, allowing Uptime Infrastructure Monitor to collect metrics that are more detailed than what is provided by the Hyper-V server.

Validation Step 3 > View Metrics for the Hyper-V Server and a VM

- 1. Click Infrastructure.
- 2. Click the Hyper-V server's gear icon, then in the pop-up menu, click **Graph Performance**. Whenever you take this action with an Element, you are taken to its **Quick Snapshot**.

Whenever you graph the performance of an Element from the **Infrastructure** view, its **Quick Snapshot** is displayed. What exactly is shown depends on the type of Element, which we see throughout this part of the Getting Started Guide. In this case, the Hyper-V server's Quick Snapshot shows information that is directly pulled from the Hyper-V server metrics:

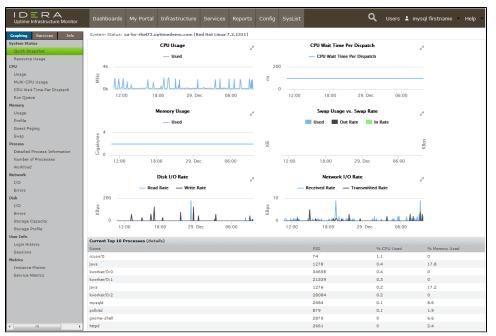


You can incorporate these basic metrics into your Uptime Infrastructure Monitor monitoring plans (such as alerts or reporting). It's more likely,

however, that your interest is with the virtual machines that are a part of the Hyper-V server inventory.

3. Click Infrastructure to return to the main inventory view.

4. Expand the **Discovered Virtual Machines** Infrastructure Group, and click the gear icon for any of the VMs. In the pop-up menu, again, click **Grap** h **Performance** to display that Element's **Quick Snapshot**. This displays metrics for the VM that are pulled from the Hyper-V server's metrics:



As with the Hyper-V server Element's metrics, you can incorporate these into your alerts and reports. However, this "basic VM" view allows you to work only with what the Hyper-V server provides; there may be cases where you want to add a little extra "Uptime Infrastructure Monitor power," and install an Uptime Infrastructure Monitor agent on the VM. This is something you learn a bit more about in the next module.

License Check!

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In this module, if the inventory imported from Hyper-V server exceeds open slots in your license, some of the inventory is ignored, and you have no space left to add Elements to your monitored inventory. In the next two tracks In this Getting Started Guide, you are adding servers and network devices. If you plan on following either or both of these tracks, you need to anticipate the number of servers and network devices you add. To follow the server track, you'll need at least 2; to follow the network device track, you'll need at least 1. The easiest way to free up space is to manually ignore VMs; each VM you ignore opens a license spot for a new Element.

Return to the Inventory Detail view for the Hyper-V server (Infrastructure > gear icon > View > Inventory). Select VMs, then click Add Selected Elements to Ignore. The spots are freed up in your license, which you can verify by clicking Config > License Info.

Alternatively, you can also contact your Uptime Sales representative at sales@uptimesoftware.com to look into increasing the size of your license.

Back: Add Elements to Uptime Infrastructure Monitor Next: Add Physical Servers