

III. Fejezet

Hálózat 1-es modul

Ennél a modulnál eleinte elmélet volt, majd gyakorlat. Sajnos itt nem fogtuk ki a legjobb fiatal (s szerintem csekély tanítási tapasztalattal bíró) kolleginát, ugyanis a tanítás során nem oda helyezte a hangsúlyt, ahova a gyakorlottabb kolléga tette. Túl sok volt az elmélet és szabály, valamint az a kábelkészítés és tesztelés, amelyet már az első modulban is vettünk...

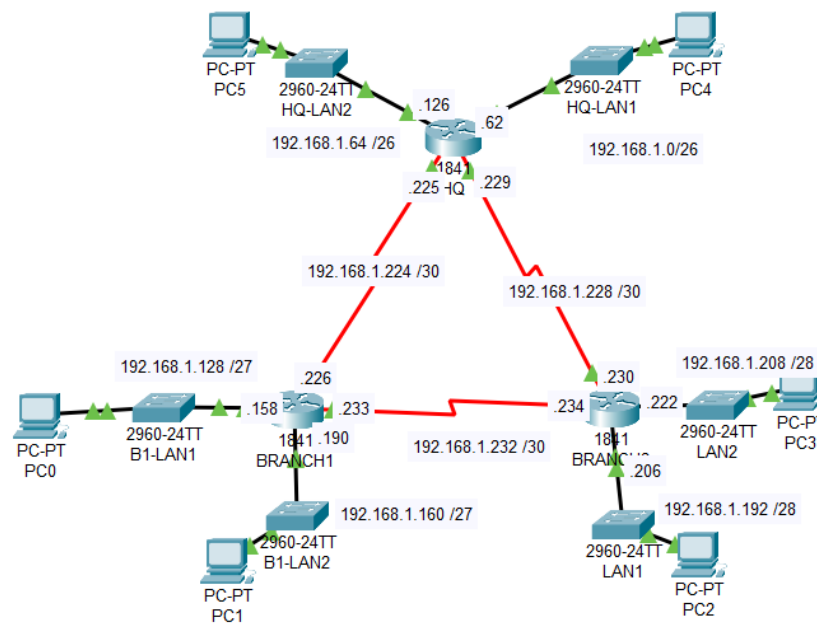
Jellemző, hogy itt a nagyfőnökek 2 plusz alkalmat kellett tartania az eredetileg tervezetthez képest, s azon többet tanultunk, mint előtte a kolleginánál hetekig...

Sajnos a kései, utólagos készítés átka, hogy maguk a készítés során használt parancsok nem maradtak fenn, csak az, hogy milyen beállításokat végeztünk a Packet Tracerben. Ekkor egyszer sem dolgoztunk vason, erre talán akkor kerülhetett volna sor, ha az eredeti ütemterv szerint haladhattunk volna

A vége ennek is egy modulzáróvizsga volt, amely elméleti tesztből és gyakorlati részből állt. E részből két órai feladat és egyetlen házi feladatom maradt meg, amelyet az utóbbi kolléga adott nekünk. Maguk a parancsok készítéskor nem lettek le dokumentálva, a végeredmény a következő lett:

Első feladat:

Branch feladat



Branch1 forgalomirányító

BRANCH1#show running-config

Building configuration...

Current configuration : 913 bytes

!

version 12.4

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname BRANCH1

!

!

!

enable secret 5 \$1\$mERr\$hx5rVt7rPNoS4wqbXKX7m0

!

!

!

!

!

!

no ip cef

no ipv6 cef

!

!

!

!

!

!

!

!

!

!

!

!

spanning-tree mode pvst

!

!

!

!

!

!

interface FastEthernet0/0

ip address 192.168.1.158 255.255.255.224

duplex auto

speed auto

!

interface FastEthernet0/1

ip address 192.168.1.190 255.255.255.224

duplex auto

speed auto

!

interface Serial0/0/0

description HQ fele

ip address 192.168.1.226 255.255.255.252

!

interface Serial0/0/1

description BRANCH2 fele

ip address 192.168.1.233 255.255.255.252

clock rate 128000

!

interface Vlan1

no ip address

shutdown

!

ip classless

!

ip flow-export version 9

!

!

!

!

!

!

!

!

line con 0

password cisco

login

!

line aux 0

!

line vty 0 4

password cisco

login

```
line vty 5 9
```

```
password cisco
```

```
login
```

```
!
```

```
!
```

```
!
```

```
end
```

Branch2 forgalomirányító

```
BRANCH2#show running-config
```

Building configuration...

Current configuration : 894 bytes

```
!
```

```
version 12.4
```

```
no service timestamps log datetime msec
```

```
no service timestamps debug datetime msec
```

```
no service password-encryption
```

```
!
```

hostname BRANCH2

!

!

!

enable secret 5 \$1\$mERr\$hx5rVt7rPNoS4wqbXKX7m0

!

!

!

!

!

!

no ip cef

no ipv6 cef

!

!

!

!

!

!

!

!

!

!

!

!

spanning-tree mode pvst

!

!

!

!

!

!

interface FastEthernet0/0

ip address 192.168.1.206 255.255.255.240

duplex auto

speed auto

!

interface FastEthernet0/1

ip address 192.168.1.222 255.255.255.240

duplex auto

speed auto

!

interface Serial0/0/0

description HQ fele

ip address 192.168.1.230 255.255.255.252

!

interface Serial0/0/1

description BRANCH1 fele

ip address 192.168.1.234 255.255.255.252

!

interface Vlan1

no ip address

shutdown

!

ip classless

!

ip flow-export version 9

!

!

!

```
!  
  
!  
  
!  
  
!  
  
!  
  
line con 0  
  
password cisco  
  
login  
  
!  
  
line aux 0  
  
!  
  
line vty 0 4  
  
password cisco  
  
login  
  
line vty 5 9  
  
password cisco  
  
login  
  
!  
  
!  
  
!
```

end

HQ forgalom irányító

HQ#show running-config

Building configuration...

Current configuration : 983 bytes

!

version 12.4

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname HQ

!

!

!

enable secret 5 \$1\$mERr\$hx5rVt7rPNoS4wqbXKX7m0

!

!

!

!

!

!

no ip cef

no ipv6 cef

!

!

!

!

!

!

!

!

!

!

!

!

spanning-tree mode pvst

!

!

!

!

!

!

interface FastEthernet0/0

ip address 192.168.1.62 255.255.255.192

duplex auto

speed auto

!

interface FastEthernet0/1

ip address 192.168.1.126 255.255.255.192

duplex auto

speed auto

!

interface Serial0/0/0

description BRANCH1 fele

ip address 192.168.1.225 255.255.255.252

```
clock rate 128000

!

interface Serial0/0/1

description BRANCH2 fele

ip address 192.168.1.229 255.255.255.252

clock rate 128000

!

interface Vlan1

no ip address

shutdown

!

ip classless

ip route 192.168.1.128 255.255.255.224 Serial0/0/0

!

ip flow-export version 9

!

!

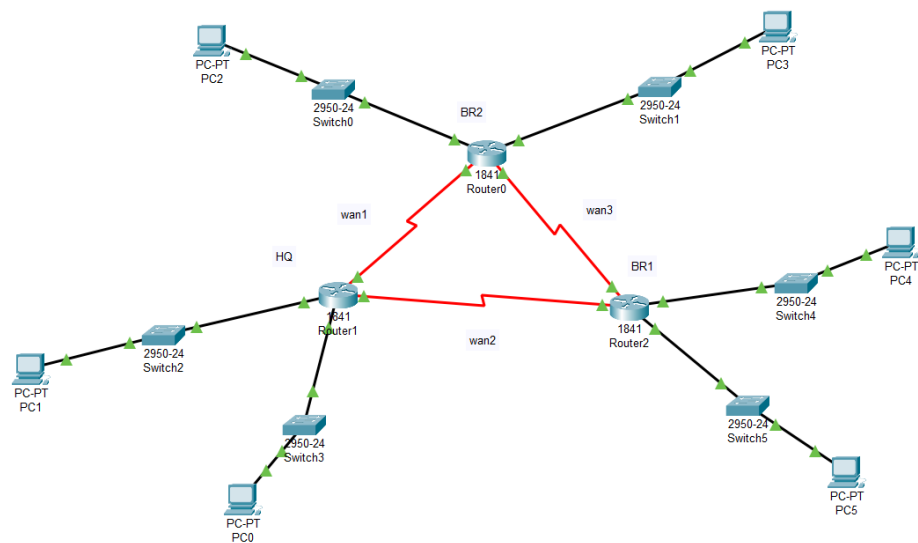
!

!

!
```

```
!  
  
!  
  
!  
  
line con 0  
  
password cisco  
  
login  
  
!  
  
line aux 0  
  
!  
  
line vty 0 4  
  
password cisco  
  
login  
  
line vty 5 9  
  
password cisco  
  
login  
  
!  
  
!  
  
!  
  
end
```


Második feladat - Forgalomirányítás



BR1 forgalomirányító

Router>

Router#configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface FastEthernet0/0

Router(config-if)#exit

Router(config)#exit

Router#

%SYS-5-CONFIG_I: Configured from console by console

Router#show ru

```
Router#show running-config
```

```
Building configuration...
```

```
Current configuration : 1039 bytes
```

```
!
```

```
version 12.4
```

```
no service timestamps log datetime msec
```

```
no service timestamps debug datetime msec
```

```
no service password-encryption
```

```
!
```

```
hostname Router
```

```
!
```

```
!
```

```
!
```

```
enable password cisco
```

```
!
```

```
!
```

```
!
```

```
!
```

```
!
```

!

no ip cef

no ipv6 cef

!

!

!

!

!

!

!

!

!

!

!

!

spanning-tree mode pvst

!

!

!

!

!

!

interface FastEthernet0/0

ip address 192.168.1.158 255.255.255.224

duplex auto

speed auto

!

interface FastEthernet0/1

ip address 192.168.1.190 255.255.255.224

duplex auto

speed auto

!

interface Serial0/0/0

ip address 192.168.1.234 255.255.255.252

!

interface Serial0/0/1

ip address 192.168.1.238 255.255.255.252

clock rate 2000000

!

interface Vlan1

no ip address

shutdown

!

ip classless

ip route 192.168.1.0 255.255.255.192 Serial0/0/0

ip route 192.168.1.64 255.255.255.192 Serial0/0/0

ip route 192.168.1.192 255.255.255.240 Serial0/0/1

ip route 192.168.1.208 255.255.255.240 Serial0/0/1

ip route 192.168.1.228 255.255.255.252 Serial0/0/0

!

ip flow-export version 9

!

!

!

!

!

!

!

!

line con 0

```
password cisco
```

```
!
```

```
line aux 0
```

```
!
```

```
line vty 0 4
```

```
login
```

```
!
```

```
!
```

```
!
```

```
end
```

BR2 forgalomirányító

```
Router>
```

```
Router#configure terminal
```

Enter configuration commands, one per line. End with CNTL/Z.

```
Router(config)#interface FastEthernet0/1
```

```
Router(config-if)#exit
```

```
Router(config)#exit
```

Router#

%SYS-5-CONFIG_I: Configured from console by console

Router#show ru

Router#show running-config

Building configuration...

Current configuration : 1127 bytes

!

version 12.4

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname Router

!

!

!

enable password "cisco"

!

!

!

!

!

!

no ip cef

no ipv6 cef

!

!

!

!

!

!

!

!

!

!

!

!

spanning-tree mode pvst

!

!

!

!

!

!

interface FastEthernet0/0

ip address 192.168.1.206 255.255.255.240

duplex auto

speed auto

!

interface FastEthernet0/1

ip address 192.168.1.222 255.255.255.240

duplex auto

speed auto

!

interface Serial0/0/0

ip address 192.168.1.230 255.255.255.252

!

interface Serial0/0/1

```
ip address 192.168.1.237 255.255.255.252

!

interface Vlan1

no ip address

shutdown

!

ip classless

ip route 192.168.1.0 255.255.255.192 Serial0/0/0

ip route 192.168.1.64 255.255.255.192 Serial0/0/0

ip route 192.168.1.192 255.255.255.240 Serial0/0/1

ip route 192.168.1.208 255.255.255.240 Serial0/0/1

ip route 192.168.1.128 255.255.255.224 Serial0/0/1

ip route 192.168.1.160 255.255.255.224 Serial0/0/1

ip route 192.168.1.232 255.255.255.252 Serial0/0/0

!

ip flow-export version 9

!

!

!

!
```

```
!  
  
!  
  
!  
  
!  
  
line con 0  
  
password "cisco"  
  
!  
  
line aux 0  
  
!  
  
line vty 0 4  
  
login  
  
!  
  
!  
  
!  
  
end  
  
HQ forgalomirányító  
  
Router>enable  
  
Password:
```

Password:

Router#configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface FastEthernet0/0

Router(config-if)#exit

Router(config)#exit

Router#

%SYS-5-CONFIG_I: Configured from console by console

Router#show ru

Router#show running-config

Building configuration...

Current configuration : 1169 bytes

!

version 12.4

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

```
hostname Router
```

```
!
```

```
!
```

```
!
```

```
enable password "cisco"
```

```
!
```

```
!
```

```
!
```

```
!
```

```
!
```

```
!
```

```
no ip cef
```

```
no ipv6 cef
```

```
!
```

```
!
```

```
!
```

```
!
```

```
!
```

```
!
```

```
!
```

!

!

!

!

!

spanning-tree mode pvst

!

!

!

!

!

!

interface FastEthernet0/0

ip address 192.168.1.62 255.255.255.192

duplex auto

speed auto

!

interface FastEthernet0/1

ip address 192.168.1.126 255.255.255.192

duplex auto

speed auto

!

interface Serial0/0/0

ip address 192.168.1.229 255.255.255.252

clock rate 2000000

!

interface Serial0/0/1

ip address 192.168.1.233 255.255.255.252

clock rate 2000000

!

interface Vlan1

no ip address

shutdown

!

ip classless

ip route 192.168.1.128 255.255.255.224 Serial0/0/0

ip route 192.168.1.160 255.255.255.224 Serial0/0/0

ip route 192.168.1.192 255.255.255.240 Serial0/0/0

ip route 192.168.1.208 255.255.255.240 Serial0/0/0

ip route 192.168.1.236 255.255.255.252 Serial0/0/0

```
!  
  
ip flow-export version 9  
  
!  
  
!  
  
!  
  
!  
  
!  
  
!  
  
!  
  
!  
  
line con 0  
  
password "cisco"  
  
!  
  
line aux 0  
  
!  
  
line vty 0 4  
  
password "cisco"  
  
login  
  
transport input telnet  
  
line vty 5 9
```



```
password "cisco"
```

```
login
```

```
transport input telnet
```

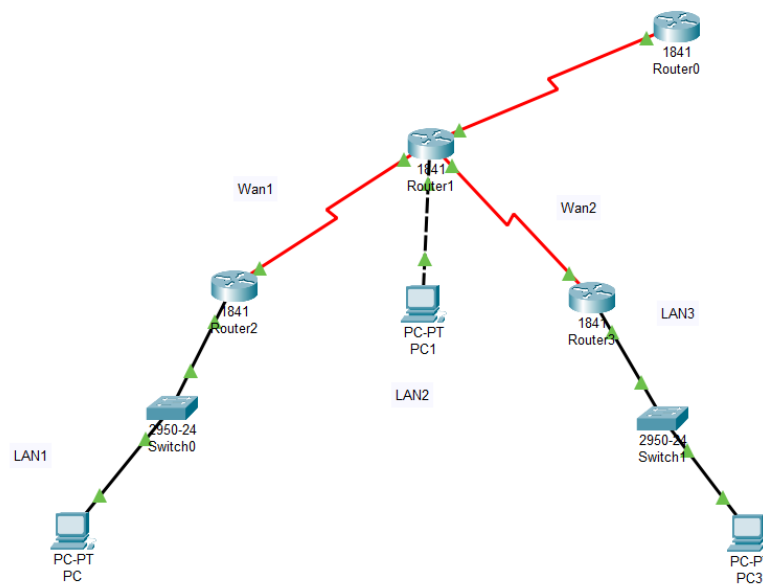
```
!
```

```
!
```

```
!
```

```
end
```

KovatsKornel.pkt feladat:



```
r2#show ru
```

```
r2#show running-config
```

```
Building configuration...
```

Current configuration : 1357 bytes

!

version 12.4

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname r2

!

!

!

enable secret 5 \$1\$mERr\$AGOGNfUeybIs2uN6km6zL1

!

!

!

!

!

!

no ip cef

no ipv6 cef

spanning-tree mode pvst

!

!

!

```
!  
!  
!  
  
interface FastEthernet0/0  
  
ip address 172.20.2.254 255.255.255.0  
  
duplex auto  
  
speed auto  
  
!  
  
interface FastEthernet0/1  
  
no ip address  
  
duplex auto  
  
speed auto  
  
shutdown  
  
!  
  
interface Serial0/0/0  
  
ip address 84.35.23.42 255.255.255.252  
  
!  
  
interface Serial0/0/1  
  
ip address 172.20.3.65 255.255.255.252  
  
clock rate 2000000  
  
!  
  
interface Serial0/1/0  
  
ip address 172.20.3.69 255.255.255.252  
  
clock rate 2000000
```

```

!

interface Serial0/1/1

no ip address

clock rate 2000000

shutdown

!

interface Vlan1

no ip address

shutdown

!

ip classless

ip route 172.20.3.64 255.255.255.252 Serial0/0/0

ip route 172.20.3.68 255.255.255.252 Serial0/0/0

ip route 172.20.2.0 255.255.255.0 Serial0/0/0

ip route 172.20.2.0 255.255.255.0 Serial0/0/1

ip route 172.20.2.0 255.255.255.0 Serial0/1/0

ip route 172.20.3.68 255.255.255.252 Serial0/0/1

ip route 172.20.3.64 255.255.255.252 Serial0/1/0

ip route 84.35.23.40 255.255.255.252 Serial0/1/0

ip route 84.35.23.40 255.255.255.252 Serial0/0/1

!

ip flow-export version 9

line con 0

!

```

```
line aux 0
```

```
!
```

```
line vty 0 4
```

```
login
```

```
!
```

```
!
```

```
!
```

```
end
```

```
ISP-router
```

```
ISP#show running-config
```

```
Building configuration...
```

```
Current configuration : 949 bytes
```

```
!
```

```
version 12.4
```

```
no service timestamps log datetime msec
```

```
no service timestamps debug datetime msec
```

```
no service password-encryption
```

```
!
```

```
hostname ISP
```

```
!
```

```
!
```

```
!
```

```
!  
!  
!  
!  
!  
  
no ip cef  
  
no ipv6 cef  
  
!  
!  
!  
  
spanning-tree mode pvst  
  
!  
!  
!  
!  
!  
!  
  
interface FastEthernet0/0  
  
no ip address  
  
duplex auto  
  
speed auto  
  
shutdown  
  
!  
  
interface FastEthernet0/1
```

```
no ip address

duplex auto

speed auto

shutdown

!

interface Serial0/0/0

ip address 84.35.23.41 255.255.255.252

clock rate 2000000

!

interface Serial0/0/1

no ip address

clock rate 2000000

shutdown

!

interface Vlan1

no ip address

shutdown

!

ip classless

ip route 172.20.0.0 255.255.255.0 Serial0/0/0

ip route 172.20.2.0 255.255.255.0 Serial0/0/0

ip route 172.20.3.0 255.255.255.192 Serial0/0/0

ip route 172.20.3.64 255.255.255.252 Serial0/0/0

ip route 172.20.3.68 255.255.255.252 Serial0/0/0
```

```
!  
ip flow-export version 9  
!  
!  
!  
!  
!  
!  
!  
!  
line con 0  
!  
line aux 0  
!  
line vty 0 4  
login  
!  
end
```

R1-router

r1#show ru

r1#show running-config

Building configuration...

Current configuration : 1057 bytes

!

version 12.4

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname r1

!

!

!

enable secret 5 \$1\$mERr\$AGOGNfUeybIs2uN6km6zL1

!

!

!

!

!

!

no ip cef

no ipv6 cef

!

!

spanning-tree mode pvst

!

```

!

!

!

!

!

interface FastEthernet0/0

ip address 172.20.1.254 255.255.255.0

duplex auto

speed auto

!

interface FastEthernet0/1

no ip address

duplex auto

speed auto

shutdown

!

interface Serial0/0/0

ip address 172.20.3.66 255.255.255.252

!

interface Serial0/0/1

no ip address

clock rate 2000000

shutdown

!

```

```

interface Vlan1

no ip address

shutdown

!

ip classless

ip route 172.20.3.68 255.255.255.252 FastEthernet0/0

ip route 172.20.3.64 255.255.255.252 FastEthernet0/0

ip route 84.35.23.40 255.255.255.252 FastEthernet0/0

ip route 172.20.3.68 255.255.255.252 Serial0/0/0

ip route 84.35.23.40 255.255.255.252 Serial0/0/0

ip route 172.20.0.0 255.255.255.0 Serial0/0/0

!

ip flow-export version 9

!

!

!

!

!

!

!

!

line con 0

!

line aux 0

```

```
!  
line vty 0 4
```

```
login
```

```
!
```

```
!
```

```
end
```

```
R3-router
```

```
r3#show ru
```

```
r3#show running-config
```

```
Building configuration...
```

```
Current configuration : 1060 bytes
```

```
!
```

```
version 12.4
```

```
no service timestamps log datetime msec
```

```
no service timestamps debug datetime msec
```

```
no service password-encryption
```

```
!
```

```
hostname r3
```

```
!
```

```
!
```

```
!
```

```
enable secret 5 $1$mERr$AGOGNfUeybIs2uN6km6zL1
```

```
!  
!  
!  
!  
!  
!  
  
no ip cef  
  
no ipv6 cef  
  
!  
!  
  
spanning-tree mode pvst  
  
!  
!  
!  
!  
!  
!  
  
interface FastEthernet0/0  
  
ip address 172.20.3.62 255.255.255.192  
  
duplex auto  
  
speed auto  
  
!  
  
interface FastEthernet0/1  
  
no ip address
```

```
duplex auto

speed auto

shutdown

!

interface Serial0/0/0

ip address 172.20.3.70 255.255.255.252

!

interface Serial0/0/1

no ip address

clock rate 2000000

shutdown

!

interface Vlan1

no ip address

shutdown

!

ip classless

ip route 172.20.3.64 255.255.255.252 FastEthernet0/0

ip route 172.20.3.68 255.255.255.252 FastEthernet0/0

ip route 84.35.23.40 255.255.255.252 FastEthernet0/0

ip route 172.20.3.64 255.255.255.252 Serial0/0/0

ip route 172.20.3.0 255.255.255.192 Serial0/0/0

ip route 84.35.23.40 255.255.255.252 Serial0/0/0

!
```

ip flow-export version 9

!

!

!

!

!

!

!

!

line con 0

!

line aux 0

!

line vty 0 4

login

!

end