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Rocky Enterprise Linux 9.2 Manual Pages on command 'ip.8'

$ man ip.8

IP(8)   Linux   IP(8)

NAME

    ip - show / manipulate routing, network devices, interfaces and tunnels

SYNOPSIS

    ip [OPTIONS] OBJECT { COMMAND | help }

    ip [-force] -batch filename

    OBJECT := { link | address | addrlabel | route | rule | neigh | ntable

        | tunnel | tuntap | maddress | mroute | mrule | monitor | xfrm

        | netns | l2tp | tcp_metrics | token | macsec | vrf | mptcp |

        ioam | stats }

    OPTIONS := { -V[ersion] | -h[uman-readable] | -s[tatistics] |

        -d[etails] | -r[esolve] | -iec | -f[amily] { inet | inet6 |

        link } | -4 | -6 | -B | -0 | -l[oops] { maximum-addr-flush-at?

        tempts } | -o[neline] | -rc[vbuf] [size] | -t[imestamp] |

        -ts[hort] | -n[etns] name | -N[umeric] | -a[ll] | -c[olor] |

        -br[ief] | -j[son] | -p[retty] }

OPTIONS

    -V, -Version

Print the version of the ip utility and exit.

-h, -human, -human-readable

　　output statistics with human readable values followed by suffix.

-b, -batch <FILENAME>

　　Read commands from provided file or standard input and invoke

　　them. First failure will cause termination of ip.

-force Don't terminate ip on errors in batch mode. If there were any

　　errors during execution of the commands, the application return

　　code will be non zero.

-s, -stats, -statistics

　　Output more information. If the option appears twice or more,

　　the amount of information increases. As a rule, the information

　　is statistics or some time values.

-d, -details

　　Output more detailed information.

-l, -loops <COUNT>

　　Specify maximum number of loops the 'ip address flush' logic

　　will attempt before giving up. The default is 10. Zero (0)

　　means loop until all addresses are removed.

-f, -family <FAMILY>

　　Specifies the protocol family to use. The protocol family iden?

　　tifier can be one of inet, inet6, bridge, mpls or link. If this

　　option is not present, the protocol family is guessed from other

　　arguments. If the rest of the command line does not give enough

　　information to guess the family, ip falls back to the default

　　one, usually inet or any. link is a special family identifier

　　meaning that no networking protocol is involved.

-4　　shortcut for -family inet.

-6　　shortcut for -family inet6.

-B　　shortcut for -family bridge.

-M　　shortcut for -family mpls.

-0　　shortcut for -family link.

-o, -oneline

output each record on a single line, replacing line feeds with
the '\' character. This is convenient when you want to count
records with wc(1) or to grep(1) the output.

-r, -resolve

use the system's name resolver to print DNS names instead of
host addresses.

-n, -netns <NETNS>

switches ip to the specified network namespace NETNS. Actually
it just simplifies executing of:

ip netns exec NETNS ip [OPTIONS] OBJECT { COMMAND | help }

to

ip -n[etns] NETNS [OPTIONS] OBJECT { COMMAND | help }

-N, -Numeric

Print the number of protocol, scope, dsfield, etc directly in?
stead of converting it to human readable name.

-a, -all

executes specified command over all objects, it depends if com?
mand supports this option.

-c[color][={always|auto|never}

Configure color output. If parameter is omitted or always, color
output is enabled regardless of stdout state. If parameter is
auto, stdout is checked to be a terminal before enabling color
output. If parameter is never, color output is disabled. If
specified multiple times, the last one takes precedence. This
flag is ignored if -json is also given.
Used color palette can be influenced by COLORFGBG environment
variable (see ENVIRONMENT).

-t, -timestamp

display current time when using monitor option.

-ts, -tshort

Like -timestamp, but use shorter format.

-rc, -rcvbuf<SIZE>

Set the netlink socket receive buffer size, defaults to 1MB.

-iec   print human readable rates in IEC units (e.g. 1Ki = 1024).

-br, -brief

   Print only basic information in a tabular format for better

   readability. This option is currently only supported by ip addr

   show , ip link show & ip neigh show commands.

-j, -json

   Output results in JavaScript Object Notation (JSON).

-p, -pretty

   The default JSON format is compact and more efficient to parse

   but hard for most users to read. This flag adds indentation for

   readability.

-echo   Request the kernel to send the applied configuration back.

IP - COMMAND SYNTAX

  OBJECT

    address

       - protocol (IP or IPv6) address on a device.

    addrlabel

       - label configuration for protocol address selection.

    ioam   - manage IOAM namespaces and IOAM schemas.

    l2tp   - tunnel ethernet over IP (L2TPv3).

    link   - network device.

    maddress

       - multicast address.

    monitor

       - watch for netlink messages.

    mptcp - manage MPTCP path manager.

    mroute - multicast routing cache entry.

    mrule - rule in multicast routing policy database.

    neighbour

       - manage ARP or NDISC cache entries.

    netns - manage network namespaces.

    ntable - manage the neighbor cache's operation.

    route - routing table entry.

rule   - rule in routing policy database.

stats - manage and show interface statistics.

tcp_metrics/tcpmetrics

      - manage TCP Metrics

token - manage tokenized interface identifiers.

tunnel - tunnel over IP.

tuntap - manage TUN/TAP devices.

vrf   - manage virtual routing and forwarding devices.

xfrm   - manage IPSec policies.

The names of all objects may be written in full or abbreviated form,

for example address can be abbreviated as addr or just a.

COMMAND

Specifies the action to perform on the object. The set of possible ac?

tions depends on the object type. As a rule, it is possible to add,

delete and show (or list) objects, but some objects do not allow all

of these operations or have some additional commands. The help command

is available for all objects. It prints out a list of available com?

mands and argument syntax conventions.

If no command is given, some default command is assumed. Usually it is

list or, if the objects of this class cannot be listed, help.

ENVIRONMENT

COLORFGBG

If set, it's value is used for detection whether background is

dark or light and use contrast colors for it.

COLORFGBG environment variable usually contains either two or

three values separated by semicolons; we want the last value in

either case. If this value is 0-6 or 8, chose colors suitable

for dark background:

COLORFGBG=";0" ip -c a

EXIT STATUS

Exit status is 0 if command was successful, and 1 if there is a syntax

error. If an error was reported by the kernel exit status is 2.

EXAMPLES

ip addr

Shows addresses assigned to all network interfaces.

ip neigh

Shows the current neighbour table in kernel.

ip link set x up

Bring up interface x.

ip link set x down

Bring down interface x.

ip route

Show table routes.

HISTORY

ip was written by Alexey N. Kuznetsov and added in Linux 2.2.

SEE ALSO

ip-address(8), ip-addrlabel(8), ip-ioam(8), ip-l2tp(8), ip-link(8), ip-

maddress(8), ip-monitor(8), ip-mptcp(8), ip-mroute(8), ip-neighbour(8),

ip-netns(8), ip-ntable(8), ip-route(8), ip-rule(8), ip-stats(8) ip-

tcp_metrics(8), ip-token(8), ip-tunnel(8), ip-vrf(8), ip-xfrm(8)

IP Command reference ip-cref.ps

REPORTING BUGS

Report any bugs to the Network Developers mailing list <net?

dev@vger.kernel.org> where the development and maintenance is primarily

done. You do not have to be subscribed to the list to send a message

there.

AUTHOR

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