How To Monitor vSphere in Nagios XI 2026R1.2+

Purpose

This document describes how to monitor vSphere components such as ESXi Hosts and guest VMs in Nagios XI **2026R1.2+.** For earlier versions of XI 2026, and 2024, please refer to this document.

Note: If you are transitioning from the VMware Wizard to the new vSphere wizard, see Overcoming lack of VMware SDK with VMware wizard.

Premium Feature: this wizard is one of Nagios XI's Premium features, so requires active support and maintenance benefits to function. For questions about renewing your benefits if they have lapsed, please email sales@nagios.com so we can assist you further.

Installation Overview

To monitor vSphere with Nagios XI, you will first need to ensure that Python 3.9 or higher is installed on your Nagios XI server. See your OS's vendor documentation for more information.

Additionally, if you are using RHEL 8 and conducted and offline or RPM install of Nagios XI, ensure that you install Python 3.9 *specifically*.

Once Python 3.9 or higher is installed, run the following commands on your Nagios XI server (be sure to use the commands for your specific Linux distribution).

RHEL 8 & 9

```
python3 -m pip install --upgrade pip
python3 -m pip install --upgrade setuptools wheel
python3 -m pip install --upgrade importlib-metadata
pip install --upgrade pyvmomi
```

CentOS 9

```
python3 -m pip install --upgrade pip
python3 -m pip install --upgrade setuptools wheel
python3 -m pip install --upgrade importlib-metadata
pip install --upgrade pyvmomi
```

Debian 11

```
python3 -m pip install --upgrade pip
python3 -m pip install --upgrade setuptools wheel
python3 -m pip install --upgrade importlib-metadata
apt install python3-pyvmomi -y
```

Debian 12

```
python3 -m pip install --upgrade pip --break-system-packages
python3 -m pip install --upgrade setuptools wheel --break-system-packages
python3 -m pip install --upgrade importlib-metadata --break-system-packages
apt install python3-pyvmomi -y
```

Ubuntu 22

```
python3 -m pip install --upgrade pip
python3 -m pip install --upgrade setuptools wheel
python3 -m pip install --upgrade importlib-metadata
pip install --upgrade pyvmomi
```

Ubuntu 24

```
python3 -m pip install --upgrade pip --break-system-packages
python3 -m pip install --upgrade setuptools wheel --break-system-packages
python3 -m pip install --upgrade importlib-metadata --break-system-packages
pip3 install --upgrade pyvmomi --break-system-packages
```

Oracle 8 & 9

```
python3 -m pip install --upgrade pip
python3 -m pip install --upgrade setuptools wheel
python3 -m pip install --upgrade importlib-metadata
pip install --upgrade pyvmomi
```

Offline & RPM Installs

If you are using an Offline or RPM install of XI, please use this command instead once you have installed Python 3.9:

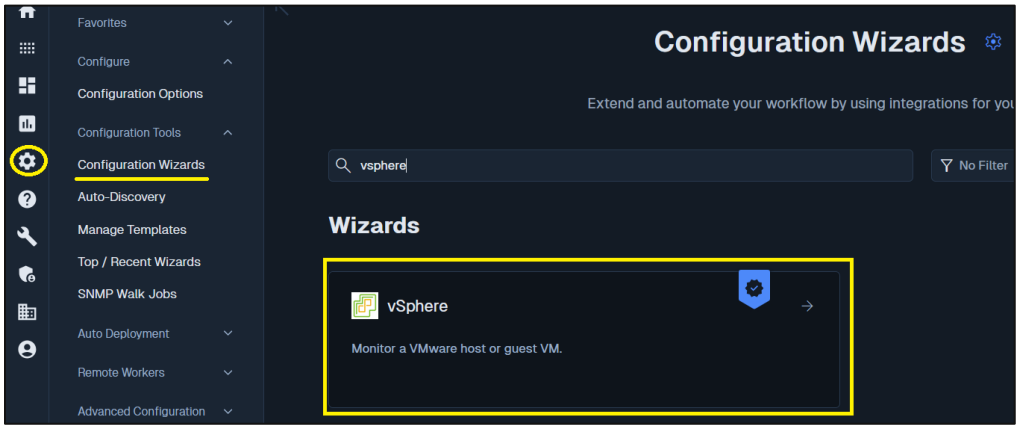
```
python3.9 -m pip install --upgrade pyvmomi
```

Note that some commands may fail if the package being loaded by the command is already installed, depending on your specific distribution and what packages you've already installed for other requirements.

Once you have installed the above prerequisites, you are ready to use the Vsphere Wizard.

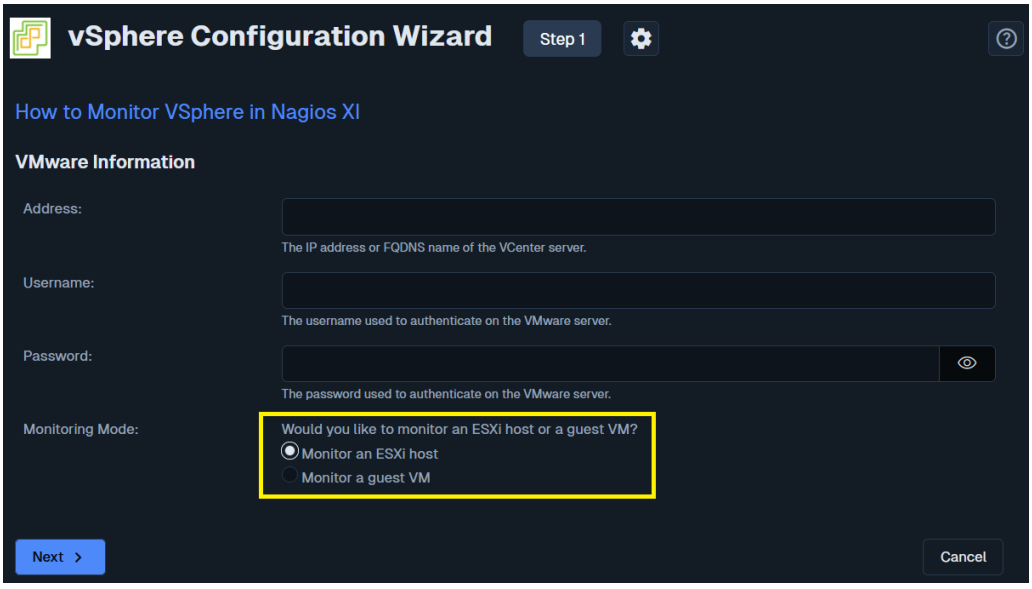
Using The vSphere Wizard

To begin using the vSphere wizard navigate to **Configure > Configuration Wizards** and select the **vSphere** wizard. In the following screenshot you can see how the search field allows you to quickly find a wizard.



Because the wizard has two different monitoring modes, you will be shown the different options available when running the wizard.

On **Step 1** you will select the **Monitoring Mode,** choosing either Monitor an ESXi host, or Monitor a guest VM.

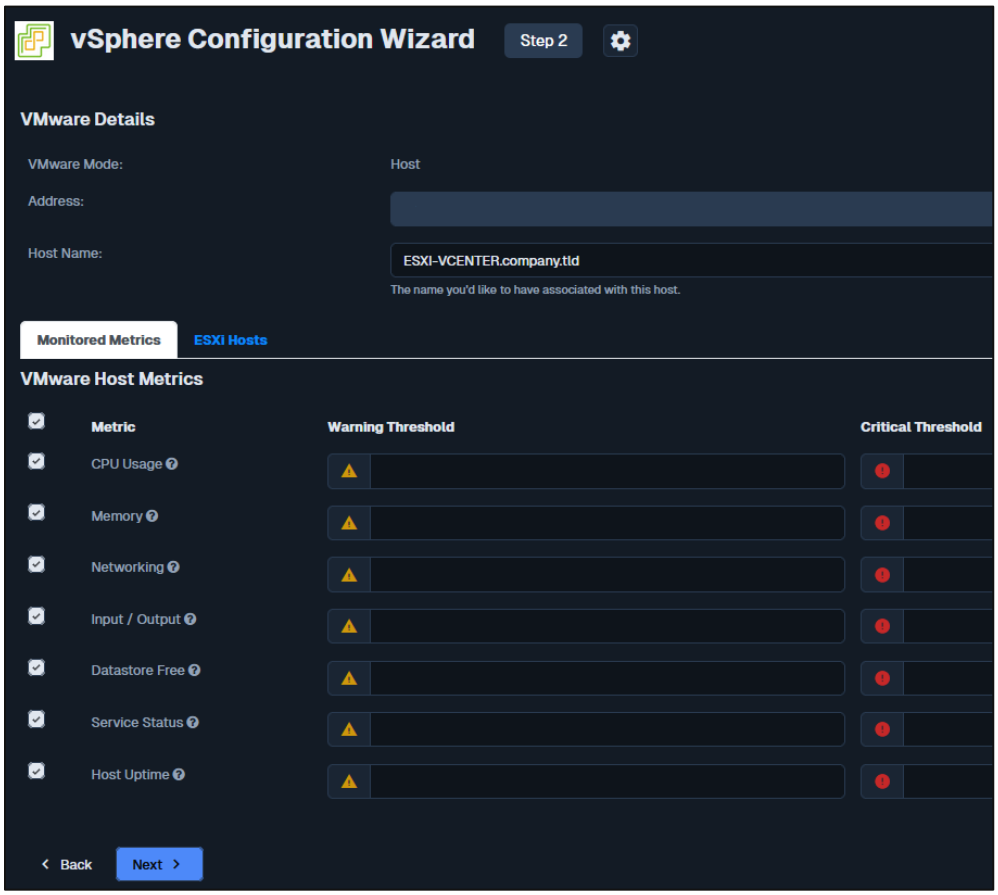


Monitor an ESXi Host

This allows you to monitor metrics on one or many ESXi hosts.

1. In **Step 1**, enter the **Address**, **Username** and **Password** of your vCenter server or ESXi host.

   If vCenter credentials are used, you'll be able to monitor multiple connected ESXi hosts. If ESXi host credentials are used, you'll be able to monitor metrics on that single host.
2. Select **Monitor the ESXi Host** Monitoring Mode.
3. Click **Next** to go to **Step 2**
4. On **Step 2** you will configure all the options for monitoring.
5. Make sure a valid **Host Name** has been entered.
6. Then select the **VMware Host Metrics** from the available list in the **Monitored Metrics** tab.



Note: Currently, critical and warning thresholds will not be thrown for non-numeric values. Future versions of this wizard will allow for non-numeric thresholds to function correctly. The below examples use non-numeric values (Disconnected, Down, etc…). Be aware that currently, these examples will not throw critical or warning alerts for these values.

Options available with examples:

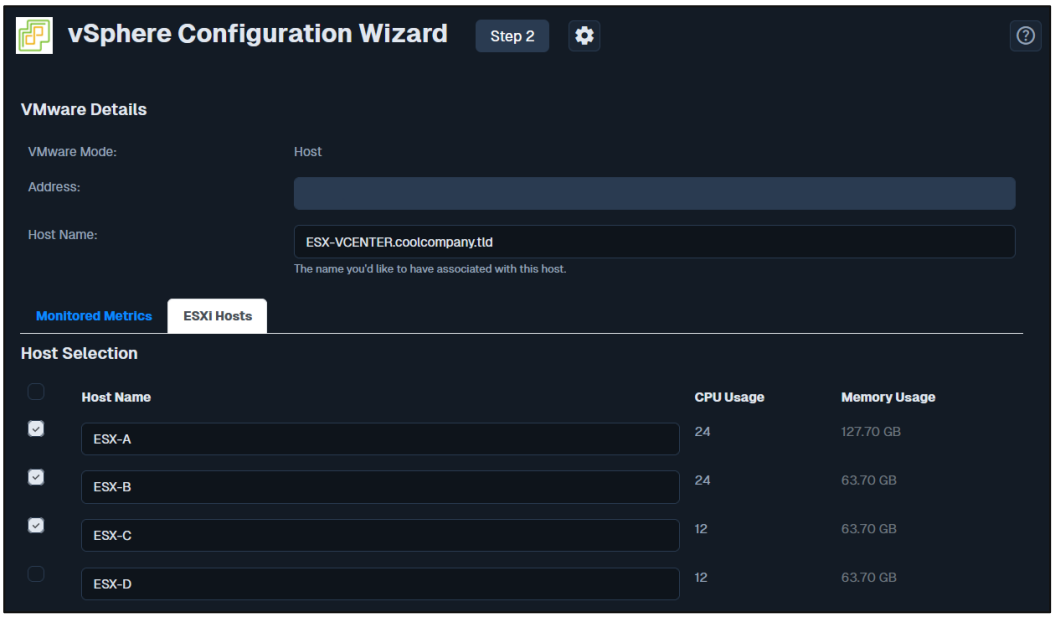
You will need to enter comma-separated values for the warning and critical values. You will need to enter the same number of comma-separated values as there are values being monitored.

- For example, Memory usage on hosts has 6 monitored values, so if we want to put thresholds on each of these values there should be 6 values in the threshold field (`50,450,10,10,10,20000`).
- If you only want to put thresholds on the first two monitored values, you can leave it as two inputs (`50,450`). However, if you want to put a threshold for the first and last values, then you will need space for all 6 values (`50,,,,,20000`).
- If your list of values in the threshold field is shorter than the number of monitored values, the wizard will add thresholds in order and put no thresholds for the remaining values.
- If your list of values in the threshold field is greater than the number of monitored values, the wizard will add thresholds to all the values and ignore the excess values over the number of monitored values.

Metric	Monitored Values	Example Thresholds
CPU Usage	Usage (Mhz), Usage (%), Highest Host CPU Usage (%)	30,200
Memory	Usage (MB), Usage (%), Overhead (MB), Swap (MB), Memctl (MB)	30,200,10,10,5,5000
Networking	Receive (MBps), Send (MBps), nics connected, bad nics	5,5,3
Input / Output	Commands Aborted, Bus Resets, Read latency, Write latency,	1,0.5,0.1

Metric	Monitored Values	Example Thresholds
	Kernel, Device, Queue	
Datastore Usage	Space free for each datastore listing them in order	400000,250000
VM Status	State of the VM, connection if its running or disconnected, and uptime of the vm	Down,Disconnected,50d
Services	Displays whether the services are up or down.	Down,Down,Down,Down,Down,Up,Up,Down,...etc

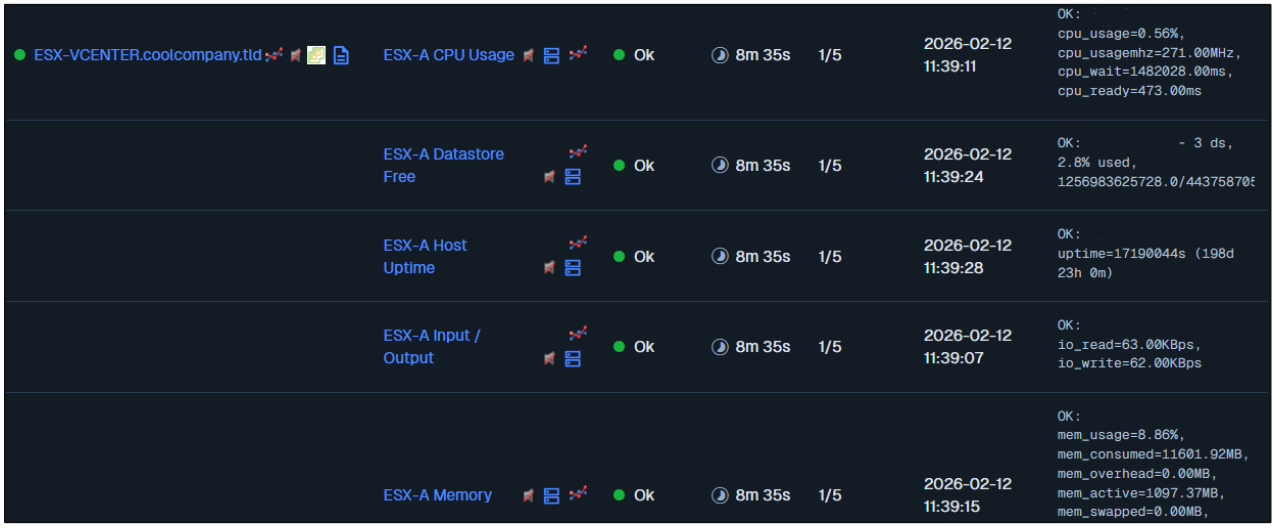
7. You can use the **ESXi Hosts** tab to choose which ESXi Hosts your chosen metrics will be monitored on:



8. Once you've finished selecting the metrics and imputing thresholds, click **Next** and then complete the wizard by choosing the required options in **Step 3 – Step 5**.
9. To finish, click on **Finish** in the last step of the wizard.

This will create new hosts and services and begin monitoring.

Once the wizard applies the configuration, click the **View status details for xxxxx** link to see the new host and services that were created:



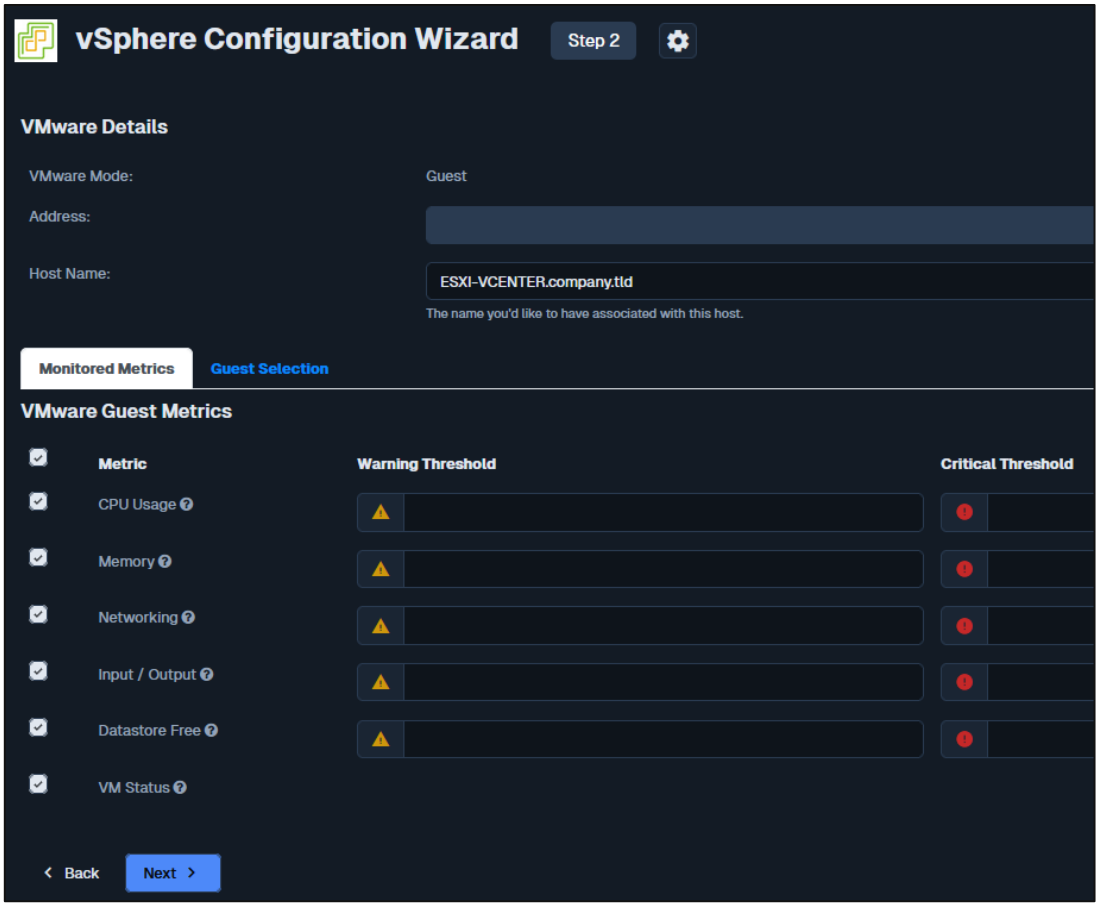
Monitor a guest VM on the VMware host

- This is for monitoring the virtual machines (VMs guests).
- The options on **Step 2** will allow you to select which VMs you want to monitor. You will have the choice of monitoring the **CPU Usage**, **Memory**, **Networking Input/Output**, **Datastore Free**, and **VM Status** for all the VMs you choose to monitor.
- On **Step 1** you will need to provide the **address**, **username**, and **password** for the **ESX / ESXi** host OR the **vCenter server** (if you have one).

  ESX(i) host vs vCenter Server:
  - When you have a vCenter server, it provides the ability to communicate to all the ESXi hosts and guest VM's in the environment
  - Providing credentials for a vCenter server on **Step 1** will allow you to monitor ALL the hosts and VMs in the environment. This means that you don't need to provide credentials for each ESX(i) host (you don't need to run the wizard for each ESX(i) host). In addition to this, if a VM is migrated from one ESX (i) host to another there are no configuration steps required, vCenter knows which ESX(i) host the VM is running on.
  - Providing credentials for an ESX(i) host on Step 1 will allow you to monitor ALL the VMs on that specific ESX(i) host. This means that you will need to run the wizard for each ESX(i) host in your environment. In addition to this, if a VM is migrated from this ESX(i) host to another, you will need to go into Core Configuration Manager update the service definitions for that VM. If the ESX(i) host is a member of a vCenter DRS cluster, it is recommended to monitor the VM's using the vCenter address and credentials.

1. In **Step 1**, enter the **Address**, **Username** and **Password** of your ESXi host **or** vCenter Server.
2. Select **Monitor a guest VM**.
3. Click **Next** to go to **Step 2**.
4. On **Step 2** make sure a valid **Host Name** has been entered. There are two tabs you need to select options on.

5. The **Monitored Metrics** tab is selected by default. Select the **VMware Guest Metrics** from the available list. A service for each metric will be created for each guest selected on the **Guest Selection** tab.



Note: Currently, critical and warning thresholds will not be thrown for non-numeric values. Future versions of this wizard will allow for non-numeric thresholds to function correctly. The below examples use non-numeric values (Disconnected, Down, etc…). Be aware that currently, these examples will not throw critical or warning alerts for these values.

Options available with examples:

Notes:

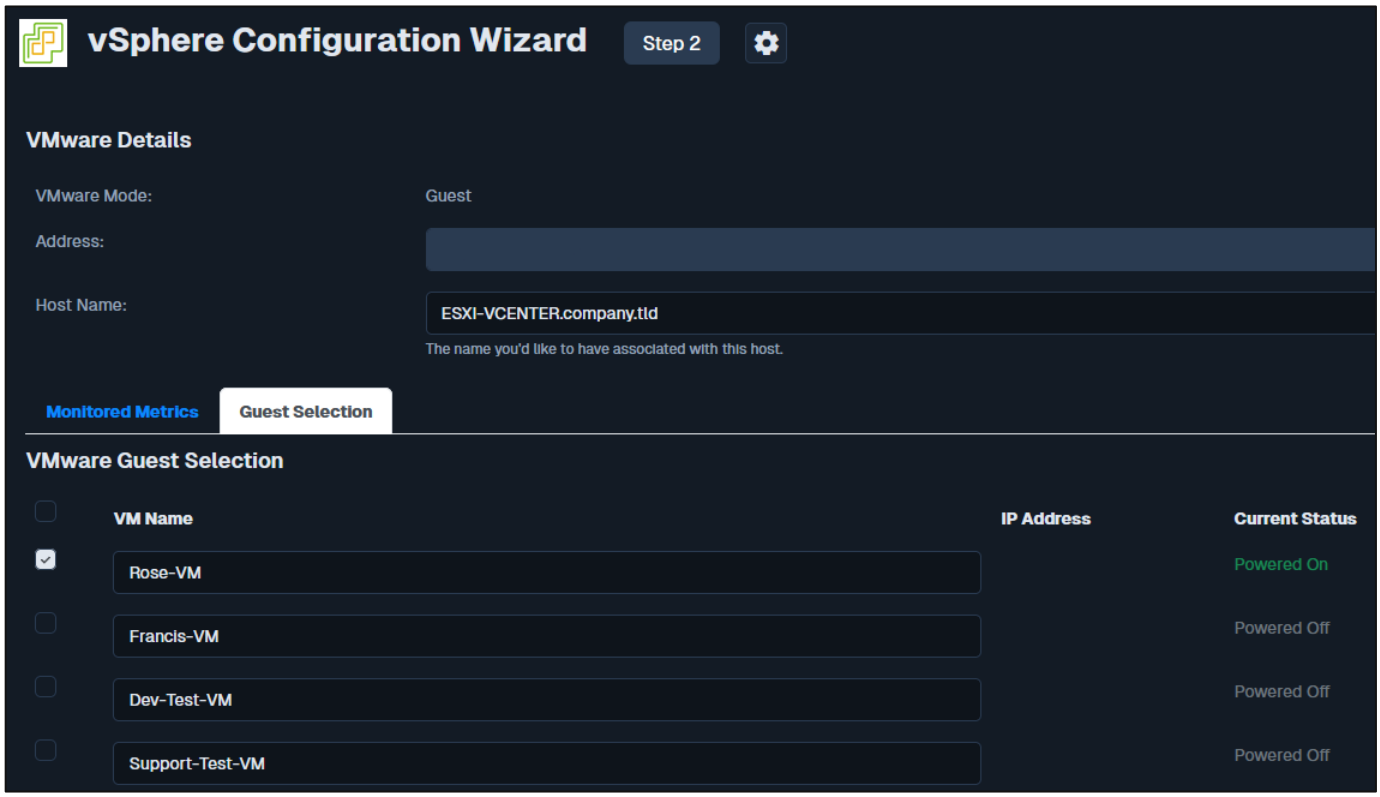
You will need to enter comma-separated values for the warning and critical values. You will need to enter the same number of comma-separated values as there are values being monitored.

- For example, Memory usage on hosts has 6 monitored values, so if we want to put thresholds on each of these values there should be 6 values in the threshold field (`50,450,10,10,10,20000`).
- If you only want to put thresholds on the first two monitored values, you can leave it as two inputs (`50,450`). However, if you want to put a threshold for the first and last values, then you will need space for all 6 values (`50,,,,,20000`).
- If your list of values in the threshold field is shorter than the number of monitored values, the wizard will add thresholds in order and put no thresholds for the remaining values.
- If your list of values in the threshold field is greater than the number of monitored values, the wizard will add thresholds to all the values and ignore the excess values over the number of monitored values.

Metric	Monitored Values	Example Thresholds
CPU Usage	Usage (Mhz), Usage (%), Highest Host CPU Usage (%)	30,350,50
Memory	Usage (MB), Usage (%), Overhead (MB), Swap (MB), Memctl (MB)	30,200,10,10,5,5000
Networking	Receive (MBps), Send (MBps), nics connected, bad nics	5,5
Input / Output	Commands Aborted, Bus Resets, Read latency, Write latency, Kernel, Device, Queue	5,5,5

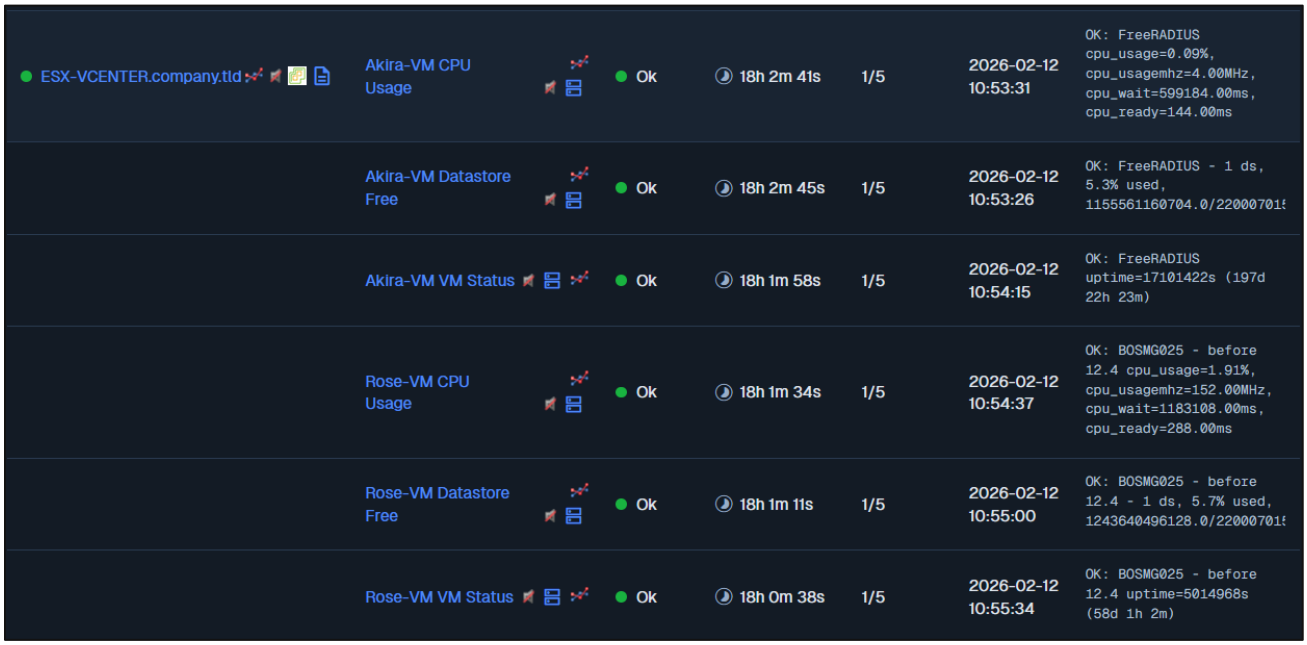
Metric	Monitored Values	Example Thresholds
VM Status	State of the VM, Connection if its running or disconnected, console, maxcpu in MHz, Max memory in MB, Tools?, any config issues	DOWN,red,Disconnected,1,3300:,3500:,down,1

6. After selecting the required metrics click the **Guest Selection** tab.



7. On the **Guest Selection** tab, a list of all the available guests on the ESXi host or vCenter server will be displayed.
8. Select which guests you want to monitor by checking the left hand check box. The powered on guests will automatically have the checkbox selected.
9. Once you've finished selecting the metrics click **Next** and then complete the wizard by choosing the required options in **Step 3 – Step 5**.
10. To finish, click on **Finish** in the last step of the wizard. This will create new host and services and begin monitoring.

Once the wizard applies the configuration, click the **View status details for xxxxx** link to see the new host and services that were created.



ESX-VCENTER.company.tld	Akira-VM CPU Usage	Ok	18h 2m 41s	1/5	2026-02-12 10:53:31	OK: FreeRADIUS cpu_usage=0.09%, cpu_usagemhz=4.00MHz, cpu_wait=599184.00ms, cpu_ready=144.00ms
	Akira-VM Datastore Free	Ok	18h 2m 45s	1/5	2026-02-12 10:53:26	OK: FreeRADIUS - 1 ds, 5.3% used, 1155561160704.0/22000701
	Akira-VM VM Status	Ok	18h 1m 58s	1/5	2026-02-12 10:54:15	OK: FreeRADIUS uptime=17101422s (197d 22h 23m)
	Rose-VM CPU Usage	Ok	18h 1m 34s	1/5	2026-02-12 10:54:37	OK: BOSMG025 - before 12.4 cpu_usage=1.91%, cpu_usagemhz=152.00MHz, cpu_wait=1183108.00ms, cpu_ready=288.00ms
	Rose-VM Datastore Free	Ok	18h 1m 11s	1/5	2026-02-12 10:55:00	OK: BOSMG025 - before 12.4 - 1 ds, 5.7% used, 1243640496128.0/22000701
	Rose-VM VM Status	Ok	18h 0m 38s	1/5	2026-02-12 10:55:34	OK: BOSMG025 - before 12.4 uptime=5014968s (58d 1h 2m)

For more information on common wizard steps and settings, visit the Configuration Wizards documentation.

Finishing Up

This completes the documentation on monitoring vSphere with Nagios XI. If you have additional questions or other support-related questions, please visit us at our Nagios Support Forum, Nagios Knowledge Base, or Nagios Library:

Visit Nagios Support Forum Visit Nagios Knowledge Base Visit Nagios Library