



Configure intercluster LIFs

ONTAP MetroCluster

NetApp
March 29, 2024

This PDF was generated from https://docs.netapp.com/us-en/ontap-metrocluster/upgrade/task_configure_intercluster_lifs_to_use_dedicated_intercluster_ports.html on March 29, 2024. Always check docs.netapp.com for the latest.

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						Speed
(Mbps)	Node	Port	IPspace	Broadcast Domain	Link	Admin/Oper
<hr/>						
<hr/>						
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
                           Failover
Vserver          Group      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
      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  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
                                         Speed
                                         (Mbps)
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
-hom
e-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
      Logical          Home          Failover          Failover
Vserver  Interface    Node:Port    Policy        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
```

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—with prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.