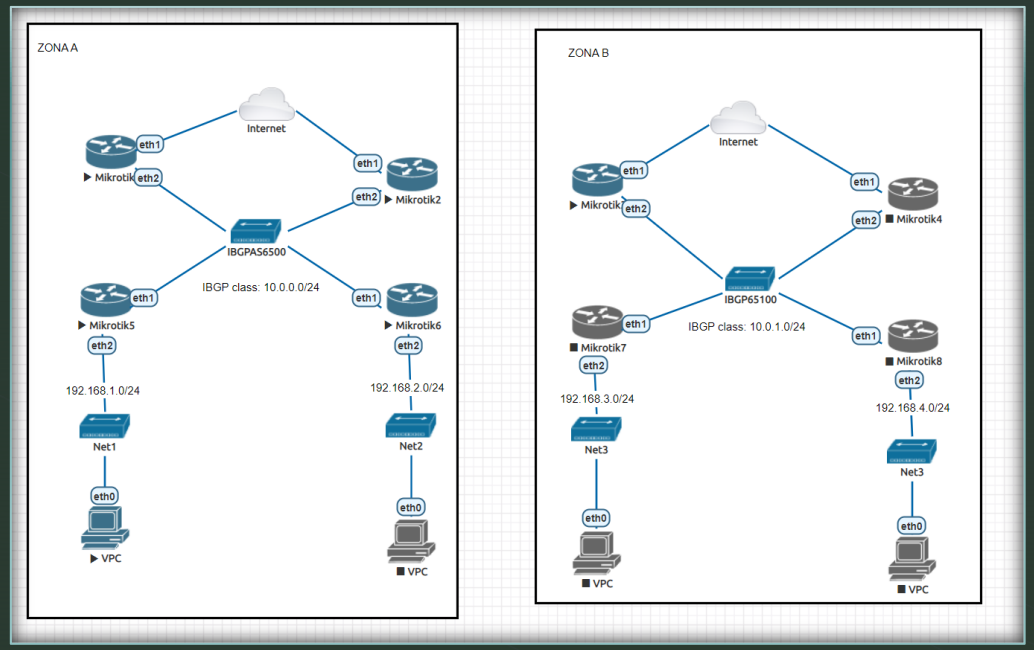
Laboratoare Retelistica

Setarea BGP-ului prin IBGP si EBGP

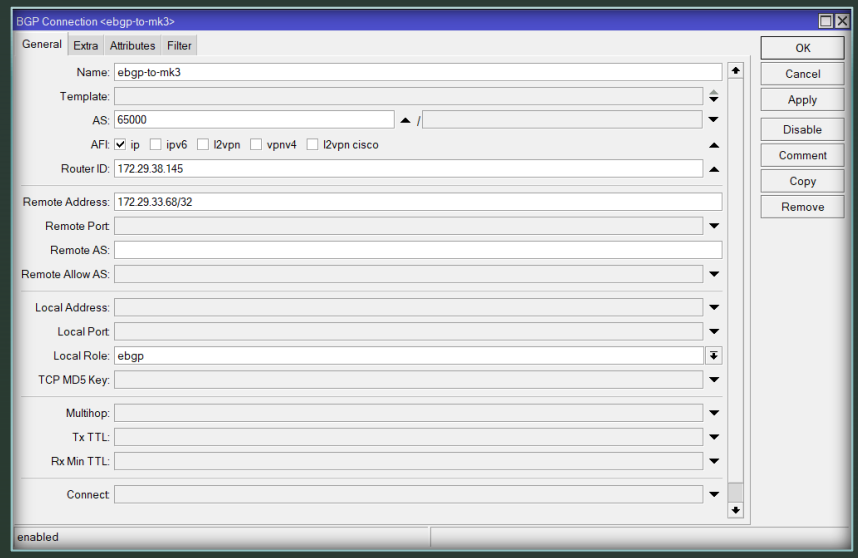
Topologie

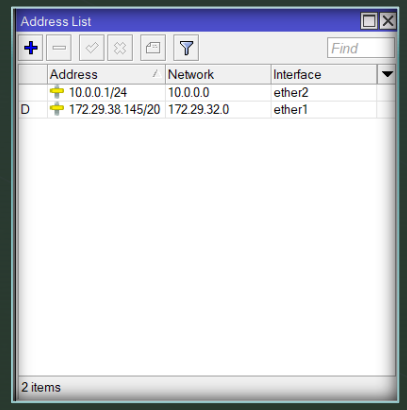
- Incepem de la topologia a doua zone pe care le numim zona A si zona B fiecare conectata separate la internet.
- Routerele conectate direct la internet vor avea rolul de EBGP pe interfetele de WAN si IBGP pe interfetele interne.

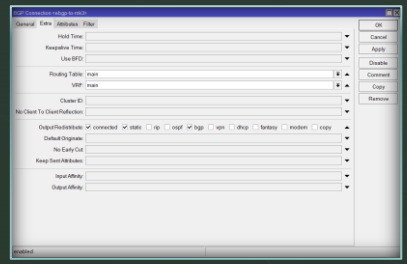


Configurare MikroTik1 eBGP

- Asignam interfetei ether2 un ip din clasa de IBGP.
- In prima parte configuram EBGP-ul pe acest nod dupa care vom configura EBGP-ul pe un router din ZONA B.
- Pentru a incepe confgiurarea intram in Routing -> BGP -> Connection.
- La nume putem seta ceva descriptive, la AS (Autonomous System) ii setam zonei o identitate in acest caz 6500, router id setam ip-ul de extern (WAN), remote address nu setam inca pentru ca nu stim si local role ebgp.
- Puteam sa pornim routerul MikroTik3 si sa ii luam ip-ul de WAN pe care il introducem in remote address.
- In tabul “Extra” avem setari asemanatoare cu cele de la OSPF.
- Routing table: main, VRF: main si redistribuite: connected,static,bgp (in cazul in care foloseam ospf pentru internal networking bifam si ospf).

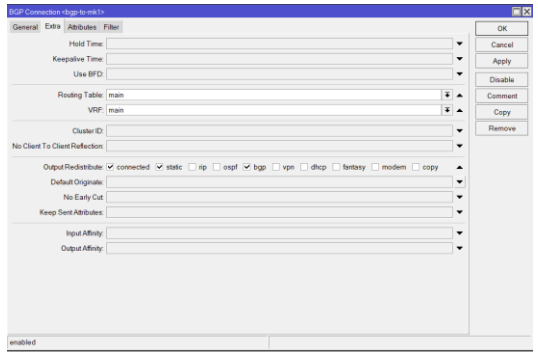


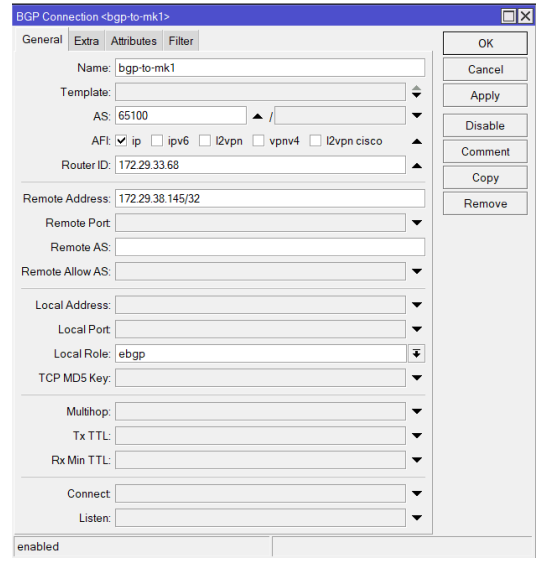


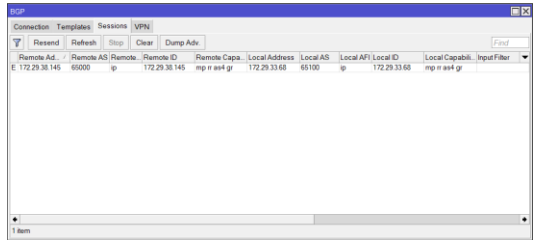


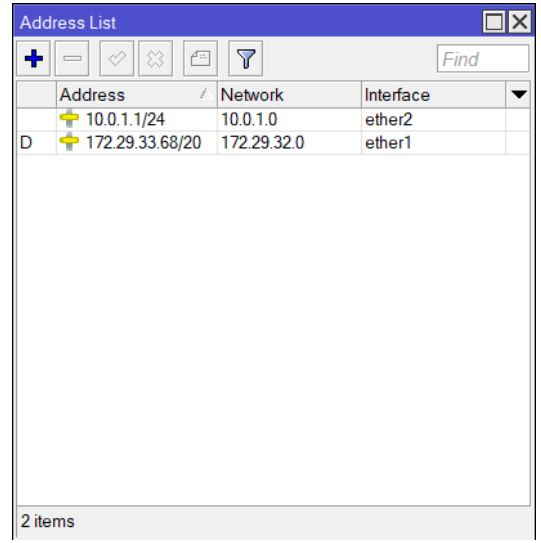
Configurare MikroTik3 eBGP

- Configuratia routerelor este oarecum in oglinda asa ca incepem prin a seta un ip in zona de iBGP.
- Si configuram eBGP-ul pe acesta.
- Putem verifica existenta unei sesiuni in tabul “Sessions” si putem vedea o sesiunea cu litera “E” de la established.



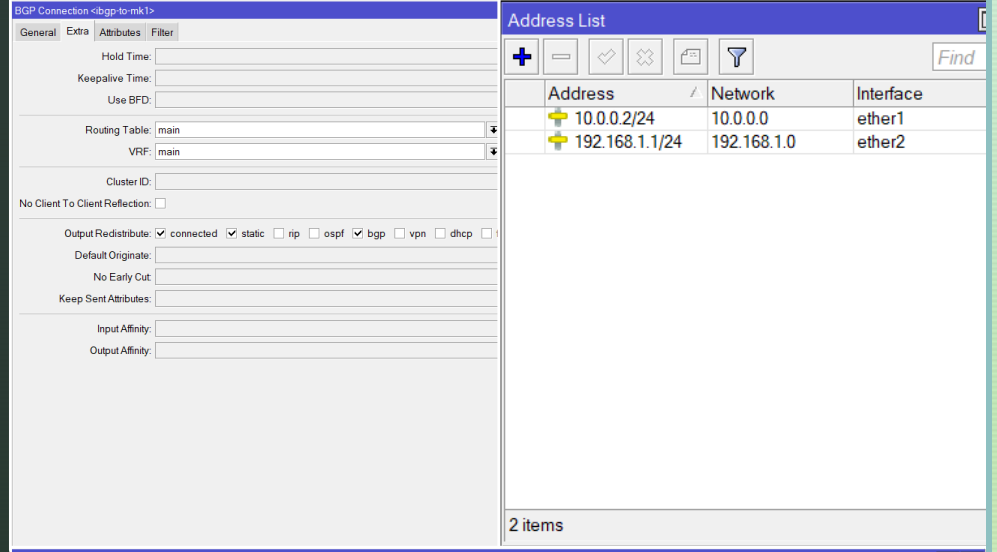


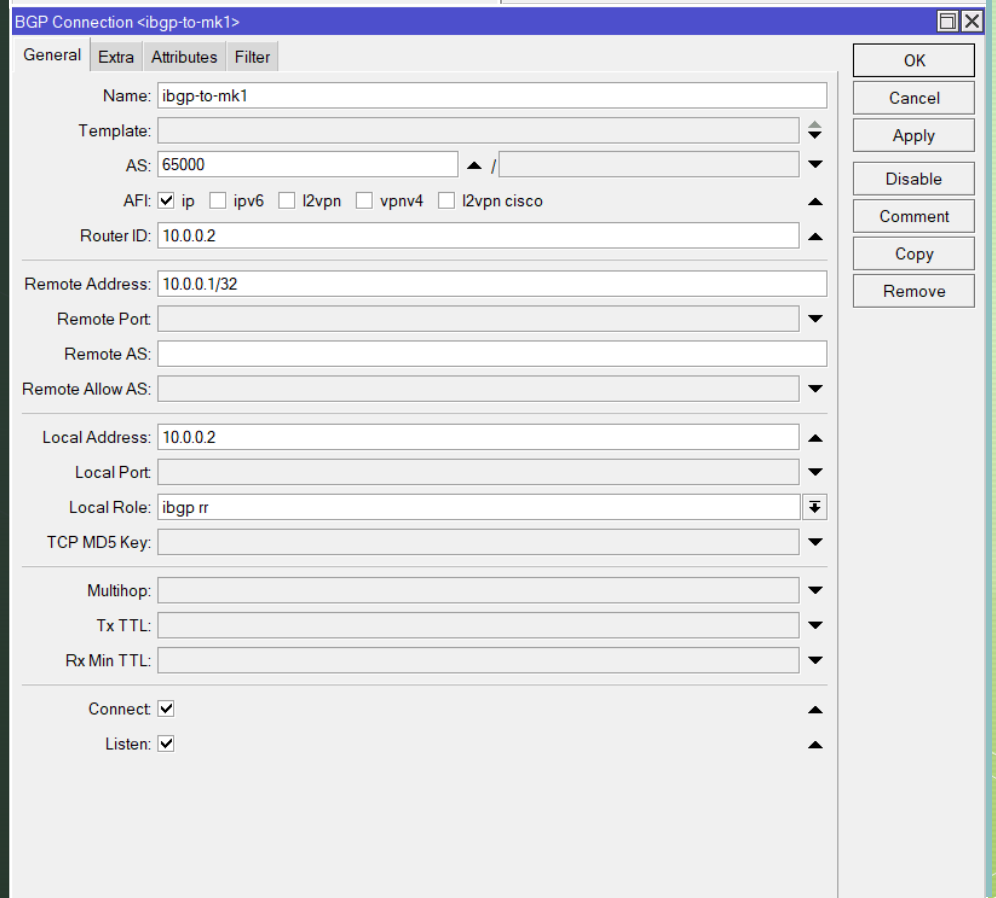




Setup iBGP MikroTik3

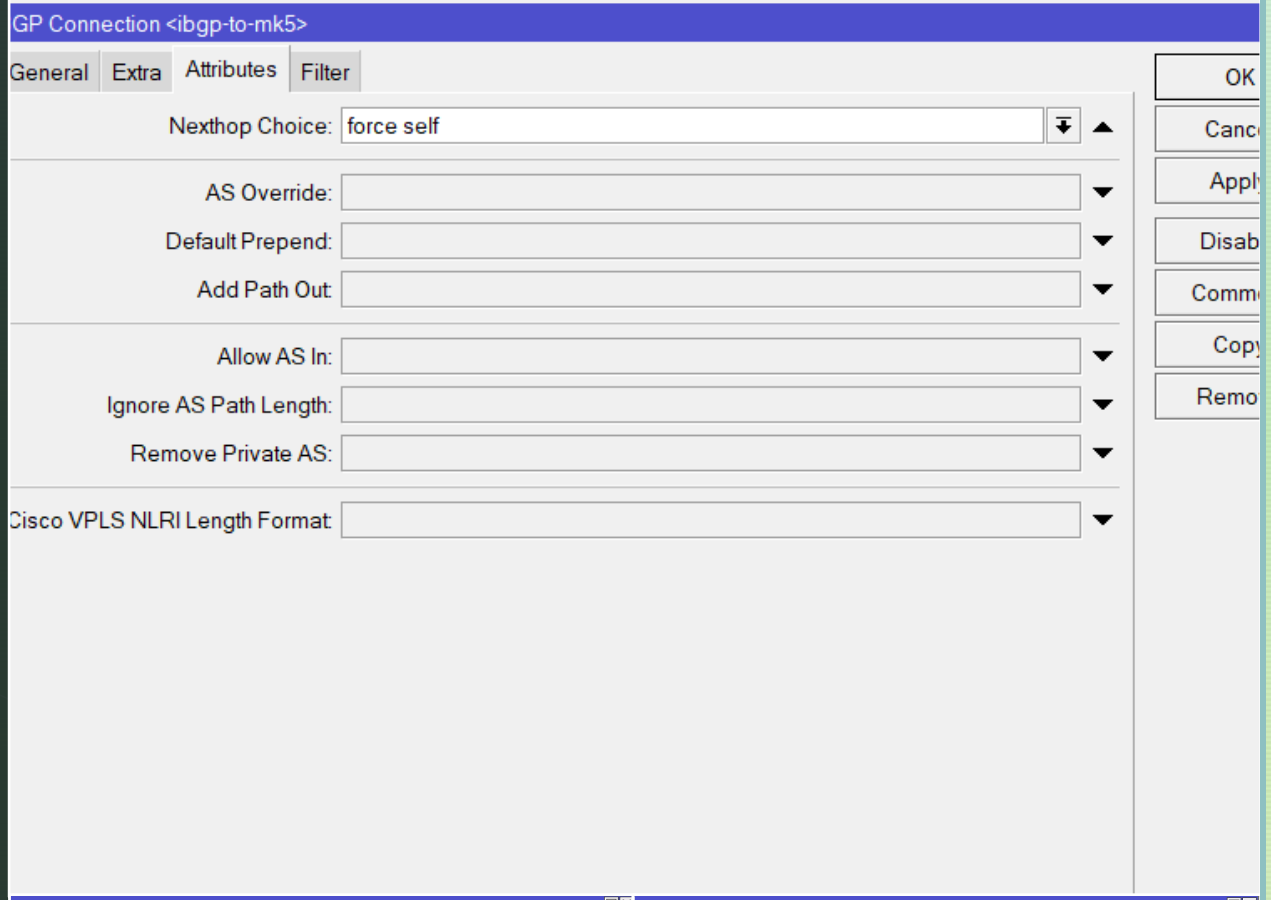
- Incepe prin a seta interfetele cea de iBGP(10.0.0.2/24) si cea de LAN(192.168.1.1/24).
- In primul rand setam un server DHCP pe interfata ether2.
- Ce avem diferit este local role care este ibgp rr si activat connect si listen.
- Urmarim acelasi setup pe MikroTik1.

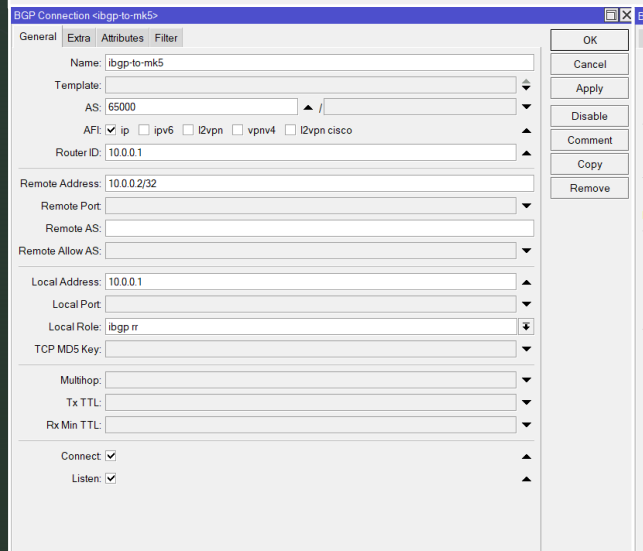


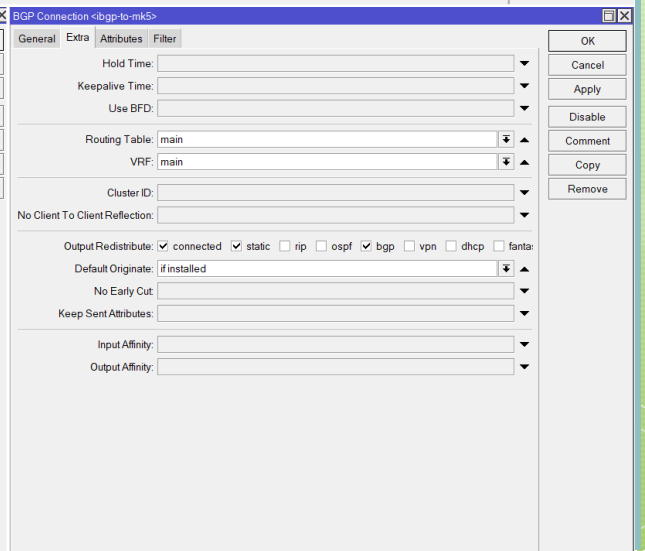


Setup iBGP pe MikroTik1

- Urmarim acelasi setup ca pe MikroTik2 cu o diferetna pe tabul “Atributes” unde activam Nexthop Choice “force self”
- In cazul in care uitam sa activam setarea o sa vedem rute ca unavailable pe routerul MikroTik3.
- Ce nu va merge pe routerul MikroTik3 este accesul la internet, pentru a rezolva aceasta problema trebuie sa faceti setarile de src-nat ca in laboratorul OSPF.

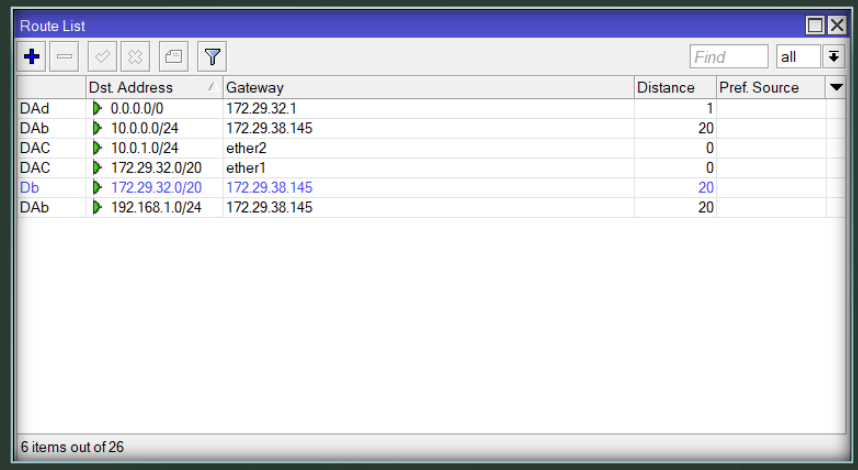




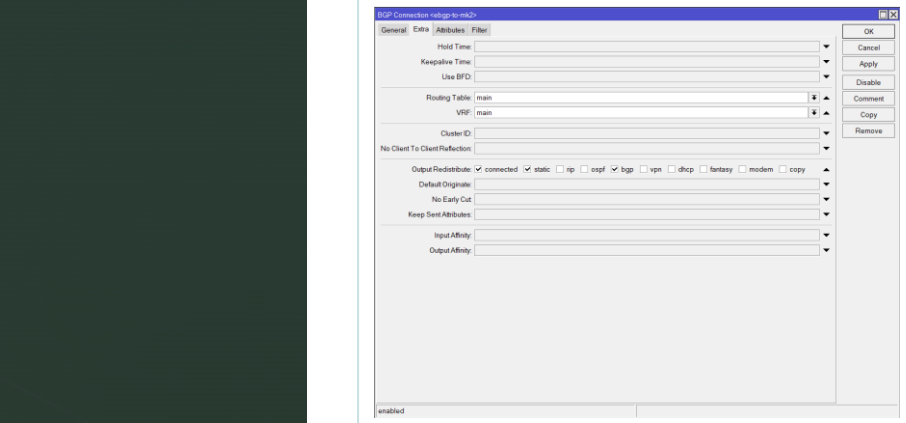


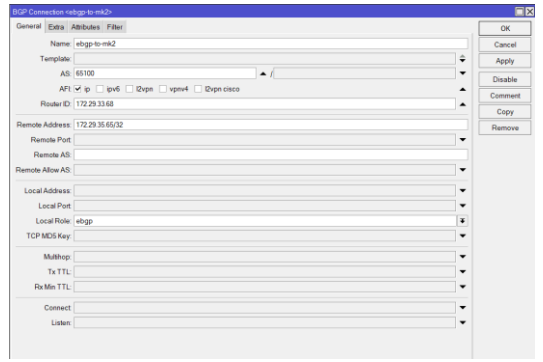
Testul1 de eBGP

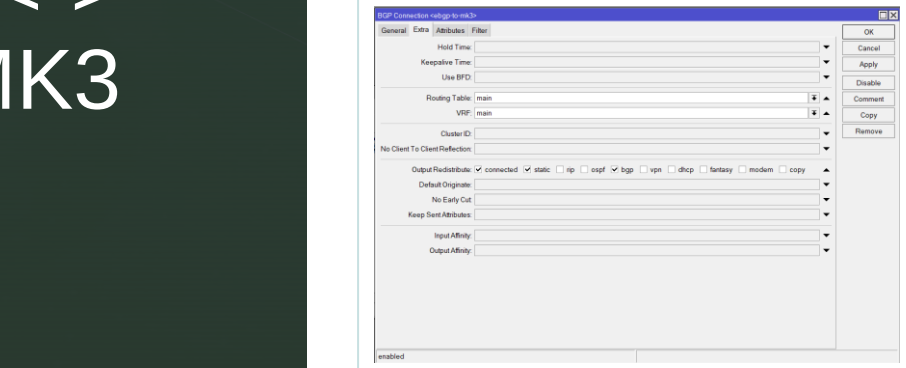
- Pe routerul MikroTik3 puem verifica daca a fost adaugata ruta catre 192.168.1.0/24
- Si sa incercam sa dam un ping in 192.168.1.1

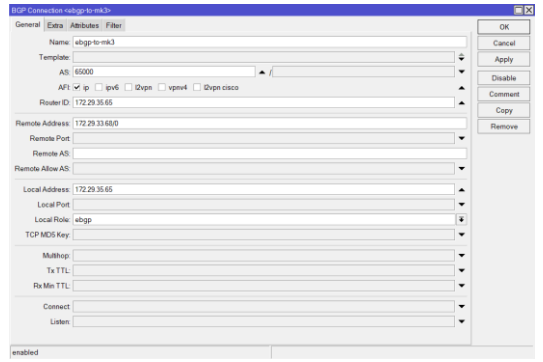


Setup eBGP MikroTik2 <-> MK3

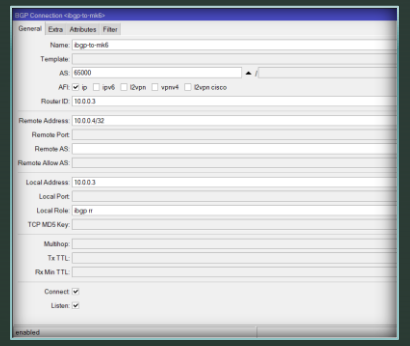


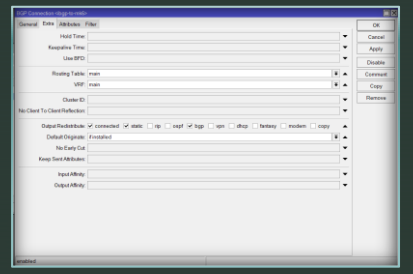


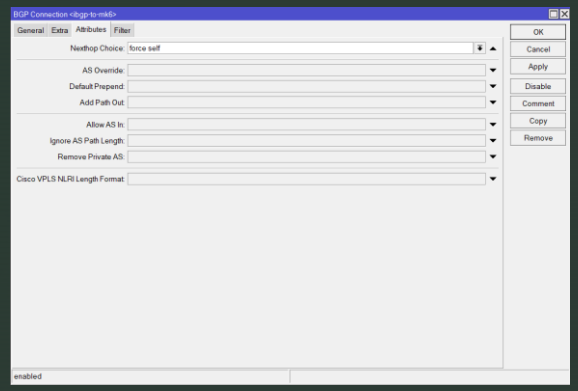


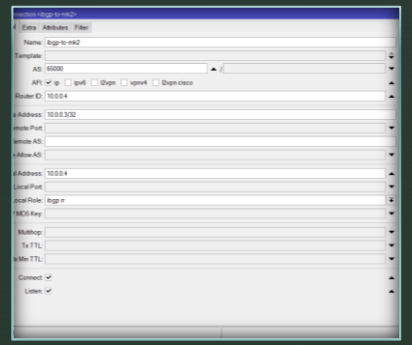


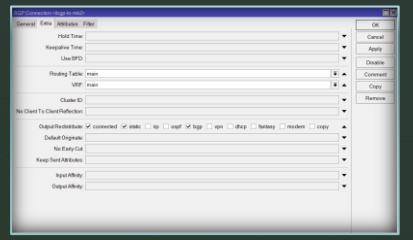
Setup iBGP MikroTik6 <-> MikroTik2



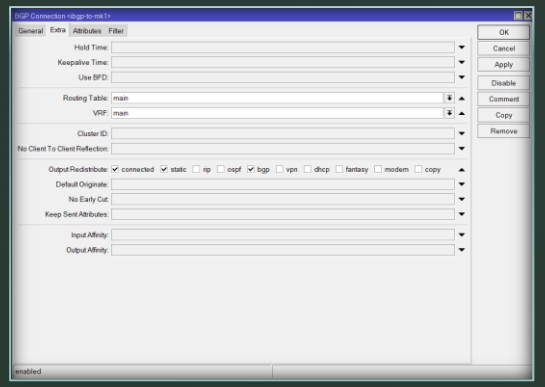


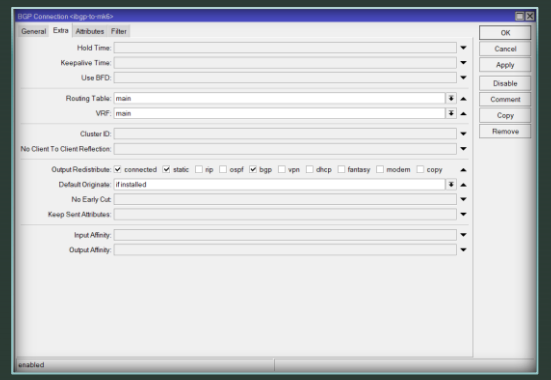


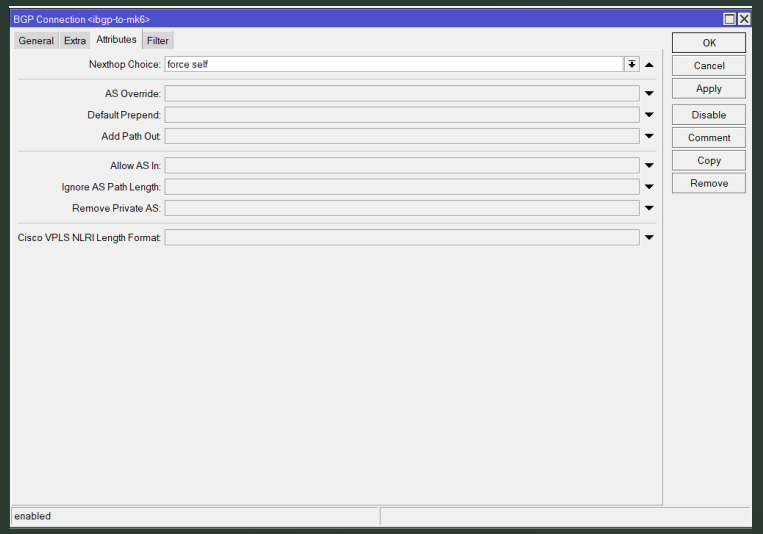


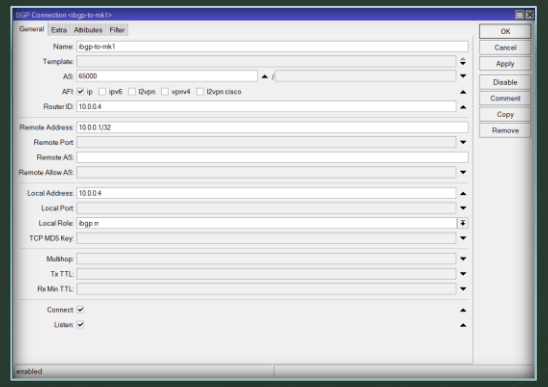


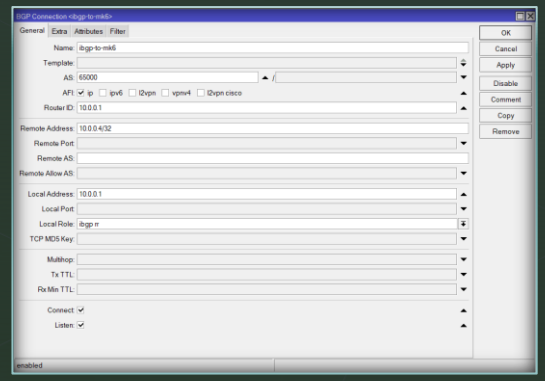
Setup iBGP MikroTik6<->MikroTik1











Setup ZONA B

Facem aceleasi setari si in ZONA B si verificam din zona a un ping si un traceroute in zona b