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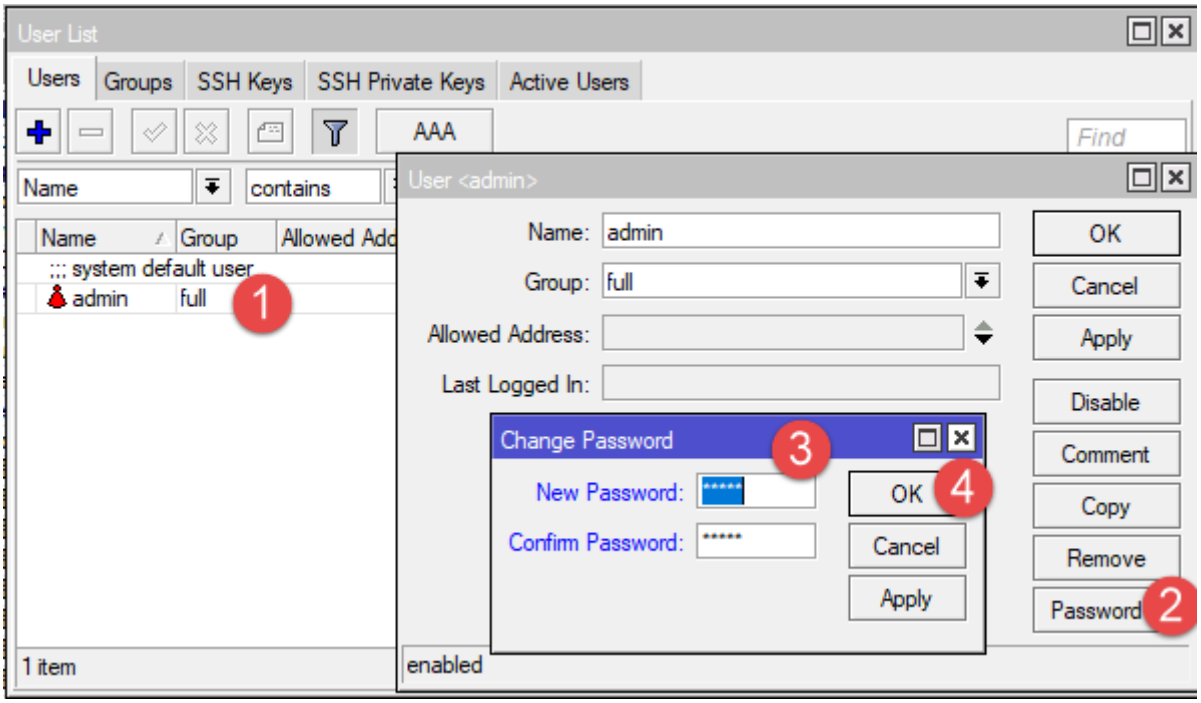
Homework Chapter 4+5

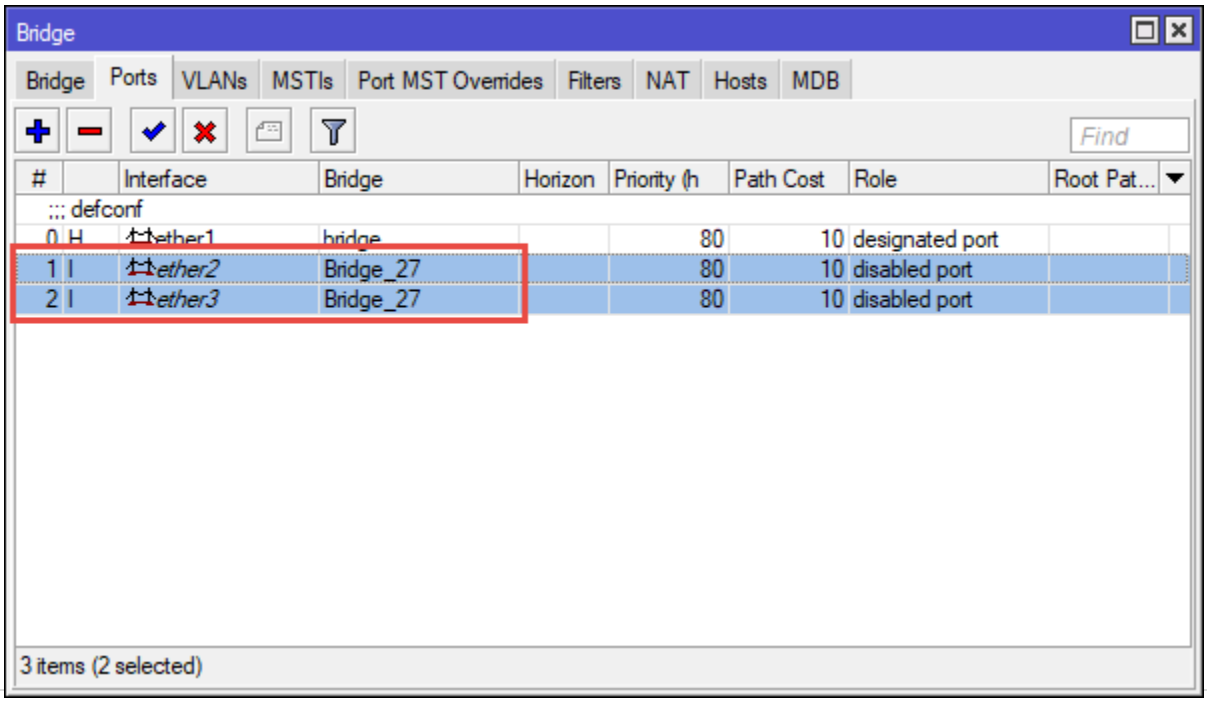
I. Connect to MKTHW

a. Login to your MikroTik router and change Password Administrator

- Click on "**system**" and look for "**Users**" and then duble click on "**admin**" user.



b. Bridge interface ether2-3 " Name: Bridge_XX" (XX= your id)



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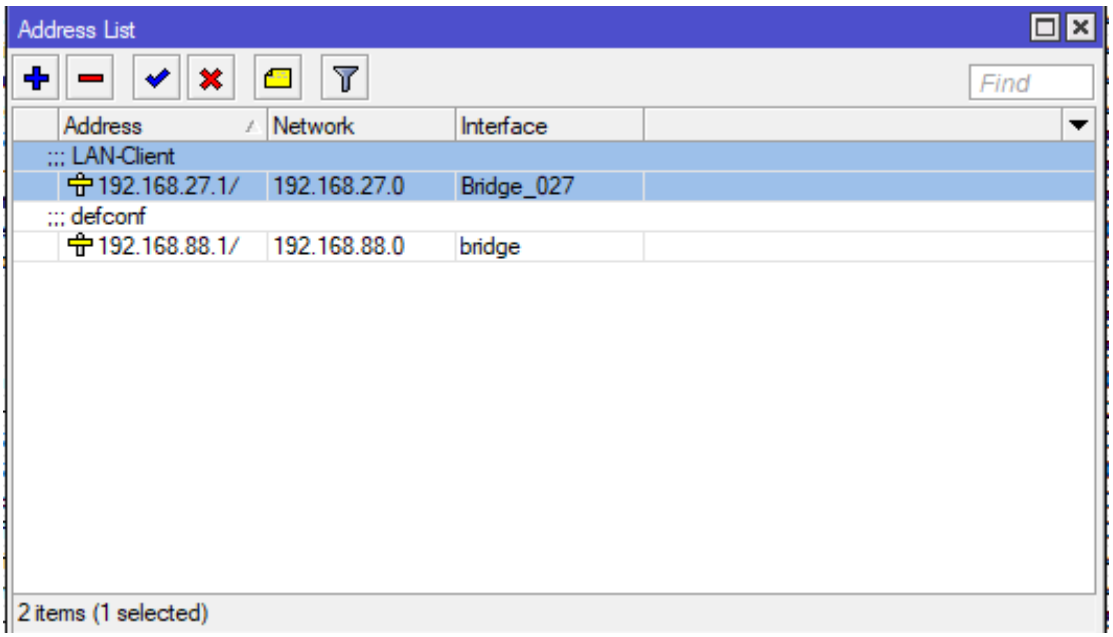
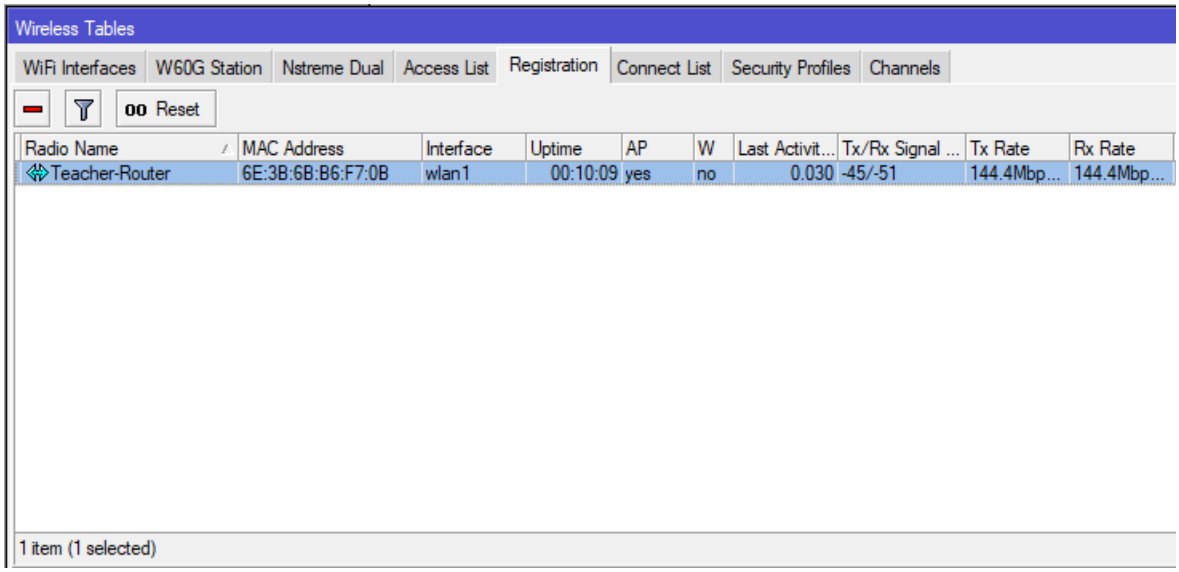
c. Assign IP address to Birdge Interface



d. Connect your router to MKTHW by wireless (password: 12345678)



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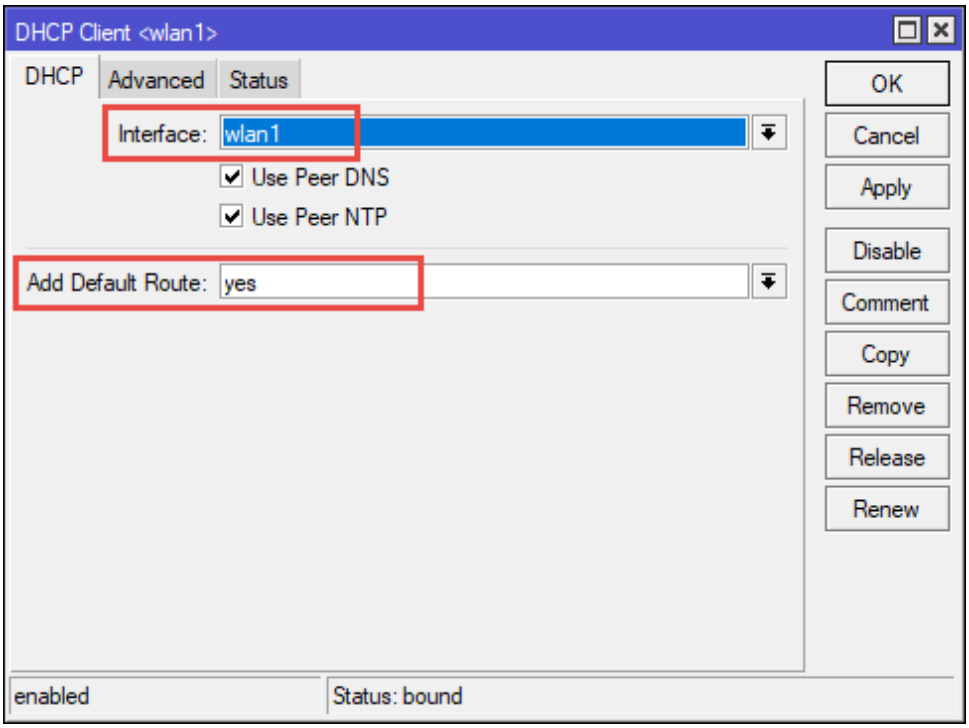
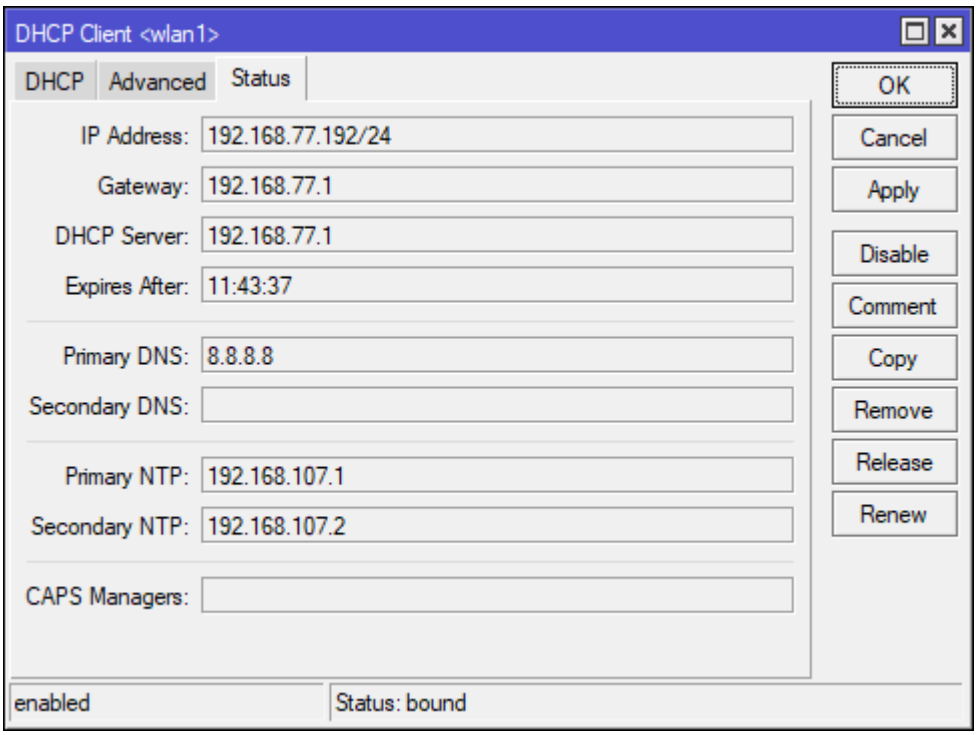
e. Enable DHCP client on interface WAN + create default route automatically





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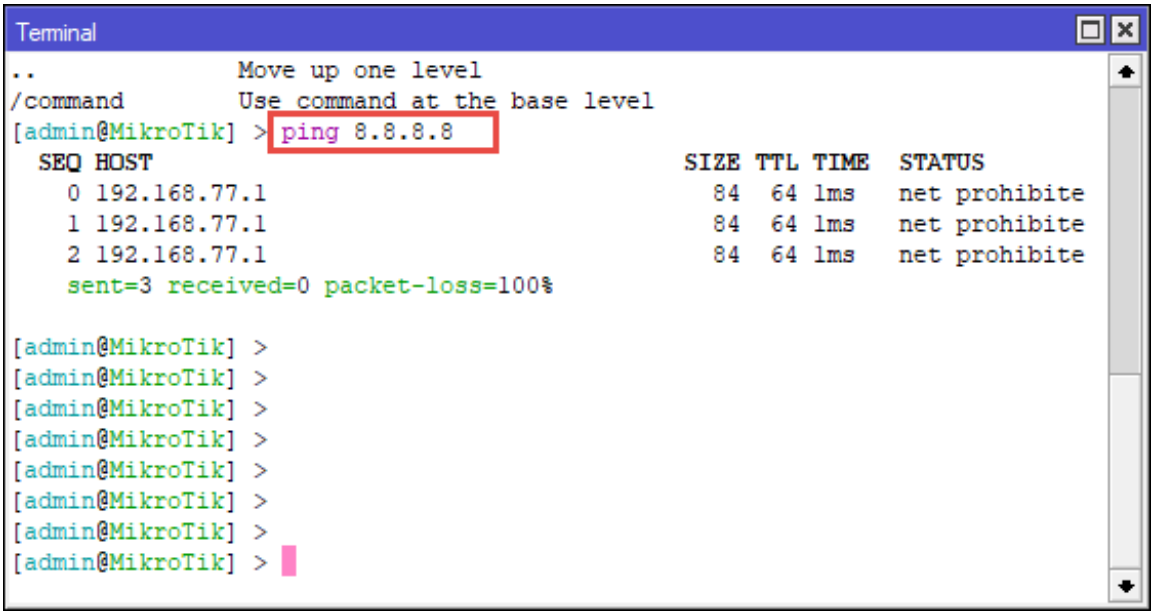
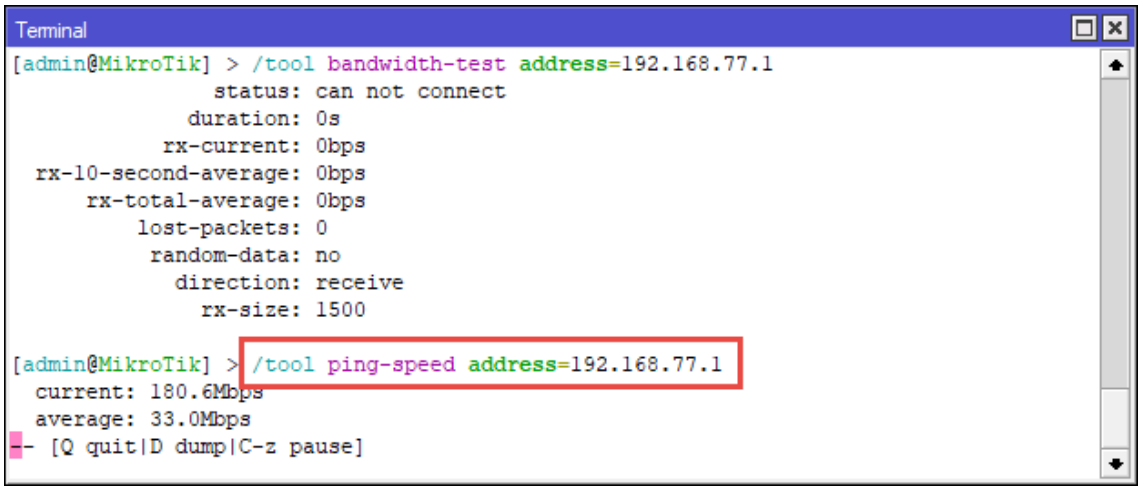
i. Test ping to 8.8.8.8



ii. Trace route to Passerellesnumeriques.org and write down the path that access from your compute to passerellesnumeriques.org

- The PC through the my route -> TR-LAB -> PNC router
- PNC router forward to PNC web server

iii. Test speed from your router to MKTHW



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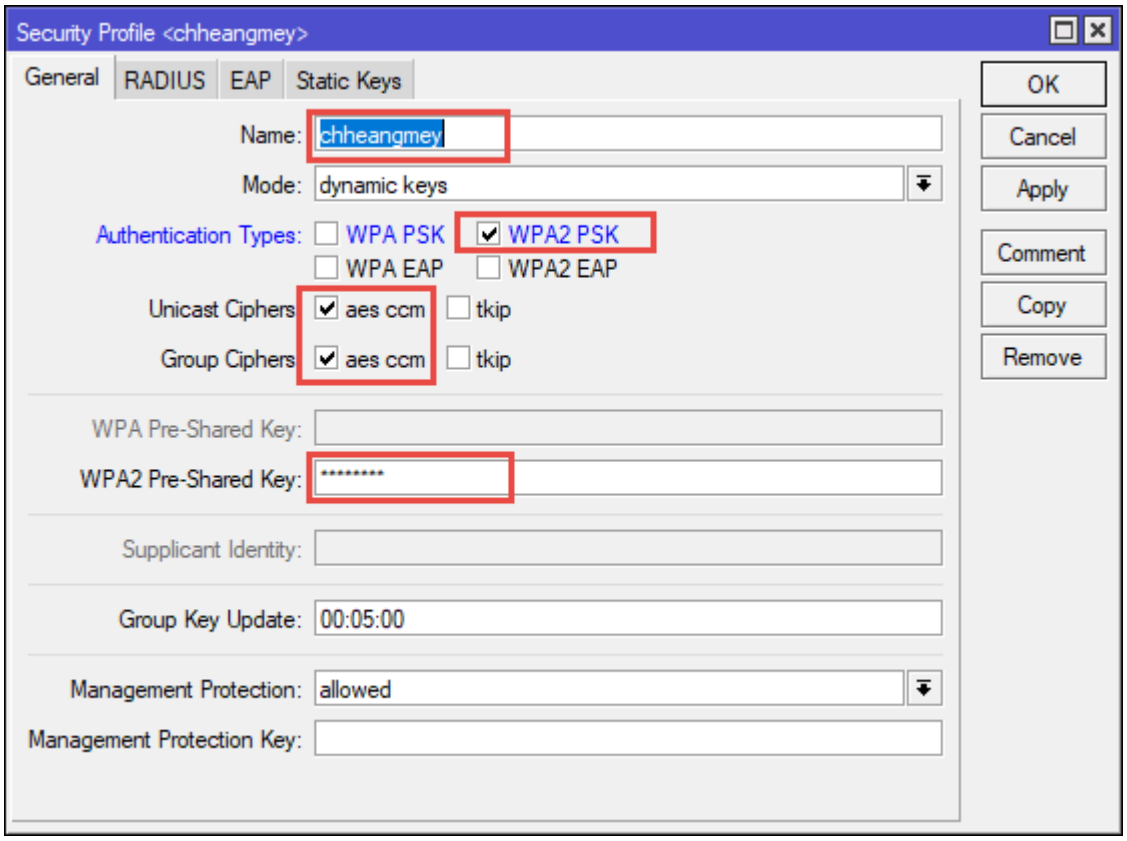
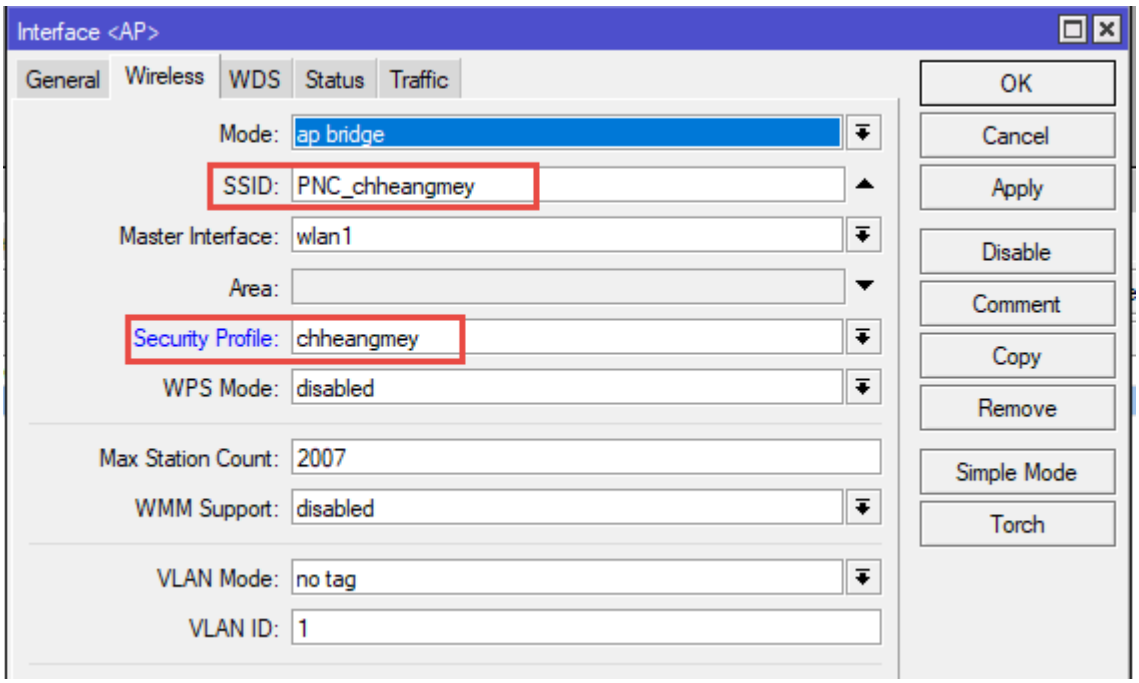
II. Create Virtual AP

a. Create new security profile allow only AES encryption with strong phrase



b. Create virtual AP by use SSID: PNC_Your-firstname and use your new security profile.



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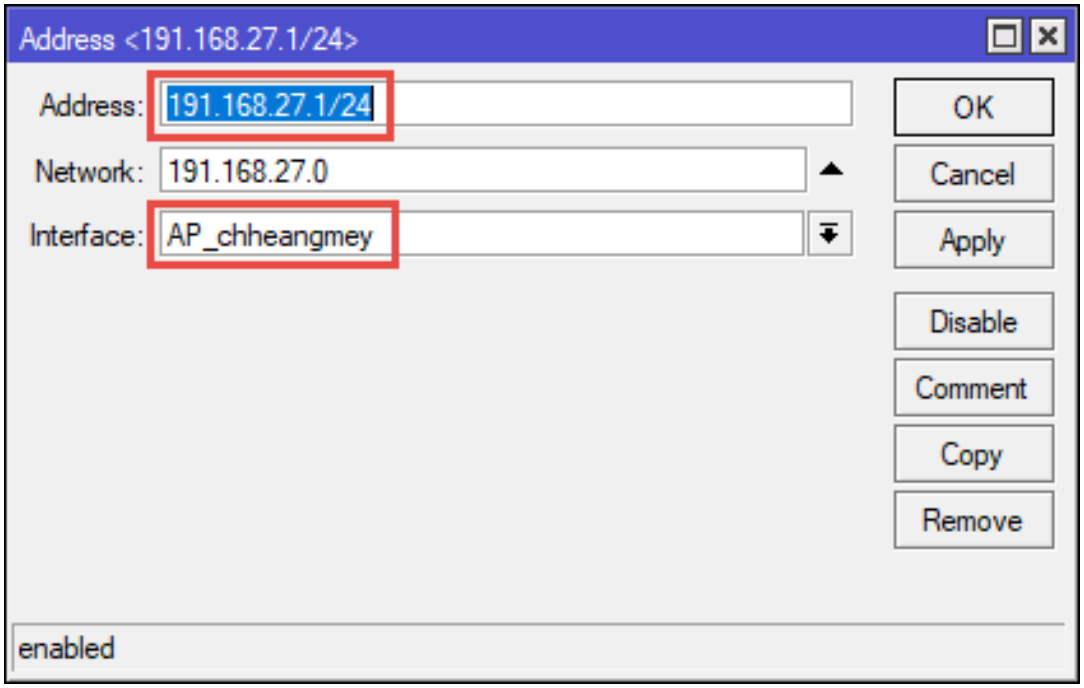
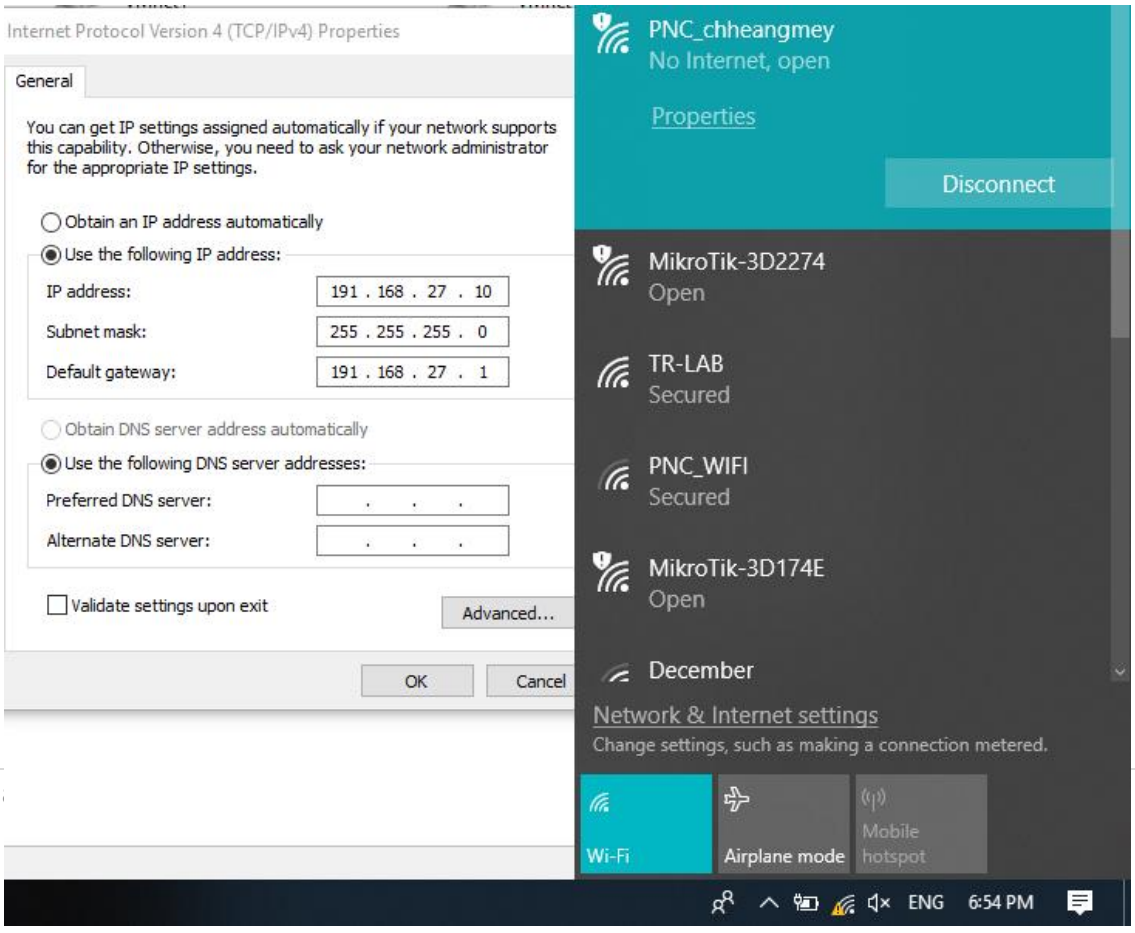
c. Assign IP address to new virtual interface 191.168.xx.1/24 (XX is your ID)



d. Test connect from client to your wireless router and assign IP address static to your computer and ping gateway for testing.



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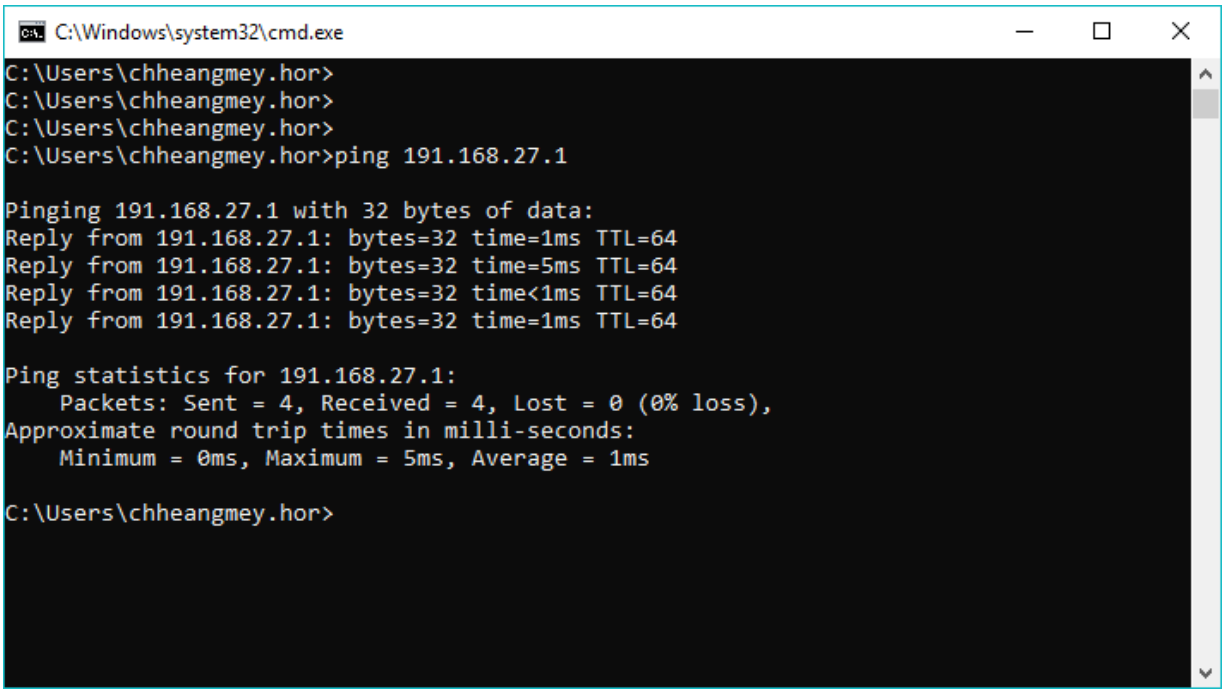
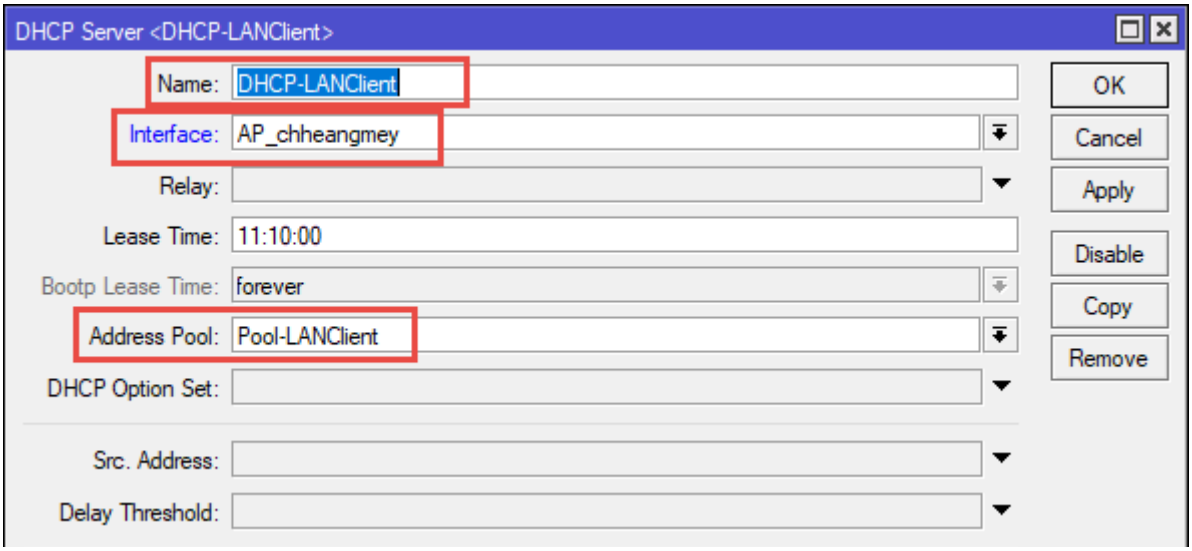


III. Create DHCP Server

a. Create DHCP server name " DHCP-LANClient" and provide to interface that connect to client site.



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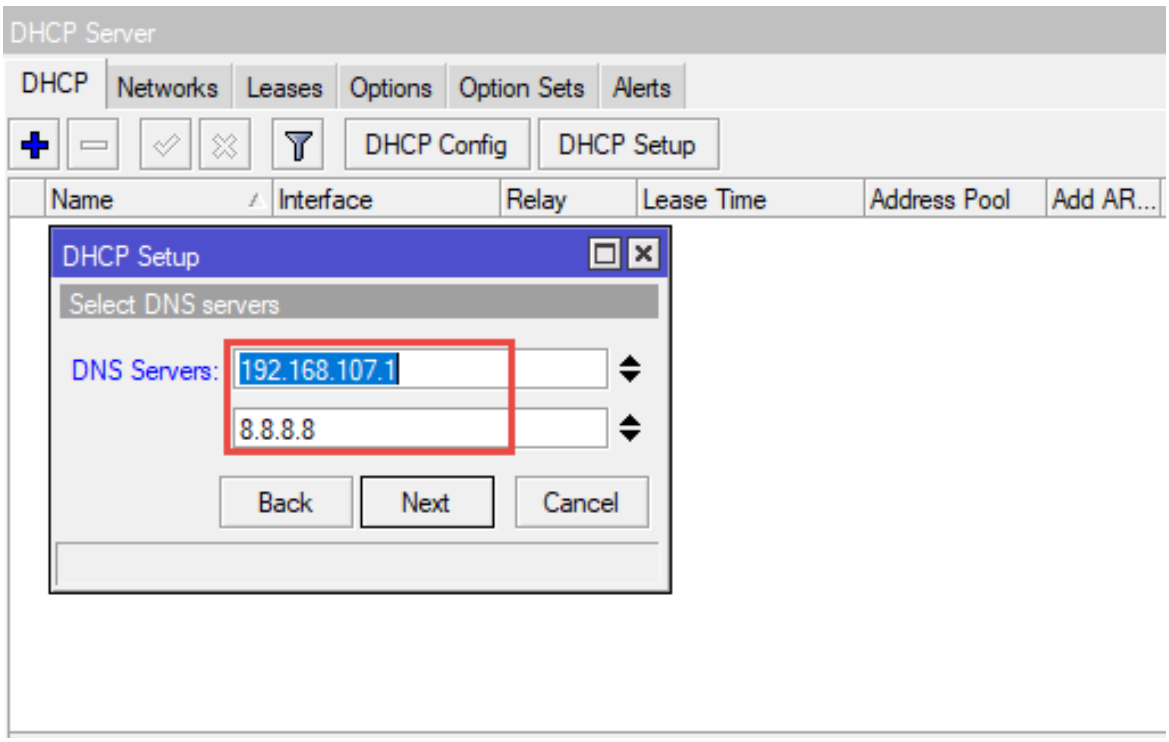
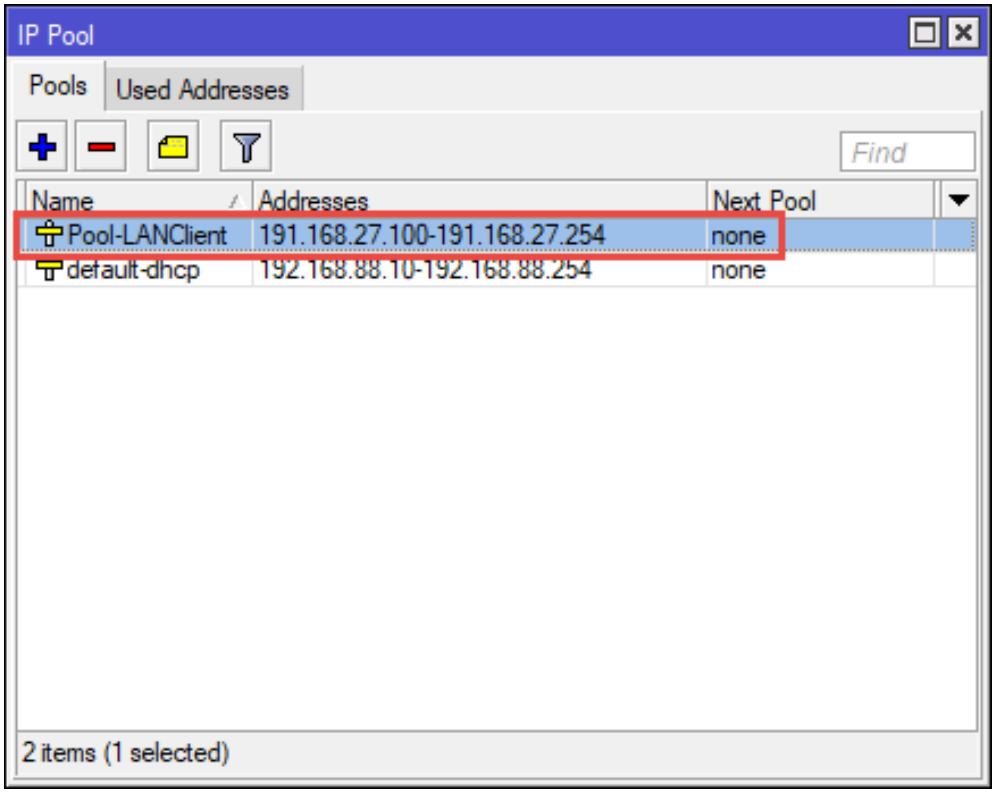
b. Use DNS PNC, and DNS google



c. Pool name " Pool-LANClient" provide range from .100 to 254



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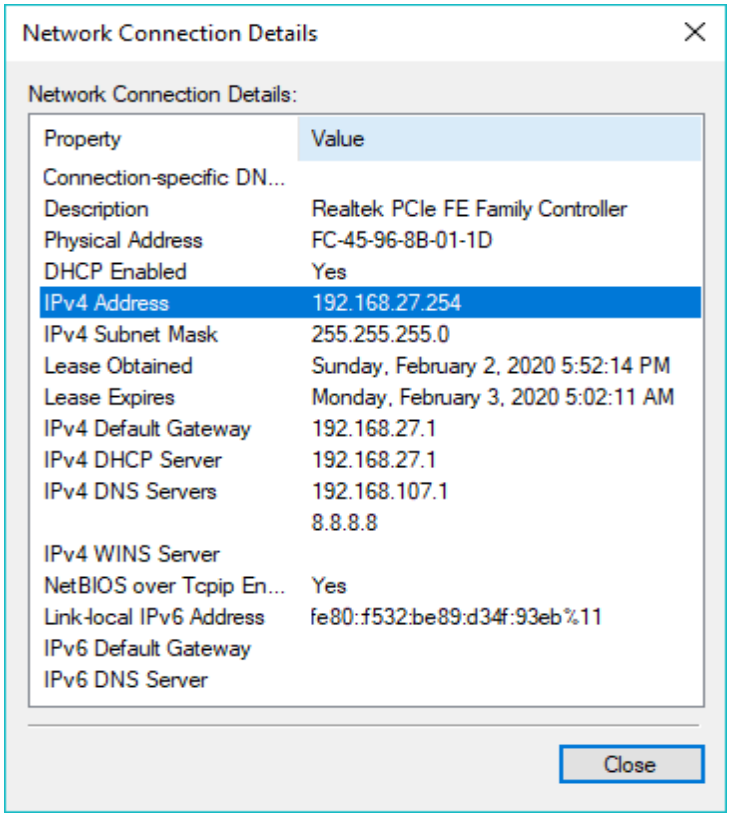
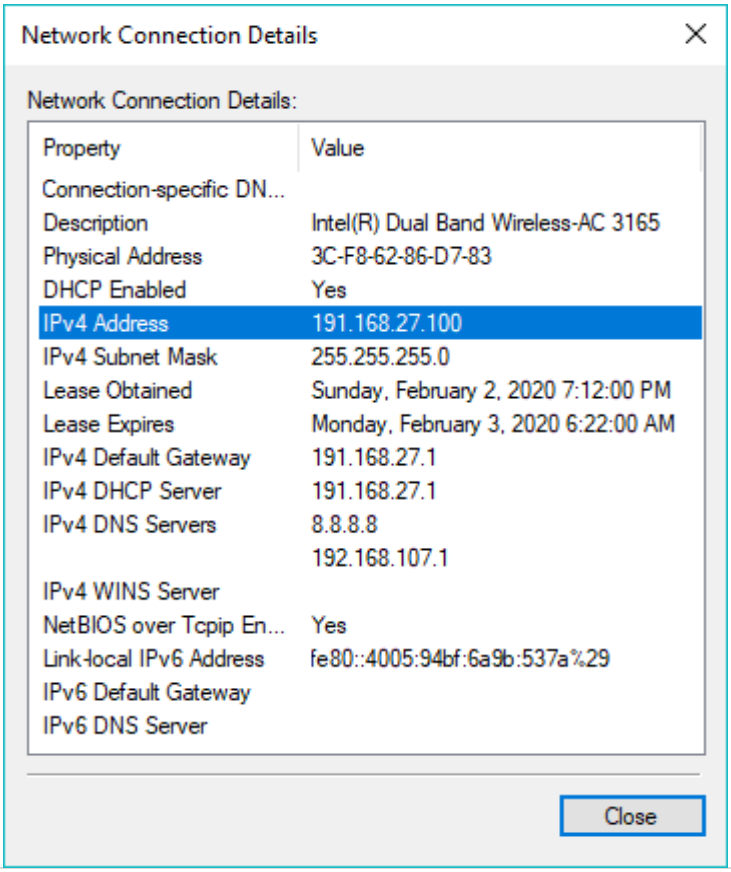
d. Test on client to get IP address from DHCP server



e. Set your computer client to get IP address .200 every time it request



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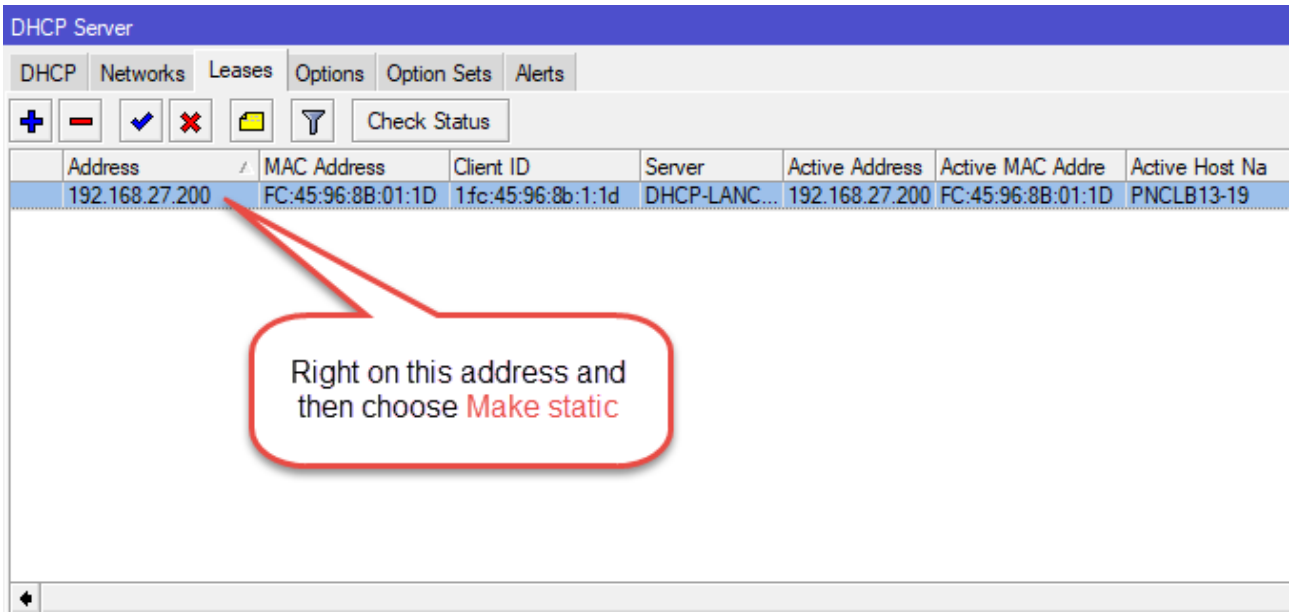
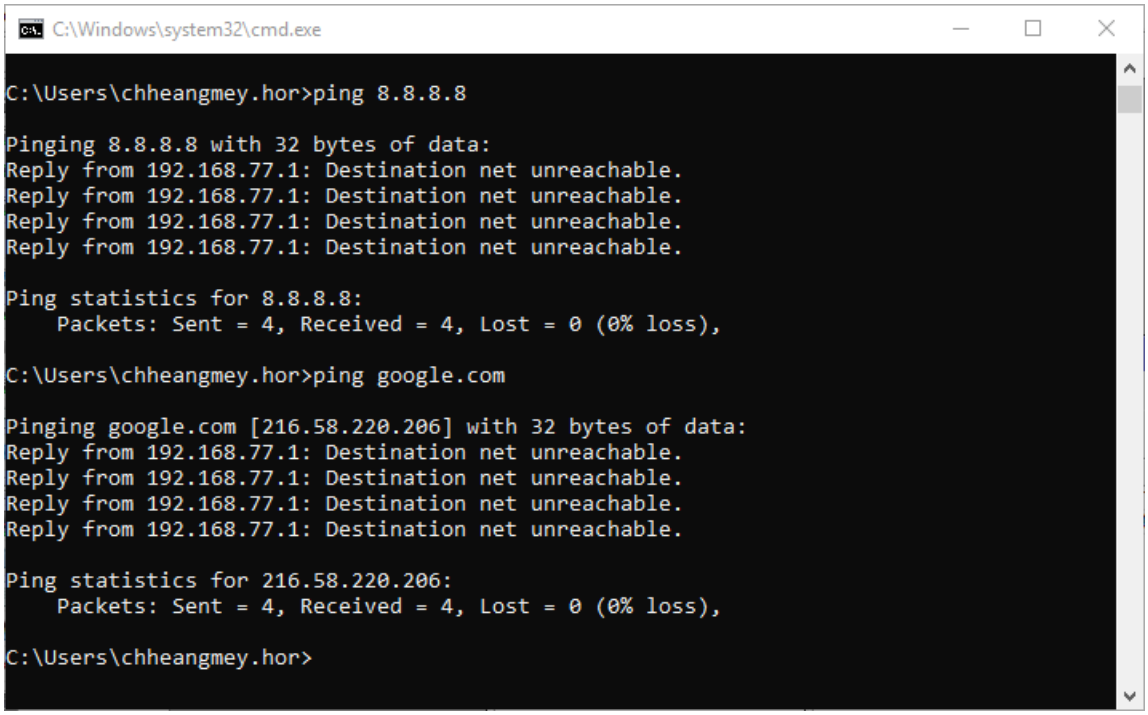


f. Test ping to google.com or 8.8.8.8. Does you reach the google website? If yes / no, why it reach or not reach?



- Client can’t access to internet because the router configure NAT yet

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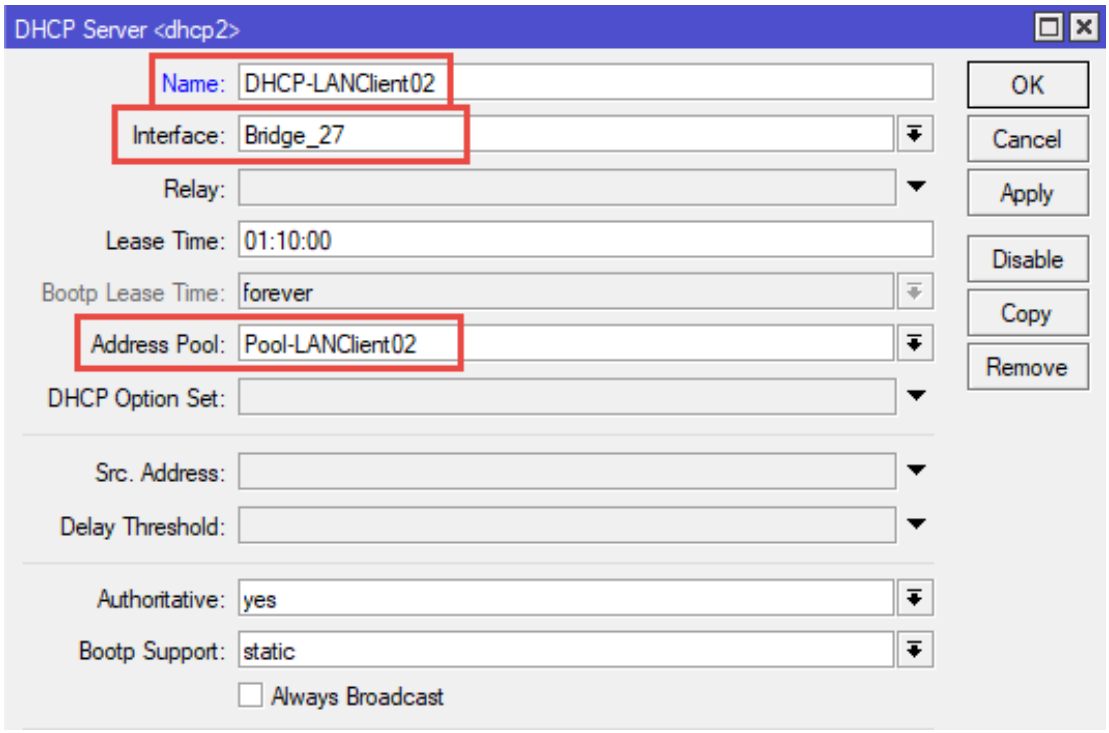
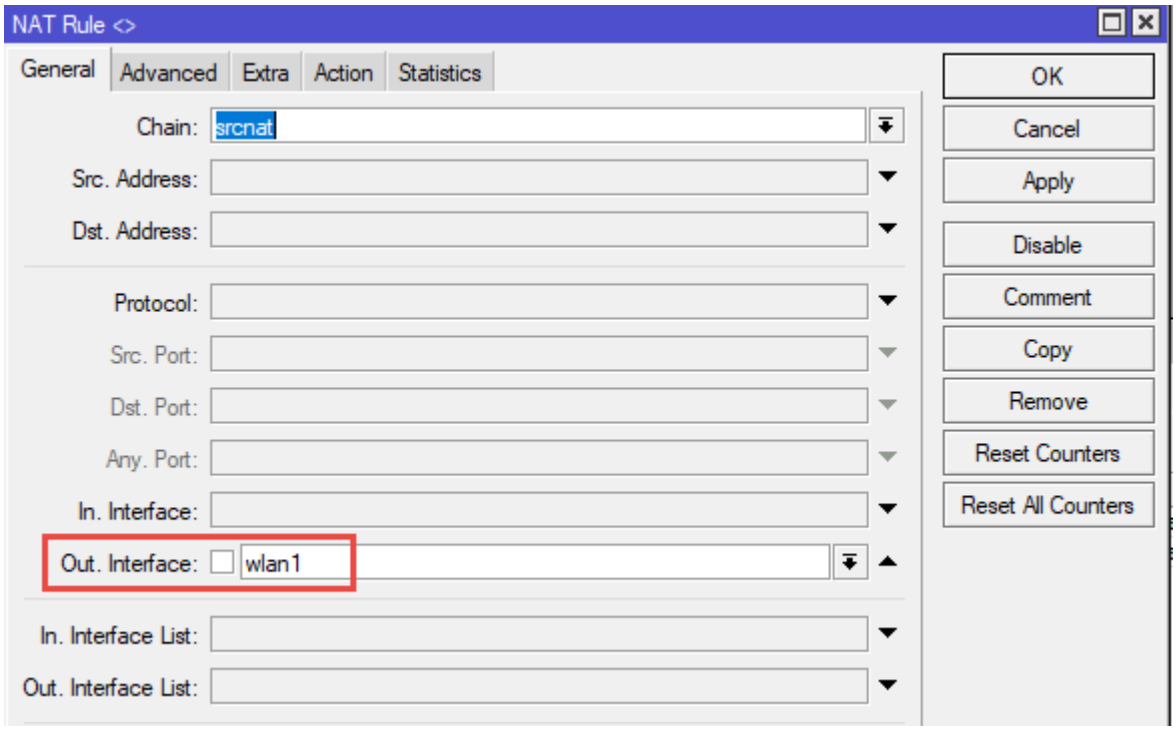
g. Repeat the same step to create other DHCP server for Bridge Interface

i. You can assign any name, address,…. By yourself



IV. Allow LAN Client access Internet

a. Create NAT rule to allow LAN client both by Wireless + Bridge Interface



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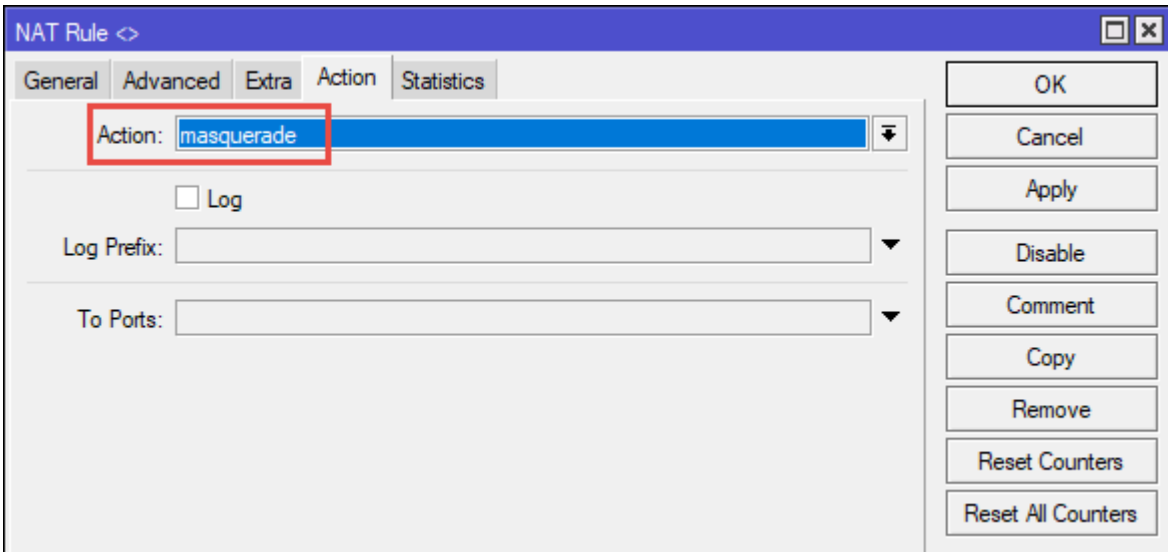
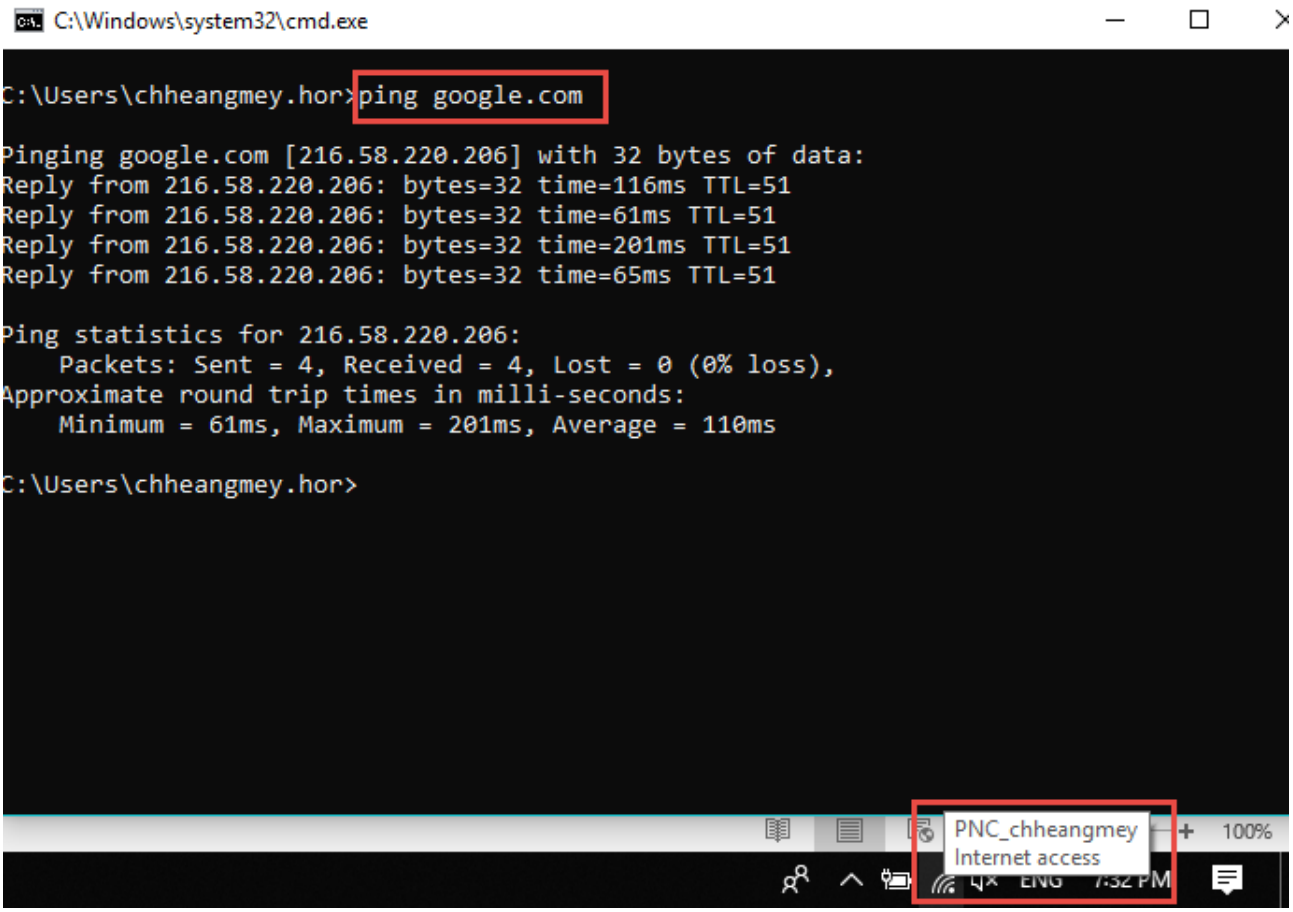


b. Test access to internet on computer client by wireless connection



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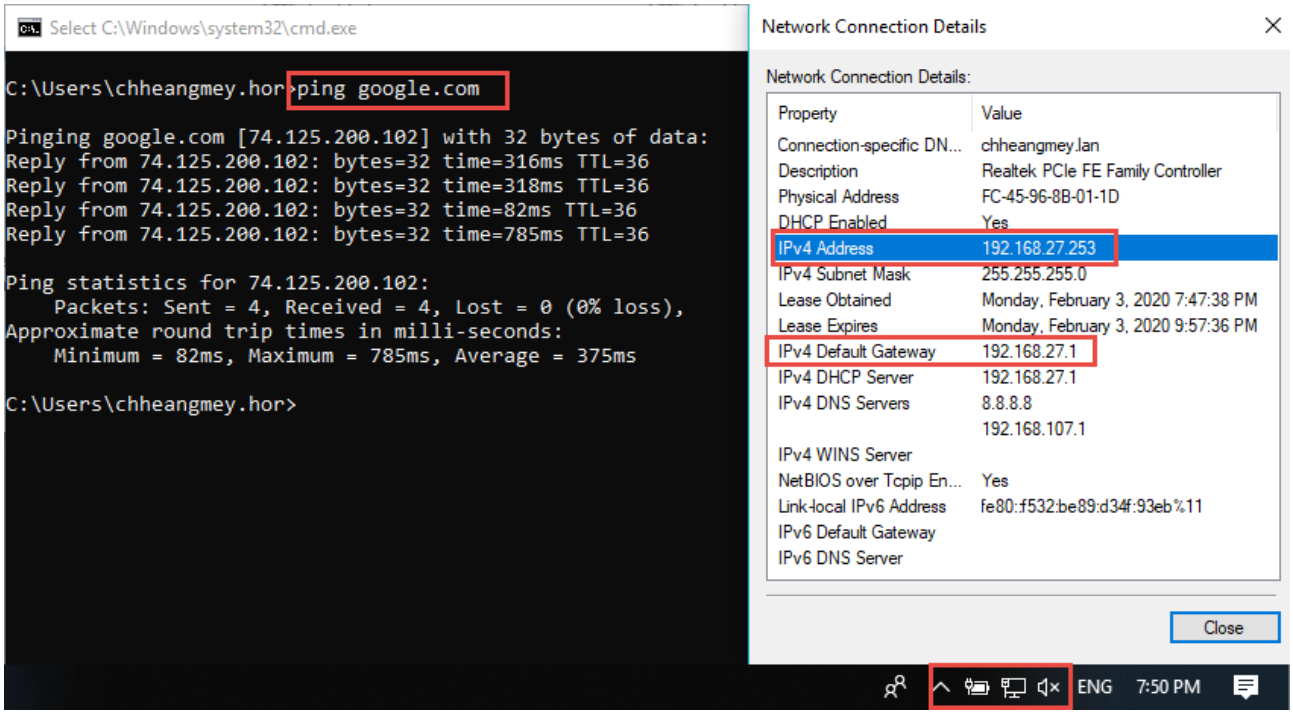
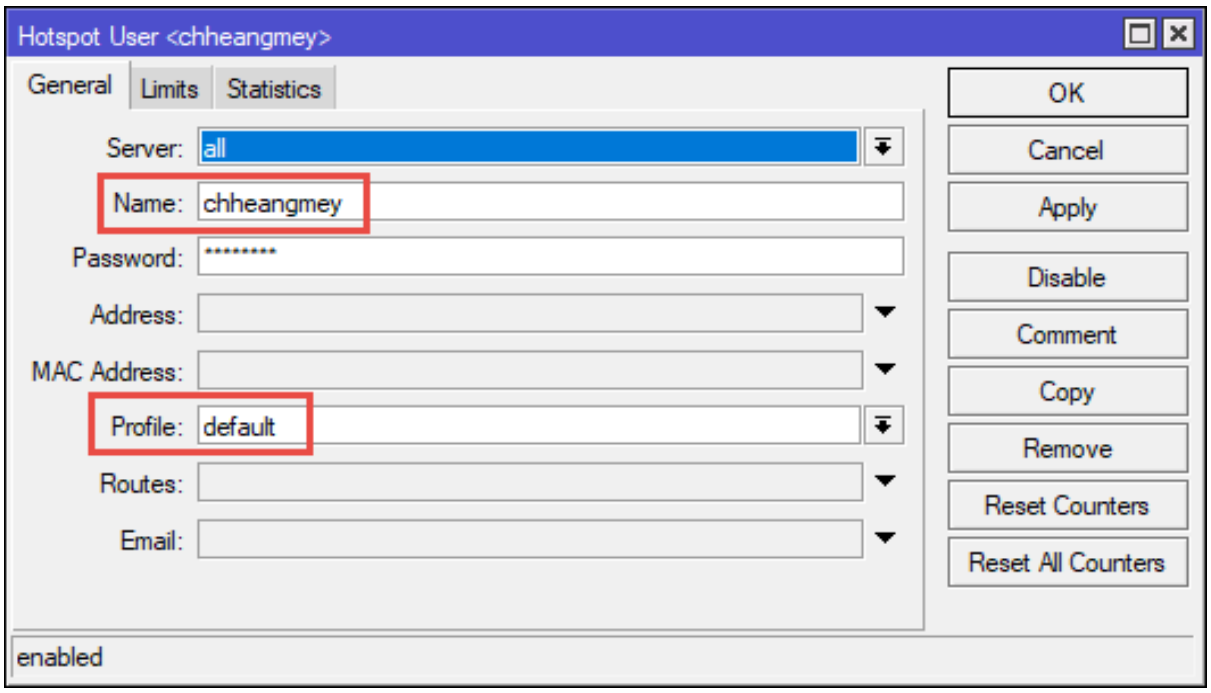
c. Test access to internet on computer client by bridge Interface



V. Setup and configure HotSpot

a. Create user use yourname with default profile.



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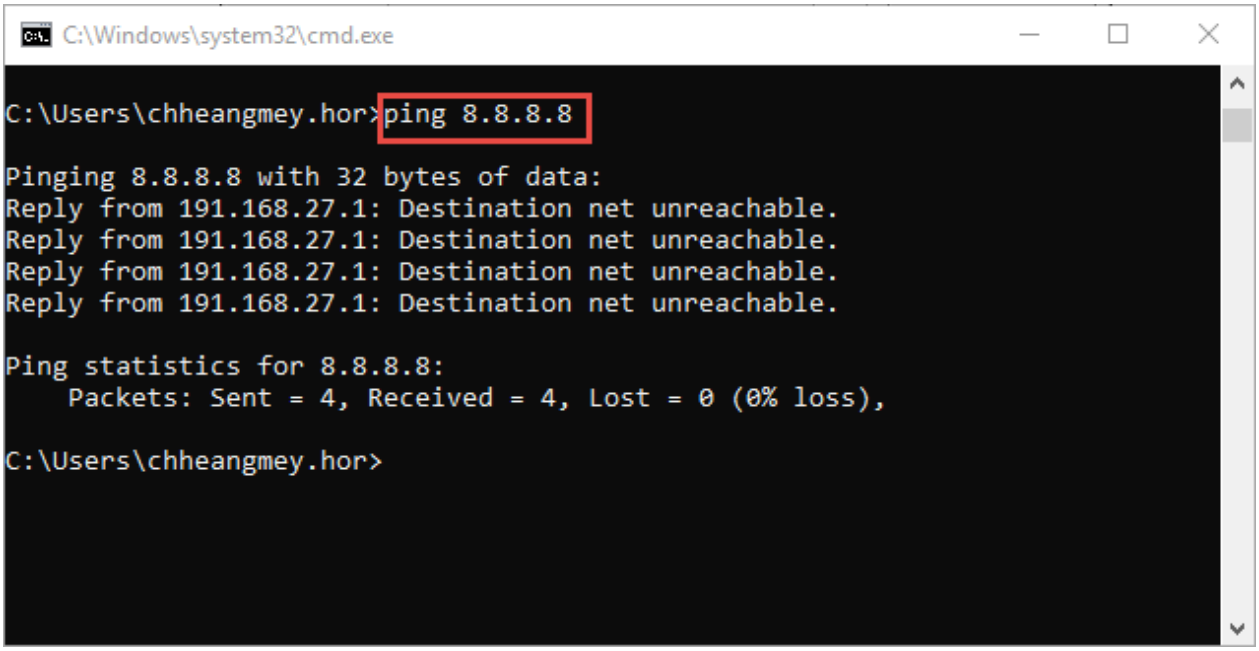
b. Test access to Internet. You can't access to Internet right



c. Login using your name and password. Test access to Internet

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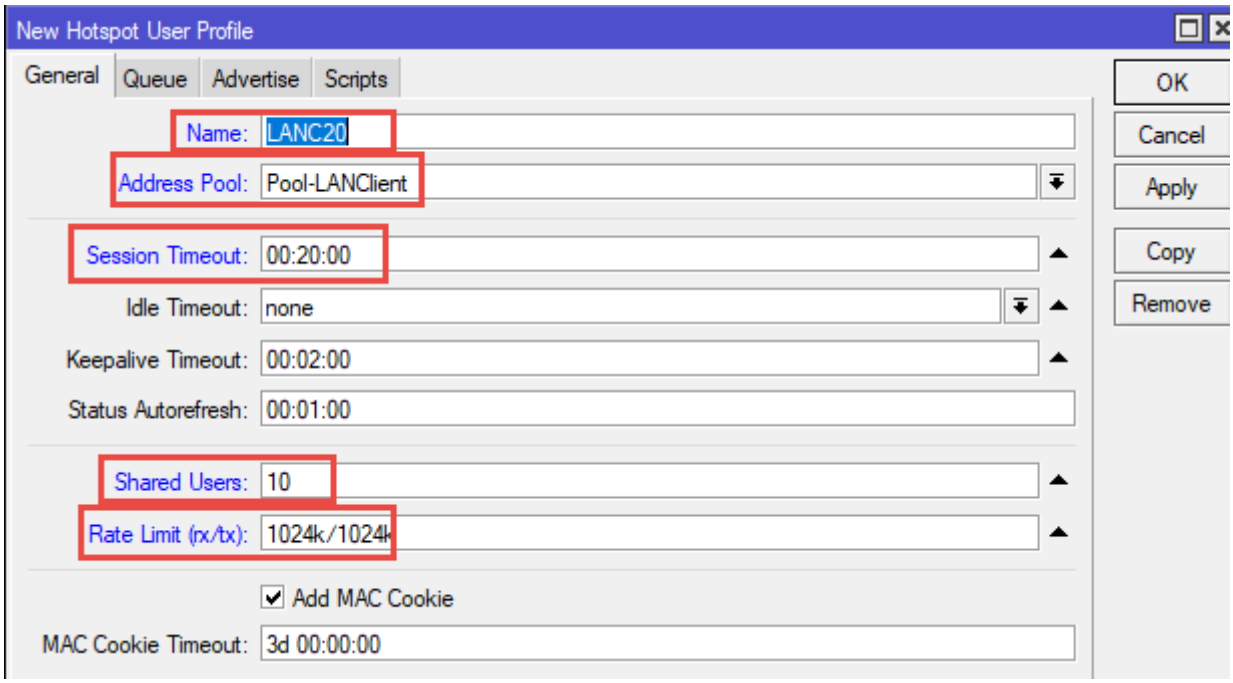
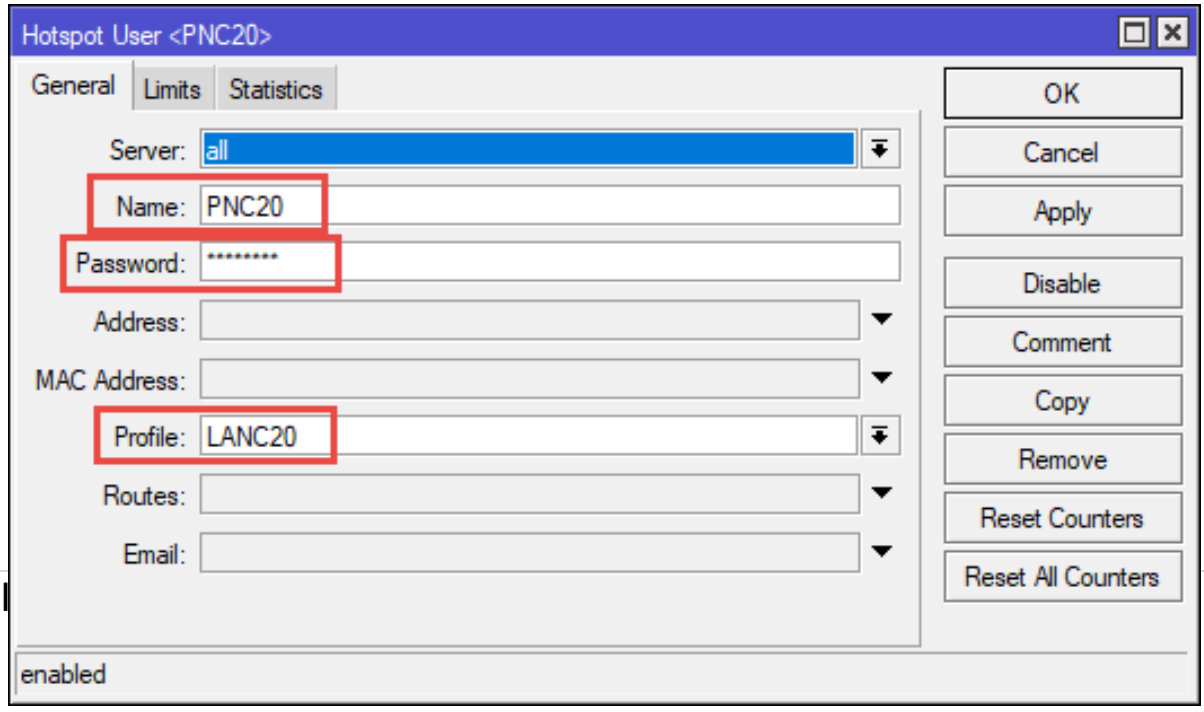
d. Create user Profiles:
    1. Name: LANC20
    2. Chose Pool-LANClient
    3. Set session Timeout 20 minutes (time for user can access Internet or network) You can test 5 minutes is fast to know result.
    4. Allow 10 users can use the same username at the same time
    5. Set 1MB upload and 1MB download (For other option keep default.)



6. Create 2 users:
    1) PNC20 and add to Profile LANC20



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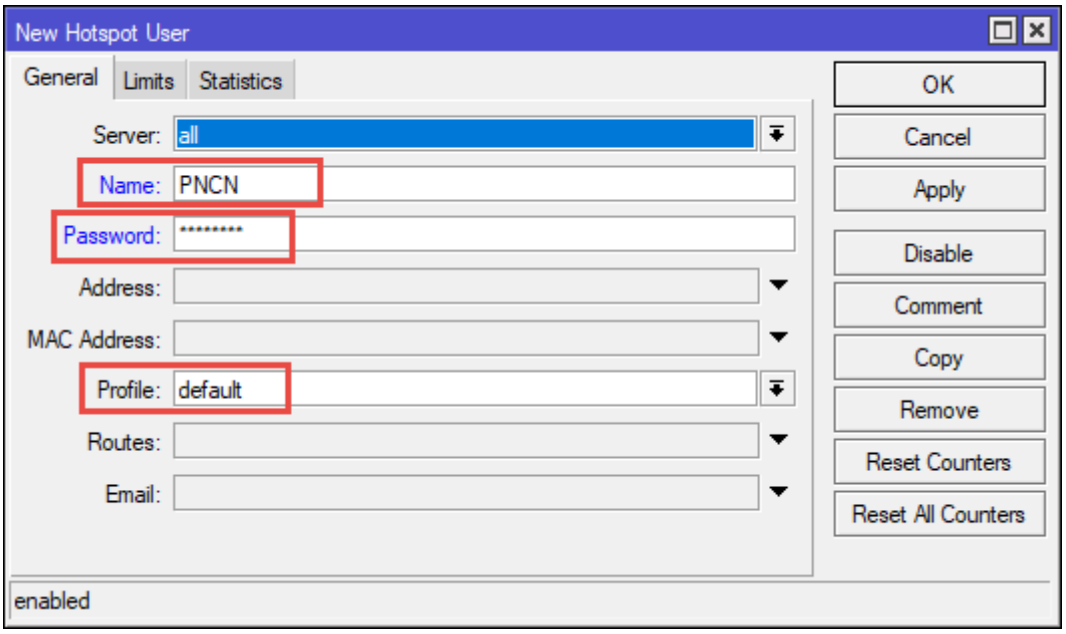
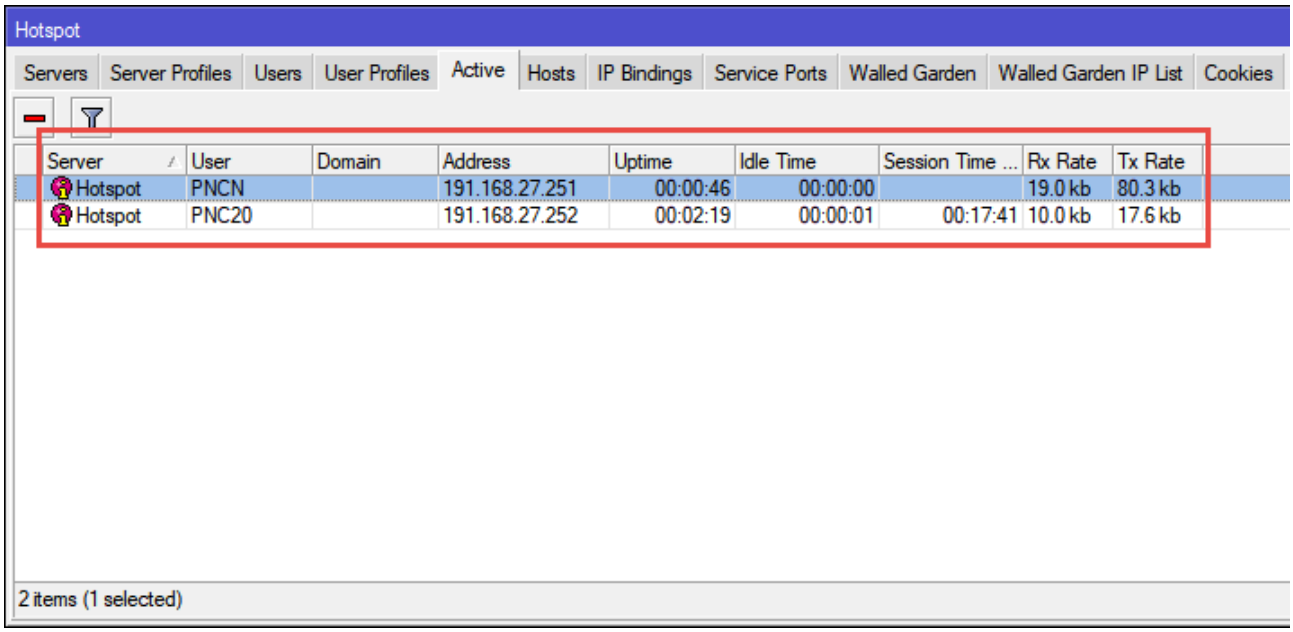
2) PNCN and add to Default Profile



3) Testing



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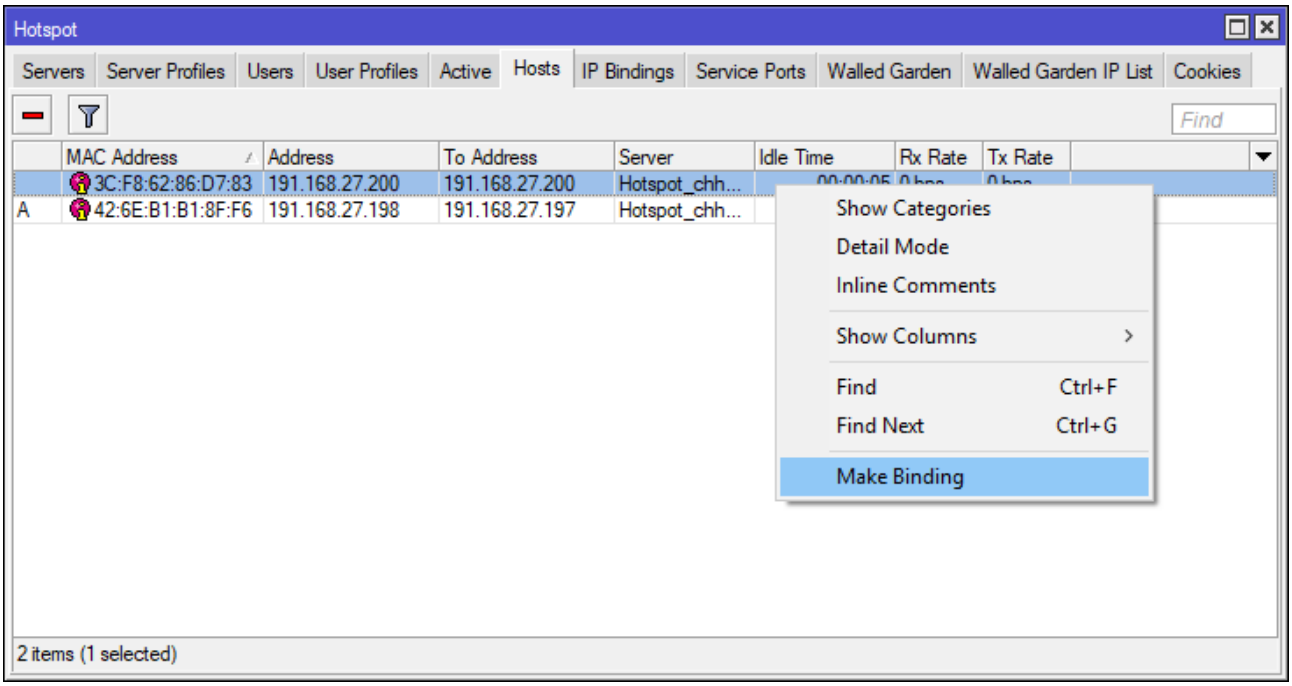
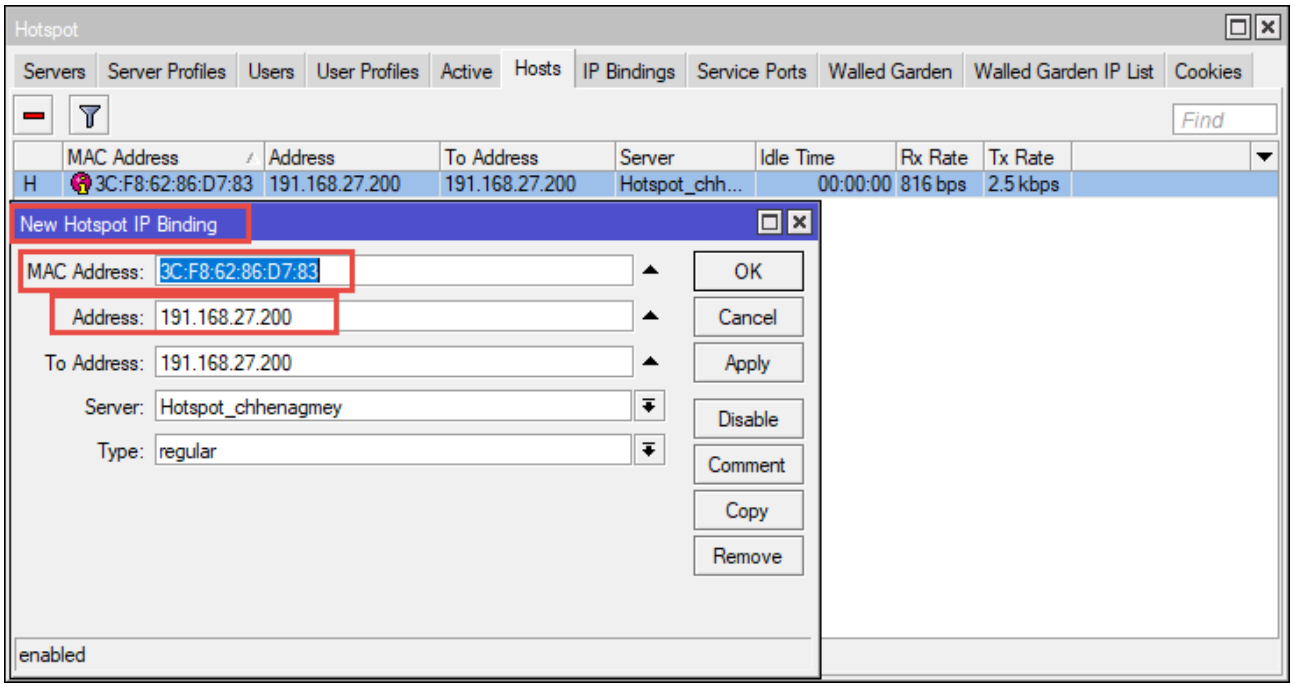
7. Add client to IP Bidings

    1) Filter Mac Address your computer to bypass without authentication





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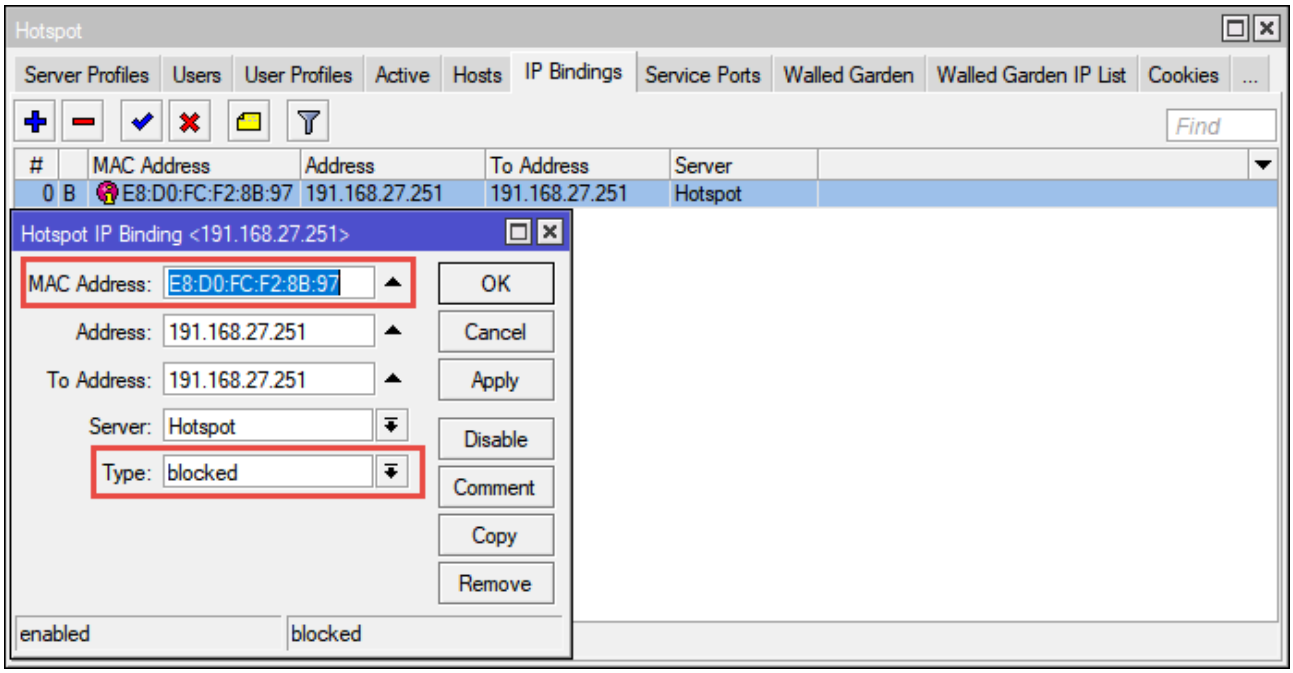
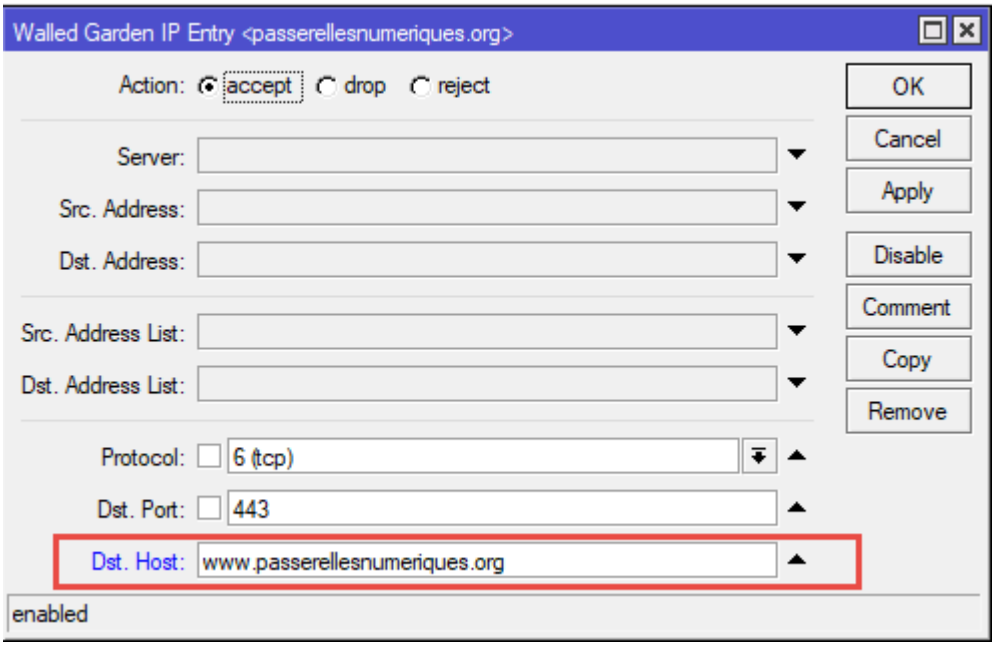
2) Borrow your friend computer to connect and block his/her mac not allow to access to internet



8. Allow websites bellow for client can access without authentication in Walled Garden IP List :
    1) www.passerellesnumeriques.org



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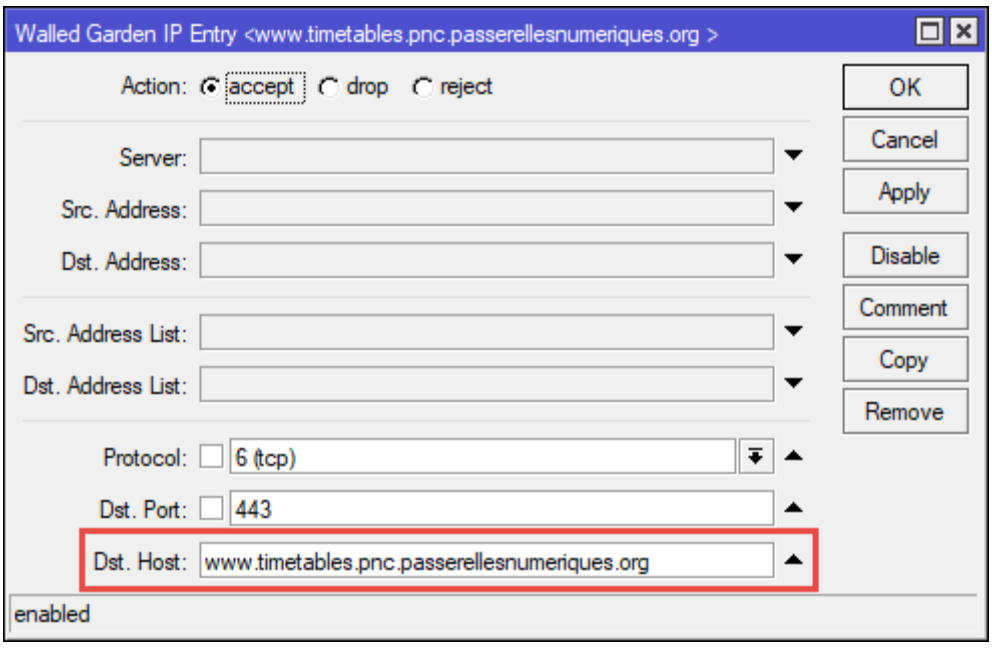
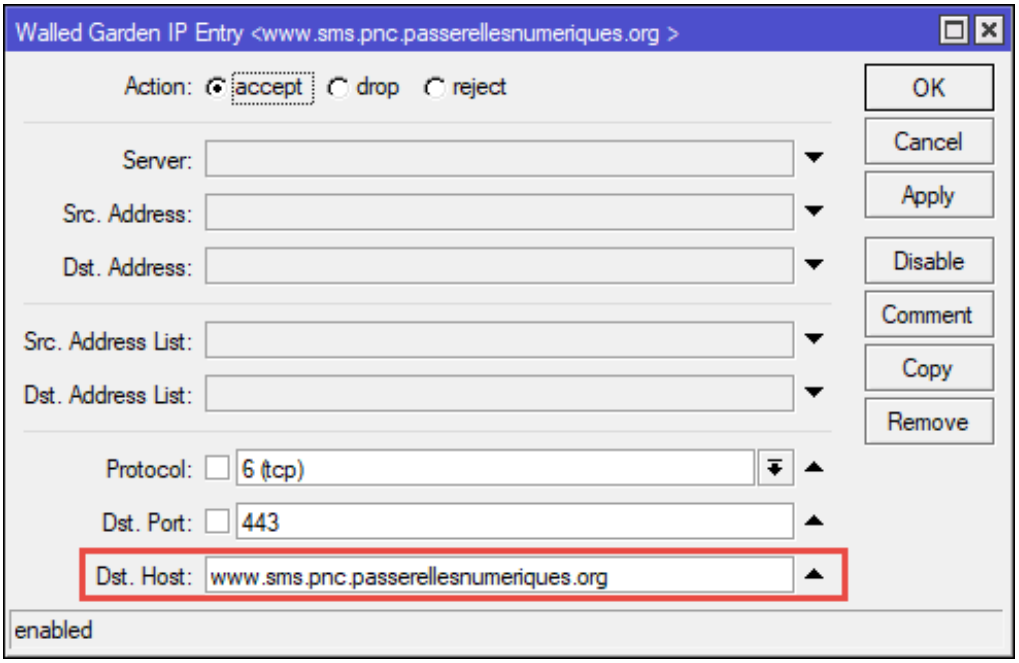
2) www.timetables.pnc.passerellesnumeriques.org



3) www.sms.pnc.passerellesnumeriques.org



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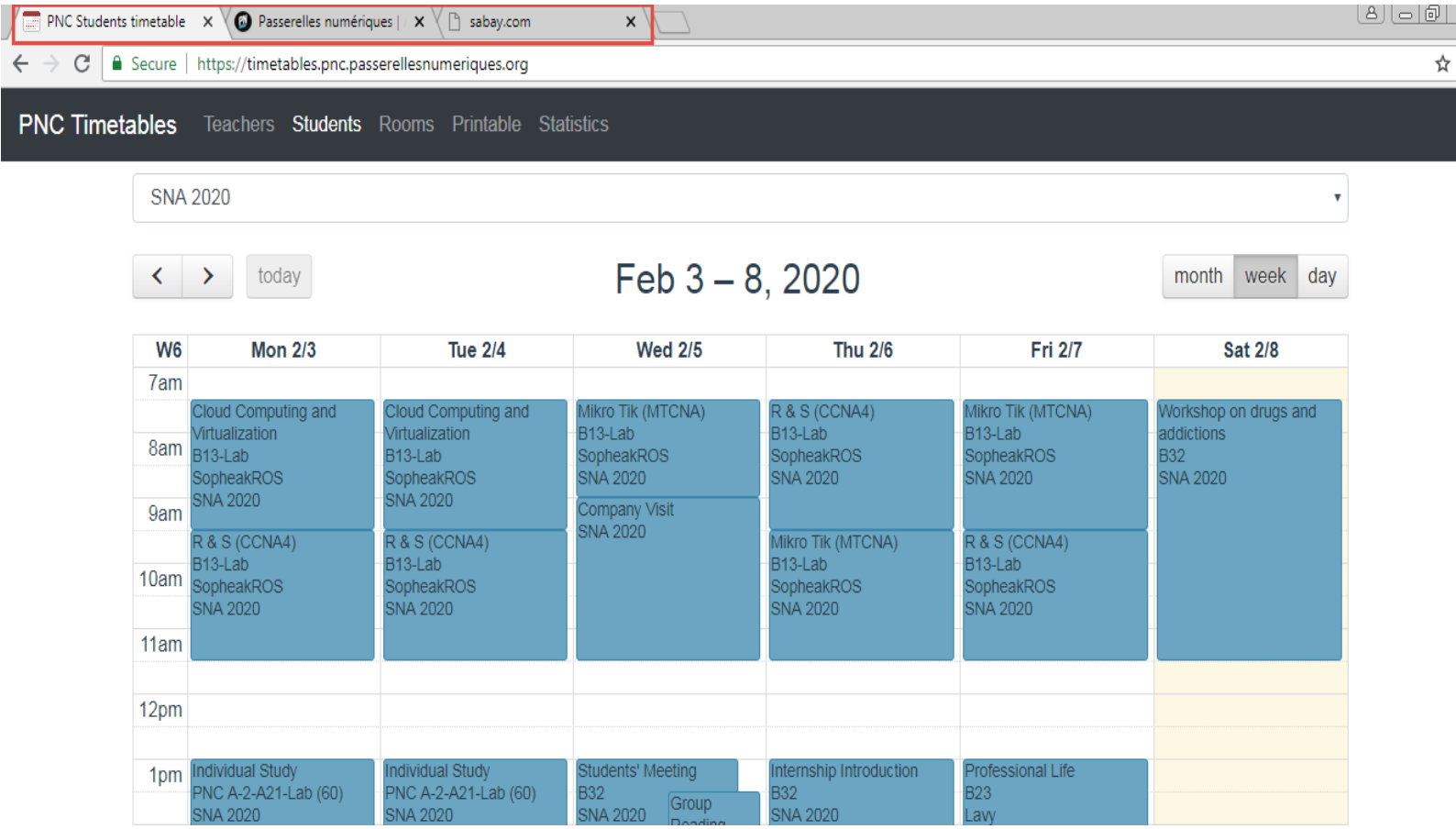
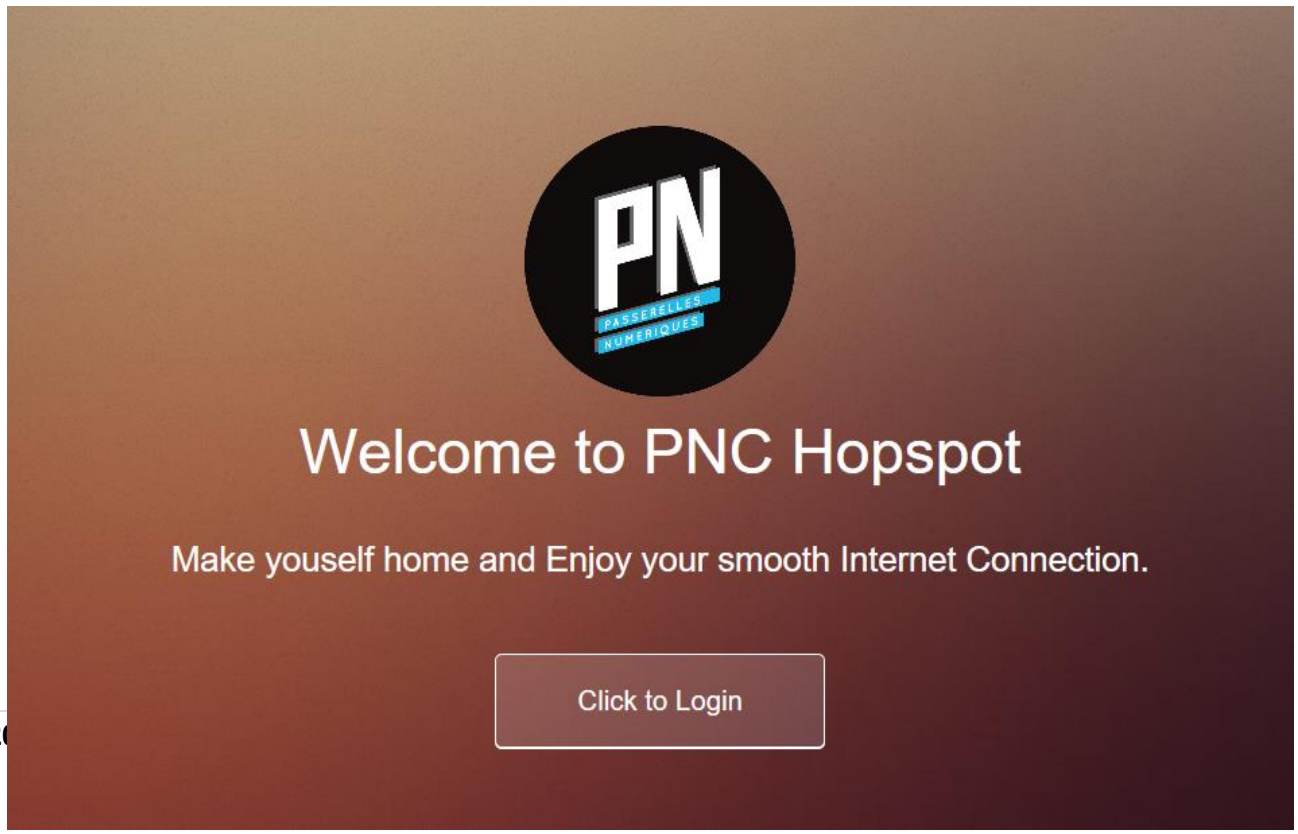


Hotspot Loing page



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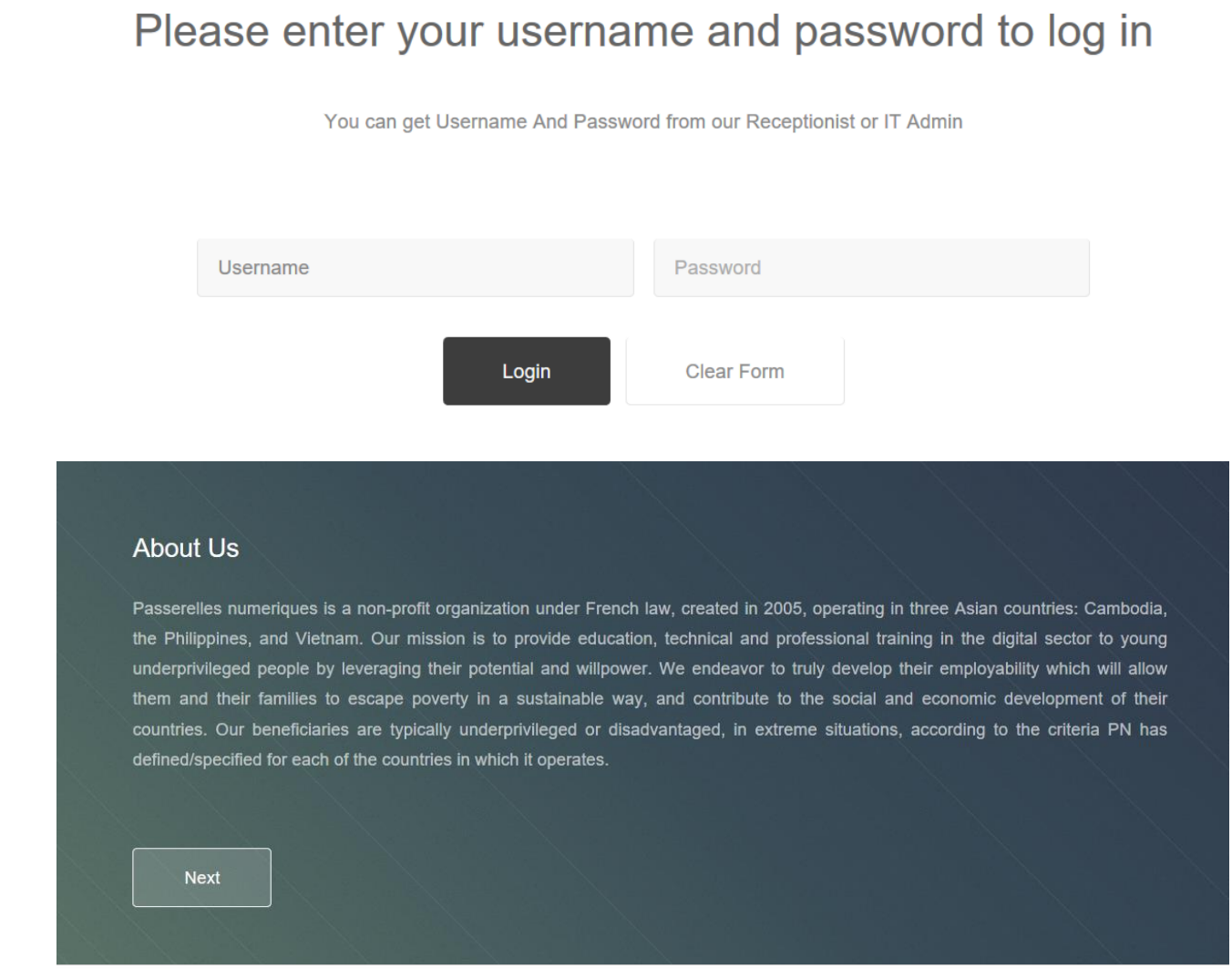

Passerelles numeriques Cambodia

Passerelles numeriques Cambodia was the first project to be lunched in 2005, in Phnom Penh. PNC offers two IT training programs in System and Network Administration (SNA) and Programing (WEB), based on a holistic education approach including technical and soft skills, and personal development program.

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