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.

OPTIONS

The following options are understood:

−a −−all
Show all links with **status**.

−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.

COMMANDS

The following commands are understood:

list [*PATTERN...*]
Show a list of existing links and their status. If one ore more *PATTERN*s 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:

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 ore more *PATTERN*s 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 *PATTERN*s 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
```

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