



T5 - Systems and Networks Seminar

T-SRS-500

Day 03

Network





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



The whole day should be done on the two previously created VMs.

TASK 01 - NAT VS. BRIDGE VS HOST-ONLY

Go to the [Dev Tools Azure](#) page (these are the Microsoft tools you can access with Epitech) and install Visio. Make diagrams in Visio that explain the difference between NAT, Bridge and Host-Only.

TASK 02 - DHCP

Add a network card to your NetBSD VM to get one in Bridge and a second one in "Private network".

Put the network card of your Debian in "Private network" if this is not the case.

Install a DHCP server on your NetBSD and configure VirtualBox and your VMs.

This one must give the static address 192.168.1.2 to your Windows.

It must then provide a dynamic address to the other machines in 192.168.1.10 and 192.168.1.20.

The IP of your server must be 192.168.1.254.



Make sure you have set up the correct NetBSD card before starting your DHCP server!



TASK 03 - ROUTING

Make sure your Debian can get internet via your NetBSD.



gateway

TASK 04 - HIGH LEVEL

Create a `shared` folder on your windows in the `Documents` folder of your account.

Create a `/var/shared` folder on your VM.



Do some research on CIFS and SMB.

Make sure that from your windows via network disks you can access the `/var/shared` folders of your Debian and NetBSD with an authentication system.

Subsequently, mount permanent network disks to access the `/var/shared` of the other VM and the `shared` folder of your windows with an authentication system.



Your VMs should not be set to static IPs.

TASK 05 - SHARE INTELLIGENTLY

In `/var/shared` add the `marvin`, `all`, `other` folders, and one that matches your login.

The `other` folder must be accessible to everyone without authentication.

The `all` folder must be accessible by all users of the VM through authentication.

The `marvin` folder must be accessible by marvin and you via authentication.

Your file must be accessible only by you via an authentication.



You must do this on both VMs and the folders must be accessible from Windows and the other VM.