

How To Use Auto-Discovery In Nagios XI 5

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.

Note: If you are using **Nagios XI 2024**, please refer to the [updated document](#).

Overview

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

- Auto-Discovery Jobs
 - 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

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1. Auto-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.

Scan Target:

Enter an network address and netmask to define the IP ranges to scan.

Exclude IPs:

An optional comma-separated list of IP addresses and/or network addresses to exclude from the scan.
Note: The excluded addresses may be pinged, but they will not be scanned for open/available services via nmap.

Schedule: **Frequency:**

Time: :

Specify the schedule you would like this job to be run.

OS Detection:

Attempt to detect the operating system of each host.
Note: OS detection may cause the scan to take longer to complete and may not be 100% accurate.

Scan Delay: ms

Adjust delay between probes to a given host.
If set, this option causes Nmap to wait at least the given amount of time between each probe it sends to a given host.
This is particularly useful in the case of rate limiting. milliseconds.

System DNS:

Use system DNS.

Custom Ports:

Specify Custom ports. Ex: 22; 1-65535; U:53,111,137,T:21-25,80,139,8080,S: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 a class C subnet being scanned with an excluded IP. It has been scheduled to run daily 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 job added.

[+ New Auto-Discovery Job](#) [Refresh job list](#)

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		N/A	nagiosadmin		

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 a **spinner** icon. In the Actions column you can click the **red X** icon to delete the job.
 - When the job has finished running it will show how many new devices were found.




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 10:00:00	12 New / 13 Total	nagiosadmin	Finished	

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 [Configuration Wizard](#) section of this document.

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Job Actions

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

-  **Edit Job** - Adjust the settings for the job
-  **Re-Run Job** - Force the job to run now
-  **View Job** - View detailed information about the scan results and deploy agent
- **Delete Job** - Discard the job and its history



Scan Results

[Back To Auto-Discovery Jobs](#)

Scan Summary

Scan Date:	2020-11-30 11:10:49
Scan Address:	192.168.11.0/24
Excludes:	-
Initiated By:	nagiosadmin
Total Hosts Found:	10 Show all
New Hosts Found:	5

Processing Options

Export Data As:	 CSV
Configure Basic Monitoring:	 New hosts

Discovered Items

The hosts below were discovered during the auto-discovery scan. Hosts identified as Linux servers with SSH available and no agent already deployed

[Show discovered services](#)

<input type="checkbox"/>	Address	Host Name	Type	Device/Operating System [Accuracy] ⓘ	MAC Vendor	Agent Deployed ⓘ	Status
<input checked="" type="checkbox"/>	192.168.11.44	192.168.11.44	Linux Server	Linux 3.2 - 4.9 [100%]	VMware	No	New
<input checked="" type="checkbox"/>	192.168.11.47	192.168.11.47	Linux Server	Linux 2.6.32 - 3.10 [100%]	VMware	No	New
<input checked="" type="checkbox"/>	192.168.11.49	192.168.11.49	Linux Server	Linux 2.6.32 [96%]	VMware	No	New
<input checked="" type="checkbox"/>	192.168.11.48	192.168.11.48	Linux Server	Linux 3.10 - 4.11 [100%]	VMware	No	New
<input checked="" type="checkbox"/>	192.168.11.40	192.168.11.40	Linux Server	Linux 3.10 - 4.11 [100%]	VMware	No	New

[Deploy Agents to Selected Hosts](#)

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View Job

The **View Job** 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 [Automatic Agent Deployment](#) 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.

1. 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**.

Configuration Wizard: Auto-Discovery - Step 1

Auto-Discovery Job

Job: Scan of 10.25.5.0/24 @ 2017-08-17 10:00:00 - Found 12 New / 13 Total Hosts
Select the auto-discovery job you wish to use for choosing new hosts and services to monitor.
If you wish, you can also [launch a new discovery job](#).

Show: New Hosts
Choose whether you'd like to see results from all hosts that were found during the scan, or only new hosts that aren't currently being monitored.


Default Services: Common
Select the types of services that you would like to be selected for monitoring by default. You can override individual services on the next page.

Host Addresses: DNS Names
Select the type of addresses that you would prefer to use for newly configured hosts.

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2. 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.



Configuration Wizard: Auto-Discovery - Step 2

Scan Results

The hosts and services below were discovered during the auto-discovery scan. Select the hosts and services you'd like to monitor.

<input type="checkbox"/>	Address	Type	OS	Status	Host Name	Services				
						<input type="checkbox"/> Service Name	Service	Port	Protocol	
<input checked="" type="checkbox"/>	10.25.5.2 (10.25.5.2)	Linux Server	Linux 2.6.32 - 3.10	New	xitest.box293.local	<input checked="" type="checkbox"/>	SSH	ssh	22	TCP
						<input checked="" type="checkbox"/>	HTTP	http	80	TCP
						<input checked="" type="checkbox"/>	HTTPS	https	443	TCP
						<input checked="" type="checkbox"/>	NRPE	nrpe	5666	TCP

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**.

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

Host	Service	Status	Duration	Attempt	Last Check	Status Information
xidr-c6x-x64.box293.local	HTTP	Ok	1h 10m 36s	1/5	2017-08-17 16:20:10	HTTP OK: HTTP/1.1 200 OK - 3271 bytes in 0.013 second response time
	HTTPS	Ok	1h 9m 36s	1/5	2017-08-17 16:16:10	HTTP OK: HTTP/1.1 200 OK - 3271 bytes in 0.018 second response time
	Ping	Ok	1h 8m 35s	1/5	2017-08-17 16:17:07	OK - xidr-c6x-x64.box293.local: rta 0.090ms, lost 0%
	SSH	Ok	1h 11m 11s	1/5	2017-08-17 16:19:30	SSH OK - OpenSSH_5.3 (protocol 2.0)
xitest.box293.local	HTTP	Ok	1h 11m 33s	1/5	2017-08-17 16:19:13	HTTP OK: HTTP/1.1 302 Found - 513 bytes in 0.004 second response time
	HTTPS	Ok	1h 10m 25s	1/5	2017-08-17 16:20:21	HTTP OK: HTTP/1.1 200 OK - 3220 bytes in 0.019 second response time
	NRPE	Ok	1h 9m 29s	1/5	2017-08-17 16:16:15	TCP OK - 0.003 second response time on xitest.box293.local port 5666
	Ping	Ok	1h 8m 28s	1/5	2017-08-17 16:17:19	OK - xitest.box293.local: rta 0.188ms, lost 0%
	SSH	Ok	1h 11m 21s	1/5	2017-08-17 16:19:22	SSH OK - OpenSSH_5.3 (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 how to use Auto-Discovery in Nagios XI to locate hosts and devices that are not already being monitored by 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](#)

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