Genesys Interaction Recording Solution Guide

Installing and Configuring Cassandra

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Contents

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 quick 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
Address     DC           Rack   Status  State   Load      Owns     Token
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         DC          Rack        Status State   Load            Effective-
Ownership Token
127.0.0.1       datacenter1 rack1       Up     Normal  1.89 MB
100.00%             76880863635469966884037445232169973201
```

End