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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'ip-nexthop.8' command

$ man ip-nexthop.8

IP-NEXTHOP(8) Linux IP-NEXTHOP(8)

NAME

ip-nexthop - nexthop object management

SYNOPSIS

ip [ip-OPTIONS] nexthop { COMMAND | help }

ip nexthop { show | flush } SELECTOR

ip nexthop { add | replace } id ID NH

ip nexthop { get | del } id ID

ip nexthop bucket list BUCKET_SELECTOR

ip nexthop bucket get id ID index INDEX

SELECTOR := [id ID] [dev DEV] [vrf NAME] [master DEV] [groups] [fdb]

BUCKET_SELECTOR := SELECTOR | [nhid ID]

NH := { blackhole | [via ADDRESS] [dev DEV] [onlink] [encap EN? CAP] [fdb] | group GROUP [fdb] [type TYPE [TYPE_ARGS]] }

ENCAP := [ENCAP_MPLS]

ENCAP_MPLS := mpls [LABEL] [ttl TTL]

GROUP := id[,weight[/...]

TYPE := { mpath | resilient }

TYPE_ARGS := [RESILIENT_ARGS]

RESILIENT_ARGS := [buckets BUCKETS] [idle_timer IDLE] [unbal? anced_timer UNBALANCED]

DESCRIPTION

ip nexthop is used to manipulate entries in the kernel's nexthop ta?

bles.

ip nexthop add id ID

add new nexthop entry

ip nexthop replace id ID

change the configuration of a nexthop or add new one

via [FAMILY] ADDRESS

the address of the nexthop router, in the address family

FAMILY. Address family must match address family of nex?

thop instance.

dev NAME

is the output device.

onlink pretend that the nexthop is directly attached to this

link, even if it does not match any interface prefix.

encap ENCAPTYPE ENCAPHDR

attach tunnel encapsulation attributes to this route.

ENCAPTYPE is a string specifying the supported encapsula?

tion type. Namely:

mpls - encapsulation type MPLS

ENCAPHDR is a set of encapsulation attributes specific to

the ENCAPTYPE.

mpls

MPLSLABEL - mpls label stack with labels sepa?

rated by /

ttl TTL - TTL to use for MPLS header or 0 to

inherit from IP header

group GROUP [type TYPE [TYPE_ARGS]]

create a nexthop group. Group specification is id with an

optional weight (id,weight) and a '/' as a separator be?

tween entries.

TYPE is a string specifying the nexthop group type.

Namely:

mpath - Multipath nexthop group backed by the
hash-threshold algorithm. The default when the
type is unspecified.
resilient - Resilient nexthop group. Group is re?
silient to addition and deletion of nexthops.

TYPE_ARGS is a set of attributes specific to the TYPE.
resilient
buckets BUCKETS - Number of nexthop buckets.
Cannot be changed for an existing group
idle_timer IDLE - Time in seconds in which a
nexthop bucket does not see traffic and is
therefore considered idle. Default is 120 sec?
onds
unbalanced_timer UNBALANCED - Time in seconds
in which a nexthop group is unbalanced and is
therefore considered unbalanced. The kernel
will try to rebalance unbalanced groups, which
might result in some flows being reset. A value
of 0 means that no rebalancing will take place.
Default is 0 seconds

blackhole
create a blackhole nexthop

fdb nexthop and nexthop groups for use with layer-2 fdb en?
tries. A fdb nexthop group can only have fdb nexthops.
Example: Used to represent a vxlan remote vtep ip.
layer-2 vxlan fdb entry pointing to an ecmp nexthop group
containing multiple remote vtep ips.

ip nexthop delete id ID
delete nexthop with given id.

ip nexthop show
show the contents of the nexthop table or the nexthops selected
by some criteria.
dev DEV

show the nexthops using the given device.

vrf NAME

show the nexthops using devices associated with the vrf name

master DEV

show the nexthops using devices enslaved to given master device

groups show only nexthop groups

fdb show only fdb nexthops and nexthop groups

ip nexthop flush

flushes nexthops selected by some criteria. Criteria options are the same as show.

ip nexthop get id ID

get a single nexthop by id

ip nexthop bucket show

show the contents of the nexthop bucket table or the nexthop buckets selected by some criteria.

id ID

show the nexthop buckets that belong to a nexthop group with a given id

nhid ID

show the nexthop buckets that hold a nexthop with a given id

dev DEV

show the nexthop buckets using the given device

vrf NAME

show the nexthop buckets using devices associated with the vrf name

master DEV

show the nexthop buckets using devices enslaved to given master device

ip nexthop bucket get id ID index INDEX

get a single nexthop bucket by nexthop group id and bucket index

EXAMPLES

ip nexthop ls

Show all nexthop entries in the kernel.

ip nexthop add id 1 via 192.168.1.1 dev eth0

Adds an IPv4 nexthop with id 1 using the gateway 192.168.1.1 out device eth0.

ip nexthop add id 2 encap mpls 200/300 via 10.1.1.1 dev eth0

Adds an IPv4 nexthop with mpls encapsulation attributes attached to it.

ip nexthop add id 3 group 1/2

Adds a nexthop with id 3. The nexthop is a group using nexthops with ids 1 and 2 at equal weight.

ip nexthop add id 4 group 1,5/2,11

Adds a nexthop with id 4. The nexthop is a group using nexthops with ids 1 and 2 with nexthop 1 at weight 5 and nexthop 2 at weight 11.

ip nexthop add id 5 via 192.168.1.2 fdb

Adds a fdb nexthop with id 5.

ip nexthop add id 7 group 5/6 fdb

Adds a fdb nexthop group with id 7. A fdb nexthop group can only have fdb nexthops.

ip nexthop add id 10 group 1/2 type resilient buckets 32

Add a resilient nexthop group with id 10 and 32 nexthop buckets.

SEE ALSO

ip(8)

AUTHOR

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