

Migrating to Nagios Log Server 2024R2

Purpose

This document is a guide to assist Nagios Administrators in migrating to Nagios Log Server (NLS) 2024R2 from an earlier release (2024R1.x and prior) of Nagios Log Server.

Background

Prior to version 2024R2, Nagios Log Server was built on top of the ELK stack; Elasticsearch, Logstash, and Kibana. Elasticsearch provided the log storage engine, Logstash provided for ingestion of log entries from various sources, and Kibana provided the dashboard functionality. Logstash has been upgraded to a more modern version, while Elasticsearch and Kibana have been replaced completely with OpenSearch and a custom dashboarding solution respectively.

Because of the underlying architectural changes, particularly the version jump from Elasticsearch 1.7.6 and subsequent back-end change from Elasticsearch to OpenSearch, an in-place upgrade to Nagios Log Server 2024R2 is not possible. Because of indexing and internal data format changes first with Elasticsearch and then into OpenSearch, all of the log data in an old NLS cluster must be reindexed into the new cluster. *Customers who purchased their Nagios Log Server license prior to the release of Nagios Log Server 2024R2 have the ability to acquire an additional license activation to allow for the migration of their data while following the steps outlined below. This installation may be used in an active configuration while following the migration process. To add this activation, please reach out to your dedicated Customer Success Manager or email us at CSM@nagios.com for further assistance.*

To that end, we have provided a migration script with Nagios Log Server 2024R2 to assist in migrating data forward into a new cluster. At the time of this writing, the migration script will migrate the following data from an old cluster into a new one:

- The log data contained in the Elasticsearch engine.
- User accounts
- Configuration
- Queries
- History
- Alerts

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Migration Options

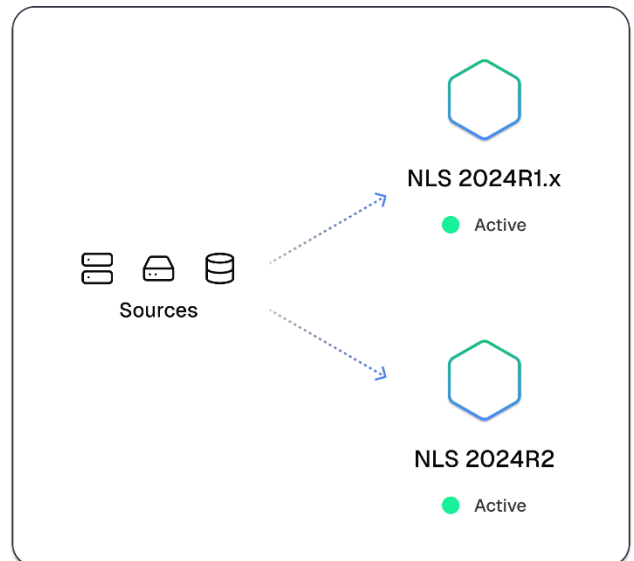


Do Nothing

Nagios will continue to support and work on Nagios Log Server 2024R1.x releases for approximately 18-24 months after the release of version 2024R2. This will allow the Administrator the option to migrate when they are ready.

Keep Two Active Log Server Clusters

Prepare and migrate your existing configurations and data into a new NLS 2024R2 instance while keeping your existing active Cluster. In this example you will have two active Nagios Log Server Clusters simultaneously collecting your log data. Use this method if you would like to have your existing data in the new interface and continue to collect your log data in your existing working installation of NLS. Steps outlined below. [Reach out to your Customer Success Manager or email us at \[CSM@Nagios.com\]\(mailto:CSM@Nagios.com\) for licensing details.](#)



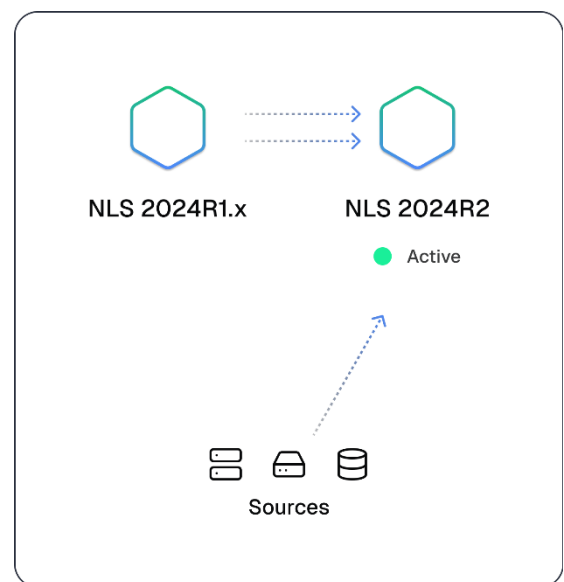
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Keep Your Old Data In Your Existing Cluster

Install your new active Log Server cluster and follow the steps below to migrate your configs and start sending your new data to NLS 2024R2 while still having your existing data available to you in your old NLS cluster.

Migrate your data (Fully)

Follow the steps below to migrate your existing configurations and historical log data into your new Nagios Log Server 2024r2.x installation and begin sending all your Log Sources to your new NLS 2024r2.x cluster.



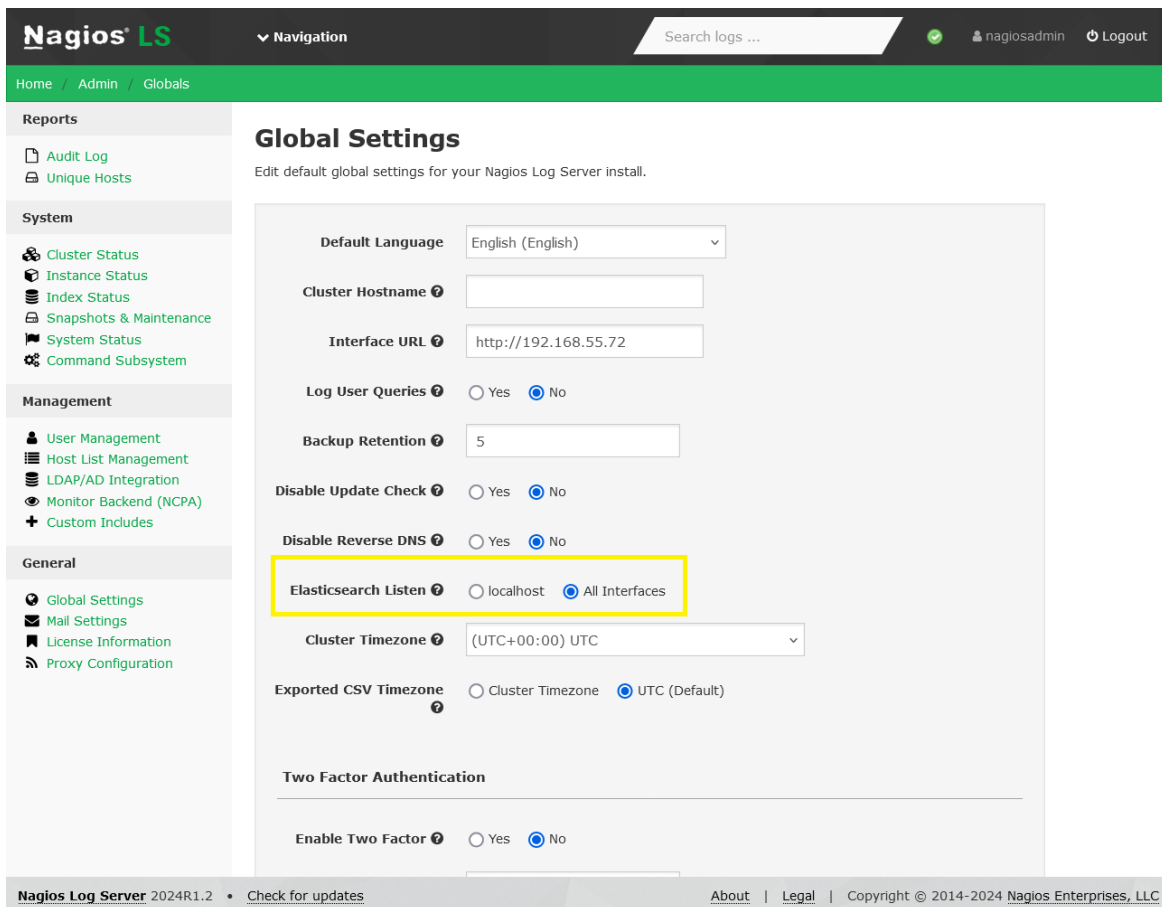
Requirements

This document assumes you have at least one instance of Nagios Log Server 2024R2 installed and ready to accept data. If not, see the [Nagios Log Server Manual Installation Instructions](#).

Configuring your existing cluster

Your existing Nagios Log Server cluster must be at version 2024R1.0.2 or greater. This is the first version that allows you to configure Elasticsearch to be accessible to other servers, which is a migration requirement. Go into **Admin->General->Global Settings** and check the option to have Elasticsearch listen on all interfaces:

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Security Note: Nagios Log Server used unauthenticated access to Elasticsearch. Allowing it to listen on all network interfaces allows unrestricted read-write access to the Elasticsearch database. It is highly recommended to configure the firewall on your old servers to only allow access to TCP port 9200 from localhost and the Nagios Log Server 2024R2 systems that will be importing the Log Server data. Consult your distribution's firewall documentation for information on how to do this.

Point existing log sources to the new cluster

Follow the guidelines under the various options for Adding a Log Source so that all of your existing log sources are sending their logs to your new Nagios Log Server cluster. You will have to change this on all systems sending logs to the Log Server.

This is a recommended, but not necessary, step in the migration process. It is assumed that your new Log Server cluster is a more powerful system. Pointing existing log sources to the new cluster will leverage the additional processing of the new cluster, as it will be ingesting not only data from your existing log sources, but also all of the data from your previous log server.

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Performing the Migration

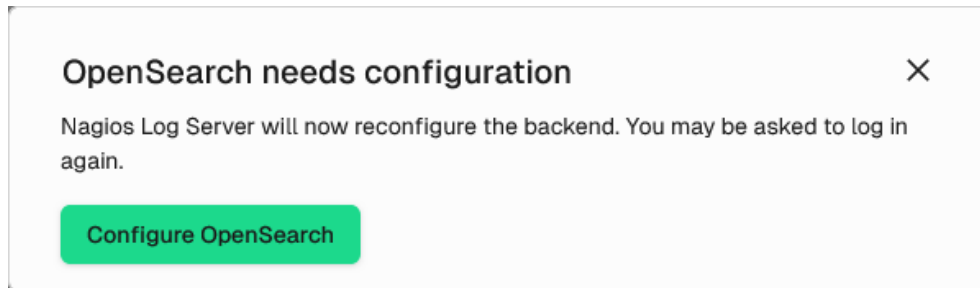
Navigate to the migration page in your browser:

The screenshot displays the Nagios Log Server 2024R2-beta web interface. The breadcrumb navigation shows 'Home > Admin > Migration'. The left sidebar contains a menu with 'Migrate Data' circled in blue. The main content area is titled 'Migrate from a previous version of Log Server' and has two tabs: 'Migration Setup' (active) and 'Status'. Under the 'Migration Setup' tab, there is a section for 'Source Server' with a 'Source Log Server Host' input field containing the IP address '192.168.55.72' and a green 'Check Server Connection' button. The footer includes 'Nagios Log Server 2024R2-beta', a 'Check For Updates' button, and copyright information for Nagios Enterprises, LLC.

Enter the IP address of the Nagios Log Server cluster you are migrating from, and click **Check Server Connection**.

OpenSearch must be configured to allow it to perform a remote reindexing operation from your existing cluster. If this is your first time through the migration process, Nagios Log Server will have to update this configuration before you can proceed.

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Click **Configure OpenSearch** to proceed with the configuration changes. OpenSearch will be restarted at this time, and you may have to login once more to the Nagios Log Server after OpenSearch has restarted.

If this is not your first time through the migration process, or OpenSearch has finished restarting (and you've logged in again if necessary), entering a server and clicking **Check Server Configuration** will result in a list of log indexes on the source Nagios Log Server cluster from which you can choose.

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Migration Setup Migration Status

Source Log Server Host

Log Indices

Select the log indices to migrate.

<input type="checkbox"/>	Index	Status
<input type="checkbox"/>	logstash-1814.05.17	Closed
<input type="checkbox"/>	logstash-2024.02.26	Closed
<input type="checkbox"/>	logstash-2024.02.27	Closed
<input type="checkbox"/>	logstash-2024.02.28	Closed
<input type="checkbox"/>	logstash-2024.02.29	Closed
<input type="checkbox"/>	logstash-2024.03.01	Closed

Reprocess selected indices instead of resuming processing.
 Migrate Log Server configuration.

Select the indexes you wish to migrate and click the right arrow to add them. If you are rerunning the migration, perhaps because new data has been logged, you can check the **Reprocess selected indexes instead of resuming processing** checkbox. To migrate Nagios Log Server configuration, such as user accounts, alerts, dashboards, and reports, check the **Migrate Log Server configuration** checkbox. When you are ready, click **Start migration of selected indexes**.

The amount of time it will take to perform the migration is dependent on several factors:

- Data quantity; the more data there is to migrate the longer the process will take.
- Load on both your existing and new Log Server clusters. You may have to provision additional nodes in your cluster to perform your migration. Your Nagios CSM can assist you if this is the case.

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- How much data is being ingested from existing log sources. Processing data from existing log sources will use resources on your cluster alongside the migrated data; everything from your existing cluster needs to be indexed just like other incoming data.

Monitoring the migration process

Click the **Migration Status** tab at the top of the Migration page:

Migrate Data

Migrate from a previous version of log server.

Migration Setup **Migration Status**





Source Log Server Host


192.168.55.72

Get Indices

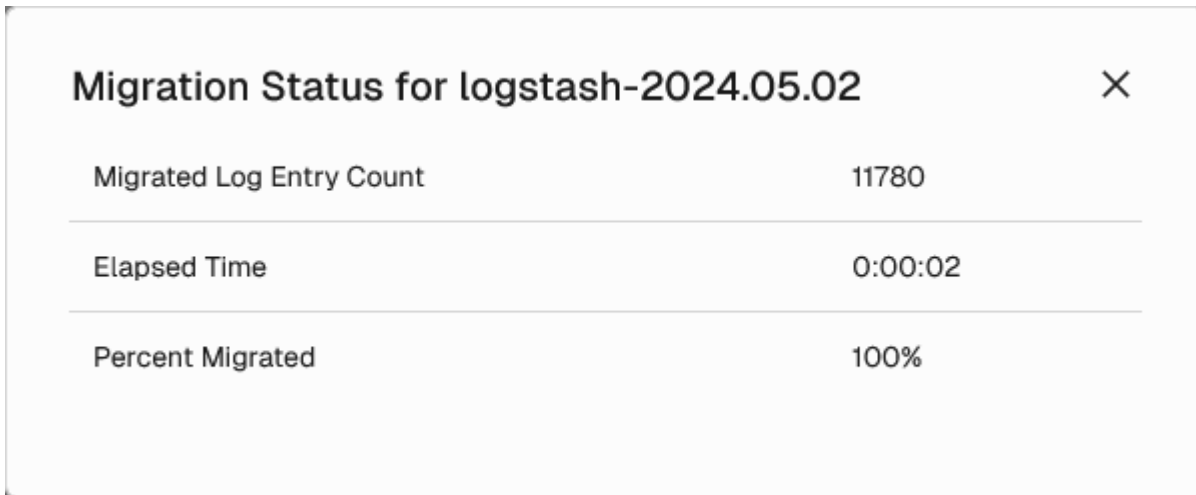
Log Indices

View log indices and check their migration status.

logstash-2024.04.29	11753	1mb	
logstash-2024.04.30	11698	1.1mb	
logstash-2024.05.01	11510	1.1mb	
logstash-2024.05.02	11780	1.1mb	
logstash-2024.05.03	11556	1mb	
logstash-2024.05.04	11299	1mb	
logstash-2024.05.05	11270	1mb	

Enter the IP address of the Log Server you are migrating from and click Get Indexes. You will be presented with a list of the indexes on the source log server. Click on the status icon  for an index one to check its migration progress. A dialog box will appear with the progress of that index's migration.

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The image shows a dialog box titled "Migration Status for logstash-2024.05.02" with a close button (X) in the top right corner. The dialog contains a table with three rows of migration statistics.

Migration Status for logstash-2024.05.02	
Migrated Log Entry Count	11780
Elapsed Time	0:00:02
Percent Migrated	100%

This dialog box shows the number of log entries that have been migrated into the new cluster, as well as the total time the migration took, and the percentage of the log entries in the source index that have been migrated.

Changing Your Log Server Instance IP Addresses

After migration, you may wish to update the IP addresses on your Log Server instances. The following page provides instructions for doing so on both your [Log Server 2024R2](#) instances, and your [Log Server 2024R1](#) instances.

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Changing a Log Server 2024R2 Instance IP Address

1. Change the IP address of the server
2. On the CLI, perform these commands:

```
systemctl stop opensearch
systemctl stop logstash
```

3. Edit `/usr/local/nagioslogserver/var/cluster_hosts` and remove the old IP address
4. Edit `/usr/local/nagioslogserver/opensearch/config/opensearch.yml`, find these lines, and make sure the desired IP address is used:

```
network.publish_host: ["IP"]
discovery.seed_hosts: ["IP"]
```

5. On the CLI, perform this command:

```
systemctl start opensearch
systemctl start logstash
```

Changing a Log Server 2024R1 Instance IP Address

1. Change the IP address of the server
2. On the CLI, perform this command:

```
systemctl stop elasticsearch
systemctl stop logstash
```

3. Edit `/usr/local/nagioslogserver/var/cluster_hosts` and remove the old IP address
4. On the CLI, perform this command:

```
systemctl start elasticsearch
systemctl start logstash
```

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Frequently asked questions

Q: What should I do if the migration process fails?

A: The migration process tracks its progress in the `nagioslogserver_migration` index on the new cluster. If the script ends for whatever reason without completing the entire process, it will check where it last recorded its progress and resume from there. The process attempts to break the reindexing down into chunks of approximately 100,000 log entries for migration. In the event of a failure, the entries that have been completed will not be reattempted.

Q: How can I reduce the load on my clusters while migrating data?

A: Run your migrations during “off-peak” times. In a 24x7 world, finding an off-peak window can be difficult; the “Total and Top 5 Senders Per 12 Hours:” section of the home page can provide insight into when the Log Server is less busy. By using the begin date and end date parameters you can get an estimate of how long it will take to migrate one day worth of data, and schedule batches of migrations to take place during those times.

Q: I didn't redirect all of my log sources to the new cluster before migrating. Now what?

A: Because the migration script keeps track of chunks of data it has migrated, you can re-run it with the days you need to be remigrated using the begin and end date parameters.

Finishing Up

This completes the documentation on Migrating to Nagios Log Server 2024R2. 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](#)