



# **network connections commands**

## **ONTAP 9.7 commands**

NetApp  
February 11, 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 vservers.

**[-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<br>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<br>Name | Interface<br>Name:Local Port | Remote<br>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 | Interface       | Remote            |                  | Blocks     |
|---------|-----------------|-------------------|------------------|------------|
| Name    | Name:Local Port | IP Address:Port   | Protocol/Service | 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
```

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