Web Services and Applications Deployment Guide

Elasticsearch

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Elasticsearch

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Web Services uses Elasticsearch — an open-source, full-text search engine with a RESTful web interface — to store both real-time and historical statistics. Real-time statistics reflect the current state of the object (User, Queue, Skill), while historical statistics are stored as time-based events.

For new deployments, Genesys recommends that you set up a cluster of Elasticsearch nodes that is separate from your Web Services nodes. See Configuring Web Services to use a standalone Elasticsearch cluster for details. It's possible to set up an embedded Elasticsearch cluster, which means that Elasticsearch is included in your Web Services nodes. **Note: Genesys does not recommend using this approach in a production environment.** See Configuring Web Services to use an embedded Elasticsearch cluster for details.

Configuring Web Services to use a standalone Elasticsearch cluster

You can configure Web Services to work with a standalone Elasticsearch cluster by completing the steps below.

> ### Important
> Genesys recommends that you use a standalone Elasticsearch cluster for new deployments of Web Services. Contact your Genesys representative for information about how to migrate from embedded to standalone.

Prerequisites

- You have deployed and configured a cluster of Elasticsearch nodes. Refer to the Elasticsearch documentation for details. **Note:** Genesys recommends that you use the latest stable 1.x version of Elasticsearch.

Start
Complete the following steps for each Web Services node:

1. Copy the **installation_path/config-templates/elasticsearch.yml.sample** file to the configuration folder on each node in your Elasticsearch cluster, rename the file to **elasticsearch.yml**, and then edit the file to set correct option values.
2. Copy all files from the **installation_path/elasticsearch/templates/** folder to the templates directory of the configuration folder, for example, **/etc/elasticsearch/templates**, on each node in your Elasticsearch cluster.
3. Web Services keeps Elasticsearch in sync with Cassandra and removes statistical data for deleted objects by performing index verification. By default, Web Services runs index verification when its node is started, but you can also configure scheduled index verification by setting **enableScheduledIndexVerification** to `true` in the elasticSearchSettings option. By default, the index verification takes place every 720 minutes (12 hours), but you can change this timing by setting **indexVerificationInterval** in elasticSearchSettings. **Note:** Genesys recommends that you only configure one Web Services node for index verification to avoid excessive requests to Elasticsearch and Cassandra.

4. If your deployment uses statistics, make sure you complete the reporting configuration steps, including setting the nodeId.
5. Set the crClusterName option to the name of the cluster. All Web Services nodes with the same cluster name will form the cluster.
6. Set the enableElasticSearchIndexing option to `true`. **Note:** In this case, Web Services writes statistics values to both Elasticsearch and Cassandra, but only reads them from Elasticsearch.
7. Set the elasticSearchSettings option to appropriate values for your environment.

End

Configuring Web Services to use an embedded Elasticsearch cluster

You can configure Web Services to work with an embedded Elasticsearch cluster by completing the steps below.

> ### Important
> Genesys does not recommend using an embedded Elasticsearch cluster in a production environment. Contact your Genesys representative for information about how to migrate from embedded to standalone.

Complete the following steps for each Web Services node that you want to host Elasticsearch:

Start

1. Copy **installation_path/config-templates/elasticsearch.yml.sample** to the **installation_path/config/elasticsearch.yml** file, and then edit the file to set correct option values.
2. Web Services keeps Elasticsearch in sync with Cassandra and removes statistical data for deleted objects by performing index verification. By default, Web Services runs index verification when its node is started, but you can also configure scheduled index verification by setting **enableScheduledIndexVerification** to `true` in the elasticSearchSettings option. By default, the index verification takes place every 720 minutes (12 hours), but you can change this timing by setting **indexVerificationInterval** in elasticSearchSettings. **Note:** Genesys recommends that you only configure one Web Services node for index verification to avoid excessive requests to Elasticsearch and Cassandra.
3. If your deployment uses statistics, make sure you complete the reporting configuration steps, including setting the nodeId.
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5. Set the enableElasticSearchIndexing option to `true`. **Note:** In this case, Web Services writes statistics values to both Elasticsearch and Cassandra, but only reads them from Elasticsearch.
6. Set the elasticSearchSettings option to appropriate values for your environment.

End

Next Step

- Back to Configuring features