EPITECH.
PARIS GRADUATE SCHOOL OF DIGITAL INNOVATION

YouShallNotPass

Kick-off

T5 - Networks and Systems Admin.

T-NSA-501

Welcome

Let's go for 2 weeks of discovering infrastructure the world of Unix

Reminder of the {EPITECH} important values during a this project

- Good mood
- Mutual aid
- Communication
- No cheating ^^

What is Unix ?

Let us begin with a bit of history about Unix

- unix is a family of operating system and it is appeared in 1960
- The first version is written in assembler
- Unix is now written in C
- Often use as a server
- In this family we can find FreeBsd, openBSD, netbsd etc…
- A unix system is similar to a linux system but still has differences

FreeBsd

https://www.freebsd.org/

- Freebsd is a unix system that appeared in 1993
- Very often used as a web server
- High performance
- Fully configurable
- It has a prison system
- It has long been used by Yahoo for example

OpenBSD

https://www.openbsd.org/

- OpenBsd is a unix system that appeared in 1995
- can be used as a router or wireless access point.
- built-in cryptography, and packet filter make it suitable for security purposes such as firewalls,intrusion-detection systems, and VPN gateways.
- Light system
- Most secure system in the world
- Used in large infrastructure

Packet filter 1/2

- It is the software and official firewall of OpenBSD
- QOS support (example : to make HTTP priority over SMTP)
- Read the rules from top to bottom
- Flexible control of network flows and performance
- You can write the configuration to a file
- You can use variables in the rules

Packet filter 2/2

Example : https://github.com/Mandrilux/Security-Freebsd-PF

- pfctl -e => for enabled paquet filter
- pfctl -d => for disabled paquet filter
- pfctl -f => Load the rules from the file
- pfctl -s nat => Displays the activated NAT rules.
- pfctl -s rules => Displays the activated filter rules

DHCP

DHCP: Dynamic Host Configuration Protocol

It is a protocol that allows a computer that connects to a network to obtain its network configuration dynamically, i.e. without any particular intervention

With a dhcp server you can get automatically several information

- Ip Address / netmask / Broadcast
- dns server
- gateway

DNS

DNS: Domain Name System

The DNS is like the telephone directory of the Internet. Internet users access online information via domain names (e.g. intra.epitech.eu), while browsers interact via IP addresses.

The DNS translates domain names into IP addresses so that browsers can load web resources.

A domain is more easily identifiable than an ip (e.g google.com => 142.250.75.238)

Questions ?

Do you have any questions ?

Any questions

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