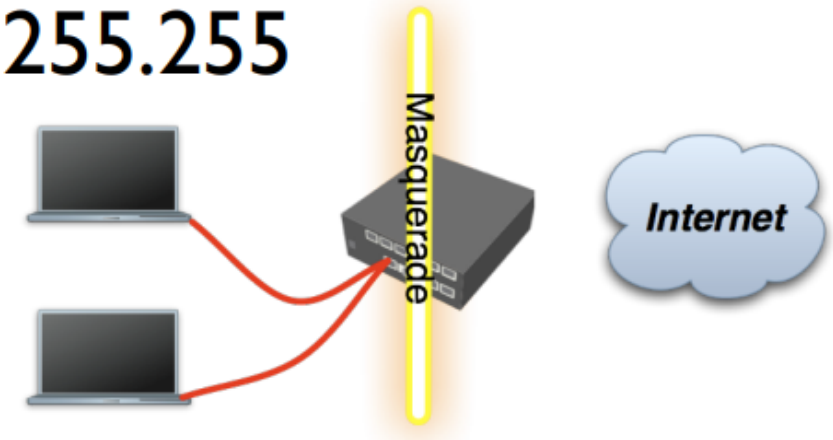
MIKROTIK

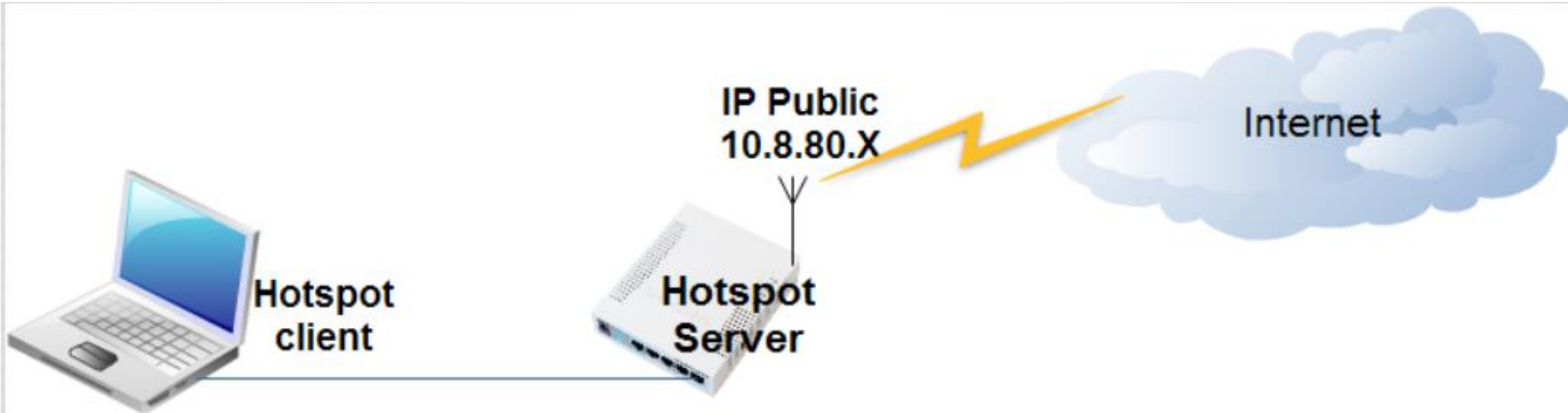
Firewall & Hotspot

By : P.SuLAiMan

Private and Public Space

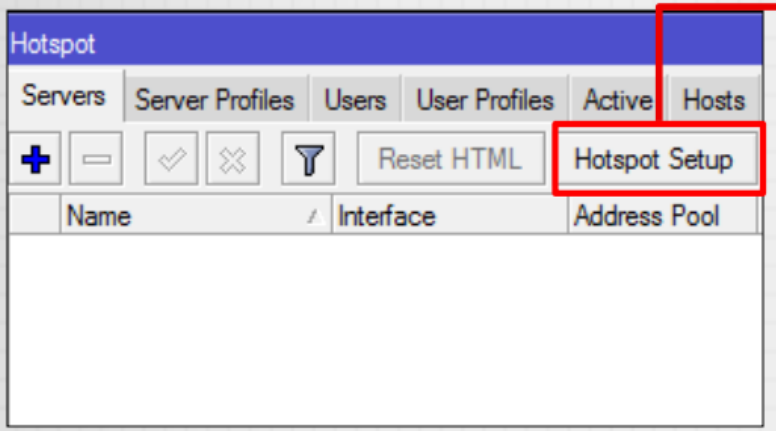
- **Masquerade** is used for Public network access, where private addresses are present
- Private networks include
  10.0.0.0-10.255.255.255,
  172.16.0.0-172.31.255.255,
  192.168.0.0-192.168.255.255

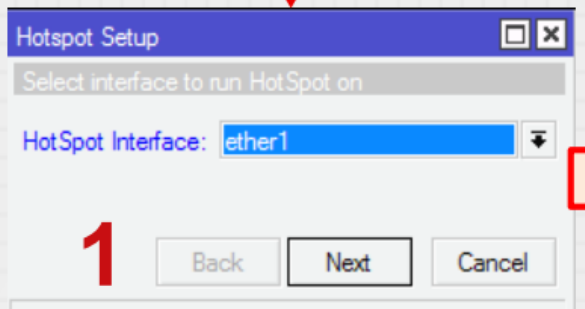


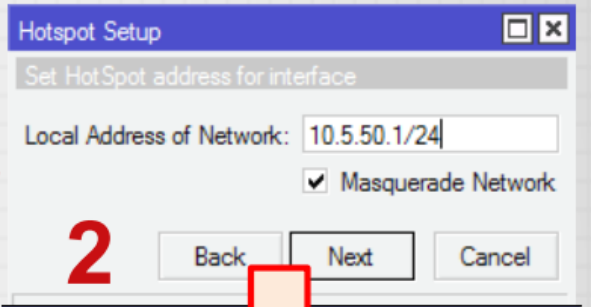

IP Public
10.8.80.X
Internet
Hotspot
client
Hotspot
Server

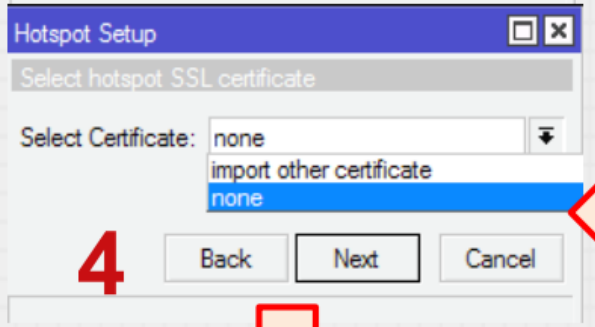
HotSpot Setup Wizard

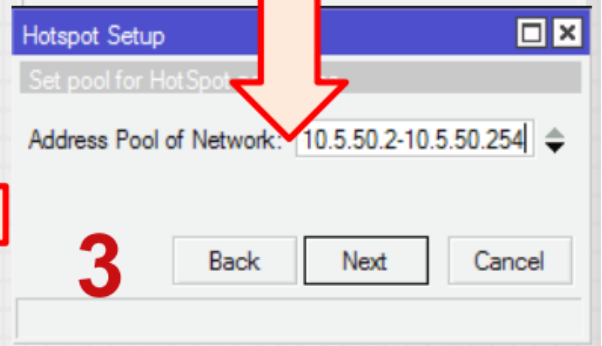
Go to Menu
IP > Hotspot

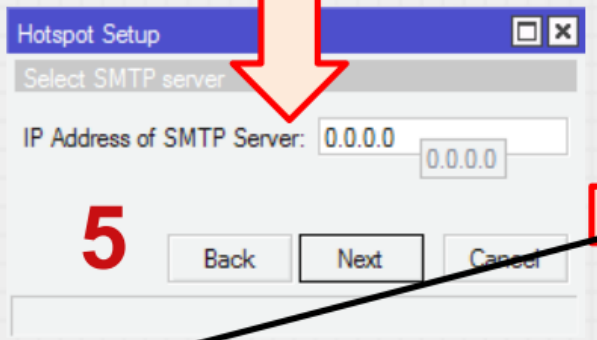


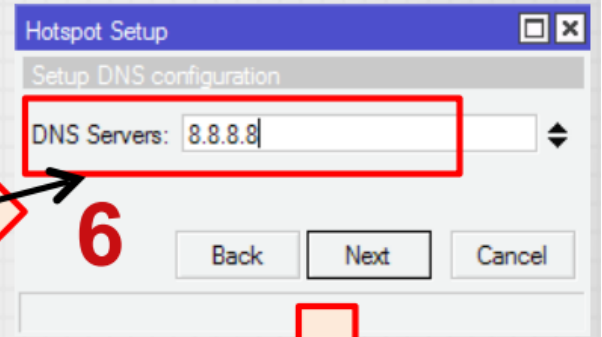


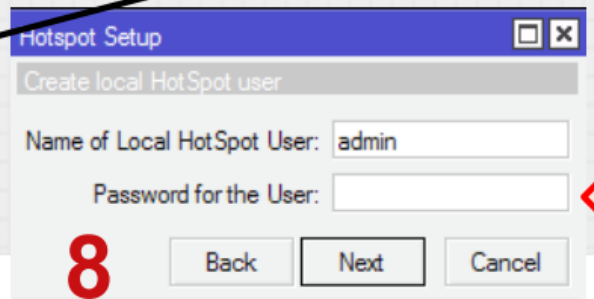


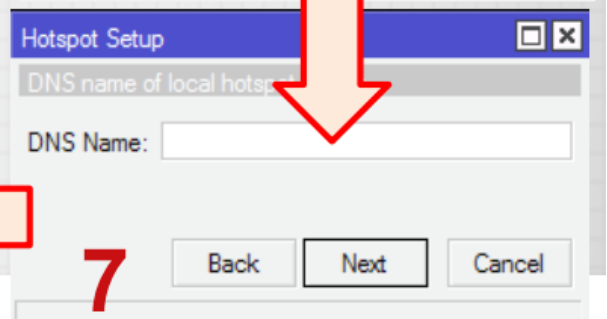










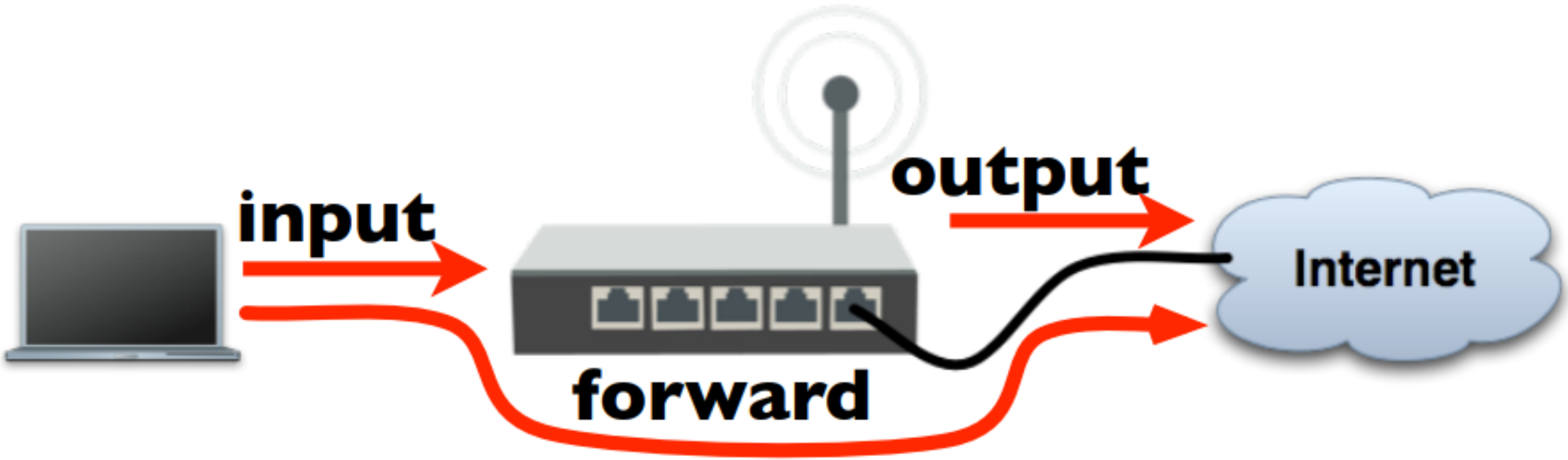


Only need to fill DNS Server

Firewall Rules

- Work on **If-Then** principle
- Ordered in chains
- There are predefined chains
- Users can create new chains

Firewall Filter



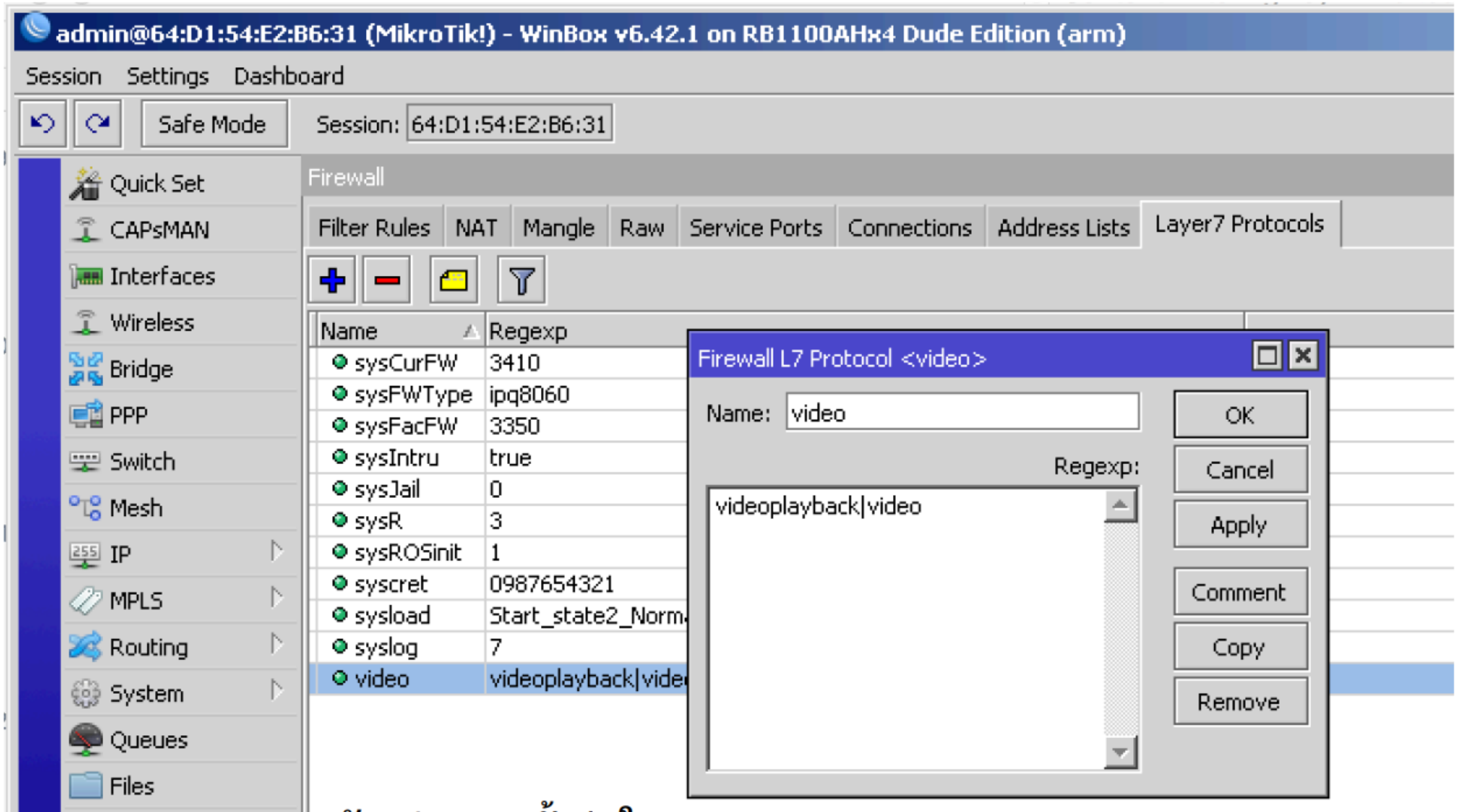
Filter Actions

- Each rule has an action - what to do when a packet is matched
- **accept**
- **drop** silently or **reject** - drop and send ICMP reject message
- **jump**/**return** to/from a user defined chain

Layer 7 Protocols

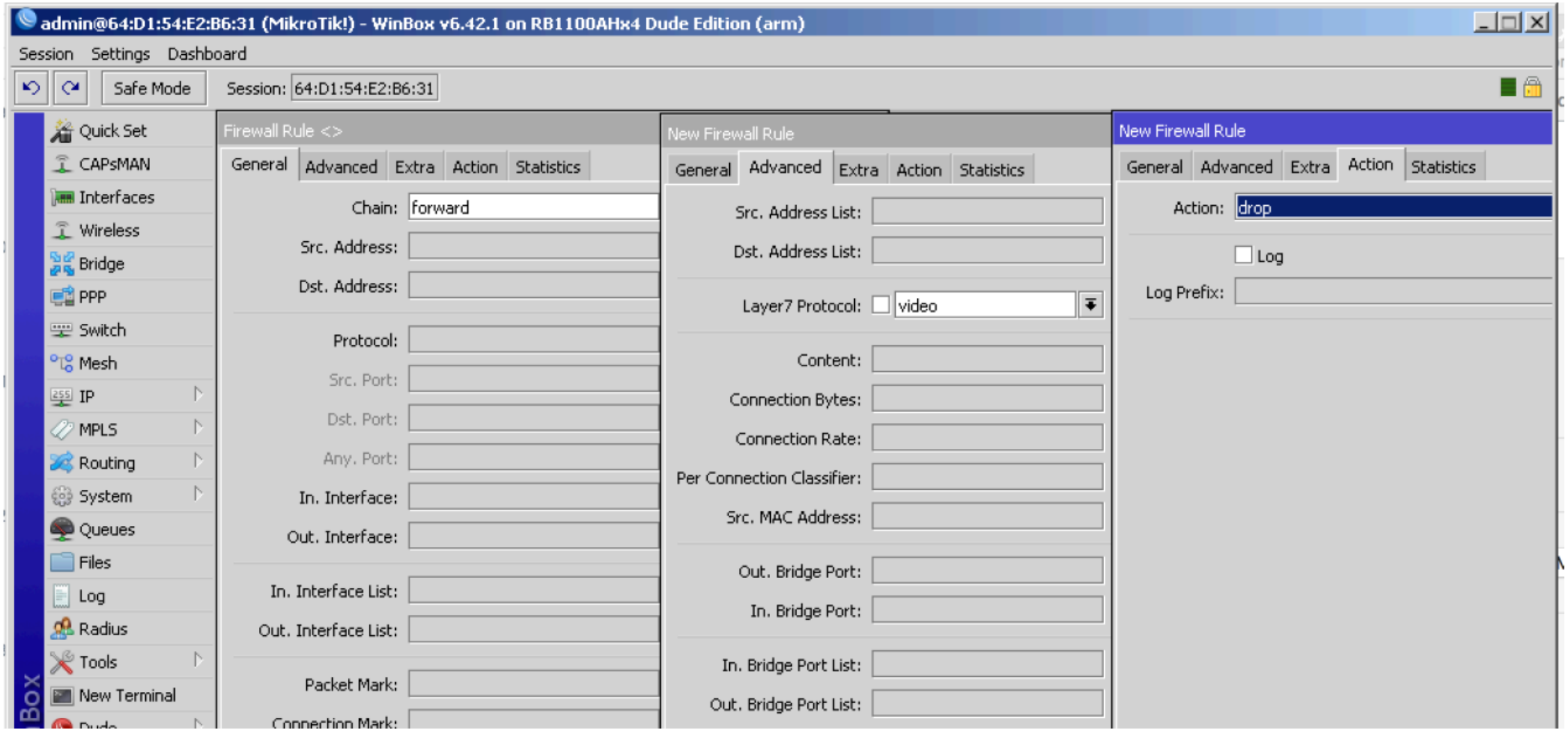
- Layer 7 Protocols จะค้นหาข้อมูลในรูปแบบ ICMP/TCP/UDP streams
- Layer 7 Protocols จะทำการค้นหา 10 Packets แรกของ Connection หรือ 2KB แรกของ Connection ที่ตรงกับ Pattern ของข้อมูลที่มี
- หากไม่พบข้อมูลที่ตรงกัน Layer 7 Protocols จะถือว่าไม่เข้ากฎหรือไม่ตรงตาม Pattern ที่มี
- ข้อควรระวังในการใช้งาน Layer 7 Protocols จะมีการเรียกใช้ CPU จำนวนมาก

Layer 7 Protocols



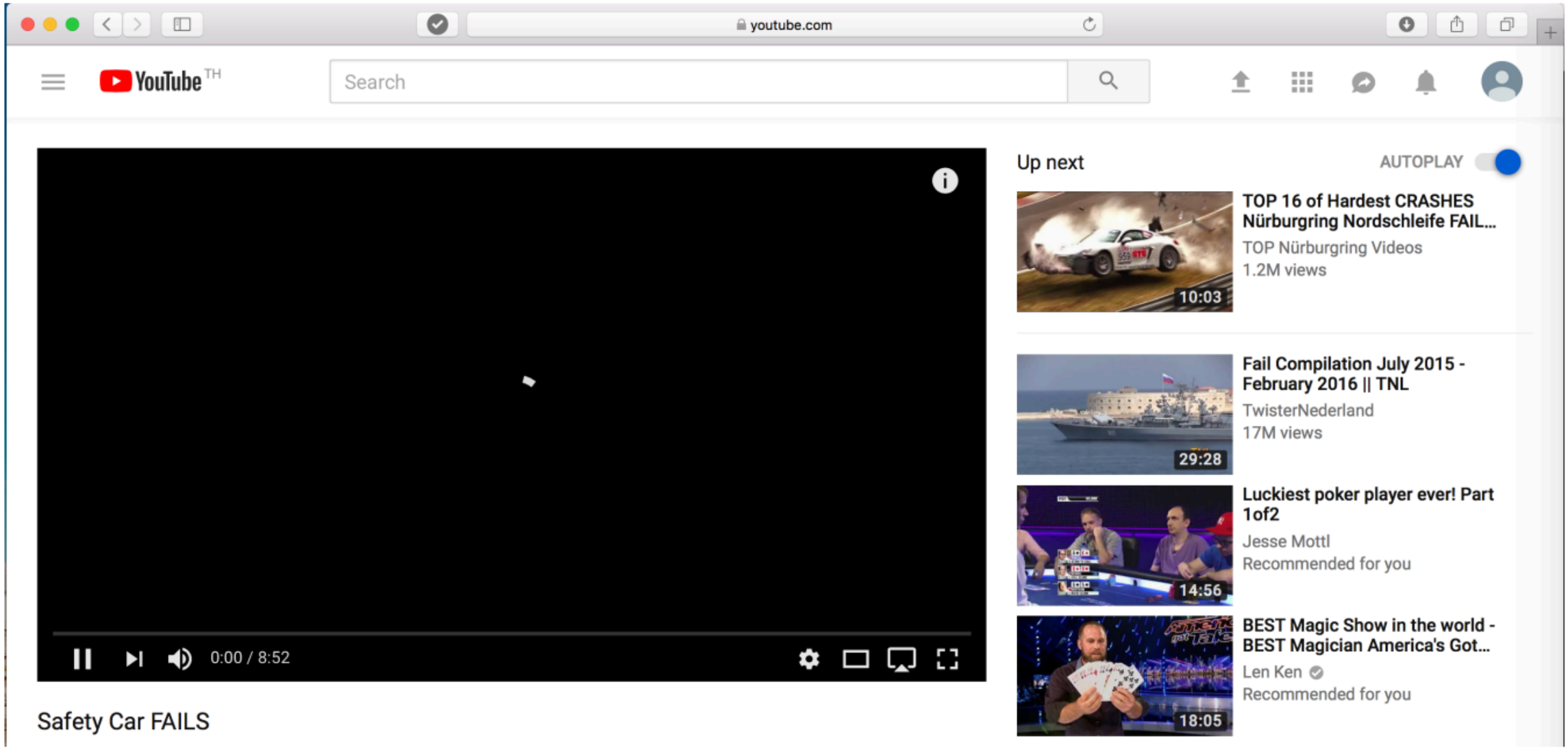
ตัวอย่างการตั้งค่าใน /ip firewall layer7-protocol

Layer 7 Protocols



ตัวอย่างการตั้งค่าใน /ip firewall filter

Layer 7 Protocols



ตัวอย่างทดลองเข้าเว็บไซต์

https://wiki.mikrotik.com/wiki/Manual:Securing_Your_Router