

Actifio Tech Brief

Configuring Node IP Failover between a Pair of Interfaces on the Primary CDS Node

This tech brief describes how to configure node IP failover between a pair of interfaces on the primary CDS node. If one interface fails or becomes disconnected, its node IP will fail over to the other interface. This provides network connectivity resiliency for the node IP addresses between these two interfaces.

Note: *configipfailover only works for the node IP address; the iSCSI IP of these two interfaces will not fail over.*

Note: *This document addresses only node IP failover on CDS primary node. It does not address CDS node failover.*

configipfailover Overview

Use the `udstask configipfailover` command to configure node failover between two interfaces.

Although this can be configured for any pair of CDS interfaces on the Primary CDS node, you typically configure this on two interfaces that have the same speed, such as eth0/eth1 (two 1G ports) or eth3/eth4 (two 10G ports).

Assume we enabling this for eth3/eth4, the node IP address of them now can move between eth3 and eth4.

Case 1: eth3 online and eth4 online, eth3 or eth4 will have its own node IP address only.

Case 2: eth3 down and eth4 online, eth4 will have 2 node IP addresses, its own plus the one from eth3.

Case 3: eth3 online and eth4 down, eth3 will have 2 node IP addresses, its own plus the one from eth4.

Case 4: eth3 down and eth4 down, where these two node IPs are hosted will depend on the order of the two interfaces when they went down. Note that both node IPs will stop sending and receiving traffic.

So regardless which of the node IPs of eth3 or eth4 is used for a remote network connection, the end-result is that the network connectivity will be maintained as long as at least one of eth3 and eth4 is online. This will provide the high availability for network connectivity with the node IPs of eth3 or eth4.

Before You Begin

- You need CDS CLI access.
- You will need to configure node IP on both interfaces.

Note: *An CDS primary node interface can have up to 3 IP addresses: a node IP, an iSCSI IP, and a cluster IP address (cluster ip only applies to eth0/eth1).*

Configuration Procedure

To configure node IP failover between a pair of interfaces (eth3/eth4) on the primary CDS node via the Actifio Appliance CLI:

1. Configure a node IP address for eth3:

```
# udstask configinterface -ipaddress 172.19.15.30 -mask 255.255.255.0 -gateway 172.19.15.1 -interface eth3
```

Note: *udsinfo lsconfiguredinterface will list all IPs that are configured on the interfaces of two CDS nodes.*

2. Configure a node IP address for eth4:

```
# udstask configinterface -ipaddress 172.19.15.32 -mask 255.255.255.0 -gateway 172.19.15.1 -interface eth4
```

3. Configure Node IP failover between eth3/eth4:

```
# udstask configipfailover -interface1 eth3 -interface2 eth4
# udsinfo lsipfailover
interface1 interface2
eth3      eth4
```

Note: *Alternatively you can configure node ip addresses for eth3/eth4 via the System Management Web UI: <https://<Appliance IP Address>/networkui/>, but you still have to configure the ipfailover via CDS CLI.*

IPfailover Usage

This feature can be used for CDS management, remote replication between Actifio appliances, VMware backup via LAN (NBD) etc.

CDS management access with HA

Use any one of the two node IPs of the Ipfailover interface pair for managing this CDS.

Remote replication between Actifio appliances with HA

When a remote CDS has Ipfailover configured for a pair of interfaces, you can configure its "operativeIP" on the local Actifio appliance to be one of the node IPs of the IPfailover pair. This allows replication to the remote CDS to continue working when one interface of the pair is down.

On the appliance that is the replication source, run:

```
# udsinfo lscluster
```

To learn <Cluster_ID> of the remote appliance on the local appliance:

```
# udstask chcluster -operativeip <IP> <Cluster_ID>
```

VMware backup via LAN (NBD)

Use any one of the node IPs of the Ipfailover interface pair for backup of VMware VMs via LAN (BDP).

AGM access to CDS with HA

Update AGM to use one of the node IPs of the IPfailover interface pair. This will allow AGM continue to communicate with CDS when one interface of the pair is down.

On the AGM, use `udsinfo lscluster` to change a cluster IP address used by the AGM:

To learn <cluster_agm_id> of the remote appliance on AGM:

```
# udstask chcluster -ipaddress <IP> cluster_agm_id
```

Appendix: Verify Configuration on CDS

```
# udsinfo lsversion
version                installed                component
9.0.3.747              2019-08-29 17:13:07    CDS
9.0.3.747              2019-08-29 17:13:07    srv-revision
# udsinfo lsipfailover
interface1 interface2
eth3         eth4
```

