SIP Feature Server Administration Guide

Appendix: Backing up and restoring embedded Cassandra data

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You can back up your Cassandra storage folders and use the saved storage folders to restore your Cassandra data if needed.

> **Important**
> Feature Server is capable of restoring its data by replicating it from other nodes in the Cassandra cluster. The restoration procedure described below is an exceptional point-in-time recovery measure. As with any backup procedure, **do not** make restoration a part of your regular maintenance process.

Backing up Cassandra data

Backing up your Cassandra storage folder requires you to:

- flush the Feature Server Cassandra keyspace on all Feature Server nodes, then
- save the Cassandra **storage** folder of each node

> **Tip**
> On the Linux platform, you can flush all the nodes in a datacenter by running the flush command using a parallel ssh utility such as pssh.

For each Feature Server instance:

1. Change to the Feature Server deployment location.
2. Verify the vms-port parameter in **launcher.xml**. The default value is 8080.
3. Change to the **lib** directory:
   - For Linux:
     ```
     cd work/jetty-0.0.0.0-8080-fs.war-_fs-any-/webapp/WEB-INF/lib
     ```
   - For Windows:
     ```
     cd work\jetty-0.0.0.0-8080-fs.war-_fs-any-\webapp\WEB-INF\lib
     ```
4. Verify the JMX port parameter in launcher.xml. The default value is 9192.
5. While Feature Server is running, run the nodetool flush command:

- For Linux:
```
java -cp libthrift-0.7.0.jar:cassandra-thrift-1.1.12.jar:commons-
cli-1.1.jar:cassandra-all-1.1.12.jar org.apache.cassandra.tools.NodeCmd -h
localhost -p 9192 flush sipfs

java -cp libthrift-0.7.0.jar:cassandra-thrift-1.1.12.jar:commons-
cli-1.1.jar:cassandra-all-1.1.12.jar org.apache.cassandra.tools.NodeCmd -h
localhost -p 9192 flush system
```
- For Windows:
```
java -cp libthrift-0.7.0.jar;cassandra-all-1.1.12.jar;cassandra-
thrift-1.1.12.jar;commons-cli-1.1.jar org.apache.cassandra.tools.NodeCmd -h
localhost -p 9192 flush sipfs

java -cp libthrift-0.7.0.jar;cassandra-all-1.1.12.jar;cassandra-
thrift-1.1.12.jar;commons-cli-1.1.jar org.apache.cassandra.tools.NodeCmd -h
localhost -p 9192 flush system
```

6. Copy the Cassandra **storage** folder to a safe location.

Restoring Cassandra data

> ### Important
> Use this recovery procedure only when absolutely necessary. Do not make it a part of your regular maintenance process.

To restore your Cassandra data from your backed-up storage folders:

1. Stop all Feature Server instances.
2. Copy the **storage** folder backups to their original location on each Feature Server.
3. Restart each Feature Server instance, beginning with the master instance.