



Configure intercluster LIFs

ONTAP MetroCluster

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Table of Contents

- Configure intercluster LIFs 1
 - Configuring intercluster LIFs on dedicated ports 1
 - Configuring intercluster LIFs on shared data ports 5

Configure intercluster LIFs

Configuring intercluster LIFs on dedicated ports

You can configure intercluster LIFs on dedicated ports. Doing so typically increases the available bandwidth for replication traffic.

Steps

1. List the ports in the cluster:

```
network port show
```

For complete command syntax, see the man page.

The following example shows the network ports in cluster01:

```
cluster01::> network port show
```

| (Mbps) | | | | | Speed | |
|--------------|------|---------|------------------|------|-------|------------|
| Node | Port | IPspace | Broadcast Domain | Link | MTU | Admin/Oper |
| ----- | | | | | | |
| ----- | | | | | | |
| cluster01-01 | | | | | | |
| | e0a | Cluster | Cluster | up | 1500 | auto/1000 |
| | e0b | Cluster | Cluster | up | 1500 | auto/1000 |
| | e0c | Default | Default | up | 1500 | auto/1000 |
| | e0d | Default | Default | up | 1500 | auto/1000 |
| | e0e | Default | Default | up | 1500 | auto/1000 |
| | e0f | Default | Default | up | 1500 | auto/1000 |
| cluster01-02 | | | | | | |
| | e0a | Cluster | Cluster | up | 1500 | auto/1000 |
| | e0b | Cluster | Cluster | up | 1500 | auto/1000 |
| | e0c | Default | Default | up | 1500 | auto/1000 |
| | e0d | Default | Default | up | 1500 | auto/1000 |
| | e0e | Default | Default | up | 1500 | auto/1000 |
| | e0f | Default | Default | up | 1500 | auto/1000 |

2. Determine which ports are available to dedicate to intercluster communication:

```
network interface show -fields home-port,curr-port
```

For complete command syntax, see the man page.

The following example shows that ports "e0e" and "e0f" have not been assigned LIFs:

```
cluster01::> network interface show -fields home-port,curr-port
vserver lif                home-port curr-port
-----
Cluster cluster01-01_clus1 e0a      e0a
Cluster cluster01-01_clus2 e0b      e0b
Cluster cluster01-02_clus1 e0a      e0a
Cluster cluster01-02_clus2 e0b      e0b
cluster01
      cluster_mgmt          e0c      e0c
cluster01
      cluster01-01_mgmt1    e0c      e0c
cluster01
      cluster01-02_mgmt1    e0c      e0c
```

3. Create a failover group for the dedicated ports:

```
network interface failover-groups create -vserver system_SVM -failover-group
failover_group -targets physical_or_logical_ports
```

The following example assigns ports "e0e" and "e0f" to the failover group "intercluster01" on the system SVM "cluster01":

```
cluster01::> network interface failover-groups create -vserver cluster01
-failover-group
intercluster01 -targets
cluster01-01:e0e,cluster01-01:e0f,cluster01-02:e0e,cluster01-02:e0f
```

4. Verify that the failover group was created:

```
network interface failover-groups show
```

For complete command syntax, see the man page.

```

cluster01::> network interface failover-groups show

```

| Vserver | Group | Failover Targets |
|-----------|----------------|--|
| Cluster | Cluster | cluster01-01:e0a, cluster01-01:e0b, cluster01-02:e0a, cluster01-02:e0b |
| cluster01 | Default | cluster01-01:e0c, cluster01-01:e0d, cluster01-02:e0c, cluster01-02:e0d, cluster01-01:e0e, cluster01-01:e0f cluster01-02:e0e, cluster01-02:e0f |
| | intercluster01 | cluster01-01:e0e, cluster01-01:e0f cluster01-02:e0e, cluster01-02:e0f |

5. Create intercluster LIFs on the system SVM and assign them to the failover group.

| ONTAP version | Command |
|-----------------|---|
| 9.6 and later | network interface create -vserver system_SVM -lif LIF_name -service-policy default-intercluster -home-node node -home -port port -address port_IP -netmask netmask -failover -group failover_group |
| 9.5 and earlier | network interface create -vserver system_SVM -lif LIF_name -role intercluster -home-node node -home-port port -address port_IP -netmask netmask -failover-group failover_group |

For complete command syntax, see the man page.

The following example creates intercluster LIFs "cluster01_icl01" and "cluster01_icl02" in the failover group "intercluster01":

```

cluster01::> network interface create -vserver cluster01 -lif
cluster01_icl01 -service-
policy default-intercluster -home-node cluster01-01 -home-port e0e
-address 192.168.1.201
-netmask 255.255.255.0 -failover-group intercluster01

cluster01::> network interface create -vserver cluster01 -lif
cluster01_icl02 -service-
policy default-intercluster -home-node cluster01-02 -home-port e0e
-address 192.168.1.202
-netmask 255.255.255.0 -failover-group intercluster01

```

6. Verify that the intercluster LIFs were created:

In ONTAP 9.6 and later:

```
network interface show -service-policy default-intercluster
```

In ONTAP 9.5 and earlier:

```
network interface show -role intercluster
```

For complete command syntax, see the man page.

```

cluster01::> network interface show -service-policy default-intercluster

```

| Current Is | Logical | Status | Network | Current |
|------------|-----------------|------------|------------------|------------------|
| Vserver | Interface | Admin/Oper | Address/Mask | Node |
| Home | | | | Port |
| cluster01 | cluster01_icl01 | up/up | 192.168.1.201/24 | cluster01-01 e0e |
| true | cluster01_icl02 | up/up | 192.168.1.202/24 | cluster01-02 e0f |
| true | | | | |

7. Verify that the intercluster LIFs are redundant:

In ONTAP 9.6 and later:

```
network interface show -service-policy default-intercluster -failover
```

In ONTAP 9.5 and earlier:

```
network interface show -role intercluster -failover
```

For complete command syntax, see the man page.

The following example shows that the intercluster LIFs "cluster01_icl01" and "cluster01_icl02" on the SVM "e0e" port will fail over to the "e0f" port.

```
cluster01::> network interface show -service-policy default-intercluster
-failover
```

| Vserver | Logical Interface | Home Node:Port | Failover Policy | Failover Group |
|----------------|----------------------|-------------------|---|-------------------|
| cluster01 | cluster01_icl01 | cluster01-01:e0e | local-only | |
| intercluster01 | | | Failover Targets: cluster01-01:e0e, cluster01-01:e0f | |
| cluster01 | cluster01_icl02 | cluster01-02:e0e | local-only | |
| intercluster01 | | | Failover Targets: cluster01-02:e0e, cluster01-02:e0f | |

Configuring intercluster LIFs on shared data ports

You can configure intercluster LIFs on ports shared with the data network. Doing so reduces the number of ports you need for intercluster networking.

Steps

1. List the ports in the cluster:

```
network port show
```

For complete command syntax, see the man page.

The following example shows the network ports in cluster01:

```
cluster01::> network port show
```

| (Mbps) | | Speed | | | | |
|--------------|------|---------|------------------|------|------|------------|
| Node | Port | IPspace | Broadcast Domain | Link | MTU | Admin/Oper |
| ----- | | | | | | |
| cluster01-01 | | | | | | |
| | e0a | Cluster | Cluster | up | 1500 | auto/1000 |
| | e0b | Cluster | Cluster | up | 1500 | auto/1000 |
| | e0c | Default | Default | up | 1500 | auto/1000 |
| | e0d | Default | Default | up | 1500 | auto/1000 |
| cluster01-02 | | | | | | |
| | e0a | Cluster | Cluster | up | 1500 | auto/1000 |
| | e0b | Cluster | Cluster | up | 1500 | auto/1000 |
| | e0c | Default | Default | up | 1500 | auto/1000 |
| | e0d | Default | Default | up | 1500 | auto/1000 |

2. Create intercluster LIFs on the system SVM:

In ONTAP 9.6 and later:

```
network interface create -vserver system_SVM -lif LIF_name -service-policy
default-intercluster -home-node node -home-port port -address port_IP -netmask
netmask
```

In ONTAP 9.5 and earlier:

```
network interface create -vserver system_SVM -lif LIF_name -role intercluster
-home-node node -home-port port -address port_IP -netmask netmask
```

For complete command syntax, see the man page.

The following example creates intercluster LIFs cluster01_icl01 and cluster01_icl02:

```
cluster01::> network interface create -vserver cluster01 -lif
cluster01_icl01 -service-
policy default-intercluster -home-node cluster01-01 -home-port e0c
-address 192.168.1.201
-netmask 255.255.255.0

cluster01::> network interface create -vserver cluster01 -lif
cluster01_icl02 -service-
policy default-intercluster -home-node cluster01-02 -home-port e0c
-address 192.168.1.202
-netmask 255.255.255.0
```


3. Verify that the intercluster LIFs were created:

In ONTAP 9.6 and later:

```
network interface show -service-policy default-intercluster
```

In ONTAP 9.5 and earlier:

```
network interface show -role intercluster
```

For complete command syntax, see the man page.

```
cluster01::> network interface show -service-policy default-intercluster
```

| | Logical | Status | Network | Current | |
|------------|-----------------|------------|------------------|--------------|------|
| Current Is | | | | | |
| Vserver | Interface | Admin/Oper | Address/Mask | Node | Port |
| Home | | | | | |
| | ----- | ----- | ----- | ----- | |
| cluster01 | | | | | |
| | cluster01_icl01 | | | | |
| | | up/up | 192.168.1.201/24 | cluster01-01 | e0c |
| true | | | | | |
| | cluster01_icl02 | | | | |
| | | up/up | 192.168.1.202/24 | cluster01-02 | e0c |
| true | | | | | |

4. Verify that the intercluster LIFs are redundant:

In ONTAP 9.6 and later:

```
network interface show -service-policy default-intercluster -failover
```

In ONTAP 9.5 and earlier:

```
network interface show -role intercluster -failover
```

For complete command syntax, see the man page.

The following example shows that the intercluster LIFs "cluster01_icl01" and "cluster01_icl02" on the "e0c" port will fail over to the "e0d" port.

```
cluster01::> network interface show -service-policy default-intercluster
-failover
```

| Vserver | Logical Interface | Home Node:Port | Failover Policy | Failover Group |
|---------|----------------------|-------------------|--------------------|-------------------|
|---------|----------------------|-------------------|--------------------|-------------------|

```
cluster01
```

| | | | | |
|--|-----------------|------------------|------------|--|
| | cluster01_icl01 | cluster01-01:e0c | local-only | |
|--|-----------------|------------------|------------|--|

```
192.168.1.201/24
```

```
Failover Targets: cluster01-01:e0c,
                  cluster01-01:e0d
```

| | | | | |
|--|-----------------|------------------|------------|--|
| | cluster01_icl02 | cluster01-02:e0c | local-only | |
|--|-----------------|------------------|------------|--|

```
192.168.1.201/24
```

```
Failover Targets: cluster01-02:e0c,
                  cluster01-02:e0d
```

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