

# CheatSheet: Linux Networking

## LINUX

- PDF Link: [cheatsheet-networking-A4.pdf](#), Category: linux
- Blog URL: <https://cheatsheet.dennyzhang.com/cheatsheet-networking-A4>
- Related posts: [CheatSheet: Linux File](#), [CheatSheet: Linux Process](#), [#denny-cheatsheets](#)

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## 1.1 Linux Networking

| Name                          | Comment   |
|-------------------------------|---|
| Examine network nic traffic   | <code>ethtool -S eth0</code>  |
| Check system configuration    | <code>sysctl -a</code>  |
| Ports for well-known services | <code>cat /etc/services</code>  |
| Reference                     | SSH CheatSheet, Tcpdump CheatSheet, CheatSheet: Curl & Wget                     |
| Reference                     | CheatSheet: Linux File, CheatSheet: Linux Process, CheatSheet: Linux Networking |

## 1.2 HTTP

| Name                                  | Command  |
|---------------------------------------|--|
| See HTTP request statistics           | <code>httpstat https://www.google.com (brew install httpstat)</code> |
| Monitor HTTP URLs                     | SaaS: <a href="#">uptimerobot.com</a>                                |
| Examine web page performance          | SaaS: <a href="#">pingdom.com</a>                                    |
| Test webpage from different browsers  | SaaS: <a href="#">www.browserling.com</a>                            |
| Export local http service to Internet | SaaS: <a href="#">ngrok.com</a>                                      |
| Reference                             | CheatSheet: Curl & Wget, GitHub: <a href="#">free-for-dev</a>        |

## 1.3 TCP

| Name                         | Comment   |
|------------------------------|---|
| List all listening tcp ports | <code>netstat -tunlp</code>   |
| Port scan for a given host   | <code>sudo nmap -O 192.168.1.103</code> , SaaS: <a href="#">viewdns.info/portscan</a> |
| Add 97ms latency to eth0     | Link: <code>tc, tc qdisc add dev eth0 root netem delay 97ms</code>                    |
| Check tc status              | <code>tc -s qdisc</code>  |
| Remove tc rule               | <code>tc qdisc del dev eth0 root netem</code>   |
| Check network speed          | SaaS: <a href="#">www.att.com/speedtest</a>   |
| Tcp manual                   | <code>man 7 tcp</code>  |
| Reference                    | Tcpdump CheatSheet  |

## 1.4 Route

| Name             | Comment   |
|------------------|---|
| List route rules | <code>route -n, netstat -nr</code>  |
| Add default rule | <code>route add default gw 10.0.0.1 netmask 255.255.255.0 dev eth0</code>   |
| Add route rule   | <code>route add -net 0.0.0.0 gw 192.168.1.1 netmask 0.0.0.0 dev eth0</code> |
| Del route rule   | <code>route del -net 192.168.3.0 netmask 255.255.255.0 dev eth1</code>      |

## 1.5 DNS

| Name                     | Comment   |
|--------------------------|---|
| Check dns naming         | <code>sudo nslookup www.google.com</code>   |
| Print routing table      | <code>netstat -rn</code>  |
| List all the router hops | <code>traceroute</code>   |
| DNS lookup utility       | <code>host www.google.com</code>  |
| DNS pin test             | SaaS: <a href="#">viewdns.info</a>  |
| Websites To Register DNS | Link: <a href="#">Google Domain DNS</a> , Link: <a href="#">GoDaddy</a> , Link: <a href="#">Amazon Route 53</a> |

## 1.6 CDN

| Name         | Command                           |
|--------------|-----------------------------------|
| CDN services | <code>cloudflare, jsDelivr</code> |

## 1.7 TCP sockets workflow

| Name  | Comment   |
|---|---|
| create a new anonymous socket                             | <code>s = socket(&lt;parameters&gt;)</code>     |
| Bind tcp port to a socket                                 | <code>bind(s, &lt;local IP:port&gt;)</code>     |
| Create a socket to remote endpoint                        | <code>connect(s, &lt;remote IP:port&gt;)</code> |
| Create local socket and make it eligible to take requests | <code>listen(s, ...)</code>                     |
| Accept client requests                                    | <code>s2 = accept(s)</code>                     |
| Read n bytes from a socket                                | <code>n = read(s, buffer, n)</code>             |
| Write n bytes to a socket                                 | <code>n = write(s, buffer, n)</code>            |
| Close a socket  | <code>close(s)</code>                           |
| Shutdown stdin and stdout/stderr for a socket             | <code>shutdown(s, &lt;side&gt;)</code>          |
| Read socket options                                       | <code>getsockopt(s, ..)</code>                  |
| Change socket options                                     | <code>setsockopt(s, ..)</code>                  |

## 1.8 More Resources

License: Code is licensed under MIT License.

<https://github.com/trimstray/the-book-of-secret-knowledge>