

GENESYS

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Genesys Interaction Recording Solution Guide

Installing and Configuring Cassandra

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Installing and Configuring Cassandra

Installing Cassandra

Complete this procedure for each Cassandra node.

Prerequisites

- For new deployments, we recommend Cassandra 2.2. The procedures below are meant to serve as a guick guide on how to do this. For more detailed information, see the Cassandra 2.2 documentation.
- You have installed the latest Java SE Development Toolkit 8. For more information, refer to the Java documentation.

Start

- 1. Download the latest 2.2.x version of Cassandra.
- 2. Copy the Cassandra archive to the installation directory. For example, /usr/local
- 3. Use a tar utility to extract the files. For example, tar -zxvf apache-cassandra-2.2.7-bin.tar.gz
- 4. Add directories for data, commitlog, and saved_caches. You can create these directories anywhere or in the default locations configured in the *Cassandra_install_dir*/conf/cassandra.yaml file. For example:
 - /var/lib/cassandra/data
 - /var/lib/cassandra/commitlog
 - /var/lib/cassandra/saved_caches

End

Configuring Cassandra

The procedures below describe how to create the Cassandra keyspace for the following scenarios:

- Development: 1 Cassandra node (appropriate for a development or lab environment)
- · Single Datacenter: 1 datacenter with a minimum of three Cassandra nodes

Important

For more complex Cassandra deployments, please consult with Genesys

Select a tab below for the procedure that matches your deployment scenario.

Development

Configuring Cassandra (1 Cassandra node)

Important

The files modified in this procedure are typically found in the **Cassandra_install_dir/conf** directory.

Prerequisites

• Installing Cassandra

Start

- 1. Modify the cassandra.yaml file:
 - a. Set seeds to the list of host name of the node. For example: -seeds: "127.0.0.1"
 - b. Set listen address and rpc address to the host name.
 - c. Set data_file_directories, commitlog_directory, and saved_caches_directory to the directories you created in Step 4 of Installing Cassandra.
 - d. Set the start_rpc parameter to true.
- 5. Save your changes and close the file.

End

Single Datacenter

Configuring Cassandra (1 datacenter)

Complete the steps below for each node.

Important

The files modified in this procedure are typically found in the **Cassandra_install_dir/conf** directory.

Prerequisites

· Installing Cassandra

Start

- 1. Modify the cassandra.yaml file:
 - a. Set the cluster_name. It must be the same name on all nodes.
 - b. Set seeds to the list of host names of all nodes. For example: -seeds: "node1, node2, node3"
 - c. Set listen_address and rpc_address to the host name.
 - d. Set data_file_directories, commitlog_directory, and saved_caches_directory to the directories you created in Step 4 of Installing Cassandra.
 - e. Set the start_rpc parameter to true.
 - f. Change endpoint_snitch to PropertyFileSnitch.
- 7. Save your changes and close the file.
- 8. Open the **cassandra-topology.properties** file and update for your cluster topology. For each node in your cluster, add the following line:

```
[node]=[datacenter]:[rack]
```

Where:

- [node] is the IP address of the node.
- [datacenter] is the name of the datacenter for this node.
- [rack] is the name of the rack for this node.

The following is a sample **cassandra-topology.properties** file for a Single Datacenter scenario:

```
192.0.2.10=datacenter1:rack1
192.0.2.11=datacenter1:rack1
192.0.2.12=datacenter1:rack1
```

9. Save your changes and close the file.

End

Two Datacenters

Configuring Cassandra (2 datacenters)

Complete the steps below for each node.

Important

The files modified in this procedure are typically found in the **Cassandra_install_dir/conf** directory.

Prerequisites

· Installing Cassandra

Start

- 1. Modify the cassandra.yaml file:
 - a. Set the cluster_name. It must be the same name on all nodes.
 - b. Set seeds to the list of host names of all nodes. For example: -seeds: "node1, node2, node3, node4, node5, node6"
 - c. Set listen_address and rpc_address to the host name.
 - d. Set data_file_directories, commitlog_directory, and saved_caches_directory to the directories you created in Step 4 of Installing Cassandra.
 - e. Set the start_rpc parameter to true.
 - f. Change endpoint snitch to PropertyFileSnitch.
- 7. Save your changes and close the file.
- 8. Open the **cassandra-topology.properties** file and update for your cluster topology. For each node in your cluster, add the following line:

```
[node]=[datacenter]:[rack]
```

Where:

- [node] is the IP address of the node.
- [datacenter] is the name of the datacenter for this node.
- [rack] is the name of the rack for this node.

The following is a sample **cassandra-topology.properties** file for a Two Datacenter scenario:

```
192.0.2.10=datacenter1:rack1
192.0.2.11=datacenter1:rack1
192.0.2.12=datacenter1:rack1
198.51.100.10=datacenter2:rack1
198.51.100.11=datacenter2:rack1
198.51.100.12=datacenter2:rack1
```

9. Save your changes and close the file.

End

Verifying the Cassandra installation

Prerequisites

· Configuring Cassandra

Start

- 1. Start all Cassandra nodes using the following command: Cassandra_install_dir/bin/cassandra
- 2. Use the nodetool utility to verify that all nodes are connected by entering the following command: Cassandra_install_dir/bin/nodetool -h Cassandra_host ring

The following is sample output for a Single Datacenter scenario with three Cassandra nodes:

```
/genesys/apache-cassandra-2.2/bin$ ./nodetool ring
                         Rack Status State Load
Address
           DC
                                                          0wns
192.0.2.10 datacenter1 rack1 Up
                                        Normal 14.97 MB 100.00% -9223372036854775808
192.0.2.11 datacenter1 rack1 Up
                                        Normal 14.97 MB 100.00% -3074457345618258603
192.0.2.12 datacenter1 rack1 Up
                                        Normal 14.97 MB 100.00%
                                                                    3074457345618258602
The following is sample output for a Development scenario with a single Cassandra node:
/genesys/apache-cassandra-2.2/bin$ ./nodetool ring
Address
                            Rack
                                        Status State
                                                       Load
                                                                       Effective-
Ownership Token
127.0.0.1
                datacenter1 rack1
                                               Normal 1.89 MB
                                        Up
100.00%
                    76880863635469966884037445232169973201
```

End