

How To Remove An Instance From A Cluster In Nagios Log Server 2024R2

Purpose

This document explains how to remove an instance from a Nagios Log Server 2024R2 cluster.

Overview

Nagios Log Server is intended to be a clustered application, with multiple instances available to ensure continuous availability as well as scalability as your needs increase. However, there are circumstances in which you may need to remove an instance from a cluster, including:

- Upgrading the hardware of a server.
- Moving the instance from one server to another.
- A server has crashed and is otherwise unrecoverable.

Removing an instance from a Nagios Log Server cluster is a multistep process that involves sending several commands to the OpenSearch database on one of the instances in the cluster, including the following steps:

- Retrieve the instance allocation status
- Disable shard allocation on the cluster
- Exclude the instance from shard allocation
- Re-enable shard allocation on the cluster
- Monitor the status of the re-allocation
- Shutdown OpenSearch on the removed instance
- Remove the instance from the Nagios Log Server configuration

The credentials you will use in communicating with OpenSearch can be found in `/var/www/html/nagioslogserver/application/config/config.local.php`. The username is always `nagioslogserver`, and the password is in quotes at the end of the line that starts with:

```
$config['opensearch_password']
```

Use these in whatever tool you use to issue the HTTP commands throughout this document. We will be using `curl` for these examples; replace “password” in them with the value from the above file. When commands overflow a line, you can safely copy and paste the command without line breaks.

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If you have any log sources pointing to the instance you will be removing, make sure to point them at one of the remaining instances to ensure that you don't lose any log entries.

Retrieve the instance allocation status

In a shell on one of your Nagios Log Server instances, execute the following command:

```
curl -XGET -u nagioslogserver:<<password>> --cacert
/usr/local/nagioslogserver/opensearch/config/root-ca.pem -s
https://localhost:9200/_cat/allocation?v
```

You should receive output similar to this:

shards	disk.indices	disk.used	disk.avail	disk.total	disk.percent	host	ip	node
38	277.3mb	20.6gb	27.2gb	47.9gb	43	192.168.157.129	192.168.157.129	node1
38	572.9mb	9.2gb	7.7gb	16.9gb	54	192.168.157.132	192.168.157.132	node3
39	360.9mb	9.7gb	29.2gb	38.9gb	24	192.168.157.133	192.168.157.133	node2

Here you can see we have three instances, named node1, node2, and node3, and the shards are evenly distributed across the three instances.

You will use the name of the node in the following steps. When we created the virtual machine for node3, we made the disk a little small. We are going to remove it from the cluster (under the premise that we will later recreate it and add it back in, a subject that is covered in [How to add an instance to a Nagios Log Server 2024R2 Cluster](#)).

Disable shard allocation on the cluster

Begin by disabling shard allocation across the cluster. Note that when shard allocation is disabled, Nagios Log Server will be unable to create new indexes (such as what happens at midnight UTC with incoming logs). Issue the following curl command:

```
curl -H 'Content-Type: application/json' -XPUT -u nagioslogserver:<<password>> --cacert
/usr/local/nagioslogserver/opensearch/config/root-ca.pem -s
https://localhost:9200/_cluster/settings -d
'{"persistent":{"cluster.routing.allocation.enable":"none"}}'
```

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You should receive a response similar to this:

```
{"acknowledged":true,"persistent":{"cluster":{"routing":{"allocation":{"exclude":{"_name":"node3"}}}}},"transient":{}}
```

Exclude the instance from shard allocation

Next, we exclude the node we wish to remove from shard allocation within the cluster. The command is similar to the previous command:

```
curl -H 'Content-Type: application/json' -XPUT -u nagioslogserver:<<password>> --cacert /usr/local/nagioslogserver/opensearch/config/root-ca.pem -s https://localhost:9200/_cluster/settings -d '{"persistent":{"cluster.routing.allocation.exclude._name":"<<nodename>>"}}'
```

You will again receive a response similar to that above.

Enable shard allocation on the cluster

Now reenables shard allocation on the cluster. Execute the same command you used to disable allocation, but replace none with all:

```
curl -H 'Content-Type: application/json' -XPUT -u nagioslogserver:<<password>> --cacert /usr/local/nagioslogserver/opensearch/config/root-ca.pem -s https://localhost:9200/_cluster/settings -d '{"persistent":{"cluster.routing.allocation.enable":"all"}}'
```

Once again, the command will be acknowledged as above.

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Monitor the status of the re-allocation

Nagios Log Server will begin moving data from the instance you are removing to the remaining instances of the cluster. Depending on how much data is on the instance, this could take quite some time. You can monitor the progress by issuing the following command:

```
curl -H 'Content-Type: application/json' -u nagioslogserver: :<<password>> --cacert /usr/local/nagioslogserver/opensearch/config/root-ca.pem -XGET https://localhost:9200/_cat/recovery?v\&active_only=true
```

While the reallocation is in progress, this command will produce output similar to this:

index	shard	time	type	stage	source_host	source_node	target_host	target_node	repository	snapshot	files	files_recovered	files_percent	translog_ops	translog_ops_recovered	translog_ops_percent
nagioslogserver_snapshot	0	1.1s	peer	index	192.168.157.129	node1	192.168.157.133	node2	n/a	n/a	33	26	78.8%	21848	0	100.0%
logstash-2025.01.23	0	1s	peer	index	192.168.157.133	node2	192.168.157.129	node1	n/a	n/a	49	43	87.8%	43679435	7449211	100.0%
logstash-2025.01.22	0	1.1s	peer	index	192.168.157.132	node3	192.168.157.129	node1	n/a	n/a	40	35	87.5%	38579867	10332461	100.0%
logstash-2025.01.25	0	1.1s	peer	index	192.168.157.132	node3	192.168.157.133	node2	n/a	n/a	52	47	90.4%	16502018	5730562	100.0%

After the reallocation is complete, the output will be blank:

```
index shard time type stage source_host source_node target_host target_node repository snapshot files files_recovered files_percent files_total bytes bytes_recovered bytes_percent bytes_total translog_ops translog_ops_recovered translog_ops_percent
```

And the re-running the initial allocation command from above will show that there is no data left on the instance we're removing:

shards	disk.indices	disk.used	disk.avail	disk.total	disk.percent	host	ip	node
56	576.2mb	20.9gb	26.9gb	47.9gb	43	192.168.157.129	192.168.157.129	node1
0	0b	8.6gb	8.2gb	16.9gb	51	192.168.157.132	192.168.157.132	node3
56	582.4mb	9.9gb	29gb	38.9gb	25	192.168.157.133	192.168.157.133	node2

Shutdown OpenSearch on the removed instance

If the instance is still accessible, stop the OpenSearch service on the instance you removed. Execute the following command on that node:

```
systemctl stop opensearch.service
```

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Next, verify the cluster health. The cluster status should be green and the number of nodes in the cluster should be reduced by one.

```
{"cluster_name":"nagios_opensearch","status":"green","timed_out":false,"number_of_nodes":2,"number_of_data_nodes":2,"discovered_master":true,"discovered_cluster_manager":true,"active_primary_shards":56,"active_shards":112,"relocating_shards":0,"initializing_shards":0,"unassigned_shards":0,"delayed_unassigned_shards":0,"number_of_pending_tasks":0,"number_of_in_flight_fetch":0,"task_max_waiting_in_queue_millis":0}
```

Remove the instance from the Nagios Log Server configuration

Finally go into the Nagios Log Server Instance Status Page, and remove the instance from Nagios Log Server:

The screenshot shows the Nagios Log Server interface. The left sidebar has a menu with 'Instance Status' circled in red. The main content area is titled 'Instance Overview' and displays 'Global Stats' in a grid of cards. Below this is an 'Instances' table with columns for CPU %, Memory Used, Memory Free, Storage Total, Storage Available, Opensearch, Logstash, and Actions. The delete icon (trash can) in the Actions column of the last row is circled in red.

CPU %	Memory Used	Memory Free	Storage Total	Storage Available	Opensearch	Logstash	Actions
2%	97%	3%	47.93 GB	26.94 GB	✓	✓	🗑️
16%	98%	2%	38.98 GB	29.00 GB	✓	✓	🗑️
			0 bytes	0 bytes	✓	✓	🗑️

Click on the delete icon for the instance. The instance will be deleted from your Nagios Log Server cluster.

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Troubleshooting

The following documentation will help troubleshoot issues you may encounter:

- [Understanding and Troubleshooting Yellow Cluster Health](#)
- [Understanding and Troubleshooting Red Cluster Health](#)

Finishing Up

This completes the documentation on How to Remove an Instance from a Nagios Log Server 2024R2 Cluster. 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](#)