Native HA Troubleshooting

Switchover in DCNM HA

Problem When Active node (represented as A) goes down, the Standby node (represented as B) takes the role of the Active node. However, when A node comes up, it takes the role of the Active node again. This condition is known as Switchover in DCNM HA. The old Active node must not take the role of Active node unless a failover is triggered or the HA heartbeat instances cannot talk to eachother.

Possible Cause This occurs when **shutdown** or **no shutdown** command is executed on the switch interfaces connected to DCNM eth1 interfaces. Heartbeat detects a Split-Brian syndrome. As both the nodes detect this condition, both the nodes will shut down and restart. Therefore, the DCNM Web UI A node becomes active again, when node A is operational again.

Solution

HA Ping feature allows you to shut down the heartbeat instances that cannot reach (ping) a specified device on the network.

Configure HA Ping IP address and Peer IP address on the device, by using the following commands on both the HA nodes.

```
HA_PING_ADDRESS=
PEER_ETH1_IP=
echo "* * * * * root /sbin/ha-ping.sh" > /etc/cron.d/ha-ping
echo "IP=$HA_PING_ADDRESS" > $DCNM_HA_HOME/ha-ping.conf
echo "PEER_IP=$PEER_ETH1_IP" >> $DCNM_HA_HOME/ha-ping.conf
chkconfig heartbeat off
sed -i "s/APP_STATUS_HEARTBEAT=.*/APP_STATUS_HEARTBEAT=ha-ping/g" /root/.DO_NOT_DELETE
```

To avoid HA Switchover, increase the Heartbeat's deadtime to 60 or 90 seconds. This avoids re-occurrence of this issue if shut and no shut duration is 30 to 60 seconds apart.

To increase the timers and thereby avoid the HA Switchover, you must edit the **deadtime** specified in the `/etc/ha.d/ha.cfg` file.

The following shows an example to edit the `edit /etc/ha.d/ha.cfg` file.

```
dcnm-standby# stop ha-apps
dcnm-active# stop ha-apps
```

Edit the deadtime value in `/etc/ha.d/ha.cfg` file on both the nodes.

Execute the **appmgr start ha-apps** on old Active node.

```
dcnm-active# appmgr start ha-apps
```

Wait until the Active node is active again. Verify the role using the **show ha-role** command.

Execute the **appmgr start ha-apps** on old Standby node.

```
dcnm-standby# appmgr start ha-apps
```

Failover causing Kafka not starting

Release Impacted

Cisco DCNM Release 11.1(1) only

Problem Cisco DCNM failover occurs and Kafka does not start after recovery.

> **Possible Cause** The `server.properties` in Kafka must be configured based on the Zookeeper application. The application framework assigns IP address for all the services. In the failover scenario, the **fmserver** is not operational and application framework is operational. In such situation, the Kafka application starts with wrong configuration.

Solution Let us indicate Cisco DCNM Active node and **dcnm1** and the Standby node as **dcnm2**. To troubleshoot this issue, you must restart the application framework services on both Active and Standby is the below mentioned order.

```
dcnm2# appmgr stop afw    /* Stop services on Standby node */
dcnm1# appmgr stop afw    /* Stop services on Active node */

dcnm1# appmgr start afw   /* Start services on Active node */
dcnm2# appmgr start afw   /* Start services on Standby node */
```