

Activate / Deactivate Interface
ip link set dev <interface> up
ip link set dev <interface> down

Add / Remove an IPv6 address
ip -6 addr add <ipv6addr>I<prefix> dev <interface>
ip -6 addr del <ipv6addr>I<prefix> dev <interface>

Show IP Addresses
ip addr show //show all addresses on all interfaces
ip -6 addr show dev <interface> //show IPv6 addresses for one interface

IPv6 routes
ip -6 route show //show all IPv6 routes
ip -6 route show dev <interface> //show all IPv6 routes related to that interface
ip -6 route add <ipv6net>I<prefix> via <ipv6addr> //add a new route for a network
ip -6 route del <ipv6net>I<prefix> via <ipv6addr> //remove a route for a network
ip -6 route add default via <ipv6addr> dev <interface> //add a default route for an interface

Neighbor Discovery
ip -6 neigh show //show neighbors and state
States in ND
Incomplete NS sent, wait for response
Reachable Neighbor is currently reachable
Stale Timeout reached, no further action
Delay First probe sent, waiting for answer b4 retry
Probe State after Delay, retry every RetransTimer ms

Multicast addresses
FF02::1 All-Nodes-Multicast group
FF02::2 All-Router-Multicast group

Linux privacy extension via sysctl
net.ipv6.conf.<interface>.use_tempaddr=1 Add a temporary, random address to the given interface.
net.ipv6.conf.<interface>.use_tempaddr=2 Add a temporary, random address to the given interface and use it as the preferred address.
net.ipv6.conf.<interface>.temp_valid_lft=86400 Set the lifetime of the random address to 86400 seconds (one day) – default is seven days.

ICMPv6 message numbers	
1-127: error	128-255: informal
133 Router Solicitation	134 Router Advertisement
135 Neighbor Solicitation	136 Neighbor Advertisement