

How To Monitor A MongoDB Server In Nagios XI

Purpose

This document describes how to monitor a MongoDB server with Nagios XI using the MongoDB Server Configuration Wizard to monitor the health of your server. The wizard supplies checks to monitor the following: number of queries per second, memory usage, the number of databases on the server, and percentage of free connections available.

Prerequisites

It's assumed that your MongoDB Server has authentication enabled. If you have questions as to how to do this, please refer to the link below:

Enable Authentication on MongoDB Server

<https://docs.mongodb.com/manual/tutorial/enable-authentication/>

You are required to have a user in the admin database that has the role of clusterAdmin. This role is required by MongoDB to access statistics on the MongoDB server. You can reference the link below for information about creating users for a MongoDB:

Add a User to the MongoDB Server

<https://docs.mongodb.com/manual/tutorial/manage-users-and-roles/>

You will also be required to allow remote connections to your MongoDB server:

bindIp:

<https://docs.mongodb.com/manual/reference/configuration-options/#mongodb-setting-net.bindIpAll>

Firewall Rules:

<https://docs.mongodb.com/v3.0/tutorial/configure-linux-iptables-firewall/>

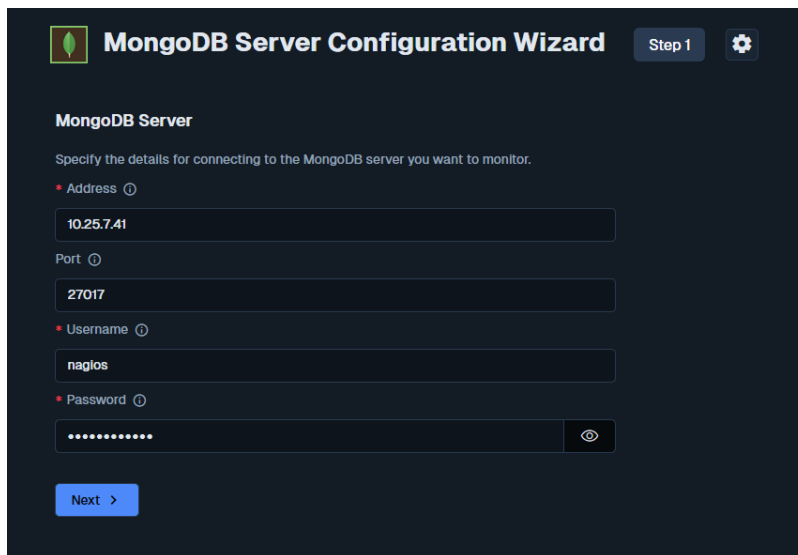
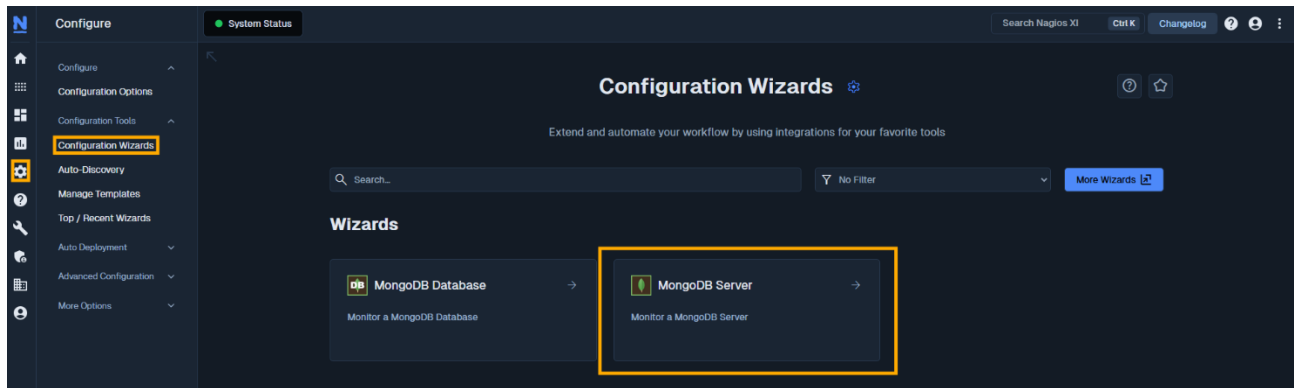
<https://docs.mongodb.com/v3.0/tutorial/configure-windows-netsh-firewall/>

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Running The Configuration Wizard

The MongoDB Server configuration wizard will be used to set up the service checks for your MongoDB server.

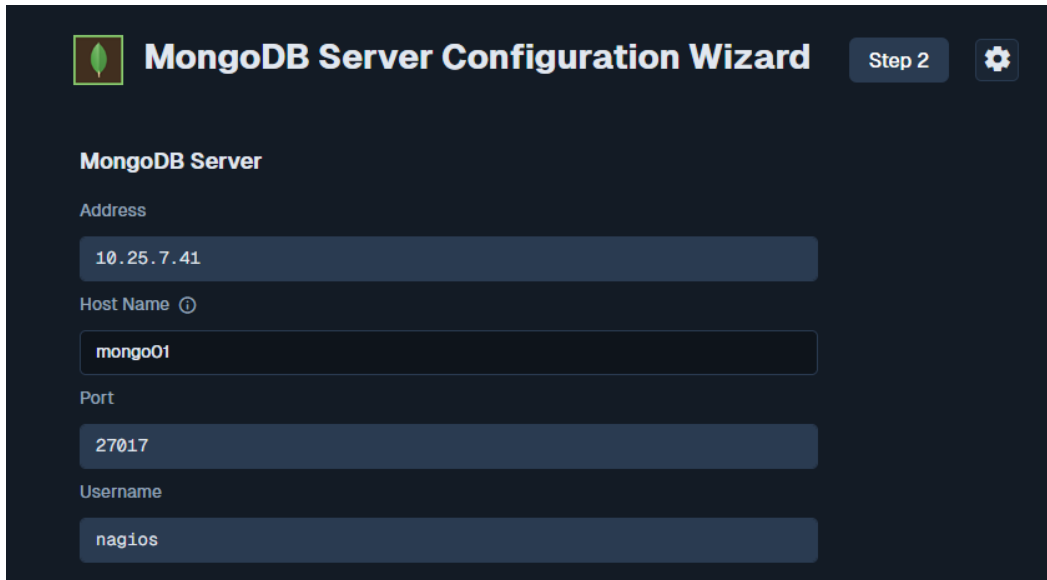
1. In the Nagios XI menu navigate to **Configure > Configuration Wizards** and click the **MongoDB Server wizard**.

A screenshot of the 'MongoDB Server Configuration Wizard' Step 1 form. The form is titled 'MongoDB Server Configuration Wizard' and 'Step 1'. Below the title, it says 'MongoDB Server' and 'Specify the details for connecting to the MongoDB server you want to monitor.' The form contains four input fields: 'Address' with the value '10.25.7.41', 'Port' with the value '27017', 'Username' with the value 'nagios', and 'Password' with a masked password '.....'. There is a 'Next >' button at the bottom left of the form.

2. On **Step 1** you will be required to provide the address of your MongoDB server in the **Address** field. Change the default **port** if required.
3. Enter the **Username** and **Password** of the account that has clusterAdmin access.

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4. Click **Next** to proceed to **step 2**. **Step 2** is where you define the monitoring options.



The screenshot shows the 'MongoDB Server Configuration Wizard' interface. At the top, there is a title bar with a MongoDB logo, the text 'MongoDB Server Configuration Wizard', a 'Step 2' indicator, and a settings gear icon. Below the title bar, the form is titled 'MongoDB Server' and contains four input fields: 'Address' with the value '10.25.7.41', 'Host Name' with a help icon and the value 'mongo01', 'Port' with the value '27017', and 'Username' with the value 'nagios'.

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5. In the first section make sure the **Host Name** field is correct; this is the name the host will be given in Nagios XI. The **MongoDB Server Metrics** section allows you to select which metrics to monitor on your MongoDB Server.

MongoDB Server Metrics

Specify the metrics you would like to monitor on the MongoDB Server.

<input checked="" type="checkbox"/> Check Connection ⓘ	 2	sec	 4	sec
<input checked="" type="checkbox"/> Free Connections ⓘ	 70	%	 85	%
<input checked="" type="checkbox"/> Memory Usage ⓘ	 1	GB	 2	GB
<input checked="" type="checkbox"/> Mapped Memory Usage ⓘ	 1	GB	 2	GB
<input checked="" type="checkbox"/> Lock Time Percent ⓘ	 5	%	 10	%
<input checked="" type="checkbox"/> Average Flush Time ⓘ	 100	ms	 200	ms
<input checked="" type="checkbox"/> Last Flush Time ⓘ	 200	ms	 400	ms
<input checked="" type="checkbox"/> Index Miss Ratio ⓘ	 0.005		 0.01	
<input checked="" type="checkbox"/> Number of Databases ⓘ	 300		 500	
<input checked="" type="checkbox"/> Number of Collections ⓘ	 300		 500	
<input checked="" type="checkbox"/> Queries Per Second ⓘ	 150		 200	

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6. Select the checks you wish to perform on the server and set warning and critical values for your alert thresholds.

MongoDB Server Replication Metrics

These options require you to be using MongoDB's replication features. If replication is not set up you will receive errors.

Replication State ⓘ

Replication Lag ⓘ ⚠ 15 sec 🔴 30 sec

Replication Lag Percent ⓘ ⚠ 50 % 🔴 75 %

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7. If you use **replication**, there are some checks you can perform on your replication set such as: status, lag, and lag percentage. These are defaulted to off because not all MongoDB servers are set up with replication.
8. Once you have selected the checks you want to monitor, click **Next** to continue.
9. Complete the wizard by choosing the required options in Step 3 – Step 5 and then click on Finish in the last step of the wizard.
10. Once the wizard applies the configuration, click the View status details for your MongoDB server link to see the new host and services that were created.

Host ↓	Service ↓	Status ↓	Duration ↓	Attempt ↓	Last Check ↓	Status Information ↓
● mongo01	MongoDB Connection	● Ok	🕒 14m 42s	1/5	2024-12-05 09:53:49	OK - Connection took 0 seconds
	MongoDB Databases	● Ok	🕒 12m 16s	1/5	2024-12-05 09:56:15	OK - Number of DBs: 3
	MongoDB Free Connections	● Ok	🕒 14m 24s	1/5	2024-12-05 09:54:07	OK - 0 percent (1 of 51200 connections used)
	MongoDB Memory Usage	● Ok	🕒 12m 54s	1/5	2024-12-05 09:55:37	OK - Memory Usage: 0.18GB resident, 3.26B virtual, 0.326B mapped

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More Information:

[Using Configuration Wizards](#)

Finishing Up

This completes the documentation on how to monitor a MongoDB server 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](#)

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