Purpose

This document describes how to use Auto-Discovery in Nagios XI to locate hosts and devices that are not already being monitored by Nagios XI.

Overview

The Auto-Discovery feature in Nagios XI comprises of two components:

- Auto-Discovery Jobs
 - o This performs the discovery of hosts and devices in your network environment.
 - A network scan is performed using ping and nmap.
- Auto-Discovery Configuration Wizard.
 - Using the results of an Auto-Discovery job you can start monitoring these hosts and devices.

Auto-Discovery Jobs

The management of Auto-Discovery jobs is located by navigating **to Configure > Configuration Tools > Auto-Discovery**.



Nagios



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Create a New Job

1. To create a new job, click the + New Auto-Discovery Job button.

New Auto-Discovery Job	
Use this form to configure an auto-discovery job.	
Auto-Discovery Setup	
Scan Target 🔹	
192.168.157.128/25	
Entor an network address and netmask to derine the IP rangee to scan.	
Exclude IPs	
192.168.157.255	
An optional comma-separated list of IP addresses and/or network addresses to exclude from the scan.	
Schudda	
One Time v	
Specify the schedule you would like this job to be run.	
Advanced Options	
OS Detection	
Ôn v	
Attempt to detect the operating system of each host.	
Scan Delay	
ms	
Addiest delay between probes to a given best.	
System DNS	
System DNS Off	
System DNS Off Viso system DNS.	
System DNS Off Vos system DNS. Custom Ports	
System DNS Off Use system DNS. Cutton Ports	
System DNS Off Utra system DNS. Custom Ports Specify Custom ports. Ex: 22; 1-65536; U:53, III,U37,7:21:25,80,U39,0000,9:9	

2. The options required when creating a job are self-explanatory. The screenshot shows the additional options available after clicking the **Show Advanced Options +** link.

This example shows the upper half of a class C subnet (a /25 in CIDR notation) being scanned with an excluded IP. It has been scheduled to run one time and the System DNS option has been selected to resolve the addresses to DNS records.



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3. Click the **Submit** button to create the job.

Auto-Discovery Jobs									
Auto-discovery j	job added.								
+ New Auto-Disc	covery Job	C Refres	h job list						
Scan Target	Exclusions	Schedule	Last Run	Devices Found	Created By	Status	Actions		
192.168.157.128/25	192.168.157.255	Once	2024-11-21 04:25:42	N/A	nagiosadmin	0			

- 4. The new job will appear on the Auto-Discovery page when it reloads.
- When a job is running, or scheduled and has not run yet, the Status column will show an icon.
 In the Actions column you can click the icon to delete the job.
- When the job has finished running it will show how many new devices were found.

192.168.157.128/25 192.168.157.255 Once 2024-11-21 04:26:56 2 New / 3 Total nagiosadmin Finished 🗹 🖒 📄 🔟	Scan Target	Exclusions	Schedule	Last Run	Devices Found	Created By	Status	Actions
	192.168.157.128/25	192.168.157.255	Once	2024-11-21 04:26:56	2 New / 3 Total	nagiosadmin	Finished	2010

 In the screenshot above, if you click the New Devices link you will be taken to the Auto-Discovery configuration wizard which is explained in the <u>Configuration Wizard</u> section of this document.

Job Actions

On the Auto-Discovery Jobs page, the job column provides the following functionality:

- Edit Job Adjust the settings for the job
- **Re-Run Job** Force the job to run now
- View Job Results View detailed information about the scan results

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• Delete Job - Discard the job and its history

Scan Res	ults												
Back to Auto-Discovery Jobs													
Scan Summary					Processing Options								
Scan Date:	2024-11-21 04:27:1	4			Export Data As:	E	csv						
Scan Address:	192.168.157.128/25				Configure Basic Monito	ring: 🔯	New hosts						
Excludes:	xcludes: 192.168.157.255												
Initiated By: nagiosadmin													
Total Hosts Found: 3 Show all													
New Hosts Found:	2												
Discovered Item	S												
The hosts below were d	iscovered during the aut	o-discovery scan.	hosts identified as linux servers with ssh avail	able and no agent al	lready deployed have been pr	e-selected	for agent deploy	/ment.					
Show discovered serv													
Address	Host Name	Туре	Device/Operating System [Accuracy]	? Mac Vendor	Agent Deployed (?)	Status							
92.168.157.13	81 192.168.157.131	Linux Server	Linux 4.15 - 5.8 [100%]	VMware	No	New							
92.168.157.13	33 192.168.157.133	Linux Server	Linux 5.0 - 5.4 [98%]	VMware	No	New							
Deploy Agents to S	Deploy Agents to Selected Hosts												

View Job Results

The **View Job Results** icon allows you to view detailed information about the network scan that was performed.

- You can view all the hosts, or just the new hosts discovered.
- You can show the services that were discovered.
- You can deploy agents to selected hosts. See <u>Automatic Agent Deployment</u> for more information.
- This job can be exported as a CSV.



Configuration Wizard

The **Auto-Discovery** configuration wizard is what turns the **Auto-Discovery** job results into monitored devices.

 When on the Auto-Discovery page, click the New link in the Devices Found column to start the Wizard. You can also run the wizard by navigating to Configure > Configuration Wizards > Auto-Discovery wizard.

Auto-Discovery Configuration Wiza	Step 1	0	
Auto-Discovery Jobs			
Configure a new Auto-Discovery Job in Auto-Discovery			
Auto-Discovery Job			
* Job ()			
Scan of 192.168.157.128/25 @ 2024-11-21 04:26:56 - Found 2 New / 3 Tot			
* Show ①			
New Hosts			
* Default Services ①			
Common			
* Host Addresses ()			
IP Addresses			
Next >		Cancel	

- The job will be automatically selected. The available options are clearly explained in the screenshot above, this example will be showing New Hosts, and the Host Addresses option is set to DNS Names.
- 3. Click Next to proceed to Step 2.

Step 2 of the wizard allows you to select exactly what host and service objects will be created. The following screenshot is of the first host in the list.

	ዯ	, Auto-D)iscovei	ry Config	gurat	ion Wi	zar	r d Step 2 🔅			(3
-	Sca	an Results										
	The hosts and services below were discovered during the auto-discovery scan. Select the hosts and services you would like to monitor.											
		Address	Туре	os	Status	Host Name	Serv					
		192.168.157.131	Linux Server	Linux 4.15 - 5.8	New	192.168.15	7.131	Service Name	Service	Ροπ	Protocol	
								SSH	ssh			
								нттр	http	80		
		192.168.157.133	Linux Server	Linux 5.0 - 5.4	New	192.168.15	7.133					
								SSH	ssh			
								НТТР	http	80		
	<	Back Next	>								Cancel	

- 4. You can change the name of the host and the services. The services created are basic port monitoring services, more specific monitoring like **Load** and **Disk Space** will require you to run a configuration wizard that provides that functionality.
- 5. You can select or deselect a host by using the check box next to the host address in the left column. Deselecting a host means that none of the services selected to the right will be monitored.
 - The check box in the upper left corner will select ALL hosts in the wizard. The same applies to the Services check box.
- 6. After making your selections click **Next** and then complete the wizard by choosing the required options in Step 3 Step 5.

7. To finish up, click on **Finish** in the final step of the wizard. This will create new hosts and services and begin monitoring.

Showing 1-15 of 20 total records		15 Per Page	✓ Go → ≫			Search
Host ↓	Service ¢	Status ≎	Duration ¢	Attempt 💲	Last Check 🗘	Status Information 💲
• 192.168.157.131 💉 🗎	HTTP \$	¢². ● Ok	● 5m 13s	1/5	2024-11-21 04:56:11	HTTP OK: HTTP/1.1 302 Found - 198 bytes in 0.040 second response time
	Ping >	🐔 🔍 Ok) N/A	1/5	2024-11-21 04:52:28	OK - 192.168.157.131: rta 8.812ms lost 0%
		e⁴ ● Ok) N/A	1/5	2024-11-21 04:53:28	SSH OK - OpenSSH_9.2p1 Debian-2+deb12u3 (protocol 2.0)
● 192.168.157.133 📌 🗎	HTTP \$	∉ ● Ok) N/A	1/5	2024-11-21 04:54:26	HTTP OK: HTTP/1.1 302 Found - 237 bytes in 0.011 second response time
	Ping >	af 🔹 Ok) N/A	1/5	2024-11-21 04:55:26	OK - 192.168.157.133: rta 1.187ms lost 0%
		🐔 😐 Ok	N/A	1/5	2024-11-21 04:51:29	SSH OK - OpenSSH_8.7 (protocol 2.0)

Newly Discovered Hosts

In the future, re-running the Auto-Discovery job (manually or scheduled) will detect new hosts that are not already being monitored by Nagios XI. Here is that job again after two hosts were brought online:

Scan Target	Exclusions	Schedule	Last Run	Devices Found	Created By	Status	Actions
10.25.5.0/24	10.25.5.1	Daily 10:00 AM	2017-08-17 16:16:52	2 New / 15 Total	nagiosadmin	Finished	×

You can see now there are 15 in total with 2 New devices being detected. Clicking the 2 New will allow you to start monitoring these new devices.

Finishing Up

This completes the documentation on Auto Discovery in 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

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