Jumpstart your router with MikroTik QUICKSET

Mikrotik User Meeting Laos, May 8, 2017

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Agenda

- Introduction
- Router configuration
- Quick set
- Demo
- Q & A

What is GLC?

- Garda Lintas Cakrawala (www.glcnetworks.com)
- Based in Bandung, Indonesia
- Areas: Training, IT Consulting
- Mikrotik Certified Training Partner
- Mikrotik Certified Consultant
- Mikrotik distributor

Trainer Introduction

- Name: Achmad Mardiansyah
- Base: bandung, Indonesia
- Linux user since ’99
- Certified Trainer (MTCNA/RE/WE/UME/INE/TCE)
- Mikrotik Certified Consultant
- Work: Telco engineer, Sysadmin, PHP programmer, and Lecturer at Telkom University
- Personal website: http://achmad.glcnetworks.com
- More info: http://au.linkedin.com/in/achmadmardiansyah

About Telkom University

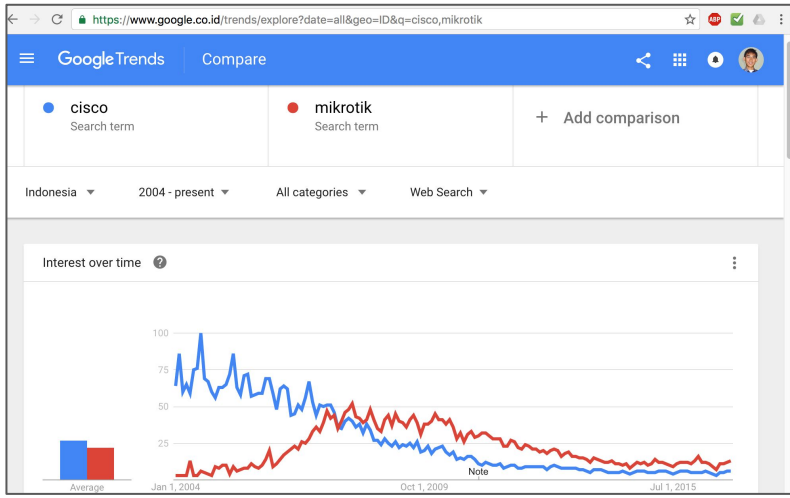
- Located in Bandung, Indonesia
- 7 Faculties, 27 schools
- Areas: Engineering, Communications, Computing, Bussiness and management, Arts
- 650+ Academic staff, 400+ Administration staff, 20000+ students
- An exchange program
- Runs mikrotik academy program

Mikrotik academy @ TEL-U

- Started in 2013
- Embedded into schools curricula
- 100% hands-on
- Get MTCNA certification

Mikrotik in Indonesia

- Very popular product for networking
- Early adopters (beginning of 2000)
- Many schools already join Mikrotik Academy programs
- Lots of training classes
- Biggest MUM in the world (2500+ participants, 2-day event)
- Very active community (facebook, telegram, forum, etc)
- What..? you don't know Mikrotik? Where have you been?



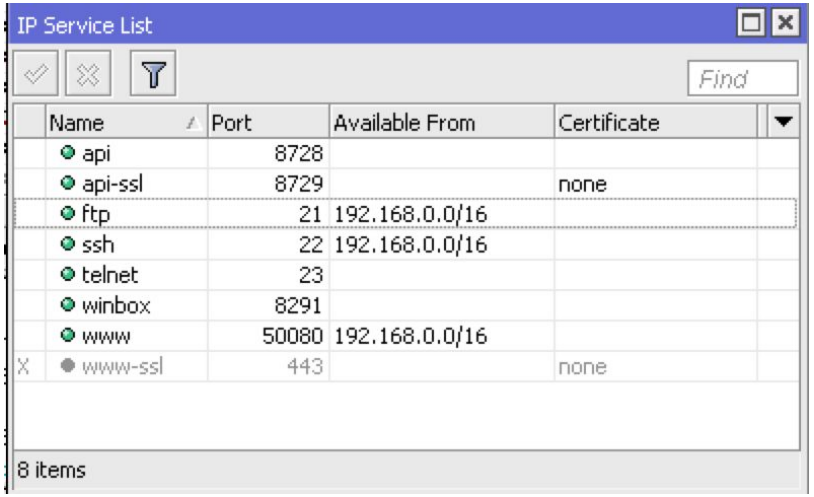
Configuring RouterOS

How to configure RouterOS?

- Via local (physical) access

  Meaning: Router and configuring devices should be directly connected
  - Console port (if available)
  - MAC address (layer 2 connection). Winbox application
- Via remote access (aka. Services. why?)

  Meaning: Router will be accessed through layer 3 addressing
  - Webfig (web configuration using http)
  - Winbox (port 8291)
  - SSH (port 22)
  - Telnet (port 21)
  - API (port 8728)



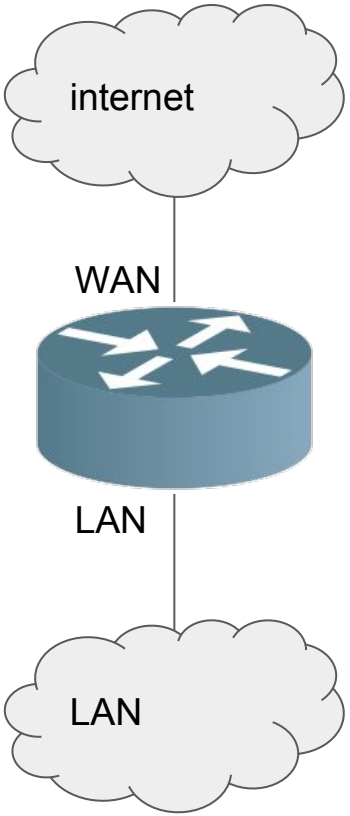
RouterOS default configuration (RB751U-2HnD)

- Ether1 -> WAN
  - Firewall NAT is active
  - **DHCP-client** is active
  - MAC server is **disabled** (cant access winbox from this port)
- Ether 2-5 -> combined using switch (LAN)
  - Local IP address: 192.168.88.1/25
  - DHCP-server is active
  - MAC server is enabled
- WLAN is OFF

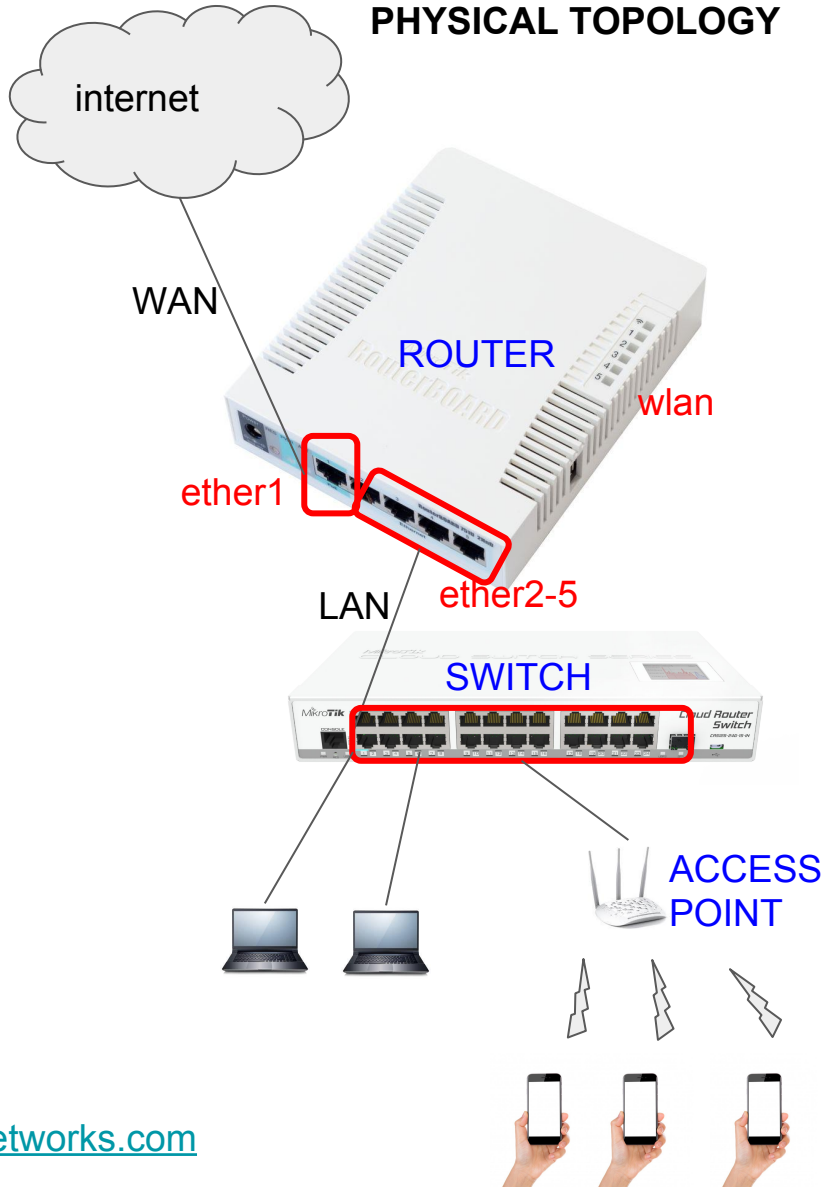
Source: https://wiki.mikrotik.com/wiki/Manual:Default_Configurations

Default config topology

LOGICAL TOPOLOGY



PHYSICAL TOPOLOGY



Quick set

What is jumpstart (vehicle)?

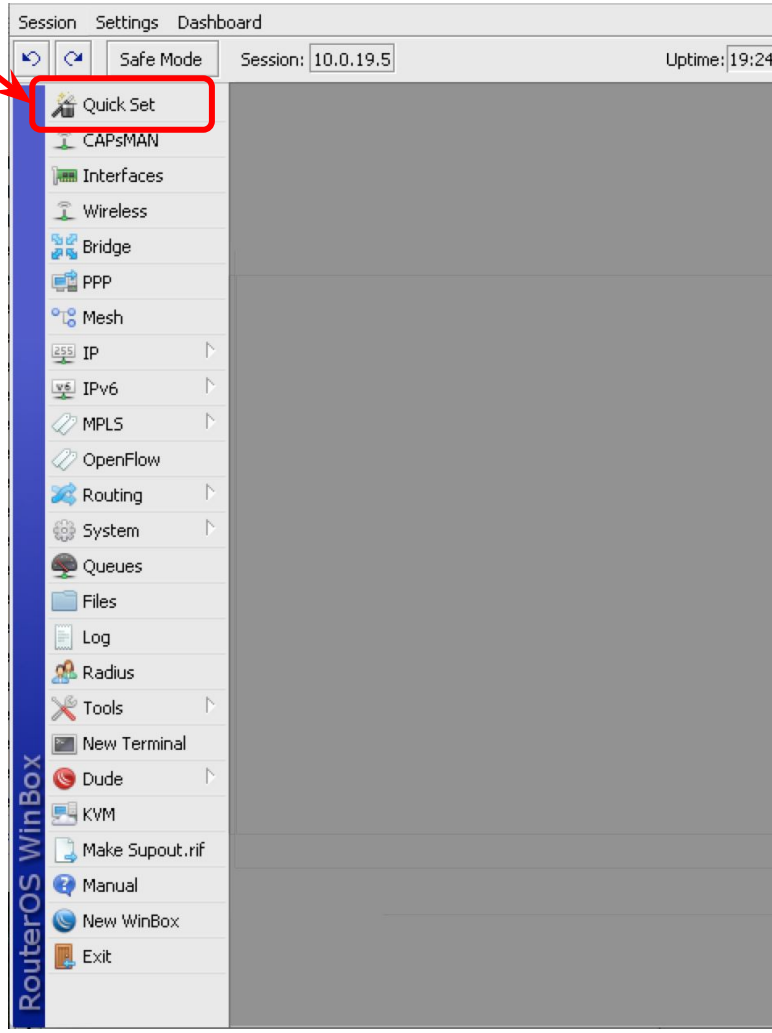
- a method of starting a vehicle with a discharged starting battery
- Without jumpstart:
  - Unplug the battery
  - Replace / energize the battery in different place
  - Put back the good battery to its position
  - Takes loooong time
- With jumpstart:
  - Its fast

From www.hirerush.com

Can we configure routerOS like a jumpstart?

Yes, use **Quick set!**

- Contains of common scenarios of RouterOS implementation
- Each scenario is only one page configuration
- Very convenient for unexperienced users, non-technical persons
- Can save your time, a lot
- Sometimes it is a good tool for troubleshooting too :-p



Quick set scenarios

scenario	description
CPE	Customer Premise Equipment (CPE). Routerboard will be configured as wireless client
PTP Bridge AP	If you want to setup a Point-To-Point wireless bridge, Routerboard will be configured as Access Point (AP) side
PTP Bridge CPE	If you want to setup a Point-To-Point wireless bridge, Routerboard will be configured as Access Point side CPE side
WISP AP	Wireless ISP, Access Point. Routerboard will be configured as Access Point in ISP environment
Home AP	Routerboard will be configured as Access Point in Home Environment
Basic AP	Routerboard will be configured as a Basic Access Point
CAP	Routerboard will be configured as Controlled Access Point (CAP)

Scenario: CPE

PHYSICAL TOPOLOGY

AP

CPE

CPE | Quick Set

OK | Cancel | Apply

Info

WLAN MAC Address: D4:CA:6D:6B:30:07

LAN MAC Address: D4:CA:6D:6B:30:02

Wireless

Country: no_country_set

Channel Width: 20/40MHz Ce

	Address	Network Name	Channel	Pro
RB	E4:8D:8C:52:FE:23	quickset_2GHz	2412/20/gn	802
P	84:16:F9:46:AA:20	ALI HOTEL 3	2427/20-Ce/gn	802
P	60:E3:27:F2:80:8D	ALI HOTEL 4	2457/20-eC/gn	802
	4A:D9:E7:A5:3D:57	@ETL_WiFi	2462/20/gn	802
P	18:A6:F7:B0:A8:6A	ALI HOTEL 1	2457/20-eC/gn	802
	4A:D9:E7:A5:44:D7	@ETL_WiFi	2437/20/gn	802
P	84:16:F9:46:AA:24	ALI HOTEL 2	2447/20-eC/gn	802
	4A:D9:E7:59:2D:93	@ETL_WiFi	2462/20/gn	802
P	4E:D9:E7:59:2D:93		2462/20/gn	802

Signal Strength: -57 dB

Network Name: ALI HOTEL 3

WiFi Password: Hide

Connect

Configuration

Mode: Router Bridge

Wireless Network

Address Acquisition: Static Automatic PPPoE

IP Address: Renew Release

Netmask:

Gateway:

Upload: unlimited bits/s

Download: unlimited bits/s

Local Network

IP Address: 0.0.0.0

Netmask: 255.0.0.0 (/8)

DHCP Server

NAT

Bridge All LAN Ports

System

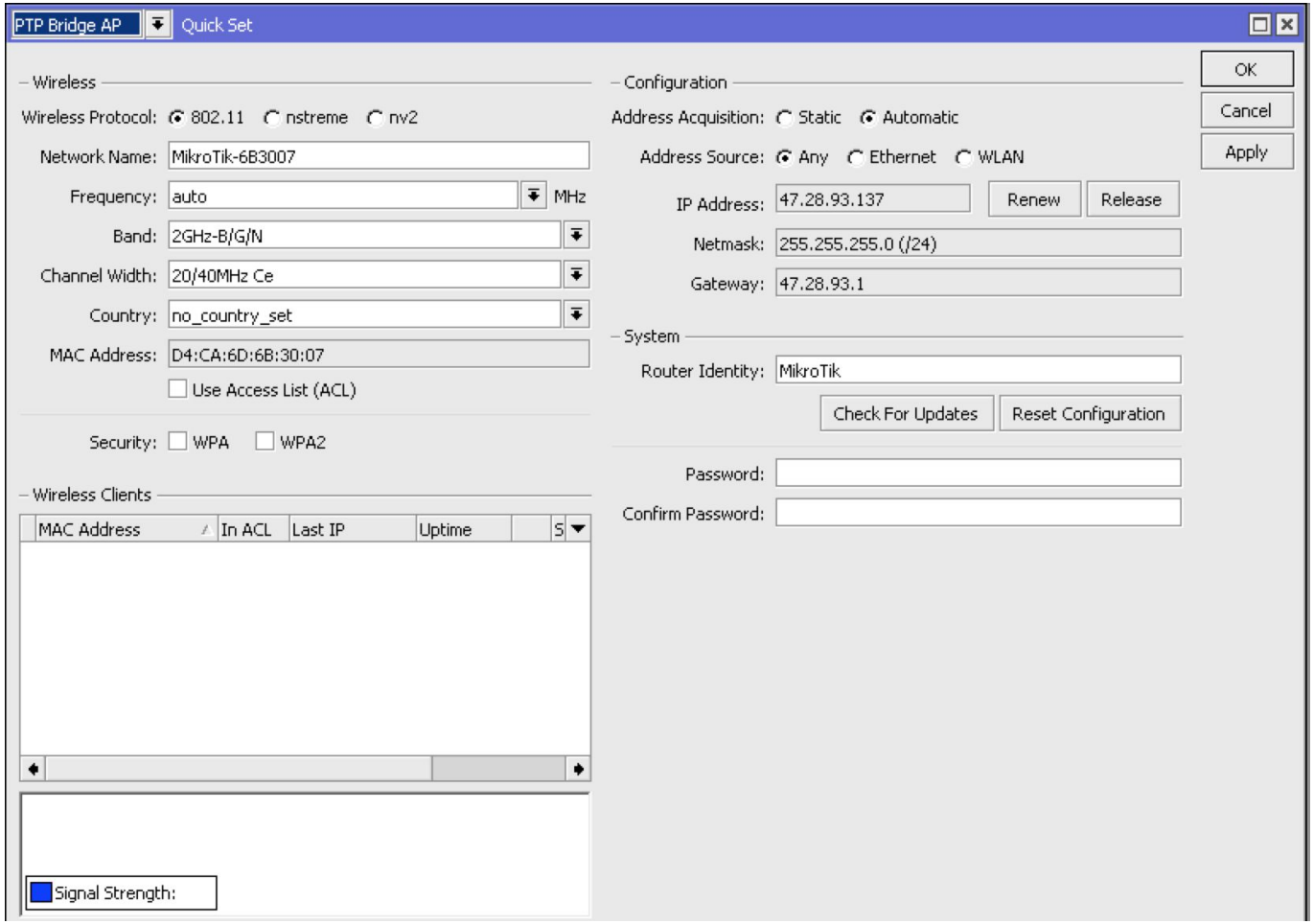
Router Identity: MikroTik

Check For Updates | Reset Configuration

Password:

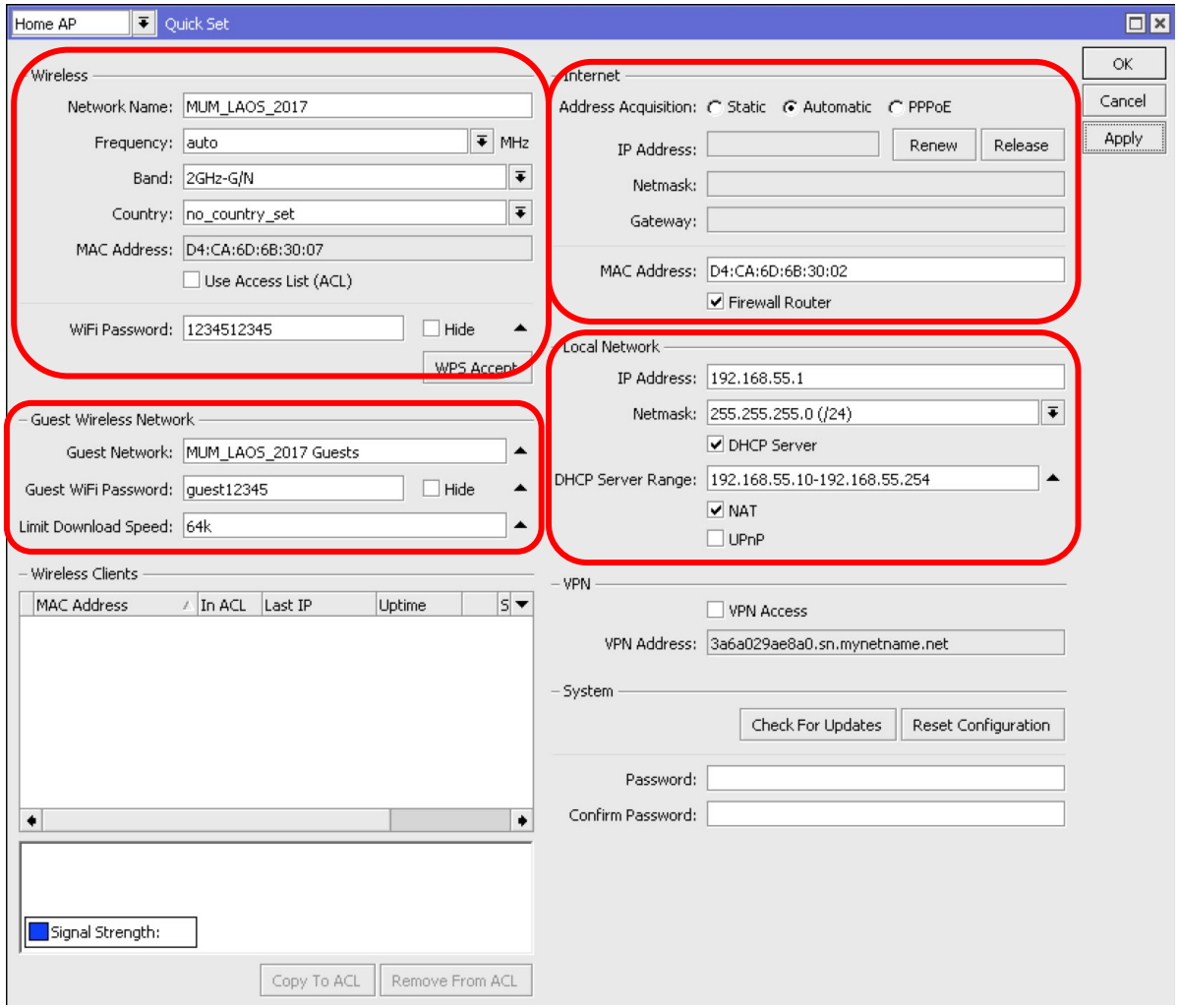
Confirm Password:

Scenario: PTP-bridge



PHYSICAL TOPOLOGY

Scenario: Home AP



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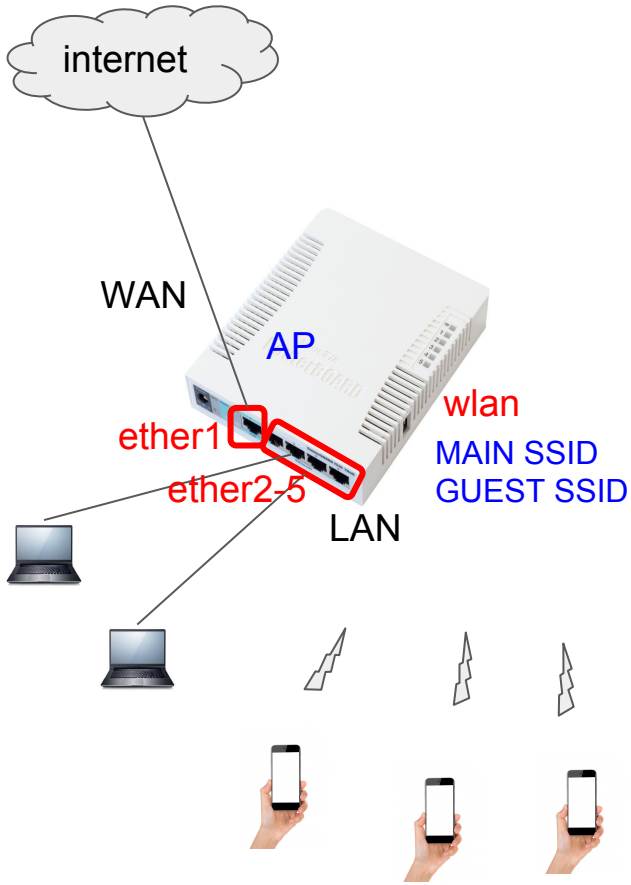
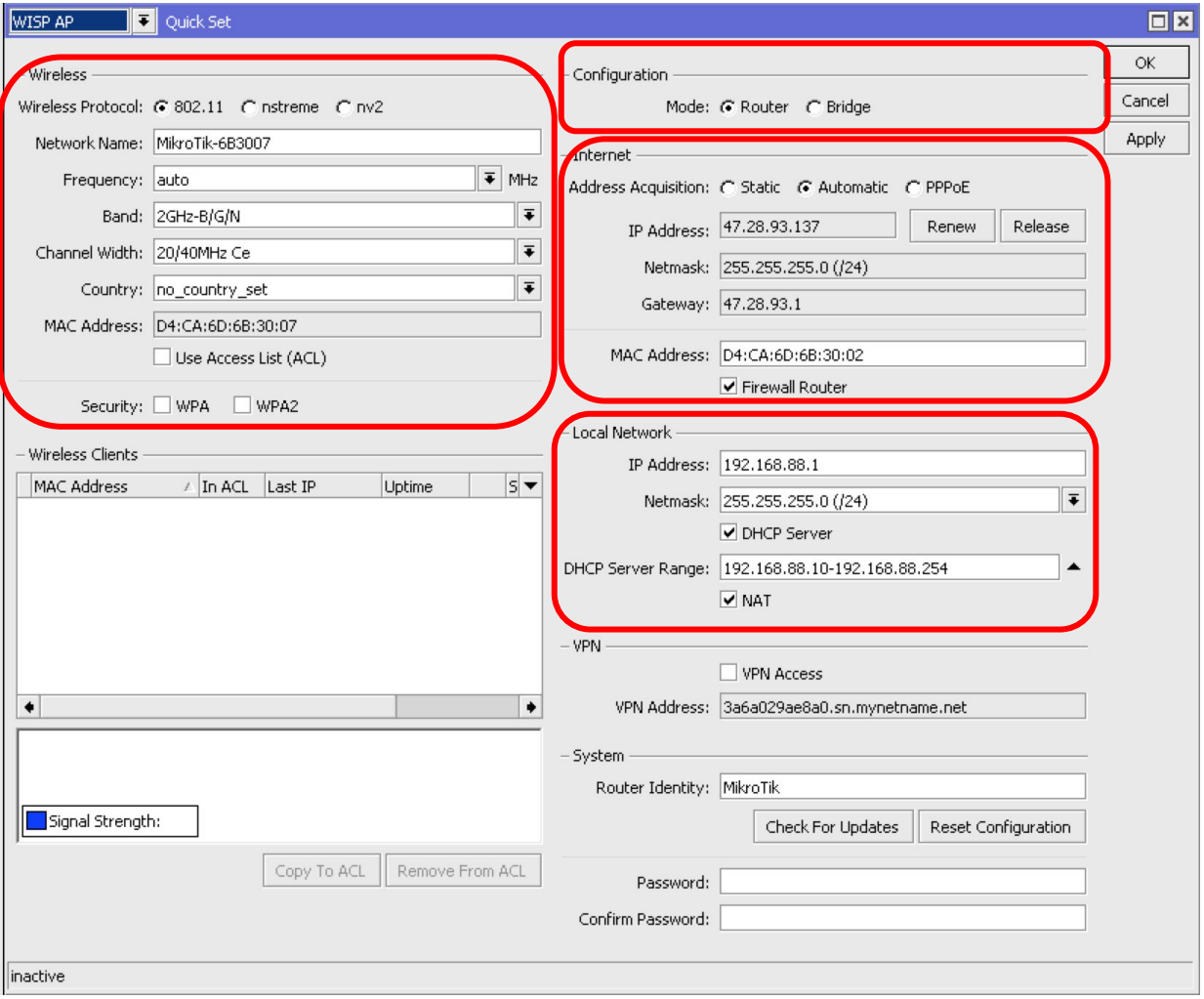


Scenario: WISP AP



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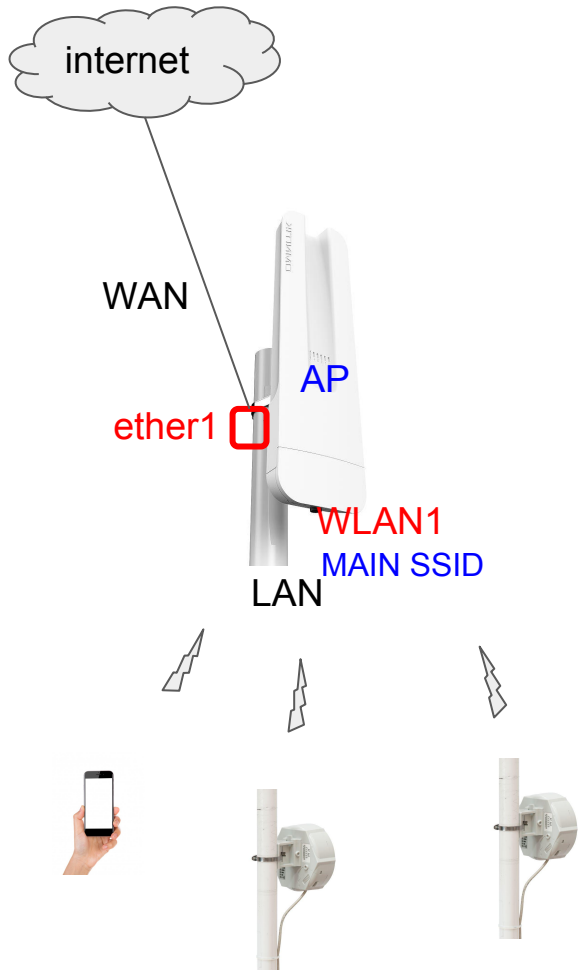
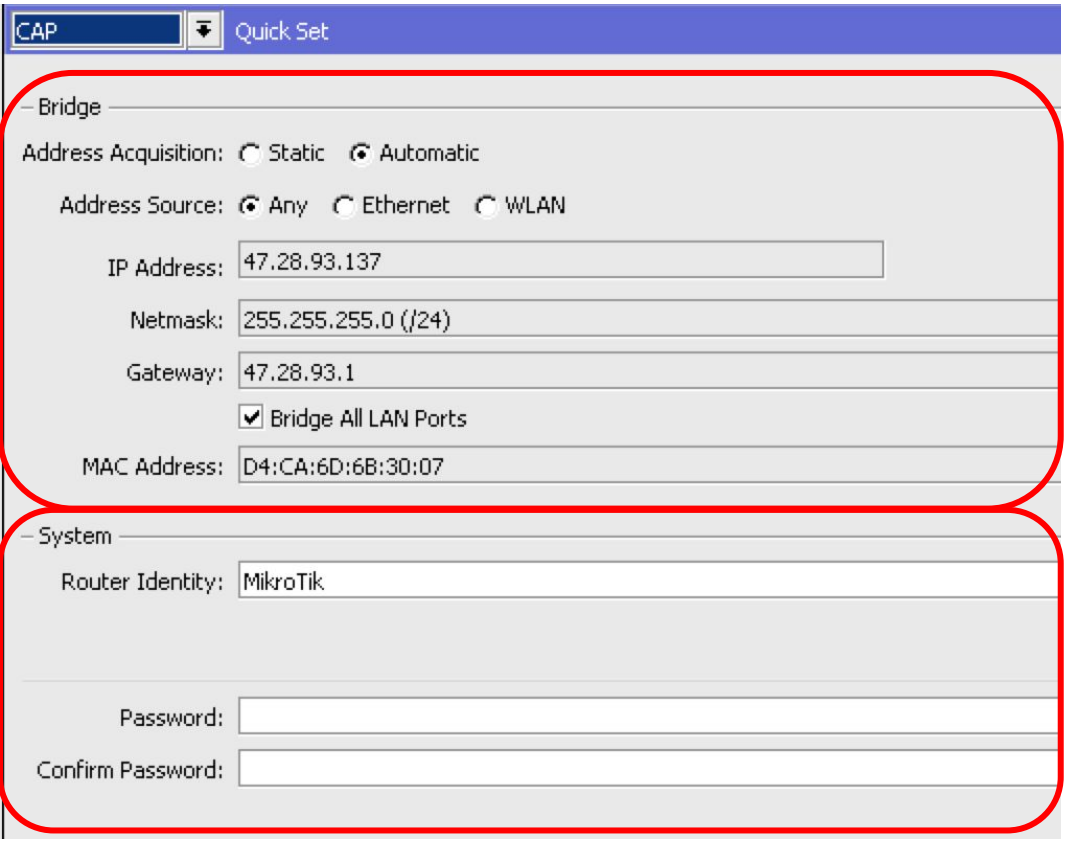


Scenario: CAP



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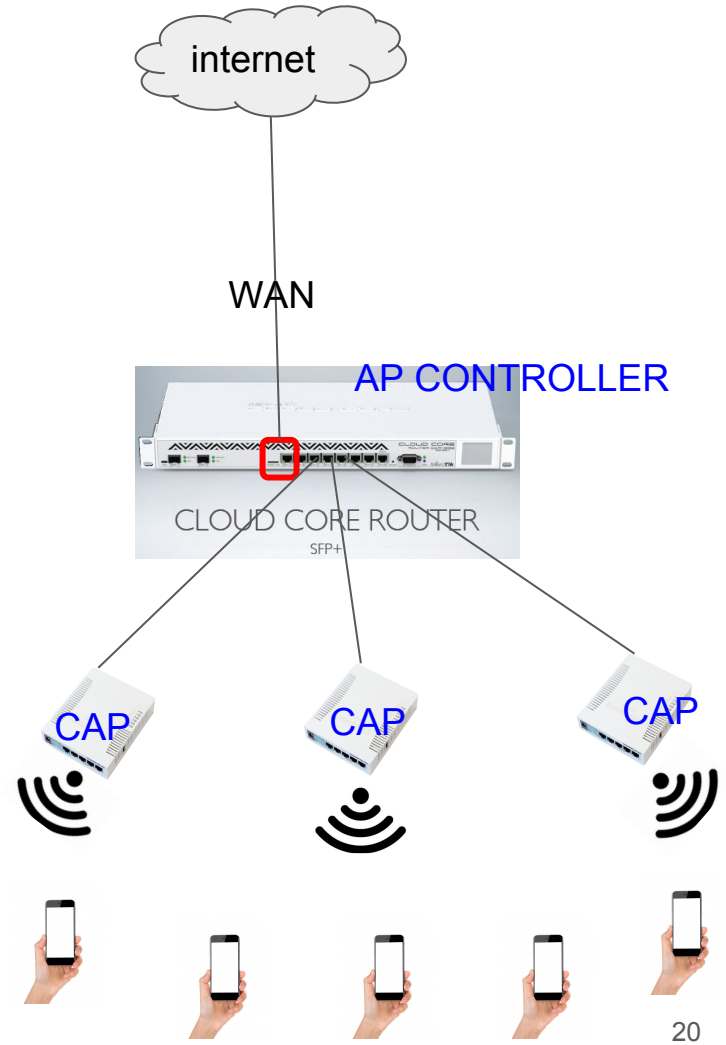
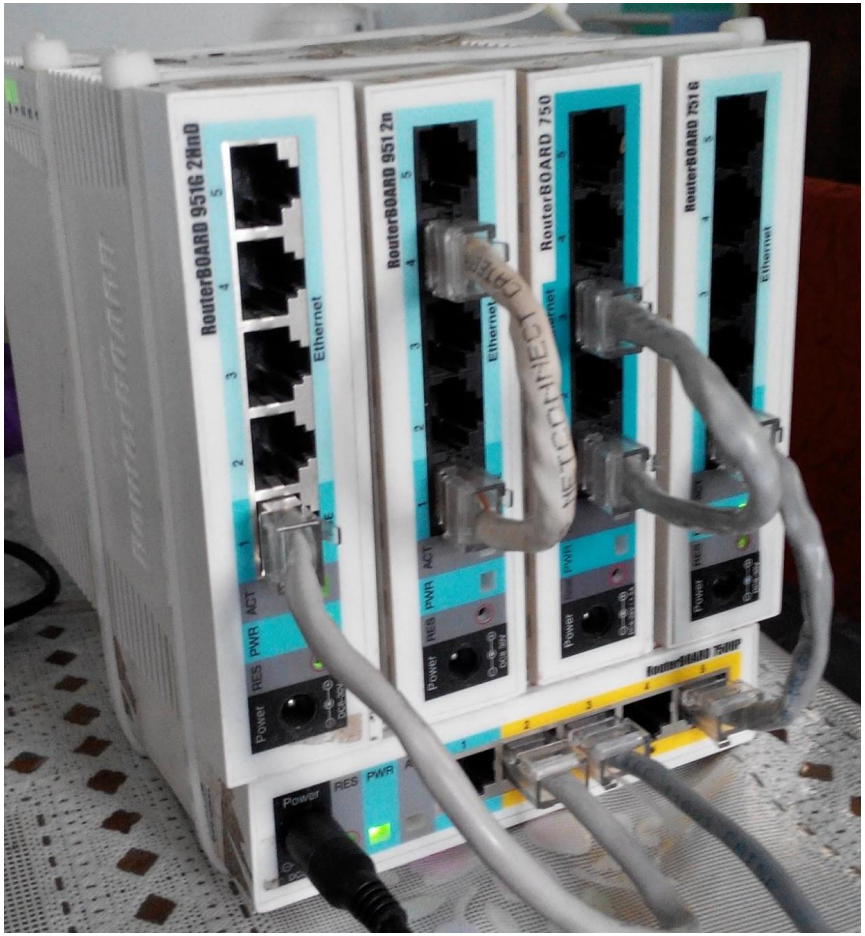
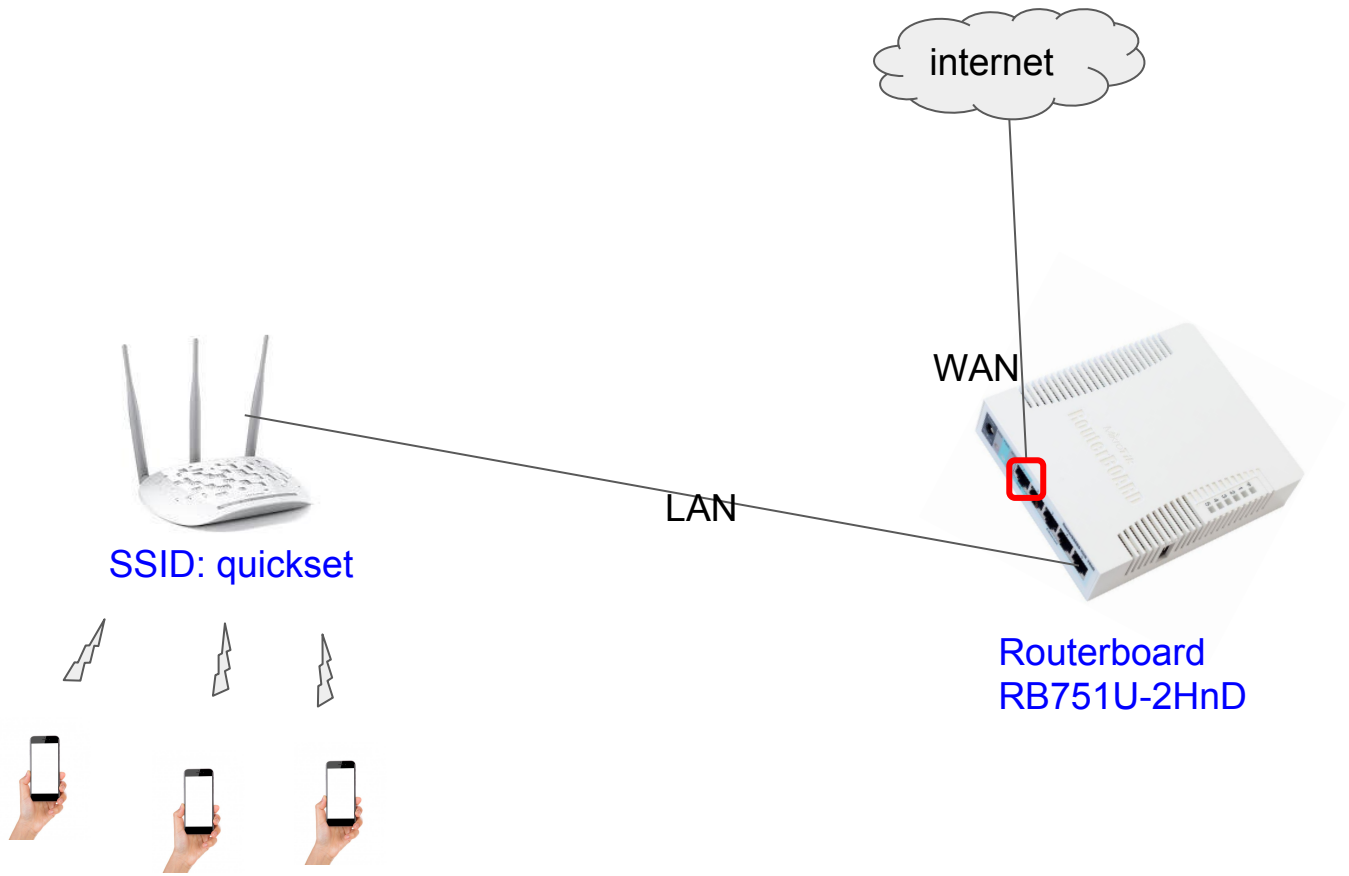


demo


RouterBOARD 951G 2HnD
RouterBOARD 951 2n
RouterBOARD 750
RouterBOARD 751 6
Ethernet
ACT
PWR
RES
Power

Demo topology



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☐ NAT

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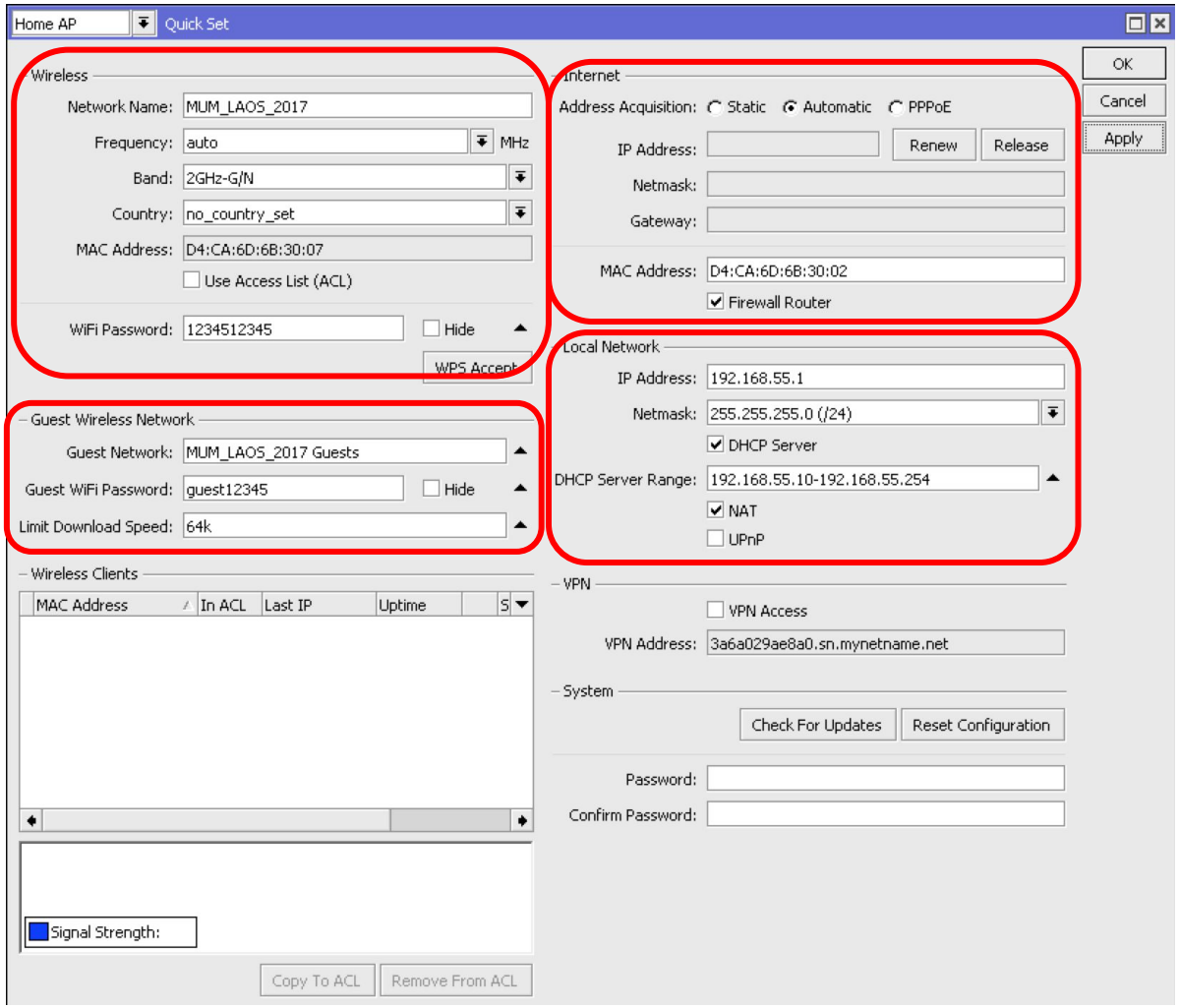

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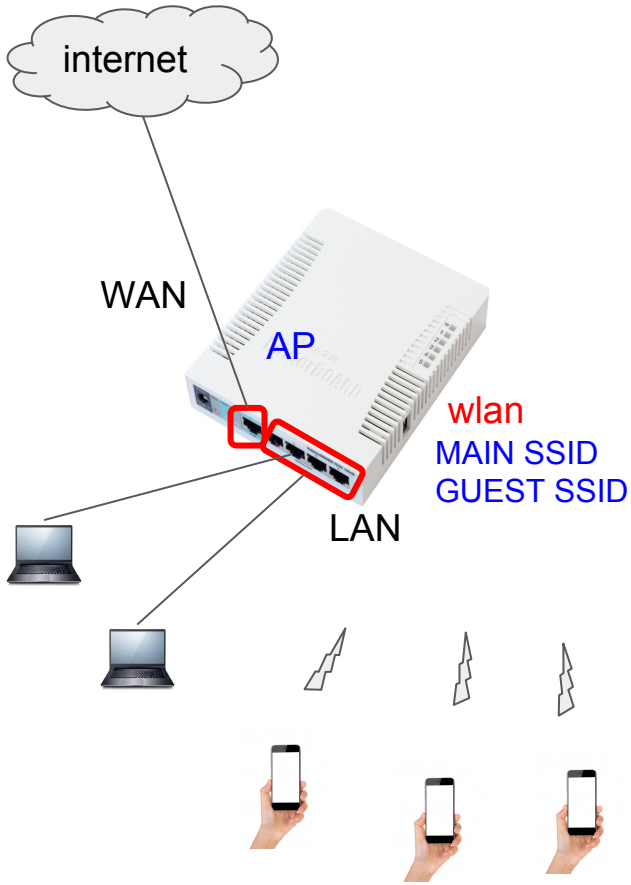

QA

End of slides

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