Top 5 Linux Utilities for Network Engineers

Panos Vouzis, Co-founder

Agenda

I. Nmap
II. Tcpdump
III. Netcat
IV. iPerf
V. Speedtest

Speaker

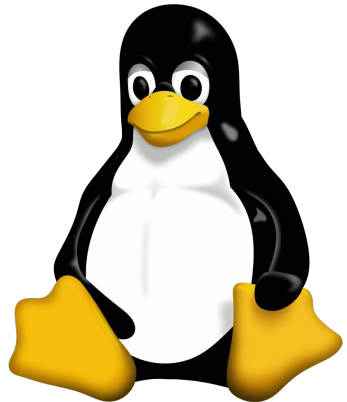
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Why Learn Linux?

- Networking and application stack boundaries getting blurred
- Open Source (OpenStack Neutron)
- White-label networking hardware runs Linux (OpenWrt, CumulusVX, AristaEOS, CiscoNX)

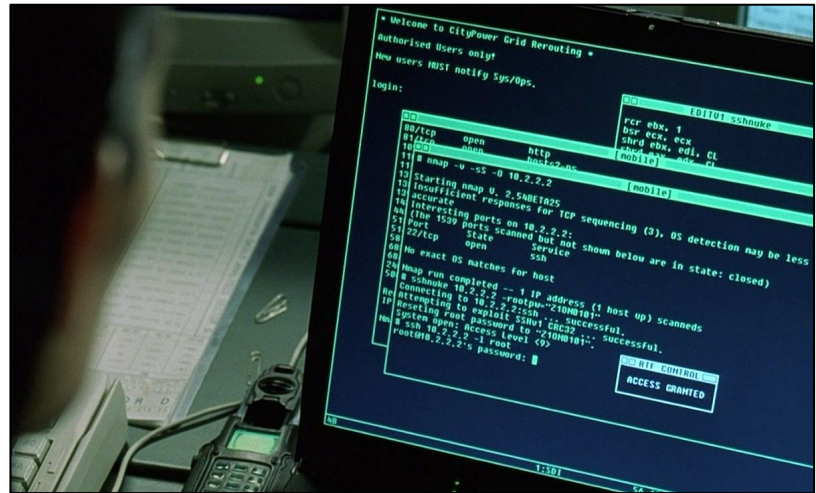# Where to get access to Linux CLI

- Mac OS: Terminal
- Windows 10: Cygwin/Ubuntu Bash
- AWS/Azure/GCP Free Tiers
- Raspberry Pi/Odroid/Beaglebone/Old laptop
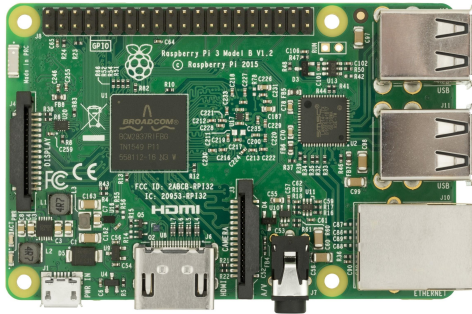
Nmap (Network Mapper) - 1997

- Network security scanner
- Fun fact: Appeared in 20 movies (Matrix, Fantastic Four, Snowden)

Use case: host detailed scan

Tcpdump - 1988

- Print content of network packets
- Cousin of Wireshark

Use case: trace traffic to/from interface

NB

Netcat - 2007

- Read-Write on network connections using TCP/UDP
- Fun Fact: "*If you are affiliated in any way with Microsoft Network, get a life. Always ski in control.*" (From the Netcat README)

Use case: validate firewall policies

iPerf - 2003

- iPerf2 vs. iPerf3
  - iPerf3 is a rewritten version of iPerf2
  - Not compatible
- TCP/UDP traffic

Use case: "It's not the network!"

Speedtest - 2006

- Ookla Internet speedtest.net
- 4759 geographically dispersed servers

iPerf: WAN performance ≠ Speedtest: Internet performance

Use case: "It's not the Internet!"

Questions?

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Thank you!

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