



network route commands

ONTAP 9.15.1 commands

NetApp
December 18, 2024

Table of Contents

- network route commands 1
 - network route create 1
 - network route delete 1
 - network route show-lifs 2
 - network route show 3
 - network route active-entry show 4

network route commands

network route create

Create a static route

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

Description

The `network route create` command creates a static route within a Vserver.

Parameters

-vserver <vserver> - Vserver Name

Use this parameter to specify the Vserver on which the route is to be created.

-destination <IP Address/Mask> - Destination/Mask

Use this parameter to specify the IP address and subnet mask of the route's destination. The format for this value is: address, slash ("/"), mask. 0.0.0.0/0 is a valid destination value to create default IPv4 route. And ::/0 is a valid destination value to create default IPv6 route

-gateway <IP Address> - Gateway

Use this parameter to specify the IP address of the gateway server leading to the route's destination.

[-metric <integer>] - Metric

Use this parameter to specify the metric of the route.

Examples

The following example creates default routes within Vserver vs0 for IPv4 and IPv6.

```
cluster1::> network route create -vserver vs0 -destination 0.0.0.0/0
-gateway 10.61.208.1
cluster1::> network route create -vserver vs0 -destination ::/0 -gateway
3ffe:1::1
```

network route delete

Delete a static route

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

Description

The `network route delete` command deletes a static route from a Vserver.

Parameters

-vserver <vserver> - Vserver Name

Use this parameter to specify the Vserver on which the route is to be deleted.

-destination <IP Address/Mask> - Destination/Mask

Use this parameter to specify the IP address and subnet mask of the route's destination. The format for this value is: address, slash ("/"), mask. For example, 0.0.0.0/0 is a correctly formatted value for the -destination parameter.

-gateway <IP Address> - Gateway

Use this parameter to specify the gateway on which the route is to be deleted.

Examples

The following example deletes a route within Vserver vs0 for destination 0.0.0.0/0.

```
cluster1::network route delete -vserver vs0 -destination 0.0.0.0/0
```

network route show-lifs

Show the Logical Interfaces for each route entry

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

Description

The `network route show-lifs` command displays the association of static routes and Logical Interfaces (LIFs) within one or more Vservers. You can view routes within specified Vservers, routes with specified destinations, and routes with specified gateways.

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.

[-vserver <vserver>] - Vserver Name

Use this parameter to display only routes that have the specified Vserver as their origin.

[-destination <IP Address/Mask>] - Destination/Mask

Use this parameter to display only routes that have the specified IP address and subnet mask as their destination. The format for this value is: address, slash ("/"), mask. For example, 0.0.0.0/0 is a valid value for the -destination parameter.

[-gateway <IP Address>] - Gateway

Use this parameter to display only routes that have the specified IP address as their gateway.

[-lifs <lif-name>,...] - Logical Interfaces

Use this parameter to display only the routes that are associated with the specified Logical Interfaces (LIFs).

[-address-family {ipv4|ipv6|ipv6z}] - Address Family

Use this parameter to display only the routes that belong to specified address family.

network route show

Display static routes

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

Description

The `network route show` command displays a group of static routes within one or more Vservers. You can view routes within specified Vservers, routes with specified destinations, and routes with specified gateways.

Parameters

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

Use this parameter to display only certain fields of the routing tables.

| [-instance] }

Use this parameter to display all fields of the routing tables.

[-vserver <vserver>] - Vserver Name

Use this parameter to display only routes that have the specified Vserver as their origin.

[-destination <IP Address/Mask>] - Destination/Mask

Use this parameter to display only routes that have the specified IP address and subnet mask as their destination. The format for this value is: address, slash ("/"), mask. The example below has 0.0.0.0/0 as a valid value for the -destination parameter.

[-gateway <IP Address>] - Gateway

Use this parameter to display only routes that have the specified IP address as their gateway.

[-metric <integer>] - Metric

Use this parameter to display only routes that have the specified metric.

[-ipspace <IPspace>] - IPspace Name

Use this parameter to optionally specify the IPspace associated with the Vserver. This parameter can be used in conjunction with the Vserver parameter in order to configure the same route across multiple Vservers within an IPspace.

[-address-family {ipv4|ipv6|ipv6z}] - Address family of the route

Use this parameter to display only the routes that have the specified address-family.

Examples

The following example displays information about all routing groups.

```
cluster1::> network route show
(network route show)
Server          Destination      Gateway          Metric
-----
node1
                0.0.0.0/0       10.61.208.1     20
node2
                0.0.0.0/0       10.61.208.1     20
vs0
                0.0.0.0/0       10.61.208.1     20
3 entries were displayed.
```

network route active-entry show

Display active routes

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

Description

The `network route active-entry show` command displays installed routes on one or more nodes. You can view routes within specified nodes, within specified Vservers, routes in specified subnet groups, and routes with specified destinations.

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.

| [-verbose] (privilege: advanced)

Use this parameter to display the reference count, use, interface, and Path MTU fields.

| [-instance] }

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

[-vserver <vserver>] - Vserver Name (privilege: advanced)

Displays the routes that have the specified Vserver as their origin.

[`-node {<nodename>|local}`] - Node (privilege: advanced)

Displays the routes from the specified node.

[`-address-type {ipv4|ipv6|ipv6z}`] - Address Family (privilege: advanced)

Displays the routes that have the specified IP address type.

[`-subnet-group <IP Address/Mask>`] - Subnet Group (privilege: advanced)

Displays the group of routes that belong to the specified subnet. Routes within the specified subnet group are used first before the default set. The "default" subnet group is a system-provided set of default routes.

[`-destination <text>`] - Destination (privilege: advanced)

Displays the routes that have the specified IP address or subnet as their destination. The format for the subnet is: <address>/<mask>. IPv6 address includes the scope value after percentage ("%"). 0.0.0.0/0, 169.254.4.60, ff02::%e0a/32 and fe80::250:56ff:fea6:db7c%e0b are valid values for this parameter.

[`-interface <text>`] - Interface Name (privilege: advanced)

Displays the routes that use the specified interface to transmit packets to the destination. A valid interface has the format of {<netport>|<ifgrp>}, such as "e0a", "e0a-1" and "a0a", or it can be a loopback interface, such as "lo" and "losk".

[`-route-interface-address <text>`] - Route Interface Address (privilege: advanced)

Displays the routes that use the specified IP address on the transmit interface.

[`-gateway <text>`] - Route gateway (privilege: advanced)

Displays the routes that have the specified gateway. The gateway can be an IP address, such as "10.10.2.1" and "fe80::1%lo", MAC address, such as "0:5:73:a0:1:7" or refer to a local link, such as "link#3".

[`-metric <integer>`] - Metric (privilege: advanced)

Displays the routes that have the specified metric.

[`-flags <text>`] - Flags (privilege: advanced)

Displays the routes that have the specified flags. The type string for "-flags" needs to be one or more of the following {U|G|H|R|D|S|1|2|L|C} in the order shown.

- U - Usable
- G - Gateway
- H - Host
- R - Reject
- D - Dynamic
- S - Static
- 1 - Protocol1
- 2 - Protocol2
- L - Linfo
- C - Clone

Multiple values can be specified (for example: UHL).

[-reference-count <integer>] - Reference Count (privilege: advanced)

Displays the routes that have the specified reference count in the system.

[-lookup-count <integer>] - Lookup Count (privilege: advanced)

Displays the routes that have the specified use count (the count of lookups for the route).

[-path-mtu <integer>] - Path MTU (privilege: advanced)

Displays the routes that have the specified path maximum transmission unit.

Examples

The following example displays active routes on all nodes in Vserver vs0 with subnet-group 10.10.10.0/24.

```
cluster1::*> network route active-entry show -vserver vs0 -subnet-group
10.10.10.0/24
(network route active-entry show)
```

```
Vserver: vs0
```

```
Node: node1
```

```
Subnet Group: 10.10.10.0/24
```

Destination	Gateway	Interface	Metric	Flags
default	10.10.10.1	e0c	0	UGS

```
Vserver: vs0
```

```
Node: node2
```

```
Subnet Group: 10.10.10.0/24
```

Destination	Gateway	Interface	Metric	Flags
default	10.10.10.1	e0c	0	UGS

```
2 entries were displayed.
```


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.