Web Services and Applications Deployment Guide

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Configuring Workspace Web Edition & Web Services

Configuring Web Services Node

Workspace Web Edition & Web Services reads a series of configuration files from the location that is defined by the `config.path` system property. When Workspace Web Edition & Web Services is started, the `config.path` property **must** be defined or the server will not start.

To start each Web Services node, enter the following command line:

```
/usr/bin/java -Xmx4096m -Xms4096m -Djetty.port=80 -Djetty.logs=/var/log/jetty

-Dconfig.path=/opt/jetty/genconfig -Djetty.home=/opt/jetty -Djava.io.tmpdir=/tmp

-Djava.net.preferIPv4Stack=true -jar /opt/jetty/start.jar --pre=etc/jetty-logging.xml --daemon
```

The following parameters are **mandatory** for the web services node:

- The memory allocation: `-Xmx4096m, -Xms4096m`
- The configuration path: `-Dconfig.path=<your path to config>`

Start of Procedure
As described below, modify (or remove) each of the following Workspace Web Edition & Web Services configuration files:

- `server-settings.yaml`
- `onpremise-settings.yaml`
- `cassandra-cluster.yaml`

The following information is specific to deployment of Workspace Web Edition & Web Services in Premise mode. For a more general description of available Workspace Web Edition & Web Services configuration options, please refer to the options reference.

1. In the `server-settings.yaml`, review the options and modify or retain as appropriate for the deployment. This file contains a number of core parameters that are used by the server.

   ### The following is an unmodified file:

   ```
   :externalApiUrl: [ToBeChanged: "PUBLIC_SCHEMA_HOST_PORT"]/api/v1
   internalApiUrl: [ToBeChanged: "INTERNAL_SCHEMA_HOST_PORT"]/api/v1
   externalApiUrlV2: [ToBeChanged: "PUBLIC_SCHEMA_HOST_PORT"]/api/v2
   internalApiUrlV2: [ToBeChanged: "INTERNAL_SCHEMA_HOST_PORT"]/api/v2
   reconnectAttempts: [ToBeChanged: "RECONNECT_ATTEMPTS"]
   reconnectTimeout: [ToBeChanged: "RECONNECT_TIMEOUT"]
   activationTimeout: [ToBeChanged: "ACTIVATION_TIMEOUT"]
   ```

```
contactCenterSynchronizationTimeout: 60000
opsUserName: [ToBeChanged: "OPS_USER_NAME"]
opsUserPassword: [ToBeChanged: "OPS_USER_PASSWORD"]
applicationName: [ToBeChanged: "APPLICATION_NAME"]
applicationType: [ToBeChanged: "APPLICATION_TYPE"]
cmeUserName: [ToBeChanged: "CME_USER_NAME"]
cmePassword: [ToBeChanged: "CME_PASSWORD"]
syncNode: [ToBeChanged: true|false]
cmeAuthenticationEnabled: [ToBeChanged: true|false]
nodeId: [ToBeChanged: unique id of the node]
```

The following is a sample of a modified file:

```
externalApiUrl: http://hpe-voicevm-84.genesyslab.com/api/v1
internalApiUrl: http://hpe-voicevm-84.genesyslab.com/api/v1
externalApiUrlV2: http://hpe-voicevm-84.genesyslab.com/api/v2
internalApiUrlV2: http://hpe-voicevm-84.genesyslab.com/api/v2
reconnectAttempts: 1
reconnectTimeout: 10000
activationTimeout: 120000
contactCenterSynchronizationTimeout: 60000
opsUserName: ops
opsUserPassword: ops
applicationName: Cloud
applicationType: CFGGenericClient
cmeUserName: default
cmePassword: password
syncNode: true
nodeId: hpe-voicevm-84
```

2. In the `onpremise-settings.yaml`, review the options and modify or retain as appropriate for the deployment. This file contains a number of core parameters that are used by the server.

```
cmeHost – primary CME host
cmePort – primary CME port
backupCmeHost – backup CME host
backupCmePort – backup CME port
countryCode – Premise contact center's country code
```

`cmeHost` specifies the host or IP of the Configuration Server and `cmePort` specifies the port of Configuration Server.

If there is a backup Configuration Server in the Genesys environment and you want HA support, you can configure two additional parameters in the `onpremise-settings.yaml` file: `backupCmeHost` and `backupCmePort`. These are the host (IP) and port of the backup Configuration Server.

3. Review `cassandra-cluster.yaml`. The options settings are as follows:

```
thrift_port: 9160
jmx_port: 7199
keyspace: sipfs
nodes: hpe-voicevm-84.genesyslab.com
should_sync_schema: TRUE
write_consistency_level: CL_ONE
read_consistency_level: CL_ONE
max_conns_per_host: 16
max_cons:  16
```

```
max_pending_conns_per_host: 80
max_blocked_threads_per_host: 160
retry_sleep_time_ms: 5000
retry_max_attempt: 1
#replication_factor: 1
```

4. For a single-node Cassandra cluster, confirm that `write_consistency_level` and `read_consistency_level` are `CL_ONE`, and `replication_factor` are `1`, as shown above.
5. For a multi-node Cassandra cluster, set `write_consistency_level` and `read_consistency_level` to `CL_QUORUM` and `replication_factor` to `3`.
6. (Optional) Specify `retry_sleep_time_ms` and `retry_max_attempt`, which define the Web Services retry policy as a Cassandra client. If these are not specified, the `retry_max_attempt` is `1` and `retry_sleep_time_ms` is `5000` (which equals 5 seconds).

End of Procedure

Workspace Web Edition & Web Services Sync Node

To facilitate administration by using standard Genesys tools such as Configuration Manager or Genesys Administrator, Workspace Web Edition & Web Services can be configured to read the contents of the Configuration Database, import objects into Workspace Web Edition & Web Services, and subscribe to change notifications from Configuration Server.

In a multi-node Workspace Web Edition & Web Services deployment, only a single node should be configured to be the Synchronization Node. The `syncNode` option in `server-settings.yaml` is used to control this functionality. The Workspace Web Edition & Web Services node that performs synchronization tasks should be configured with the value of syncNode set to `true`, and all the other Workspace Web Edition & Web Services nodes configured with the value of `syncNode` set to `false`.

Reporting Configuration

The following procedure outlines the steps that are required to enable Workspace Web Edition & Web Services to use, store, and expose statistical data. Workspace Web Edition & Web Services uses several statistics internally to support contact availability and also provides a default set of statistics used by the bundled client applications.

The following steps include the configuration of Workspace Web Edition & Web Services node, Statistics Time-to-Live, Stat Server, and Contact Center Stat Server host and port.

Start of Procedure

1. Open the `server-settings.yaml` file.
2. Configure the Workspace Web Edition & Web Services node by setting the `nodeId` property. The value of this option must be a unique identifier for the Workspace Web Edition & Web Services node. Each Workspace Web Edition & Web Services node in a cluster must define a unique `nodeId`. All Workspace Web Edition & Web Services nodes that share the same Cassandra storage will read the contact centers that require statistic and divide the monitoring tasks among the Workspace Web Edition & Web Services nodes.
3. In the same file, configure the Statistics Time-to-Live by doing the following:

1. Define the "time-to-live" for statistic storage using the `statisticsTTL` property. If you do not define this optional parameter, the default value of `86400` (24 hours) is used.
2. Confirm that the `statistics.yaml` file is present in the main Workspace Web Edition & Web Services `config` folder (defined by the `config.path` variable, `/opt/jetty/genconfig`, by default). Modifications to this file are not typically necessary.
   The `statistics.yaml` file defines which statistics, and for what object types, Workspace Web Edition & Web Services will request from Stat Server. A default `statistics.yaml` file is included with the Workspace Web Edition & Web Services distribution and contains all the statistics Workspace Web Edition & Web Services requries internally as well as those required by the bundled UI applications.

4. Configure any Stat Server applications in the Genesys environment(s) to which the Workspace Web Edition & Web Services node/cluster will connect to include a set of statistic definitions that match those included in the `statistics.yaml` file. You must do this for both the primary and backup Stat Servers in each Genesys environment that will be accessed by Workspace Web Edition & Web Services. A sample Stat Server configuration can be found on the installation CD. This file can be copied locally and imported using Configuration Manager or Genesys Administrator for both the primary and backup Stat Servers.

End of Procedure