Stand Alone Database MGMTPOSTGRES_SLAVE Failover to MGMTPOSTGRES_MASTER

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Introduction

This document describes how to recover the MGMTPOSTGRES_SLAVE when it does not form a cluster with the MGMTPOSTGRESS_MASTER.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Linux Interface
- Virtual Machine Environment
- postgresql
- Pacemaker/Corosync Configuration System (PCS)

Components Used

The information in this document is based on these software versions:

- CloudCenter version 4.8.1.1
- MGMTPOSTGRES_SLAVE Component
- MGMTPOSTGRES MASTER Component

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

If there is a failure on both MGMTPOSTGRES components, the MGMTPOSTGRES_SLAVE no longer forms a cluster with the MGMTPOSTGRES_MASTER.

Problem

The MGMTPOSTGRES_SLAVE does not form a cluster with the MGMTPOSTGRES_MASTER. In order to get both MGMTPOSTGRES to form a cluster, MGMTPOSTGRES_SLAVE database needs to be deleted. Then, the database will be recovered from the MGMTPOSTGRES_MASTER.

Error Logs

```
[root@mgmtpostgres_master etc]# pcs status
Cluster name: cligrdbcluster
Stack: corosync
Current DC: dbmaster (version 1.1.15-11.e174ec8) - partition with quorum
Last updated: Mon Nov 13 19:15:30 2017
                                                      Last changed: Mon Nov 13 16:59:51 2017 by
root via crm_attribute on db master
2 nodes and 3 resources configured
Online: [ dbmaster dbslave ]
Full list of resrouces:
 Resrouce Group: VIPGroup
           PGMasterVIP
                                  (ocf::heartbeat:IPaddr2):
                                                                                 Started
dbmaster
Master/Slave Set: mspostgresql [pgsql]
          Masters: [ dbmaster ]
           Stopped: [ dbslave ]
Failed Actions:
* pgsql_start_0 on dbslave 'unknown error' (1): call=11, status=Timed Out, exitreason='none',
            last-rc-change='Mon Nov 13 18:15:25 2017', queued-0ms, exec=60003ms
Daemon Status:
           corosyn: active/disabled
            pacemaker: active/enabled
            pcsd: inactive/disabled
```

Solution

Proceed to recover the MGMTPOSTGRES_SLAVE database in order for the MGMTPOSTGRES to form a cluster.

Step 1. In the MGMTPOSTGRES_MASTER, ensure that the cluster is stopped.

```
pcs cluster stop
pcs status
```

Step 2. In MGMTPOSTGRES_SLAVE, delete the existing database.

```
rm -rf /var/lib/pgsql/9.5/data/*
```

Step 3. In the MGMTPOSTGRES_MASTER, start the cluster again.

pcs cluster start
pcs status

Step 4. In MGMTPOSTGRES_SLAVE, recover the database from the MGMTPOSTGRES_MASTER.

/usr/pgsql-9.5/bin/pg_basebackup -h <MGMTPOSTGRES_MASTER-IP> -D /var/lib/pgsql/9.5/data/ -U replication -v -P --xlog-method=stream

Step 5. In MGMTPOSTGRES_SLAVE, change the ownership of the recovered database.

chown postgres:postgres -R /var/lib/pgsql/9.5/data/*

Step 6. In MGMTPOSTGRES_SLAVE, start the cluster.

pcs cluster start
pcs cluster status

Step 7. In the MGMTPOSTGRES_MASTER, clean up the resources and check the cluster status.

pcs resource cleanup
pcs cluster status

Step 8. In the MGMTPOSTGRES_MASTER, verify that there is replication (look for the IP in the MGMTPOSTGRES_SLAVE IP).

ps -ef | grep postgr