Migrate Config Servers with Different Hostnames

Overview

Sharded clusters use a group of three config servers to store cluster meta data, and all three config servers must be available to support cluster metadata changes that include chunk splits and migrations. If one of the config servers is unavailable or inoperable, you must replace it as soon as possible.

This procedure migrates a *config server* (page 670) in a *sharded cluster* (page 667) to a new server that uses a different hostname. Use this procedure only if the config server *will not* be accessible via the same hostname. If possible, avoid changing the hostname so that you can instead use the procedure to *migrate a config server and use the same hostname* (page 707).

Considerations

Changing a *config server's* (page 670) hostname **requires downtime** and requires restarting every process in the sharded cluster.

While migrating config servers, always make sure that all `mongos` instances have three config servers specified in the `configDB` setting at all times. Also ensure that you specify the config servers in the same order for each `mongos` instance's `configDB` setting.

Procedure

1. Disable the cluster balancer process temporarily. See *Disable the Balancer* (page 717) for more information.
2. Shut down the config server to migrate.

   This renders all config data for the sharded cluster "read only."
3. Copy the contents of `dbPath` from the old config server to the new config server. For example, to copy the contents of `dbPath` to a machine named `mongodb.config2.example.net`, use a command that resembles the following:

   ```
   rsync -az /data/configdb mongodb.config2.example.net:/data/configdb
   ```
4. Start the config server instance on the new system. The default invocation is:

   ```
   mongod --configsvr
   ```
5. Shut down all existing MongoDB processes. This includes:
   - the `mongod` instances for the shards.
   - the `mongod` instances for the existing *config databases* (page 737).
   - the `mongos` instances.
6. Restart all shard `mongod` instances.
7. Restart the `mongod` instances for the two existing non-migrated config servers.
8. Update the `configDB` setting for each `mongos` instances.
9. Restart the `mongos` instances.
10. Re-enable the balancer to allow the cluster to resume normal balancing operations. See the *Disable the Balancer* (page 717) section for more information on managing the balancer process.