



# **network ndp commands**

## **ONTAP 9.7 commands**

NetApp  
December 14, 2022

# Table of Contents

- network ndp commands ..... 1
  - network ndp default-router delete-all ..... 1
  - network ndp default-router show ..... 1
  - network ndp neighbor create ..... 2
  - network ndp neighbor delete ..... 3
  - network ndp neighbor show ..... 3
  - network ndp neighbor active-entry delete ..... 4
  - network ndp neighbor active-entry show ..... 5
  - network ndp prefix delete-all ..... 7
  - network ndp prefix show ..... 7

# network ndp commands

## network ndp default-router delete-all

Delete default routers on a given IPspace

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

### Description

The `network ndp default-router delete-all` command deletes default router lists from the specified IPspace.

### Parameters

**-ipSPACE <IPspace> - IPspace Name**

Use this parameter to specify the IPspace where the default routers are to be deleted.

### Examples

The following example deletes default routers from IPspace ips1.

```
cluster1::*> network ndp default-router delete-all -ipSPACE ips1
```

## network ndp default-router show

Display default routers

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

### Description

The `network ndp default-router show` command displays Neighbor Discovery Protocol (NDP) default routers learned on a specified port.

### 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**

Displays the NDP default routers from the specified node.

**[`-ipSPACE` <IPspace>] - IPspace name**

Displays the NDP default routers from the specified IPspace.

**[`-port` {<netport>|<ifgrp>}] - Port**

Displays the NDP default routers from the specified port.

**[`-router-addr` <IP Address>] - Router Address**

Displays the default routers that have the specified IPv6 addresses.

**[`-flag` {none|managed-address-DHCPv6|other-DHCPv6}] - Flag**

Displays the default routers that have the specified flag. The flag indicates whether addresses are available via DHCPv6 or other configuration information is available via DHCPv6.

**[`-expire-time` { [<integer>d] [<integer>h] [<integer>m] [<integer>s] | never | expired}] - Expire Time**

Displays the default routers that have the specified expire time.

## Examples

The following example displays NDP default routers on local port e0f.

```
cluster1::*> network ndp default-router show -port e0f -node local

Node: node1
IPspace: Default
Port      Router Address          Flag          Expire Time
-----
e0f       fe80::5:73ff:fea0:107    none          0d0h23m9s
```

## network ndp neighbor create

Create a static NDP neighbor entry

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

### Description

The `network ndp neighbor create` command creates a static Neighbor Discovery Protocol (NDP) neighbor entry within a Vserver.

### Parameters

**`-vserver` <vserver name> - Vserver Name**

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

**`-neighbor` <IP Address> - Neighbor Address**

Use this parameter to specify the neighbor's IPv6 address.

### **-mac-address <MAC Address> - MAC Address**

Use this parameter to specify the neighbor's MAC address.

## **Examples**

The following example creates a NDP neighbor entry within Vserver vs0.

```
cluster1::*> network ndp neighbor create -vserver vs0 -neighbor 20:20::20
-mac-address 10:10:10:0:0:1
```

## **network ndp neighbor delete**

Delete a static NDP neighbor entry

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

### **Description**

The `network ndp neighbor delete` command deletes a static Neighbor Discovery Protocol (NDP) neighbor from a Vserver.

### **Parameters**

#### **-vserver <vserver name> - Vserver Name**

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

#### **-neighbor <IP Address> - Neighbor Address**

Use this parameter to specify the neighbor's IPv6 address.

## **Examples**

The following example deletes a NDP neighbor entry within Vserver vs0.

```
cluster1::*> network ndp neighbor delete -vserver vs0 -neighbor 20:20::20
```

## **network ndp neighbor show**

Display static NDP neighbor entries

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

### **Description**

The `network ndp neighbor show` command displays a group of static Neighbor Discovery Protocol (NDP) neighbors within one or more Vservers. You can view static NDP neighbors within specified Vservers, neighbors with specified IPv6 address, and neighbors with specified MAC address.

## 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 name>] - Vserver Name**

Displays the static NDP neighbors that have the specified Vserver as their origin.

**[-neighbor <IP Address>] - Neighbor Address**

Displays the static NDP neighbors that have the specified IPv6 address.

**[-mac-address <MAC Address>] - MAC Address**

Displays the static NDP neighbors that have the specified MAC address.

## Examples

The following example displays all of the static NDP neighbors configured on Vserver vs0.

```
cluster1::*> network ndp neighbor show -vserver vs0
Vserver           Neighbor           MAC Address
-----
vs0
                  10:10::10         04:04:04:04:04:04
                  20:20::20         01:01:01:01:01:01
2 entries were displayed.
```

## network ndp neighbor active-entry delete

Delete active neighbor entry from a System or Admin Vserver

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

### Description

The `network ndp neighbor active-entry delete` command deletes a Network Discovery Protocol (NDP) neighbor entry on the specified port from a given Vserver's subnet group.

### Parameters

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

Use this parameter to specify the node on which the neighbor entry is to be deleted.

**-vserver <vserver> - System or Admin Vserver Name**

Use this parameter to specify the System or Admin Vserver on which the neighbor entry is to be deleted.

**-subnet-group <IP Address/Mask> - Subnet Group**

Use this parameter to specify the subnet group from which the neighbor entry is to be deleted.

**-neighbor <IP Address> - Neighbor**

Use this parameter to specify the IPv6 address of the neighbor entry which is to be deleted.

**-port {<netport>|<ifgrp>} - Port**

Use this parameter to specify the port on which the neighbor entry is to be deleted.

## Examples

The following example deletes a neighbor entry from the Admin Vserver cluster1:

```
cluster1::*> network ndp neighbor active-entry delete -vserver cluster1
-node local -subnet-group ::/0 -neighbor fe80:4::5:73ff:fea0:107 -port e0d
```

## network ndp neighbor active-entry show

Display active neighbor entries organized by Vserver

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

### Description

The `network ndp neighbor active-entry show` command displays Network Discovery Protocol (NDP) neighbor cache entries on one or more nodes. You can view ndp neighbors within specified nodes and within specified System or Admin Vservers.

### 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 ]**

Displays the expire time, state, is-router, and probe count fields.

**| [-instance ] }**

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

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

Displays the NDP neighbors from the specified node.

**[-vserver <vserver>] - System or Admin Vserver Name**

Displays the NDP neighbors from the specified System or Admin Vserver. Data and Node Vservers do not have dynamic NDP neighbors.

**[-subnet-group <IP Address/Mask>] - Subnet Group**

Displays the NDP neighbors in the specified subnet group.

**[-neighbor <IP Address>] - Neighbor**

Displays the NDP neighbors that have the specified IPv6 address.

**[-port {<netport>|<ifgrp>}] - Port**

Displays the NDP neighbors on the specified port.

**[-mac-address <MAC Address>] - MAC Address**

Displays the NDP neighbors have the specified MAC address.

**[-expire-time { [<integer>d] [<integer>h] [<integer>m] [<integer>s] | never | expired } ] - Expire Time**

Displays the NDP neighbors have the specified expire time.

**[-state {<nostate|incomplete|reachable|stale|delay|probe|unknown>}] - State**

Displays the NDP neighbors in the specified state.

**[-is-router {true|false}] - Is Router**

Displays the NDP neighbor which is a router.

**[-probe-count <integer>] - Probe Count**

Displays the NDP neighbors with the specified probe count. Probe count is the number of times that this neighbor's MAC address has been queried.

**[-is-static {true|false}] - Is Static**

Displays the NDP neighbors which are statically configured.

## Examples

The following example displays NDP neighbors on the Admin Vserver cluster1:



```
cluster1::*> network ndp neighbor active-entry show -vserver cluster1
```

```
Node: node1
```

```
Vserver: cluster1
```

```
Subnet Group: ::/0
```

Neighbor	MAC Address	Port
-----	-----	-----
fe80:4::5:73ff:fea0:107	00:05:73:a0:01:07	e0d
fe80:4::226:98ff:fe0c:b6c1	00:26:98:0c:b6:c1	e0d
fe80:4::4255:39ff:fe25:27c1	40:55:39:25:27:c1	e0d

3 entries were displayed.

## network ndp prefix delete-all

Delete IPv6 prefixes on a given IPspace

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

### Description

The `network ndp prefix delete-all` command deletes all prefixes learned from the specified IPspace.

### Parameters

**-ipspace <IPspace> - IPspace Name**

Use this parameter to specify the IPspace where the IPv6 prefixes are to be deleted.

### Examples

The following example deletes all IPv6 prefixes within IPspace ips1.

```
cluster1::*> network ndp prefix delete-all -ipspace ips1
```

## network ndp prefix show

Display IPv6 prefixes

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

### Description

The `network ndp prefix show` command displays IPv6 prefixes on one or more nodes.

## 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 ]**

Displays the valid-lifetime, preferred-lifetime, origin and advertising-router fields.

**| [-instance ] }**

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

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

Displays the IPv6 prefixes from the specified node.

**[-ipSPACE <IPspace>] - IPspace name**

Displays the IPv6 prefixes from the specified IPspace.

**[-port {<netport>|<ifgrp>}] - Port**

Displays the IPv6 prefixes on the specified port.

**[-prefix <IP Address/Mask>] - Prefix**

Displays the IPv6 prefixes with the specified prefix value.

**[-flag {none|on-link|autonomous|on-link-autonomous}] - Flag**

Displays the IPv6 prefixes with the specified flag. The flag indicates whether a prefix is on-link and whether it can be used in autonomous address configuration.

**[-valid-lifetime {<unsigned integer>|infinity}] - Valid Lifetime**

Displays the IPv6 prefixes having the specified valid lifetime in seconds.

**[-preferred-lifetime {<unsigned integer>|infinity}] - Preferred Lifetime**

Displays the IPv6 prefixes having the specified preferred lifetime in seconds.

**[-expire-time { [<integer>d] [<integer>h] [<integer>m] [<integer>s] | never | expired}] - Expire Time**

Displays the IPv6 prefixes having the specified expire time.

**[-origin {router-advertise|renumber-request|static|kernel|unknown}] - Origin of the Prefix**

Displays the IPv6 prefixes with the specified origin.

**[-advertising-router <IP Address>,...] - Router that Advertised the Prefix**

Displays the IPv6 prefixes which are propagated by the specified router list.

## Examples

The following example displays IPv6 prefixes on port e0f.

```
cluster1::*> network ndp prefix show -port e0f -node local
```

```
Node: node1
```

```
IPspace: Default
```

Port	Prefix	Flag	Expire Time
e0f	fd20:8b1e:b255:814e::/64	on-link-autonomous	29d23h56m48s

## Copyright information

Copyright © 2022 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.