

Understanding Instance Roles In Nagios Log Server 2026

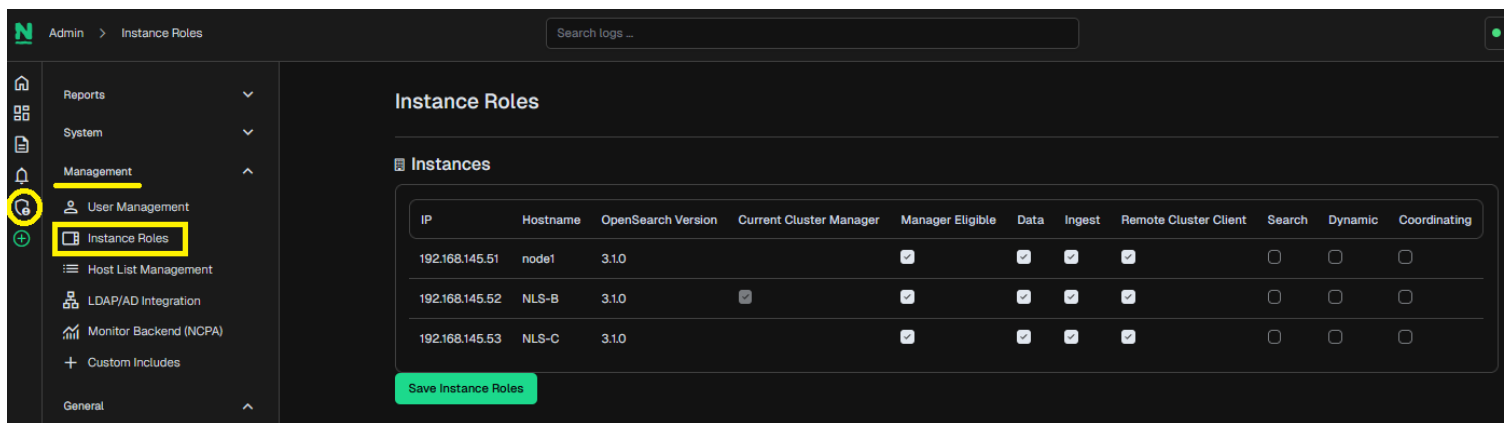
Purpose

This document provides an overview of Nagios Log Server **Instance Roles**, including details on the intended purpose of each role, hardware considerations, and on how to manage your roles.

Instance Roles enable you to define the types of tasks each instance in your cluster is responsible for to help optimize cluster performance and instance resource allocation.

Defining Instance Roles

To begin, navigate to the **Admin > Management > Instance Roles** menu.



IP	Hostname	OpenSearch Version	Current Cluster Manager	Manager Eligible	Data	Ingest	Remote Cluster Client	Search	Dynamic	Coordinating
192.168.145.51	node1	3.1.0		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
192.168.145.52	NLS-B	3.1.0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
192.168.145.53	NLS-C	3.1.0		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Instance Role Details and Hardware Considerations

Current Cluster Manager

The current Manager instance of the cluster. The cluster manager is responsible for coordinating and delegating the responsibilities of the other instances in the cluster. The cluster manager is elected by the other online instances in the cluster at the time a new manager is needed. If a cluster manager cannot be elected, the cluster will become unavailable for use and will stop ingesting logs, and will cause Logstash to queue and possibly drop incoming logs.

The instance that is the cluster manager does not need to be a high-end system; the 8GB RAM/8 CPU core minimum requirement is sufficient.

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Manager Eligible

This option makes the instance eligible to be elected as the manager take over as manager in the event that the Current Cluster Manager instance becomes unavailable. The instances that are online at the time of the loss of the cluster manager choose a new manager from all available instances that are manager-eligible. It is best to have a minimum of two instances marked as Manager Eligible. The election of a cluster manager requires a quorum of half of the total instances in the cluster plus one.

The first instance of a cluster is the initial manager instance. If that instance becomes unavailable, two other instances are required in order to meet the quorum. In a two instance cluster, the loss of the first instance means that the second instance will not be able to choose a new manager leading to the loss of the availability of the cluster.

Nagios Log Server enforces that you have at least one manager eligible instance on the Instance Roles page, and warns you that you should have at least two if you attempt to have only one.

Data

This is where collected log data is stored. Data is divided into indexes for storage, and indexes are divided into individual shards. Nagios Log Server configures each log data index into 5 primary and 5 replica shards once you add additional data instances to your cluster.

OpenSearch supports 1000 data shards per 16GB of RAM usable by the JVM; an instance with the fully available 32GB of RAM will support 2000 shards. Best practices recommend no more than 25 shards per GB of RAM (800 shards on a 32GB system), and while performance may suffer if this is exceeded, it is not a hard limit.

Consequently we also recommend that you enable [Snapshots and Maintenance](#) to automatically close older indexes so that they do not contribute to the open shard limit on each instance. While data in closed indexes cannot be actively searched, with proper snapshots configured, Search instances will still permit searching the data contained in the otherwise-closed indices.

Further best practices recommend 1.5-2 cores per active shard. The minimum Nagios requirement for an instance is 8 cores. Active shards are the ones that are handling the greatest proportion of the log write requests. Since a new index (and consequently 5 new primary and 5 new replica shards) is created each day for that day's logs, you will typically have 10 active shards in any given cluster, resulting in a minimum recommendation of 15-20 CPU cores for the data instances.

Data instances require the most disc space of all of the instance roles in your cluster.

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Ingest

Ingest instances are where logs are initially sent for collection and distribution. These don't need as much storage if serving as Ingest only. Note that more complex Logstash filters require more processing power.

Search

The search role is an exclusive role for an instance. If you select this role for an instance, all other roles will be disabled for that particular instance.

Search instances work with past snapshots of OpenSearch data. Since the snapshot repository must reside on storage that is accessible to all instances of a cluster, a Search instance doesn't require large amounts of storage as the snapshots are stored on a network-accessible file system.

Search instances are useful for situations where you have a large amount of historical data (such as when you have retention requirements of several years) stored in snapshots rather than live indexes. Search instances rely on snapshots created by OpenSearch (and configured in the [Snapshots & Maintenance](#) page in the **Admin > System** section of the user interface).

Dynamic

At this time Nagios doesn't have any specific use cases for this type of instance, but we provide the option in case you do.

Coordinating

Not typically needed, unless a high volume of queries, dashboards, and reports are used and referenced. The coordinating instance or instances manage the aspects of the cluster that read data and direct the queries to the appropriate data instances to retrieve the data, and then aggregate the results to the front-end.

If you have a large cluster, perhaps behind a load balancer, the coordinating instances are where you would direct your users to connect, (or where you would point the load balancer), in order to use the Nagios Log Server web interface.

Starting Off

On initial setup, each instance in your cluster is configured to be a Manager Eligible, Data, Ingest, and Coordinating instance. Log data will be distributed across all the instances from the start of the cluster. When removing the Data role from an instance, OpenSearch must reallocate all of the data from that instance to other instances. The amount of time this takes is proportionate to the amount of data stored on that instance. The role can only be fully removed after the data is reallocated to the other instances in the cluster.

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If you remove the Data role from an instance, Nagios Log Server will direct the cluster to start this transition automatically.

Additional Resources

The OpenSearch cluster-tuning documentation [here](#) provides additional information on the use cases for each instance type and more guidance on hardware sizing.

Finishing Up

This completes the documentation on Understanding Instance Roles in Nagios Log Server 2026. If you have additional questions or other support-related questions, please visit the Nagios Support Forum, Nagios Documentation Hub, or Nagios Library:

[Visit Nagios Support Forum](#)

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