



T5 - Systems and Networks Seminar

T-SRS-500

Day 09

Stack BSD





You must have each step validated before moving on to the next one.

TASK 01 - CLOSE THE DOOR

For this step, you must install a virtual machine OPENBSD (latest version) with two network interfaces.

- The first interface must have bridge configuration
- The second interface must have a private network configuration.
- The second interface must also have a fixed IP of 192.168.42.254

TASK 02 - DHCP

On the openbsd , you must create a DHCP server



You can test it with your windows machine.



TASK 03 - BSD FOR EVER

Install a FreeBSD 11 server with mysql-server 8 and nginx (with php7.2).
This server must have an IP of 192.168.42.2 given to it via DHCP.
Install also one supervisor, from your choice, to see the nginx traffic.
In your DHCP configuration, use google's DNS (8.8.8.8 and 8.8.4.4).
You do not need to create a website, you can only have one index.php with "hello world".

TASK 04 - IPV6

For both servers, IPV6 must be disabled

TASK 05 - ROUTING IPV4

Freebsd server must be able to connect to internet by going through the gateway.
You must use Paquet filter firewall for this task.



You can use ping and traceroute for debugging purpose.

TASK 06 - CONFIGURATION FREEBSD

Create one user `alfredo` on the freebsd server with a private folder. You can choose the user's password.
Create the same user on the mysql server with all access.
Change the hostname of freebsd to "undestructible-server".
Enable nginx and mysql on startup.

TASK 07 - JAIL

The nginx on freebsd must be available from your own computer and the windows machine.
To secure it, nginx must be into a jail.

TASK 08 - SECURITY

For the last task , you have to secure mysql server and apache server as much as you can.
You must able to access the mysql server with a GUI software Like “navicat lite” or other from your own computer with the user “alfredo”



At least, two big security mesures are required.

TASK 09 - DOCKER (BONUS)

Start nginx with docker.
You do not need to create a website.
you can only have one index.php with “hello world”.