# Add a Network Device

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

#### This module consists of the following exercises:

Module	Description	Time required
Configure Global SNMP Settings	Configure Uptime Infrastructure Monitor to use standard SNMP settings to add network devices with Auto Discovery.	1/2 slice
Add and Auto Discover Network Devices	Use Auto Discovery to detect SNMP devices on the network.	1 slice
Review Your Current Inventory and View a Quick Snapshot for a Network Device	View metrics available on a summary page for a network device.	1/2 slice

For more information about using SNMP, see SNMP Monitoring Quick Start Guide.

## **Configure Global SNMP Settings**

Prerequisite: You will need to know the SNMP settings for the device you want to add.

- 1. In the Uptime Infrastructure Monitor Web interface, begin by clicking **Config**, then clicking **Global Element Settings** in the left pane. As you did with agent- and WMI-based servers in the previous track, you can create a common definition that many or all of your SNMP devices use, allowing you to auto discover large groups that share the same properties.
- 2. In the SNMP Global Credentials section, click Edit Configuration:

DERA Jptime Infrastructure Monitor					Reports	Config		۹	Users	s 💄 myso	al firstname	Help
nfig	Uptime Agent Glo	bal Configura	tion								Edit	Configuratio
License Info	Agent Port Number		9998									
User Authentication			*									
il Servers	Use SSL (HTTPS)		<u> </u>									
ote Reporting	Use TLS Pre-Shared	Key (TLS-PSK)	×									
Reporting			IP/Hostname	n d l								
ntials Settings			/IPRange	Pre-Shared P	key(format ide	entity:key)						
Conversion	No data available i	in table										
Drchestrator	Test Configuration	n										
on	Enter hostname to v	rerify:										
	Enter PSK (format id	dentity:key) i	dentity:key									
	Test Configuration											
	WMI Agentless Gl	lobal Credent	ials								Edit	Configuratio
	Windows Domain											
	Username a	dministrator										
	Password *											
	Test Configuration	n										
	Enter hostname to v	erify:										
	Test Configuration											
	Hyper-V Global Co	onfiguration									Edit	Configuratio
	Windows Domain u	uptimedemo										
	Username a	administrator										
	Password *	****										
	Test Configuration	n										
	Enter hostname to v	rerify:										
	Test Configuration											_
	SNMP Global Confi	iguration										Sav
	SNMP Version	v2		1.								
	SNMP Port	161										
	Read Community	uptime-pub										
	Is Device Pingable?	V										
	Test Configuration	n										
	Enter hostname to v	erify:										
	Test Configuration											

- 3. Select the SNMP Version for this common SNMP definition.
- 4. Configure the settings similar to those shown above:
  - SNMP Port: The port on which the network device is listening.
  - Username: (v3) The name that is required to connect to the network device.
  - Authentication Password: (v3) The password that is required to connect to the network device.
  - Authentication Method: (v3, optional) From the list, select an option that will determine how encrypted information traveling between the network device and Uptime Infrastructure Monitor will be authenticated.
  - Privacy Password: (v3) The password that will be used to encrypt information traveling between the network device and Uptime Infrastructure Monitor.
  - Privacy Type: (v3, optional) From the list, select an option that will determine how information traveling between the network device and Uptime Infrastructure Monitor will be encrypted.
  - Read Community: (v1 and v2) A string that acts like a user ID or password, giving you access to the network device instance.

Validation Step: Test the global setting by entering a SNMP device in the Test Configuration section.

Now you are ready to go find an SNMP device or two!

### Add a Network Device Using Auto Discovery

- 1. Click Infrastructure, then click Auto Discovery in the left pane.
- 2. In the Auto Discovery pop-up, confirm that you want to Discover Servers and Network Devices on Your Network, and then click Next.
- 3. In the next step, select Network Devices with SNMP, and ensure the Use Global SNMP Connection Configuration check box you defined in

the previous exercise is	Selected.			
Auto Discovery Step 2 of 4				
#1 - What Types Of Element	s Would You Like To Discover?			
Servers with uptime Agent				
Servers with Windows Mana	agement Instrumentation (WMI)			
Servers with Net-SNMP v2 o	or v3			
Network Devices with SNMI	2			
Please Provide Connection	1 Information for SNMP			
Use Global SNMP Connection	action Configuration			
#2 - What Subnet Would Yo	u Like To Search In?			
Subnet (format 255.255.x)	10.1.54.1-100			
#3 - What Group Would You	Like Elements Placed In?			
Element Group	My Infrastructure	•		
				Cancel Back Next

4. Enter the subnet or an IP address range, similar to above.

#### Pro Tip

Although we are keeping things simple, and using a single subnet or IP address range as shown above, there are other ways to point Uptime Infrastructure Monitor at subnets and subnet ranges to expedite the Auto-Discovery process. See Using Auto Discovery for more information.

5. Click Next to start the Auto Discovery process.

Please Select Whic	h Elements To Add.			
Discovery Progress	*		7	
Hide elements th	at are already added.			
All	Connection	IP	Host Name	Info
				Cancel Back Ad

6. When all network devices on the subnet or subnet range are detected, you are able to make selections to add to your Uptime Infrastructure Monitor inventory. Select an SNMP device, similar to below:

Auto Discovery Step 3	of 4		
Please Select Which E	lements To Add	l.	
Discovery Progress			
Hide elements that a	are already added		
All + Connection		♦ Host Name	♦ Info
🔲 🕹 Network Device	10.1.54.1	SUX 6000	Ethernet Routing Switch
🔲 🕹 Network Device	10.1.54.2	SUX 6001	Ethernet Routing Switch
🔲 🦤 Network Device	10.1.54.3	snswtch3	Ethernet Switch
🔲 🕹 Network Device	10.1.54.6	ARP24T-1	Neyland 24T
🔲 🦤 Network Device	10.1.54.7	ARP24T-2	Neyland 24T
🔲 🕹 Network Device	10.1.54.9	ARP24T-3	Neyland 24T
🖉 🕹 Network Device	10.1.54.10	PowerConnect9000	PowerConnect 5448
🔲 🦆 Network Device	10.1.54.16	ciscoball	Cisco IOS Software, C3750E Software (C3750E-IPBASEK9-M), Version 12.2(55)
🔲 🕹 Network Device	10.1.54.22	hpswtch	PROCURVE J9029A - PA.03.01
🔲 🦆 Network Device	10.1.54.25	eswtch2	Ethernet Routing Switch Cancel Back Add

7. Scroll to the bottom of the Auto Discovery list, and click Add. As a final step, you will receive confirmation that the network device is now part of your monitored inventory.

Auto Discovery Step 4 o	f 4	
Attempting to add 1 elemen	ts	
. IP	\$ Status	
10.1.54.10	Added as Network Device with snmp	
		Don

8. Click Done.

#### **Review Your Current Inventory**

After adding the network device and closing the **Auto Discovery** window in the previous exercise, the main Uptime Infrastructure Monitor browser window is at the **Infrastructure** view. Refresh the page (or click **Infrastructure**) to ensure the latest additions appear immediately:

If you followed the exercises that comprised the vCenter Server track and physical server track, your inventory already includes a vCenter Server Element (along with its Infrastructure Groups), as well as an agent-based Linux server, and WMI-based Windows server. In addition, you will now see the network device you added in the previous exercise. Your inventory is now a mix of virtual and physical servers on different platforms, and network devices. Also note the platform-specific icons beside each Element type.

Validation Step: Click a newly added server's gear icon. Then in the pop-up menu, click Graph Performance to go to its Quick Snapshot.

	Dashboards				Reports		SysList		م	Users 💄	mysql firstname	Help
Graphing Services Info	Service Status: 6	iptime-san1.uj	timesoftware.com	(10.1.9.2) [U	nknown]							
Device Status			% Packet Loss		1			Average Rou	und Trip Time		1	
Network		-	— % Packet Loss					— Average R	ound Trip Time			
I/O	4					40						
Errors	20					s						
Metrics						E						
Service Metrics	0 12:00	18:00	29. Dec	06:0	10	0	12:00	18:00	29. Dec	06:00		
	Port Status											
	No current performa	nce data availabl	e. Ifyou have just added	this element, d	ata will be avai	lable soon.						

Over the last three tracks of this "Add Elements to Uptime Infrastructure Monitor" module, you have viewed the Quick Snapshot for different Element types: a vCenter Server, a VM, servers, and now an SNMP-based network device. Similar to a newly-added server in the previous module, there is not yet any performance data for this device to display, but there will be shortly. After moving through more of this Getting Started Guide, we will return to this Quick Snapshot to view some data.

**Back: Add Physical Servers** 

Next: Tour the Interface