

# Исследование транспортного уровня

1. Проведите исследование открытых соединений на вашем компьютере с помощью утилиты Netstat (пример команды в презентации).

```
[mac@vlad ~ % netstat -an
Active Internet connections (including servers)
Proto Recv-Q Send-Q Local Address      Foreign Address    (state)
tcp4      0      0 192.168.0.109.55647 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55646 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55639 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55638 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55636 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55635 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55634 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55616 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55614 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55611 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55604 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55582 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55580 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55562 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.55539 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.51762 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.51759 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.51758 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.51749 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.50741 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.50737 213.180.193.234.443 ESTABLISHED
tcp4      0      0 192.168.0.109.49734 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.49726 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.49725 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.49724 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.49611 51.159.223.118.9540 ESTABLISHED
tcp4      0      0 192.168.0.109.65494 173.194.221.188.5228 ESTABLISHED
tcp4      0      0 192.168.0.109.64676 213.180.204.179.443 ESTABLISHED
tcp6      0      0 *.64588            *.*                LISTEN
tcp4      0      0 *.64588            *.*                LISTEN
tcp6      0      0 *.5000             *.*                LISTEN
tcp4      0      0 *.5000             *.*                LISTEN
tcp6      0      0 *.7000             *.*                LISTEN
tcp4      0      0 *.7000             *.*                LISTEN
tcp4      0      0 192.168.0.109.57625 17.57.146.136.5223 ESTABLISHED
[mac@vlad ~ % netstat -an | grep LISTEN
tcp6      0      0 *.64588            *.*                LISTEN
tcp4      0      0 *.64588            *.*                LISTEN
tcp6      0      0 *.5000             *.*                LISTEN
tcp4      0      0 *.5000             *.*                LISTEN
tcp6      0      0 *.7000             *.*                LISTEN
tcp4      0      0 *.7000             *.*                LISTEN
[mac@vlad ~ %
```

2. С помощью утилиты nmap (<https://nmap.org/>) просканируйте порты любого хоста... включите любопытство найдите хост не только с 80 и 443 портами =) Для каждого из обнаруженных портов укажите какой сервис вероятнее всего запущен на исследуемых хостах. Самый простой пример работы смотрите в презентации.

```
[mac@vlad ~ % nmap school30.spb.ru
Starting Nmap 7.94 ( https://nmap.org ) at 2023-11-12 18:10 MSK
Nmap scan report for school30.spb.ru (172.67.208.228)
Host is up (0.051s latency).
Other addresses for school30.spb.ru (not scanned): 104.21.85.184
Not shown: 996 filtered tcp ports (no-response)
PORT      STATE SERVICE
80/tcp    open  http
443/tcp    open  https
8080/tcp   open  http-proxy
8443/tcp   open  https-alt

Nmap done: 1 IP address (1 host up) scanned in 59.73 seconds

[mac@vlad ~ % nmap -p 80 172.67.208.228
Starting Nmap 7.94 ( https://nmap.org ) at 2023-11-12 18:31 MSK
Nmap scan report for 172.67.208.228
Host is up (0.052s latency).

PORT      STATE SERVICE
80/tcp    open  http

Nmap done: 1 IP address (1 host up) scanned in 0.13 seconds
```