

The Industry Standard in IT Infrastructure Monitoring

Purpose

This document describes how to monitor a MongoDB server with Nagios® XI™ using the MongoDB Server Configuration Wizard in order 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.

Target Audience

This document is intended for Nagios Administrators who want to monitor their MongoDB server with Nagios XI.

Prerequisites

It is 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

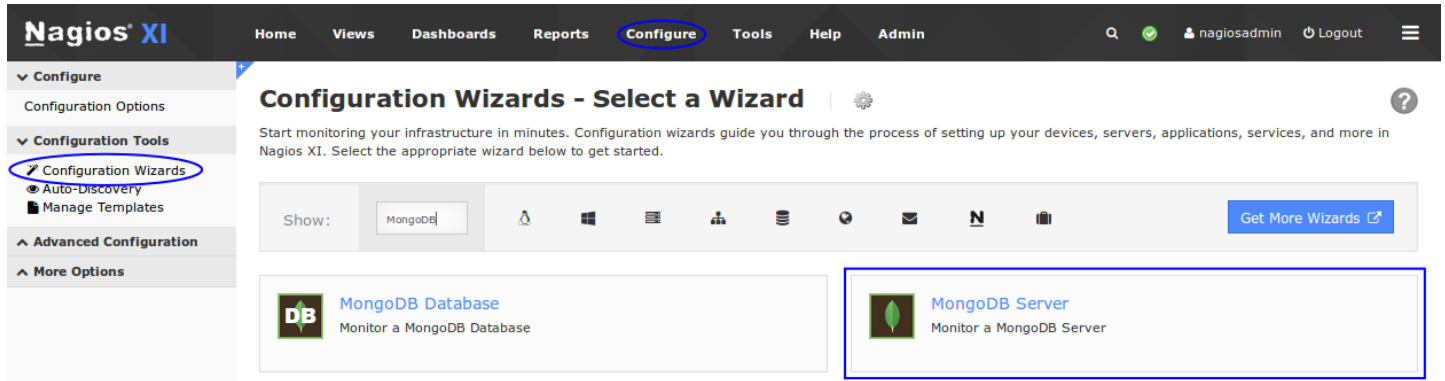
<https://docs.mongodb.com/manual/tutorial/manage-users-and-roles/>

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

- bindIp
 - <https://docs.mongodb.com/manual/reference/configuration-options/#net-options>
- Firewall Rules:
 - <https://docs.mongodb.com/v3.0/tutorial/configure-linux-iptables-firewall/>
 - <https://docs.mongodb.com/v3.0/tutorial/configure-windows-netsh-firewall/>

Running The Configuration Wizard

The **MongoDB Server** configuration wizard will be used to set up the service checks for your MongoDB server. In the Nagios XI menu navigate to **Configure > Configuration Wizards** and click the **MongoDB Server** wizard. In the following screenshot you can see how the search field allows you to quickly find a wizard.



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.

Enter the **Username** and **Password** of the account that has **clusterAdmin** access.

Click the **Next** button to proceed to step 2.

Configuration Wizard: MongoDB Server - Step 1

MongoDB Server

Specify the details for connecting to the MongoDB server you want to monitor.

Address:
The IP address or FQDNS name of the MongoDB server.

Port:
The port to use to connect to the MongoDB server. This defaults to port 27017, however if you changed the port number enter it here.

Username:
An authenticated user's username.

Password:
The password for the authenticated user.

[< Back](#) [Next >](#)

Step 2 is where you define the monitoring options.

In the first section make sure the **Host Name** field is correct, this is the name the host will be given in Nagios XI.

Configuration Wizard: MongoDB Server - Step 2

MongoDB Server

Address:

Host Name:
The name you'd like to have associated with this MongoDB Database.

Port:

Username:

The MongoDB Server Metrics section allows you to select which metrics to monitor on your MongoDB Server.

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

MongoDB Server Metrics

Specify the metrics you'd like to monitor on the MongoDB Server.

- Check Connection**
Monitor the connection to host.
Warning: 2 sec Critical: 4 sec
- Free Connections**
Monitor the percent of free connections available.
Warning: 70 % Critical: 85 %
- Memory Usage**
Monitor the MongoDB server's memory usage.
Warning: 1 GB Critical: 2 GB
- Mapped Memory Usage**
Monitor the mapped memory usage of the MongoDB server.
Warning: 1 GB Critical: 2 GB
- Lock Time Percent**
Monitor the percent of time the MongoDB server is locked.
Warning: 5 % Critical: 10 %
- Average Flush Time**
Monitor the average time it takes to perform a flush.
Warning: 100 ms Critical: 200 ms
- Last Flush Time**
Monitor the time since the last flush.
Warning: 200 ms Critical: 400 ms
- Index Miss Ratio**
Monitor ratio of index hits to misses.
Warning: 0.005 Critical: 0.01
- Number of Databases**
Monitor the number of databases.
Warning: 300 Critical: 500
- Number of Collections**
Monitor the number of collections.
Warning: 300 Critical: 500
- Queries Per Second**
Monitor the amount of queries per second.
Warning: 150 Critical: 200

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.

Once you've selected the checks you want to monitor, click **Next** to continue.

MongoDB Server Replication Metrics

These options require you to be using MongoDBs replication features. If replication isn't set up you will receive errors.

- Replication State**
Monitor the replication state. This check doesn't require any arguments for warning/critical.
- Replication Lag**
Monitor replication lag of the server. This check may show apparent lag of < 10 sec even if there isn't lag.
Warning: 15 sec Critical: 30 sec
- Replication Lag Percent**
Monitor the percent of replication lag on the server.
Warning: 50 % Critical: 75 %

[< Back](#) [Next >](#)

Complete the wizard by choosing the required options in Step 3 – Step 5 and then click on **Finish** in the final step of the wizard.

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

Host	Service	Status	Duration	Attempt	Last Check	Status Information
mongo01	MongoDB Connection	Ok	9m 12s	1/5	2017-02-17 14:18:49	OK - Connection took 0 seconds
	MongoDB Databases	Ok	8m 34s	1/5	2017-02-17 14:19:26	OK - Number of DBs: 3
	MongoDB Free Connections	Ok	7m 57s	1/5	2017-02-17 14:20:03	OK - 0 percent (1 of 51200 connections) used
	MongoDB Memory Usage	Ok	7m 19s	1/5	2017-02-17 14:20:42	OK - Memory Usage: 0.04GB resident, 0.28GB virtual, 0.00GB mapped, 0.00GB mappedWithJournal

This completes the steps required to monitor your MongoDB Server in Nagios XI.

Finishing Up

You have just set up your MongoDB server to be monitored by Nagios XI. If you have any issues with your Nagios XI system, please post your questions on the Nagios Support Forum at

<https://support.nagios.com/forum/>