



Configure intercluster LIFs

ONTAP MetroCluster

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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	<pre> 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 </pre>
9.5 and earlier	<pre> 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 </pre>

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
          Logical          Home          Failover          Failover
Vserver  Interface         Node:Port        Policy            Group
-----  -
cluster01
          cluster01_icl01 cluster01-01:e0e  local-only
intercluster01
                                Failover Targets: cluster01-01:e0e,
                                                                cluster01-01:e0f
          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_ic101	cluster01-01:e0c	local-only	
--	-----------------	------------------	------------	--

192.168.1.201/24

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

	cluster01_ic102	cluster01-02:e0c	local-only	
--	-----------------	------------------	------------	--

192.168.1.201/24

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

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