Practica #4: NAT y DHCP

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I. TAREA NAT Y DHCP

Muy buena practica, fue muy interesante finalmente entender como funciona DHCP y como como se configura un servidor NAT

Lista de pasos realizados:

```
# PC Server Internal
  ip 192.168.30.254 /24 192.168.30.1

# R1 - Relay DHCP
  interface FastEthernet 0/0 !--> Server
  ip address 10.1.1.1 255.255.255.252

  interface FastEthernet 0/1 !--> Server
  ip address 192.168.30.1 255.255.255.0

  interface FastEthernet 1/0 !--> PC1
  ip address 192.168.10.1 255.255.255.0
  ip helper-address 10.1.1.2

  interface FastEthernet 2/0 !--> PC2
  ip address 192.168.11.1 255.255.255.0
  ip helper-address 10.1.1.2

  router ospf 1
    redistribute connected subnets
    redistribute static subnets
    network 10.1.1.0 0.0.0.3 area 0

# R2 - Server DHCP
  interface FastEthernet 0/0 !--> LAN
  ip address 10.1.1.2 255.255.255.252
  ip nat inside

  interface FastEthernet 0/1 !--> Internet
  ip address 209.165.200.225 255.255.255.252
  ip nat outside

  ip dhcp excluded-address 192.168.30.1 192.168.30.254

  ip dhcp pool Central10
    network 192.168.10.0 255.255.255.0
    default-router 192.168.10.1
    dns-server 192.168.30.254

  ip dhcp pool Central11
    network 192.168.11.0 255.255.255.0
    default-router 192.168.11.1
    dns-server 192.168.30.254

  router ospf 1
    redistribute connected subnets
    redistribute static subnets
    network 10.1.1.0 0.0.0.3 area 0


  access-list 1 permit 192.168.0.0 0.0.255.255
  ip nat pool RangeNAT 209.165.200.248 209.165.200.254 netmask 255.255.255.248

  ip nat inside source list 1 pool Range overload
  ip nat inside source static 192.168.30.254 209.165.200.254

# R3 - ISP
  interface FastEthernet 0/1 !--> LAN
```

```
  ip address 209.165.200.226 255.255.255.252

  interface FastEthernet 0/0 !--> Server
  ip address 8.8.8.1 255.255.255.0

  ip route 209.165.200.248 255.255.255.248 f0/1



# PC Server External
  ip 8.8.8.10 /24 8.8.8.1
```

Evidencias

```
...— telnet localhost 5004   ...— telnet localhost 5006  ...  ...— telnet localhost 5008   ...l — telnet localhost 5010   ...— telnet localhost 5000   ...— telnet localhost 5001   ...— telnet localhost 5002   +

DDD
Can't find dhcp server

PC1> ip dhcp
DDD
Can't find dhcp server

PC1> ip dhcp
DDORA IP 192.168.10.2/24 GW 192.168.10.1

PC1> show ip

NAME        : PC1[1]
IP/MASK     : 192.168.10.2/24
GATEWAY     : 192.168.10.1
DNS         : 192.168.30.254
DHCP SERVER : 10.1.1.2
DHCP LEASE  : 86140, 86400/43200/75600
MAC         : 00:50:79:66:68:00
LPORT       : 10030
RHOST:PORT  : 127.0.0.1:10031
MTU:        : 1500
```

```
...— telnet localhost 5004   ...— telnet localhost 5006   ...— telnet localhost 5008   ...l — telnet localhost 5010   ...— telnet localhost 5000   ...— telnet localhost 5001   ...— telnet localhost 5002   +

PC3-Server> ip 192.168.30.254 /24 192.168.30.1
Checking for duplicate address...
PC1 : 192.168.30.254 255.255.255.0 gateway 192.168.30.1

PC3-Server> save
Saving startup configuration to startup.vpc
.  done

PC3-Server> ping 192.168.30.1
host (192.168.30.1) not reachable

PC3-Server> ping 192.168.30.1
192.168.30.1 icmp_seq=1 timeout
84 bytes from 192.168.30.1 icmp_seq=2 ttl=255 time=9.338 ms
84 bytes from 192.168.30.1 icmp_seq=3 ttl=255 time=9.654 ms
^C
PC3-Server> ping 192.168.30.1
84 bytes from 192.168.30.1 icmp_seq=1 ttl=255 time=9.201 ms
84 bytes from 192.168.30.1 icmp_seq=2 ttl=255 time=9.390 ms
84 bytes from 192.168.30.1 icmp_seq=3 ttl=255 time=3.150 ms
84 bytes from 192.168.30.1 icmp_seq=4 ttl=255 time=2.112 ms
84 bytes from 192.168.30.1 icmp_seq=5 ttl=255 time=3.290 ms

PC3-Server>
PC3-Server>
PC3-Server> ping 10.1.1.1.
Cannot resolve 10.1.1.1.

PC3-Server> ping 10.1.1.1
84 bytes from 10.1.1.1 icmp_seq=1 ttl=255 time=10.131 ms
84 bytes from 10.1.1.1 icmp_seq=2 ttl=255 time=6.764 ms
^C
PC3-Server> ping 10.1.1.2
84 bytes from 10.1.1.2 icmp_seq=1 ttl=254 time=23.874 ms
```