



# **network connections commands**

## **ONTAP 9.15.1 commands**

NetApp  
December 18, 2024

# Table of Contents

- network connections commands ..... 1
- network connections active show-clients ..... 1
- network connections active show-lifs ..... 2
- network connections active show-protocols ..... 4
- network connections active show-services ..... 5
- network connections active show ..... 6
- network connections listening show ..... 9

# network connections commands

## network connections active show-clients

Show a count of the active connections by client

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

### Description

The `network connections active show-clients` command displays information about client connections, including the client's IP address and the number of client connections.



The results of this command set are refreshed independently every 30 seconds and might not reflect the immediate state of the system.

### Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>, ...` parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node**

Use this parameter to display information only about the connections on the node you specify.

**[-vserver <vserver>] - Vserver**

This parameter is used by the system to break down the output per vserver.

**[-remote-address <Remote IP>] - Remote IP Address**

Use this parameter to display information only about the connections that use the remote IP address you specify.

**[-count <integer>] - Client Count**

Use this parameter to only clients with the number of active client connections you specify.

### Examples

The following example displays information about active client connections:

```

cluster1::> network connections active show-clients
Node      Vserver Name      Client IP Address      Count
-----
node0     vs1                192.0.2.253           1
         vs2                192.0.2.252           2
         vs3                192.0.2.251           5
node1     vs1                192.0.2.250           1
         vs2                192.0.2.252           3
         vs2                customer.example.com    4

```

## network connections active show-lifs

Show a count of the active connections by logical interface

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

### Description

The `network connections active show-lifs` command displays the number of active connections on each logical interface, organized by node and Vserver.



The results of this command set are refreshed independently every 30 seconds and might not reflect the immediate state of the system.

### Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node**

Use this parameter to display information only about the connections on the node you specify.

**[-vserver <vserver>] - Vserver**

Use this parameter to display information only about the connections that are using the node or Vserver you specify.

**[-lif-name <lif-name>] - Logical Interface Name**

Use this parameter to display information only about the connections that are using the logical interface you specify.

**[-count <integer>] - Client Count**

Use this parameter to display only logical interfaces with the number of active client connections you specify.

## `[-blocked-count <integer>] - (DEPRECATED)-Load Balancing Blocking Count`



This parameter has been deprecated and may be removed in a future version of Data ONTAP.

Use this parameter to display information only about data logical interfaces blocked from migrating and the connection that is blocking it.

### Examples

The following example displays information about the servers and logical interfaces being used by all active connections:

```
cluster1::> network connections active show-lifs
Node      Vserver Name  Interface Name  Count
-----
node0
  vs0      datalif1      3
  vs0      cluslif1      6
  vs0      cluslif2      5
node1
  vs0      datalif2      3
  vs0      cluslif1      3
  vs0      cluslif2      5
node2
  vs1      datalif2      1
  vs1      cluslif1      5
  vs1      cluslif2      3
node3
  vs1      datalif1      1
  vs1      cluslif1      2
  vs1      cluslif2      1
```

At privilege levels above "admin", the command displays an extra column.

```
cluster1::*> network connections active show-lifs
```

Node	Vserver Name	Interface Name	Count	LB Migrate Blocking
node0				
	vs0	datalif1	3	0
	vs0	cluslif1	6	0
	vs0	cluslif2	5	2
node1				
	vs0	datalif2	3	0
	vs0	cluslif1	3	0
	vs0	cluslif2	5	0
node2				
	vs1	datalif2	1	0
	vs1	cluslif1	5	0
	vs1	cluslif2	3	2
node3				
	vs1	datalif1	1	0
	vs1	cluslif1	2	0
	vs1	cluslif2	1	0

## network connections active show-protocols

Show a count of the active connections by protocol

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

### Description

The `network connections active show-protocols` command displays the number of active connections per protocol, organized by node.



The results of this command set are refreshed independently every 30 seconds and might not reflect the immediate state of the system.

### Parameters

{ [-fields <fieldname>,...]

If you specify the `-fields <fieldname>, ...` parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

| [-instance ] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

### **[`-node` {<nodename>|local}] - Node**

Use this parameter to display information only about the connections on the node you specify.

### **[`-vserver` <vserver>] - Vserver**

This parameter is used by the system to break down the output per vservers.

### **[`-proto` {UDP|TCP}] - Protocol**

Use this parameter to display information only about the connections that use the network protocol you specify. Possible values include tcp (TCP), udp (UDP), and NA (not applicable).

### **[`-count` <integer>] - Client Count**

Use this parameter to display only protocols with the number of active client connections you specify.

## Examples

The following example displays information about all network protocols being used by active connections:

```
cluster1::> network connections active show-protocols
Node      Vserver Name      Protocol      Count
-----
node0
          vs1              UDP           19
          vs1              TCP           11
          vs2              UDP           17
node1
          vs1              UDP           14
          vs2              TCP           10
```

## network connections active show-services

Show a count of the active connections by service

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

### Description

The `network connections active show-services` command displays the number of active connections by protocol service, organized by node.



The results of this command set are refreshed independently every 30 seconds and might not reflect the immediate state of the system.

### Parameters

**{ [`-fields` <fieldname>,...]**

If you specify the `-fields <fieldname>, ...` parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**[`-instance` ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[`-node` {<nodename>|local}] - Node**

Use this parameter to display information only about the connections on the node you specify.

**[`-vserver` <vserver>] - Vserver**

This parameter is used by the system to break down the output per vservers

**[`-service` <protocol service>] - Protocol Service**

Use this parameter to display information only about the connections that use the protocol service you specify. Possible values include: `nfs`, `iscsi`, and `loopback`.

**[`-count` <integer>] - Client Count**

Use this parameter to display information only about protocol services with the number of active client connections you specify.

## Examples

The following example displays information about all protocol services being used by active connections:

```
cluster1::> network connections active show-services
Node          Vserver Name      Service           Count
-----
node0
      vs1          mount              3
      vs1          nfs                 14
      vs1          nlm_v4             4
      vs1          cifs_srv           3
      vs1          port_map           18
      vs2          rclopcp            27
node1
      vs1          nfs                 5
      vs2          rclopcp            12
      vs2          nfs                 4
      vs2          port_map           8
```

## network connections active show

Show the active connections in this cluster

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

### Description

The `network connections active show` command displays information about active network connections.





The results of this command set are refreshed independently every 30 seconds and might not reflect the immediate state of the system.

## Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-print-ip-addresses ]**

Print IP addresses for remote hosts — do not attempt to resolve the addresses to a hostname.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node**

Selects the connections that match this parameter value.

**[-cid <Cid>] - Connection ID**

Selects the connections that match this parameter value.

**[-vserver <vserver>] - Vserver**

Selects the connections that match this parameter value.

**[-lif-name <lif-name>] - Logical Interface Name**

Selects the connections that match this parameter value.

**[-local-address <IP Address>] - Local IP address**

Selects the connections that match this parameter value.

**[-local-port <integer>] - Local Port**

Selects the connections that match this parameter value.

**[-remote-ip <InetAddress>] - Remote IP Address**

Selects the connections that match this parameter value.

**[-remote-host <Remote IP>] - Remote Host**

Selects the connections that match this parameter value.

**[-remote-port <integer>] - Remote Port**

Selects the connections that match this parameter value.

**[-proto {UDP|TCP}] - Protocol**

Selects the connections that match this parameter value. Possible values are `tcp` (TCP), `udp` (UDP), and `NA` (not applicable).

**[-lifid <integer>] - Logical Interface ID**

Selects the connections that match this parameter value.

**[-service <protocol service>] - Protocol Service**

Selects the connections that match this parameter value. Possible values include: nfs, iscsi, and loopback.

**[-lru {yes|no}] - Least Recently Used**

Selects the connections that match this parameter value.

**[-blocks-lb {true|false}] - Connection Blocks Load Balance Migrate**

Selects the logical interfaces that are blocked (true) or not blocked (false) from migrating due to an active client connection.

## Examples

The following example displays information about active network connections for the node named node0:

```
cluster1::> network connections active show node -node0
```

Vserver Name	Interface Name:Local Port	Remote IP Address:Port	Protocol/Service
node0	cluslif1:7070	192.0.2.253:48621	UDP/rclopcp
node0	cluslif1:7070	192.0.2.253:48622	UDP/rclopcp
node0	cluslif2:7070	192.0.2.252:48644	UDP/rclopcp
node0	cluslif2:7070	192.0.2.250:48646	UDP/rclopcp
node0	cluslif1:7070	192.0.2.245:48621	UDP/rclopcp
node0	cluslif1:7070	192.0.2.245:48622	UDP/rclopcp
node0	cluslif2:7070	192.0.2.251:48644	UDP/rclopcp
node0	cluslif2:7070	192.0.2.251:48646	UDP/rclopcp
node0	cluslif1:7070	192.0.2.248:48621	UDP/rclopcp
node0	cluslif1:7070	192.0.2.246:48622	UDP/rclopcp
node0	cluslif2:7070	192.0.2.252:48644	UDP/rclopcp
node0	cluslif2:7070	192.0.2.250:48646	UDP/rclopcp
node0	cluslif1:7070	192.0.2.254:48621	UDP/rclopcp
node0	cluslif1:7070	192.0.2.253:48622	UDP/rclopcp
[...]			

At privilege levels above "admin", the command displays an extra column.

```
cluster1::*> network connections active show node -node0
```

Vserver Name	Interface Name:Local Port	Remote IP Address:Port	Protocol/Service	Blocks LB Migrate
node0	cluslif1:7070	192.0.2.253:48621	UDP/rclopcp	false
node0	cluslif1:7070	192.0.2.253:48622	UDP/rclopcp	false
node0	cluslif2:7070	192.0.2.252:48644	UDP/rclopcp	false
node0	cluslif2:7070	192.0.2.250:48646	UDP/rclopcp	false
node0	cluslif1:7070	192.0.2.245:48621	UDP/rclopcp	false
node0	cluslif1:7070	192.0.2.245:48622	UDP/rclopcp	false
node0	cluslif2:7070	192.0.2.251:48644	UDP/rclopcp	false
node0	cluslif2:7070	192.0.2.251:48646	UDP/rclopcp	false
node0	cluslif1:7070	192.0.2.248:48621	UDP/rclopcp	false
node0	cluslif1:7070	192.0.2.246:48622	UDP/rclopcp	false
node0	cluslif2:7070	192.0.2.252:48644	UDP/rclopcp	false
node0	cluslif2:7070	192.0.2.250:48646	UDP/rclopcp	false
node0	cluslif1:7070	192.0.2.254:48621	UDP/rclopcp	false
node0	cluslif1:7070	192.0.2.253:48622	UDP/rclopcp	false

[...]

## network connections listening show

Show the listening connections in this cluster

**Availability:** This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

### Description

The `network connections listening show` command displays information about network connections that are in an open and listening state.

### Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>, ...` parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node**

Selects the listening connections that match this parameter value.

**[-mgmt-cid <integer>] - Management Connection ID**

Selects the listening connections that match this parameter value.

**[-vserver <vserver>] - Vserver**

Selects the listening connections that match this parameter value.

**[-cid <integer>] - System Connection ID**

Selects the listening connections that match this parameter value.

**[-lif-name <lif-name>] - Logical Interface Name**

Selects the listening connections that match this parameter value.

**[-local-address <IP Address>] - Local IP Address**

Selects the listening connections that match this parameter value.

**[-local-port <integer>] - Local Port**

Selects the listening connections that match this parameter value.

**[-remote-ip <InetAddress>] - Remote IP Address**

Selects the listening connections that match this parameter value.

**[-remote-host <Remote IP>] - Remote Host**

Selects the listening connections that match this parameter value.

**[-remote-port <integer>] - Remote Port**

Selects the listening connections that match this parameter value.

**[-proto {UDP|TCP}] - Protocol**

Selects the listening connections that match this parameter value. Possible values include tcp (TCP), udp (UDP), and NA (not applicable).

**[-lifid <integer>] - Logical Interface ID**

Selects the listening connections that match this parameter value.

**[-service <protocol service>] - Protocol Service**

Selects the listening connections that match this parameter value. Possible values include: nfs, iscsi, and loopback.

**[-lru {yes|no}] - Least Recently Used**

Selects the listening connections that match this parameter value.

## Examples

The following example displays information about all listening network connections:

```

cluster1::> network connections listening show
Vserver Name Interface Name:Local Port Protocol/Service
-----
node0 cluslif1:7700 UDP/rclopcp
node0 cluslif2:7700 UDP/rclopcp
node1 cluslif1:7700 UDP/rclopcp
node1 cluslif2:7700 UDP/rclopcp
node2 cluslif1:7700 UDP/rclopcp
node2 cluslif2:7700 UDP/rclopcp
node3 cluslif1:7700 UDP/rclopcp
node3 cluslif2:7700 UDP/rclopcp
8 entries were displayed.

```

The following example displays detailed information about listening network connections for the node named node0:

```

cluster1::> network connections listening show -node node0
Node: node0
Management Connection Id: 0
System Connection Id: 0
Vserver: vs0
Logical Interface Name: datalif1
Local IP address: 192.0.2.130
Local Port: 111
Remote IP address:
Remote Port: 0
Protocol: UDP
Logical Interface Id: 1029
Protocol Service: port_map
least recently used: yes
Node: node0
Management Connection Id: 1
System Connection Id: 0
Server: vs0
Logical Interface Name: datalif2
Local IP address: 192.0.2.131
Local Port: 111
Remote IP address:
Remote Port: 0
Protocol: UDP
Logical Interface Id: 1030
Protocol Service: port_map
least recently used: yes

```

## 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—without 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.