- Cách tính địa chỉ mạng

+ Xác định số đường mạng

+ 2^n >= host

+ 32-n = /…

+ Bước nhảy = 32-/ ban đầu- n =

Bảng bước nhảy : giá trị bên trên ứng với bước nhảy



+ VD

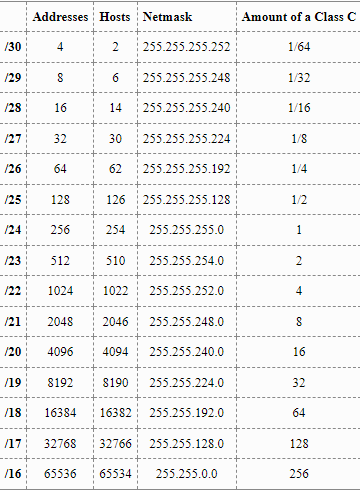
10.0.0.0/24

00001010.00000000.00000000.00000000/30

00001010.00000000.00000000.01000000/30

00001010.00000000.00000000.10000000/30

00001010.00000000.00000000.11000000/30 10.0.0.192/30 +4 la dc



Lệnh cấu hình RipV2

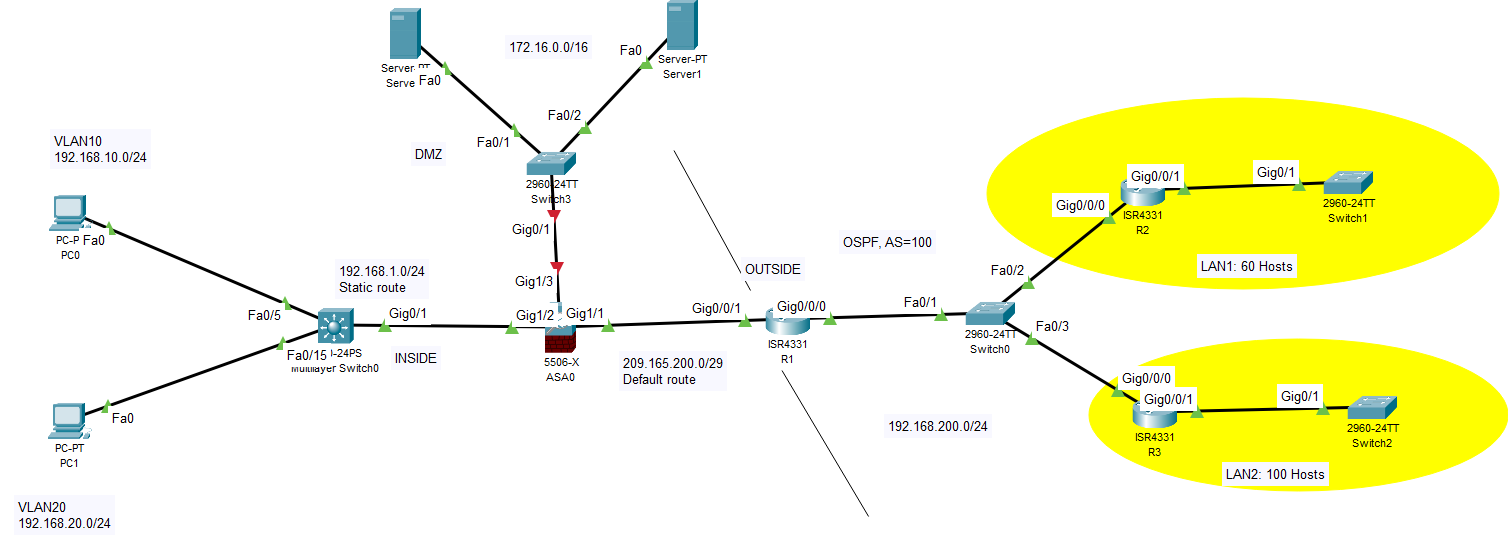
VD: **R3(config)#**router rip  
**R3(config-router)#**version 2  
**R3(config-router)#**network 192.168.13.0  
**R3(config-router)#**network 192.168.34.0  
**R3(config-router)#**no auto-summary

R3(config-router)#default-information originate // Quang ba thong tin den con

// lệnh show ip route

Lap ngay 25-5

OSPF



\*\*\*\*\* Phan OUTSIDE

\*R1

ena

conf t

hostname R1

(config)# int g0/0/0

(config-if)#ip add 192.168.200.193 255.255.255.248

(config-if)#no sh

(config-if)# int g0/0/1

(config-if)#ip add 209.165.200.2 255.255.255.248

(config-if)#no sh

\*R2

ena

conf t

hostname R2

(config)# int g0/0/0

(config-if)#ip add 192.168.200.194 255.255.255.248

(config-if)#no sh

(config-if)# int g0/0/1

(config-if)#ip add 192.165.200.192 255.255.255.192

(config-if)#no sh

\*R3

ena

conf t

hostname R3

(config)# int g0/0/0

(config-if)#ip add 192.168.200.195 255.255.255.248

(config-if)#no sh

(config-if)# int g0/0/1

(config-if)#ip add 192.165.200.1 255.255.255.128

(config-if)#no sh

\*R1

(config)#router ospf 100

R1(config-router)#network 192.168.200.192 255.255.255.248 area 0

\*R2

(config)#router ospf 100

R2(config-router)#network 192.168.200.192 255.255.255.248 area 0 // mang ng

R2(config-router)#network 192.168.200.128 255.255.255.192 area 0 // mang trg

\*R3

(config)#router ospf 100

R3(config-router)#network 192.168.200.192 255.255.255.248 area 0

R3(config-router)#network 192.168.200.0 255.255.255.128 area 0

\*R3

Show ip route

\*ASA0

Ena

Conf t

ciscoasa(config)#int g1/1

ciscoasa(config-if)#ip add 209.165.200.1 255.255.255.248

ciscoasa(config-if)#nameif OUTSIDE

ciscoasa(config-if)#security-level 0

ciscoasa(config-if)#no sh

\*Cau Hinh Dinh Tuyen Tinh

\*R1

R1(config)#ip route 0.0.0.0 0.0.0.0 209.165.200.1

R1(config)#do show ip route // kiem tra xem ospf vs dr da co hay chua?

R1(config)# router ospf 100

R1(config-router)#default-information originate // Quang ba thong tin den con R2 va R3

\*\*\*\*\*\*\*\* INSIDE

\*ASA0

Ena

Conft

ciscoasa(config)#int g1/2

ciscoasa(config-if)#nameif INSIDE

ciscoasa(config-if)#security-level 100

ciscoasa(config-if)#ip add 192.168.1.1 255.255.255.0

ciscoasa(config-if)#no sh

\* multilayer switch 0

Ena, conf t

Switch(config)#ip routing // kich hoat tinh nang routing tren con swl3

Switch(config)#int g0/1

Switch(config-if)#no switchport

Switch(config-if)#ip add 192.168.1.2 255.255.255.0

Switch(config-if)#end

Switch# show vlan br // kiem tra cong vlan

Conf t

Switch(config)#int f0/5

Switch(config-if)#sw ac vlan 10

Switch(config-if)#int f0/15

Switch(config-if)#sw ac vlan 20

Switch(config-if)#exit

Switch(config)#interface vlan 10

Switch(config-if)#ip add 192.168.10.1 255.255.255.0 // 192.168.10.1 tro thanh default gateway cua endive thuoc vlan 10

Switch(config)#interface vlan 20

Switch(config-if)#ip add 192.168.20.1 255.255.255.0 // 192.168.20.1 tro thanh default gateway cua endive thuoc vlan 20

Switch(config-if)# end

Ena, conf t

Switch(config)#ip route 0.0.0.0 0.0.0.0 192.168.1.1//192.168.1.1 la dia cua ASA

\*ASA0

Ena, conf t

ciscoasa(config)#route INSIDE 192.168.10.0 255.255.255.0 192.168.1.2 // *192.168.10.0 la dc vlan 10, 192.168.1.2 la nexthope dc cua swl3*

ciscoasa(config)#route INSIDE 192.168.20.0 255.255.255.0 192.168.1.2

ciscoasa(config)#end

ciscoasa#show route // show dc da inside

\*Multilayer SW

Ena, conf t

Switch(config)#ip dhcp excluded-address 192.168.10.1 192.168.10.10

Switch(config)#ip dhcp excluded-address 192.168.20.1 192.168.20.10

Switch(config)#ip dhcp pool VLAN10\_DHCP

Switch(dhcp-config)#network 192.168.10.0 255.255.255.0

Switch(dhcp-config)#default-router 192.168.1.1

Ena,conf t

Switch(config)#ip dhcp pool VLAN20\_DHCP

Switch(dhcp-config)#network 192.168.20.0

Switch(dhcp-config)#network 192.168.20.0 255.255.255.0

Switch(dhcp-config)#default-router 192.168.20.1

Switch(dhcp-config)#exit

Switch(config)#do show run

\*\*\*\* Cau hinh DNS

Muc static

Ipv4 172.16.0.200

Default gateway 172.16.0.1

\*\*\*\* Cau hinh WEB

Muc static

Ipv4 172.16.0.254

Default gateway 172.16.0.1

DNS server 172.16.0.200

\*WEB

Vao services chon HTTP on het len

Doi ten trong file va save

\*DNS

DNS

Name ptit.edu.vn

Address 172.16.0.254 -> add

Vao desktop chon web browser nhap ten mien hoac dc ip 172.16.0.254

\*\*\* Cau hinh Acc list trên con ASA

Cách làm : NAT con WEB server thành địa chỉ ở trong dải mạng

\*\*ASA0

ciscoasa#conf t

ciscoasa(config)#object network NAT\_OUTSIDE

ciscoasa(config-network-object)#host 172.16.0.254 // dc cua con web server

ciscoasa(config-network-object)#nat (DMZ,OUTSIDE) static 209.265.200.3

**Administrative Distance (AD)** là một giá trị định danh được sử dụng để xác định độ tin cậy của một nguồn thông tin định tuyến. Nó được sử dụng khi một router nhận được thông tin định tuyến từ nhiều giao thức định tuyến khác nhau cho cùng một mạng đích. AD giúp router quyết định sử dụng đường dẫn nào dựa trên mức độ tin cậy của nguồn thông tin.

* **Giá trị AD càng thấp thì độ tin cậy càng cao.**
* Ví dụ:
  + Directly connected interface: AD = 0
  + Static route: AD = 1
  + EIGRP (Enhanced Interior Gateway Routing Protocol): AD = 90
  + OSPF (Open Shortest Path First): AD = 110
  + RIP (Routing Information Protocol): AD = 120

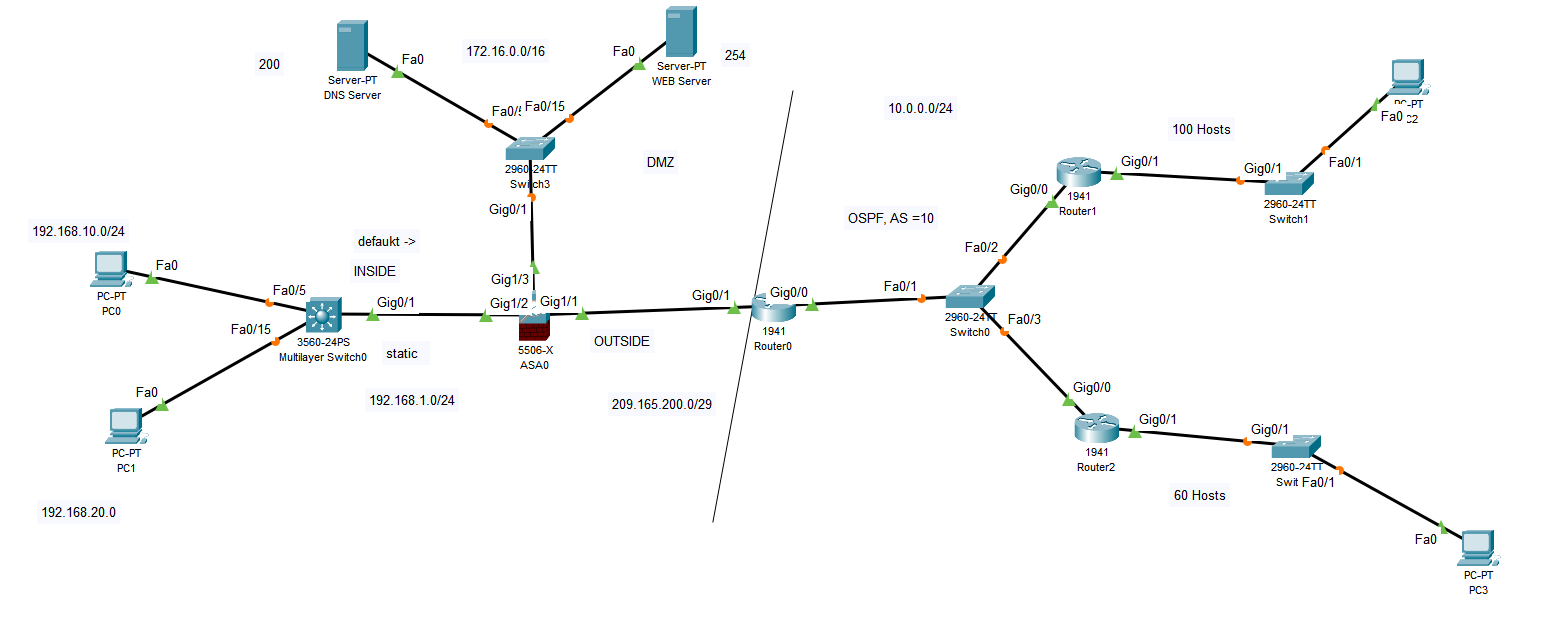
**Metric**

**Metric** là một giá trị được sử dụng bởi các giao thức định tuyến để xác định đường dẫn tốt nhất đến một mạng đích. Mỗi giao thức định tuyến có cách tính metric khác nhau dựa trên các thông số cụ thể.

* **OSPF (Open Shortest Path First)**: Sử dụng cost metric, thường dựa trên băng thông của các liên kết. Liên kết có băng thông cao hơn sẽ có cost thấp hơn.
* **RIP (Routing Information Protocol)**: Sử dụng hop count (số bước nhảy). Đường dẫn với số bước nhảy ít hơn sẽ có metric thấp hơn.
* **EIGRP (Enhanced Interior Gateway Routing Protocol)**: Sử dụng một công thức phức tạp dựa trên băng thông, độ trễ, độ tin cậy và tải trọng

Bài ngày 30-5

OSPF



\*R1

En, conf, hostname R1

R1(config)#int g0/1

R1(config-if)#ip add 10.0.0.1 255.255.255.128

R1(config-if)#no sh

R1(config-if)#int g0/0

R1(config-if)#ip add 10.0.0.195 255.255.255.248

R1(config-if)#no sh

\*R2

En, conf, hostname R2

R1(config)#int g0/1

R1(config-if)#ip add 10.0.0.129 255.255.255.192

R1(config-if)#no sh

R1(config-if)#int g0/0

R1(config-if)#ip add 10.0.0.194 255.255.255.248

R1(config-if)#no sh

\*R0

En, conf, hostname ISP

ISP(config)#int g0/0

ISP(config-if)#ip add 10.0.0.193 255.255.255.248

ISP(config-if)#no sh

ISP(config-if)#router ospf 10

ISP(config-router)#net 10.0.0.192 255.255.255.248 area 0

\*R1

R1(config)#router ospf 10

R1(config-router)#net 10.0.0.192 255.255.255.248 area 0

R1(config-router)#net 10.0.0.0 255.255.255.128 area 0

\*R2

R2(config)#router ospf 10

R2(config-router)#net 10.0.0.128 255.255.255.192 area 0

R2(config-router)#net 10.0.0.192 255.255.255.248 area 0

\*R1

Show ip route // show ospf

\*\*\* OUTSIDE

\*R0

ISP(config)#int g0/1

ISP(config-if)#ip add 209.165.200.2 255.255.255.248

ISP(config-if)#no sh

\*ASA0

Ena , conf t

ciscoasa(config)#int g1/1

ciscoasa(config-if)#nameif OUTSIDE

ciscoasa(config-if)#security-level 0

ciscoasa(config-if)#ip add 209.165.200.1 255.255.255.248

ciscoasa(config-if)#no sh

\*R0

ISP(config)#ip route 0.0.0.0 0.0.0.0 209.165.200.1

ISP(config)# Route OUSIDE 0.0.0.0 0.0.0.0 209.165.200.2

ISP(config)#router ospf 10

ISP(config-router)#default-information or

ISP(config-router)#default-information originate

// sau do vao R1 R2 show ip route de check ospf

///INSIDE

\*ASA0

ciscoasa(config)#int g1/2

ciscoasa(config-if)#nameif INSIDE

ciscoasa(config-if)#security-level 100

ciscoasa(config-if)#ip add 192.168.1.1 255.255.255.0

ciscoasa(config-if)#no sh

ciscoasa(config)#int g1/3

ciscoasa(config-if)#nameif DMZ

ciscoasa(config-if)#security-level 50

ciscoasa(config-if)#ip add 172.16.0.1 255.255.0.0

ciscoasa(config-if)#no sh

\*Multilayer Sw0

// cau hinh VLAN

Ena, conf t

SWL3(config)#hostname SWL3

SWL3 (config)#vlan 10

SWL3 (config-vlan)#name CCNA10

SWL3 (config-vlan)#vlan 20

SWL3 (config-vlan)#name CCNA20

SWL3 (config-vlan)#exit

SWL3 (config)#int

SWL3 (config)#interface vlan 10

SWL3 (config-if)#ip add 192.168.10.1 255.255.255.0

SWL3 (config-if)#no sh

SWL3(config-if)#int vlan20

SWL3 (config-if)#ip add 192.168.20.1 255.255.255.0

SWL3 (config-if)#no sh

SWL3(config)#do show run // show cau hinh

SWL3(config)#ip dhcp excluded-address 192.168.10.1 192.168.10.10

SWL3(config)#ip dhcp excluded-address 192.168.20.1 192.168.20.10

SWL3(config)#ip dhcp pool VLAN10-DHCP

SWL3(dhcp-config)#network 192.168.10.0 255.255.255.0

SWL3(dhcp-config)#default-router 192.168.10.1

SWL3(dhcp-config)#dns-server 172.16.0.200

SWL3(dhcp-config)#exit

SWL3(config)#ip dhcp pool VLAN20-DHCP

SWL3(dhcp-config)#network 192.168.20.0 255.255.255.0

SWL3(dhcp-config)#default-router 192.168.20.1

SWL3(dhcp-config)#dns-server 172.16.0.200

// show vlan = do show vlan br

SWL3(config)#int f0/5 // gan f0/5 vao vlan 10

SWL3(config-if)#sw mo ac

SWL3(config-if)#sw ac vlan 10

SWL3(config-if)#int f0/15

SWL3(config-if)#sw mo ac

SWL3(config-if)#sw ac vlan 20

SWL3(config-if)#do show vlan br // kiem tra lai xem da co trong vlan hay chua

\* ASA0 cau hinh dinh tuyen

ciscoasa(config)#route OUTSIDE 0.0.0.0 0.0.0.0 209.165.200.2 // **dc mạng đích, subnet mask mạng đích, địa chỉ next hop router**

ciscoasa(config)#route INSIDE 192.168.10.0 255.255.255.0 192.168.1.2

ciscoasa(config)#route INSIDE 192.168.20.0 255.255.255.0 192.168.1.2

\*SWL3

Ena, conf t

SWL3(config)#int g0/1

SWL3(config-if)#no switchport

SWL3(config-if)#ip add 192.168.1.2 255.255.255.0

SWL3(config-if)#exit

SWL3(config)#ip routing

SWL3(config)#ip route 0.0.0.0 0.0.0.0 192.168.1.1

// **kiem tra bang cach ping tu PC1 ping 192.168.1.1**

**\*\*\*DMZ**

**// cấu hình DNS**

Chọn server -> desktop -> Ipv4 add 172.16.0.200 -> default gateway 172.16.0.1

Chọn config -> Display name DNS Server

**// cấu hình Web**

Chọn server -> desktop -> Ipv4 add 172.16.0.254 -> default gateway 172.16.0.1 -> DNS Server 172.16.0.200

Chọn config -> Display name WEB Server

**// DNS Server**

Chon Servers -> DNS -> Name pttc1.edu.vn –> address 172.16.0.254 -> add

\*\*\*\* Cau Hinh Nat

\*ASA0

ciscoasa(config)#object network DMZ-NAT

ciscoasa(config-network-object)#host 172.16.0.254

ciscoasa(config-network-object)#nat (DMZ,OUTSIDE) static 209.165.200.3

ciscoasa(config-network-object)#exit

ciscoasa#

ciscoasa#conf t

ciscoasa(config)#object network DMZ-NAT

ciscoasa(config-network-object)#host 172.16.0.200

ciscoasa(config-network-object)#nat (DMZ,OUTSIDE) static 209.165.200.4

ciscoasa(config-network-object)#end

ciscoasa#show run

ciscoasa#conf t

ciscoasa(config)#object net WEB-NAT

ciscoasa(config-network-object)#host 172.16.0.254

ciscoasa(config-network-object)#nat (DMZ,OUTSIDE) static 209.165.200.3

ciscoasa(config-network-object)#end

ciscoasa#show run

//////// gộp địa chỉ 192.168.10.0/24 và 192.168.20.0/24 thành 192.168.0.0/19

**object network INSIDE-NAT**

**subnet 192.168.0.0 255.255.254.0**

**nat (INSIDE,OUTSIDE) dynamic interface**

**\*\*\* Cau Hinh Access list**

**PC2:**

**Ipv4 10.0.0.10 subnet mask 255.255.255.128 default gateway 10.0.0.1 DNS server 209.165.200.4**

**PC2:**

**Ipv4 10.0.0.130 subnet mask 255.255.255.192 default gateway 10.0.0.129 DNS server 209.165.200.4**

\*ASA0

ciscoasa#conf t

ciscoasa(config)#access-list PING-WEB extended permit icmp any host 172.16.0.254

ciscoasa(config)#access-group PING-WEB in interface OUTSIDE

/ kiem tra vao PC2 ping 209.165.200.3

- vao WEB server chon HTTP tao file pttc1

ciscoasa#conf t

ciscoasa(config)#access-list PING-WEB extended permit tcp any host 172.16.0.254 eq 80

ciscoasa(config)#end

ciscoasa#show run

- tu pc2 web browser den dc 209.265.200.3

ciscoasa#conf t

ciscoasa(config)#access-list PING-WEB extended permit udp any host 172.16.0.200 eq domain

ciscoasa(config)#access-list PING-WEB extended permit tcp any host 172.16.0.200 eq domain

- tu pc2 web browser den dc pttc1.edu.vn

***// cau hinh tu xa***

ciscoasa#conf t

ciscoasa(config)#access-list INSIDE-DMZ extended permit tcp any any

ciscoasa(config)#access-list INSIDE-DMZ extended permit udp any any

ciscoasa(config)#access-group INSIDE-DMZ out interface INSIDE

ciscoasa(config)#username admin password adminpa55

ciscoasa(config)#crypto key generate rsa modulus 1024

ciscoasa(config)#domain-name pttc1.edu.vn

ciscoasa(config)#ssh 192.168.10.0 255.255.255.0 INSIDE

ciscoasa(config)#aaa authentication ssh console LOCAL

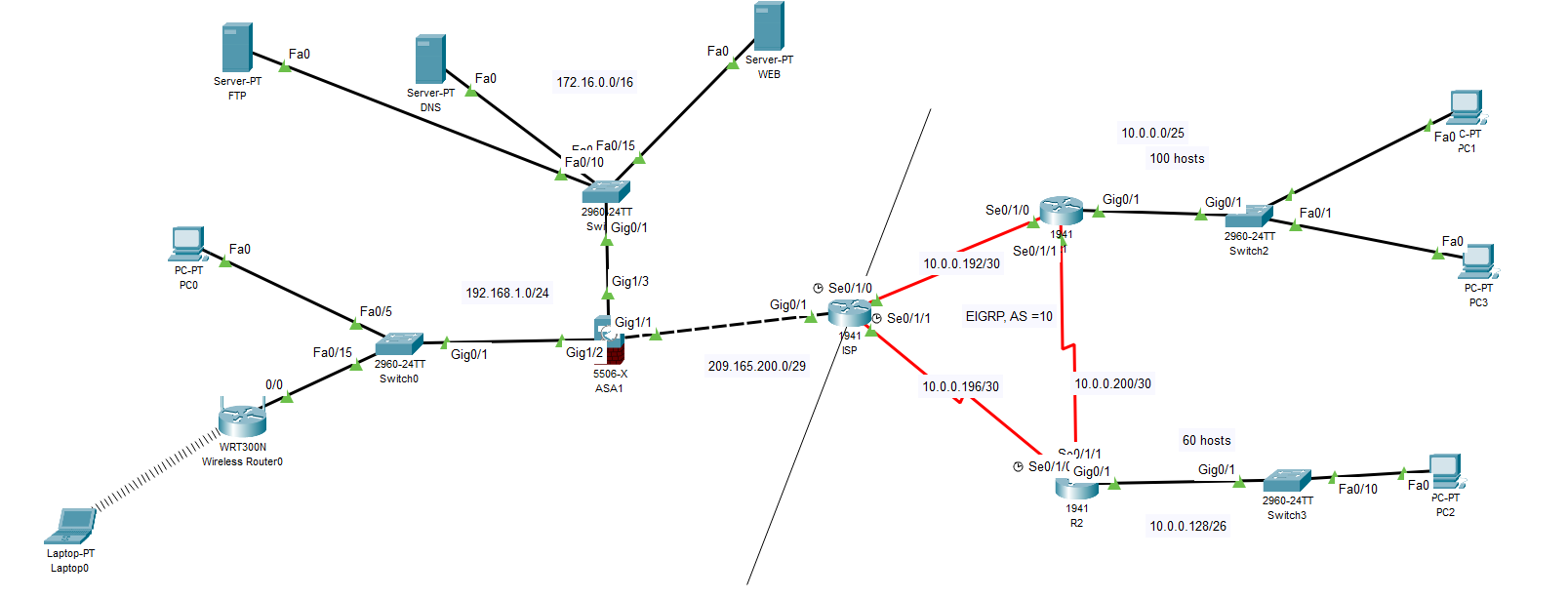
ciscoasa(config)#exit

ciscoasa#copy run startup-config

- vao PC0 commend : ssh -l admin 192.168.1.1 pass: adminpa55

Lap ngay 6-6

EIGRP



**1 Phan OUTSIDE**

\* ISP

ISP>ena

ISP#conf t

ISP(config)#hostname ISP

ISP(config)#int s0/1/0

ISP(config-if)#ip add 10.0.0.193 255.255.255.252

ISP(config-if)#clock rate 64000

ISP(config-if)#no sh

ISP(config-if)#int s0/1/1

ISP(config-if)#ip add 10.0.0.197 255.255.255.252

ISP(config-if)#clock rate 64000

ISP(config-if)#no sh

\*R1

Router>en

Router#conf t

Router(config)#int s0/1/0

Router(config-if)#ip add 10.0.0.194 255.255.255.252

Router(config-if)#no sh

Router(config-if)#int s0/1/1

Router(config-if)#ip add 10.0.0.201 255.255.255.252

Router(config-if)#no sh

Router(config-if)#int g0/1

Router(config-if)#ip add 10.0.0.1 255.255.255.128

Router(config-if)#no sh

\*R2

Router>en

Router#conf t

Router(config)#int s0/1/1

Router(config-if)#ip add 10.0.0.198 255.255.255.252

Router(config-if)#no sh

Router(config-if)#int s0/1/0

Router(config-if)#ip add 10.0.0.202 255.255.255.252

Router(config-if)#clock rate 64000

**/// Phan EIGRP**

\*ISP

ISP(config)#router eigrp 10

ISP(config-router)#net 10.0.0.192 255.255.255.252

ISP(config-router)#net 10.0.0.196 255.255.255.252

ISP(config-router)#no auto-summary

\*R1

Router(config)#router eigrp 10

Router(config-router)#net 10.0.0.192 255.255.255.252

Router(config-router)#net 10.0.0.200 255.255.255.252

Router(config-router)#net 10.0.0.0 255.255.255.128

Router(config-router)#no auto-summary

\*R2

Router(config)#router eigrp 10

Router(config-router)#net 10.0.0.196 255.255.255.252

Router(config-router)#net 10.0.0.200 255.255.255.252

Router(config-router)#net 10.0.0.168 255.255.255.192

Router(config-router)#no auto-summary

Router(config-router)#do show ip route

\*ISP

ISP(config)#int g0/1

ISP(config-if)#ip add 209.165.200.2 255.255.255.248

ISP(config-if)#no sh

\*ASA1

ciscoasa(config)#int g1/1

ciscoasa(config-if)#nameif OUTSIDE

ciscoasa(config-if)#security-level 0

ciscoasa(config-if)#ip add 209.165.200.1 255.255.255.248

ciscoasa(config-if)#no sh

\*ISP

ISP(config)#ip route 0.0.0.0 0.0.0.0 209.165.200.1

**ciscoasa(config)#route OUTSIDE 0.0.0.0 0.0.0.0 209.165.200.2**

ISP(config)#do show ip route // check hang D va S\* xem co chua

ISP(config)# router eigrp 10

ISP(config-router)#redistribute static // quang ba den r1 r2

- sau do vao R1 R2 check xem co S\* hay chua

**2 Cau hinh INSIDE**

\*ASA1

ciscoasa(config)#int g1/2

ciscoasa(config-if)#nameif INSIDE

ciscoasa(config-if)#security-level 100

ciscoasa(config-if)#ip add 192.168.1.1 255.255.255.0

ciscoasa(config-if)#no sh

**//// swl2 cau hinh con ASA thanh con DHCP**

ciscoasa(config)#dhcpd address 192.168.1.200-192.168.1.254 INSIDE

ciscoasa(config)#dhcpd dns 172.16.0.200

ciscoasa(config)#dhcpd enable INSIDE

- exit -> show run de kiem tra

- pc1 -> kiem tra DHCP

**/// Cau hinh wireless**

- vao Laptop doi cong WPC300N

- vao WRT300N chon wireless doi ten, doi Standard 11-2.462GHz xong Enabled

- yeu cau doi IP address hoac Start IP add

-vao laptop -> desktop -> PC Wireless -> connect

**III Phan DMZ**

\*ASA1

ciscoasa#conf t

ciscoasa(config)#int g1/3

ciscoasa(config-if)#nameif DMZ

ciscoasa(config-if)#security-level 50

ciscoasa(config-if)#ip add 172.16.0.1 255.255.0.0

ciscoasa(config-if)#no sh

-chon server DNS -> Ip configuration->static Ipv4 add: 172.16.0.200,submask 255.255.0.0, default gateway : 172.16.0.1

-chon server WEB - Ip configuration->static Ipv4 add: 172.16.0.254, default gateway : 172.16.0.1 DNS server 172.16.0.200

- them server FTP: Ip configuration->static Ipv4 add: 172.16.0.100, default gateway : 172.16.0.1 DNS server 172.16.0.200

**IV Cau hinh dinh tuyen**

\*ASA0

ciscoasa(config)#route OUTSIDE 0.0.0.0 0.0.0.0 209.165.200.2 (dia chi cua ISP)

ciscoasa(config)#exit

ciscoasa#show route // show ip

**/ Phan Nat tinh**

ciscoasa#

ciscoasa#conf t

ciscoasa(config)#object network WEB-NAT

ciscoasa(config-network-object)#host 172.26.0.254

ciscoasa(config-network-object)#nat (DMZ,OUTSIDE) static 209.165.200.3

ciscoasa(config-network-object)#exit

ciscoasa#conf t

ciscoasa(config)#object network DNS-NAT

ciscoasa(config-network-object)#host 172.16.0.200

ciscoasa(config-network-object)#nat (DMZ,OUTSIDE) static 209.165.200.4

ciscoasa(config-network-object)#exit

ciscoasa#conf t

ciscoasa(config)#object network FTP-NAT

ciscoasa(config-network-object)#host 172.16.0.100

ciscoasa(config-network-object)#nat (DMZ,OUTSIDE) static 209.165.200.5

**/ phan NAT dong**

ciscoasa#conf t

ciscoasa(config)#object network INSIDE-NAT

ciscoasa(config-network-object)#subnet 192.168.1.0 255.255.255.0

ciscoasa(config-network-object)#nat (INSIDE,OUTSIDE) Dynamic interface

-tu PC1 ip config: Ipv4 10.0.0.10, subnet mask 255.255.255.128, Defaulf Gateway 10.0.0.1, DNS server 209.265.200.4

tu PC2 ip config: Ipv4 10.0.0.138, subnet mask 255.255.255.128, Defaulf Gateway 10.0.0.1, DNS server 209.265.200.4

- ping PC1 den R1 va ISP , DNS

**/ Cau hinh access list**

**- Neu chi cho host PC1 di qua dung cau lenh**

ciscoasa# conf t

ciscoasa(config)#access-list ATTT81 extended permit icmp host 10.0.0.10 host 172.16.0.254

- sau do PING PC1 den 209.165.200.3(WEB-NAT)

**- Neu cho host ca host PC1 va PC3 dung cau lenh**

-tu PC3 ip config: Ipv4 10.0.0.20, subnet mask 255.255.255.128, Defaulf Gateway 10.0.0.1, DNS server 209.265.200.4

ciscoasa(config)#access-list ATTT81 extended permit icmp 10.0.0.0 255.255.255.128 host 172.16.0.254

ciscoasa(config)# show run // kiem tra xem da co chua

**/ cho phep mang ben trai truy cap web**

ciscoasa(config)#access-list ATTT81 extended permit tcp any host 172.16.0.254 eq 80

**/ Cau hinh DMZ**

**-WEB -> services -> HTTP on -> index.html doi ten -> save**

**-DNS -> services -> DNS -> name: pttc1.edu.vn-> Address: 172.16.0.254 ->add   
  
  
  
  
access-list ATTT extended permit icmp host 10.0.1.10 host 209.165.200.3**

**access-list ATTT extended permit icmp any host 172.16.0.254**

access-list ATTT extended permit udp any host 172.16.0.200 eq domain

access-list ATTT extended permit tcp any host 172.16.0.200 eq domain

**access-list ATTT extended permit tcp any host 209.165.200.3 eq www**

**access-list ATTT extended permit tcp any host 209.165.200.4 eq domain**

**access-list ATTT extended permit udp any host 209.165.200.4 eq domain**