2016-04-26

Hello,

It's been a while since I wrote anything, but I got rid of my "writer's block". Thanks Simon for your suggestions. But to make things last, I'll only talk about port forwarding today.

Port forwarding (*in the NAT section of the firewall*) is what we configure to tell a router to "redirect" a communication to another IP address or another port.

In my classes, I use two routers to create my class network. An SXT Lite2 (which acts as a client to my Office WiFi) and a mAP that acts as the students' AP. (*Don't mind the French on the diagram. I was too tired to rewrite it* ☺)
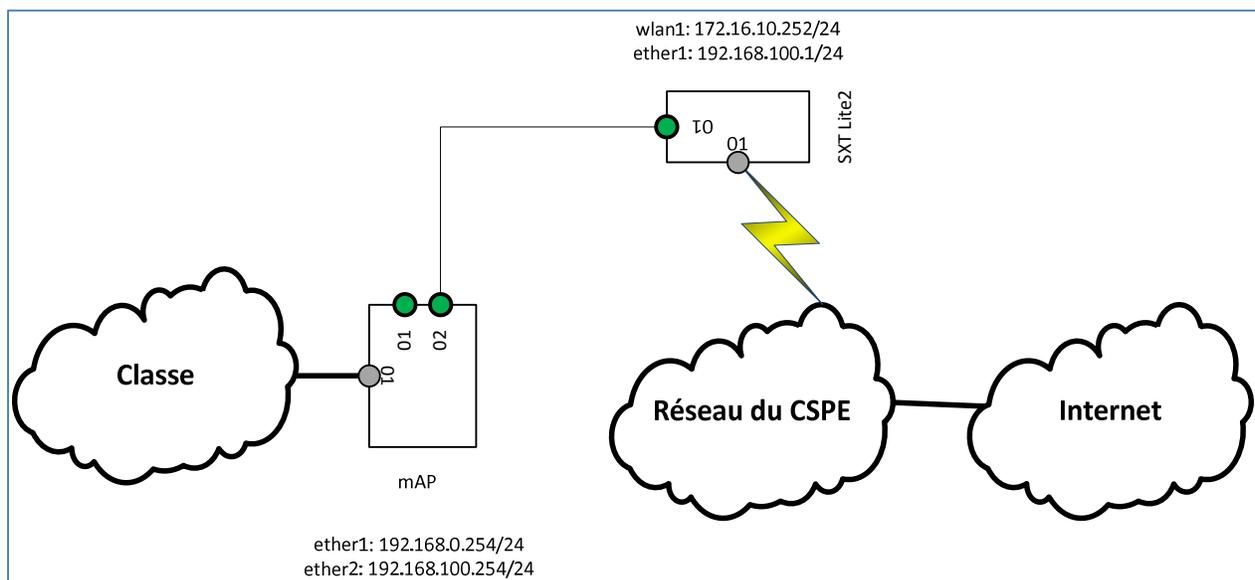
To reach the first router, the SXT, is easy since it got an IP address from my office network. Reaching the mAP though is impossible since it has an address that's unreachable from my network. This is where port forwarding comes in.

To reach the mAP, I launch Winbox using the SXT's IP address and port 8292. Why 8292? You must choose a port that's not used on the first router (the SXT), or you'll get one of its services.

To create the port forwarding rule, go through these menu choices:

- IP -> Firewall
- « NAT » tab
- Add (the big blue « + » symbol) and type the following values
  - o « General » tab
    - ▪ Chain : **dstnat**

- Dst. Address : *<That of the router doing the port forwarding. It's the address you'll type in WinBox>*
- Protocol : *<The target protocol >*
- Dst. Port : *<The <u>fake</u> port >*
  - o « Action » tab
    - Action : **dst-nat**
    - To Addresses : *<The mAP's IP address>*
    - To Ports : *<The <u>real final</u> port >*

Graphically, it looks like this.
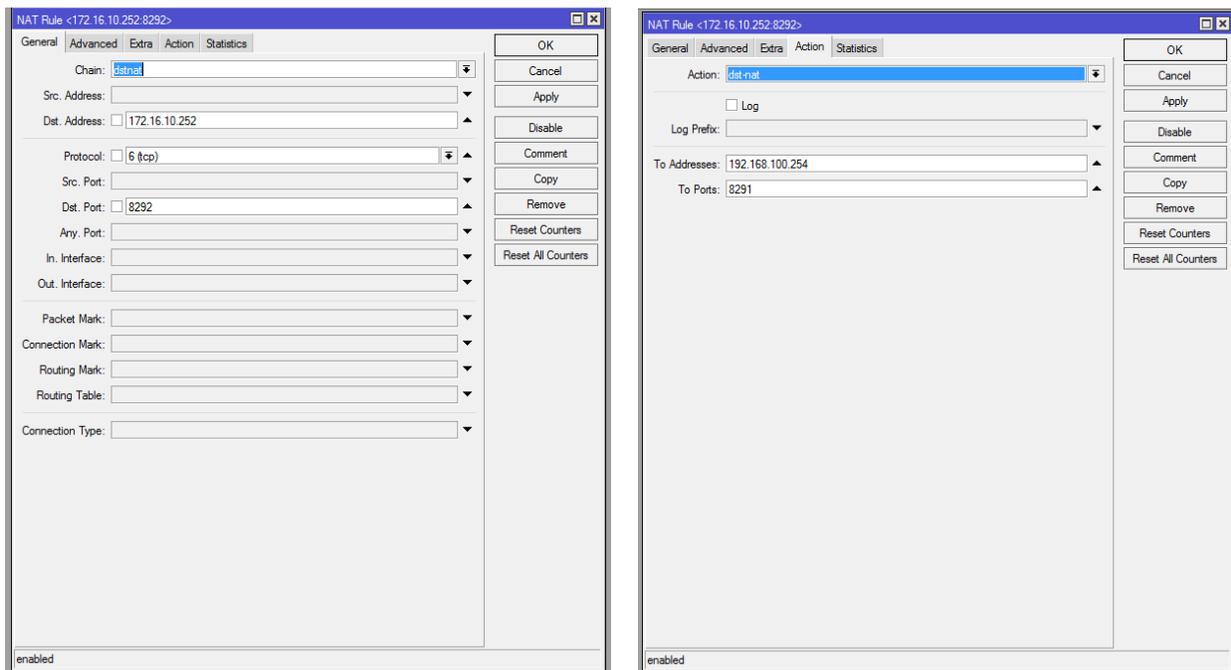
In CLI mode, you'll get:

```
/ip firewall nat export

add action=dst-nat chain=dstnat comment=CSPE dst-address=172.16.10.252 dst-port=8292 \
protocol=tcp to-addresses=192.168.100.254 to-ports=8291
```

So, all requests made at the IP address of 172.16.10.252 using the TCP protocol and port 8292 (the SXT), will be sent to IP address 192.168.100.254 on port 8291 of the TCP protocol (the mAP).

If you want to reach a home hosted web server, you'll follow the same steps on the Interne facing router. **<u>BEWARE</u>**, you'll have to change the parameters, obviously!