

Network Tools Cheat Sheet

Iproute2

Link

- `ip link set eth0 down` : set interface eth0 down.
- `ip link set eth0 up` : set interface eth0 up.
- `ip link add dev eth0 eth0.1000 type vlan id 1000 :
add vlan interface eth0.1000 using eth0.`

Address

- `ip addr add 192.168.1.40/24 dev eth0` : add address 192.168.1.40 on interface eth0.
- `ip addr del 192.168.1.40/24 dev eth0` : del address 192.168.1.40 on interface eth0.

Route

- `ip route add 10.0.0.0/24 via 192.168.0.254 :
add gateway 192.168.0.254 for 10.0.0.0/24 network.`
- `ip route change default via 192.168.0.254 :
change default gateway to 192.168.0.254.`

ARP table

- `ip neigh` : print ARP cache.
- `ip neigh flush dev eth0` : flush ARP cache on eth0.

Shortcuts

- `ip link` : `ip l`
- `ip address` : `ip addr`, `ip a`
- `ip route` : `ip r`
- `ip neighbour` : `ip neigh`, `ip n`
- `ip rule` : `ip ru`

Traffic Control

- `modprobe ifb` : add ifb0 and ifb1 interface.
- `tc qdisc add dev eth0 ingress` : add ingress qdisc on eth0

Iptables

- `iptables-save > rules.v4` : save IPv4 rules in a file.
- `iptables-restore < rules.v4` : restore IPv4 rules from a file.
- `iptables -t nat -A POSTROUTING -s 192.168.0.0/24 -j MASQUERADE :
nat 192.168.0.0/24 network.`
- `ip6tables` : IPv6 rules command line tool.

Bridge

- `brctl show` : Show bridges and interfaces.
- `brctl addbr br0` : Add bridge br0.
- `brctl delbr br0` : Del bridge br0.
- `brctl addif br0 eth0` : Add interface eth0 to bridge br0.
- `brctl delif br0 eth0` : Delete interface eth0 from bridge br0.
- `brctl stp on/off` : Set STP on/off.
- `brctl setageing br0 0` : Set br0 in switch-mode.
- `brctl help` : Print help.

Sysctl

- `sysctl -w net.ipv4.ip_forward=1` : activate IPv4 forwarding.
- `sysctl -w net.ipv6.conf.all.forwarding=1` : activate IPv6 forwarding.

SSH

Config

- `Host titan` : Host selection.
- `User root` : connect as root user.
- `HostName ssh.inpt.fr` : connect to ssh.inpt.fr.
- `DynamicForward 127.0.0.1:3128` : proxy SOCK.
- `LocalForward 127.0.0.1:10521 127.0.0.1:1521` : local forward.
- `man ssh.config` : help for the ~/.ssh/config file.

Forwarding

- `ssh -X` : active X11 forwarding.
- `ssh -L1234:10.0.0.1:8080` :
listen locally on port 1234 and redirect connection to 10.0.0.1:8080 throw remote host.
- `ssh -R1234:10.0.0.1:8080` :
listen remotely on port 1234 and redirect connection to 10.0.0.1:8080 throw local host.
- `ssh -D3128` : listen locally for sock connection.

Various tools

dig (replacing lookup)

- `dig tetaneutral.net`
- `dig -x 91.224.149.170` : search reverse of 91.224.149.170.
- `dig tetaneutral.net axfr` : ask for tetaneutral.net zone transfert.

mtr (replacing traceroute)

- `mtr tetaneutral.net` : show route to tetaneutral.net.