

NAME

networkctl – Query the status of network links

SYNOPSIS

networkctl [OPTIONS...] COMMAND [LINK...]

DESCRIPTION

networkctl may be used to introspect the state of the network links as seen by **systemd-networkd**. Please refer to **systemd-networkd.service(8)** for an introduction to the basic concepts, functionality, and configuration syntax.

COMMANDS

The following commands are understood:

list [*PATTERN*...]

Show a list of existing links and their status. If one or more *PATTERNS* are specified, only links matching one of them are shown. If no further arguments are specified shows all links, otherwise just the specified links. Produces output similar to:

```

IDX LINK      TYPE  OPERATIONAL SETUP
  1 lo        loopback carrier  unmanaged
  2 eth0      ether  routable  configured
  3 virbr0    ether  no-carrier unmanaged
  4 virbr0-nic ether  off      unmanaged

```

4 links listed.

The operational status is one of the following:

missing

the device is missing

off

the device is powered down

no-carrier

the device is powered up, but it does not yet have a carrier

dormant

the device has a carrier, but is not yet ready for normal traffic

degraded-carrier

for bond or bridge master, one of the bonding or bridge slave network interfaces is in off, no-carrier, or dormant state

carrier

the link has a carrier, or for bond or bridge master, all bonding or bridge slave network interfaces are enslaved to the master.

degraded

the link has carrier and addresses valid on the local link configured

enslaved

the link has carrier and is enslaved to bond or bridge master network interface

routable

the link has carrier and routable address configured

The setup status is one of the following:

pending

udev is still processing the link, we don't yet know if we will manage it

failed
networkd failed to manage the link

configuring
in the process of retrieving configuration or configuring the link

configured
link configured successfully

unmanaged
networkd is not handling the link

linger
the link is gone, but has not yet been dropped by networkd

status [*PATTERN*...]

Show information about the specified links: type, state, kernel module driver, hardware and IP address, configured DNS servers, etc. If one or more *PATTERNS* are specified, only links matching one of them are shown.

When no links are specified, an overall network status is shown. Also see the option **---all**.

Produces output similar to:

```
State: routable
Address: 10.193.76.5 on eth0
        192.168.122.1 on virbr0
        169.254.190.105 on eth0
        fe80::5054:aa:bbbb:cccc on eth0
Gateway: 10.193.11.1 (CISCO SYSTEMS, INC.) on eth0
DNS: 8.8.8.8
     8.8.4.4
```

lldp [*PATTERN*...]

Show discovered LLDP (Link Layer Discovery Protocol) neighbors. If one or more *PATTERNS* are specified only neighbors on those interfaces are shown. Otherwise shows discovered neighbors on all interfaces. Note that for this feature to work, *LLDP=* must be turned on for the specific interface, see **systemd.network(5)** for details.

Produces output similar to:

LINK	CHASSIS ID	SYSTEM NAME	CAPS	PORT ID	PORT DESCRIPTION
enp0s25	00:e0:4c:00:00:00	GS1900	..b..... 2	Port #2	

Capability Flags:

o – Other; p – Repeater; b – Bridge; w – WLAN Access Point; r – Router;
t – Telephone; d – DOCSIS cable device; a – Station; c – Customer VLAN;
s – Service VLAN, m – Two-port MAC Relay (TPMR)

1 neighbors listed.

label

Show numerical address labels that can be used for address selection. This is the same information that **ip-addrlabel(8)** shows. See [RFC 3484^{\[1\]}](#) for a discussion of address labels.

Produces output similar to:

Prefix/Prefixlen	Label
------------------	-------

::/0	1
fc00::/7	5
fec0::/10	11
2002::/16	2
3ffe::/16	12
2001:10::/28	7
2001::/32	6
::ffff:0.0.0.0/96	4
::/96	3
::1/128	0

delete

Deletes virtual netdevs. Takes interface name or index number.

renew

Renew dynamic configurations e.g. addresses received from DHCP server. Takes interface name or index number.

reconfigure

Reconfigure network interfaces. Takes interface name or index number.

reload

Reload .netdev and .network files. If a new .netdev file is found, then the corresponding netdev is created. Note that even if an existing .netdev is modified or removed, **systemd-networkd** does not update or remove the netdev. If a new, modified or removed .network file is found, then all interfaces which match the file are reconfigured.

OPTIONS

The following options are understood:

-a --all

Show all links with **status**.

-s --stats

Show link statistics with **status**.

-l, --full

Do not ellipsize the output.

-n, --lines=

When used with **status**, controls the number of journal lines to show, counting from the most recent ones. Takes a positive integer argument. Defaults to 10.

-h, --help

Print a short help text and exit.

--version

Print a short version string and exit.

--no-legend

Do not print the legend, i.e. column headers and the footer with hints.

--no-pager

Do not pipe output into a pager.

EXIT STATUS

On success, 0 is returned, a non-zero failure code otherwise.

SEE ALSO

systemd-networkd.service(8), **systemd.network(5)**, **systemd.netdev(5)**, **ip(8)**

NOTES

1. RFC 3484
<https://tools.ietf.org/html/rfc3484>

NETWORKCTL(1)

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