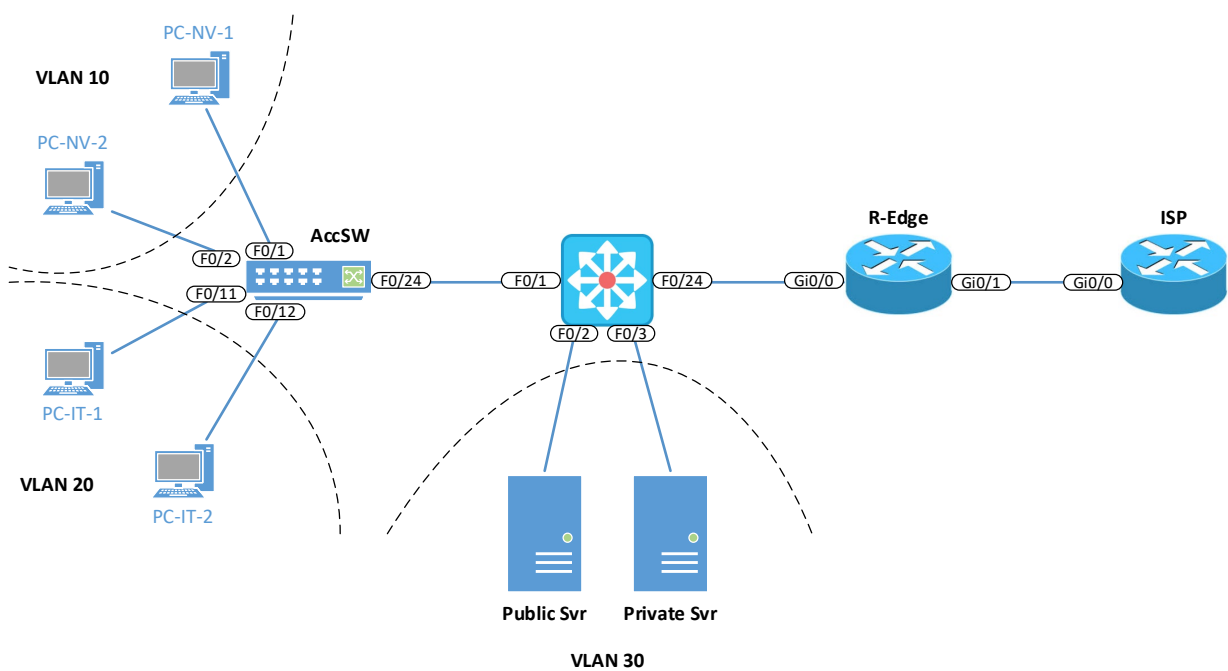


HƯỚNG DẪN LAB

LAB 5b – Access List #2

Designed by : Nguyễn Phú Thịnh

Sơ đồ LAB :



Thiết bị

Tên thiết bị	Chủng loại
PC-NV-1	PC Generic
PC-NV-2	PC Generic
PC-IT-1	PC Generic
PC-IT-1	PC Generic
Public-Srv	Server Generic
Private-Srv	Server Generic
AccSW	Switch 2960
CoreSW	Switch 3560
R-Edge	Router 2911
ISP	Router 2911

Yêu cầu

- Đầu nối và đặt tên thiết bị như sơ đồ
- Trên **AccSW** và **CoreSW**, tạo VLAN như sau :
 - VLAN 10 : name NhanVien
 - VLAN 20 : name IT
 - VLAN 30 : name Server
 - VLAN 100 : name Mgmt
- Gán port vào VLAN như sau :
 - **AccSW** :
 - VLAN 10 : port F0/1 – F0/10
 - VLAN 20 : port F0/11 – F0/20
 - **CoreSW** :
 - VLAN 30 : port F0/2 – 3
- Cấu hình **trunk** cho link nối giữa hai switch
- Đặt IP như sau :

Thiết bị	Port	IP
PC-1	F0	DHCP
PC-2	F0	DHCP
PC-3	F0	DHCP
PC-4	F0	DHCP
PublicSrv	F0	192.168.30.2/24
PrivateSrv	F0	192.168.30.3/24
AccSW	Vlan 100	192.168.100.2

CoreSW	Vlan 10	192.168.10.1/24
	Vlan 20	192.168.20.2/24
	Vlan 30	192.168.30.1/24
	Vlan 100	192.168.100.1/24
	F0/24	10.0.0.2/30
R-Edge	Gi0/0	10.0.0.1/30
	Gi0/1	200.0.0.2/30
ISP	Gi0/0	20.0.0.1/30
	Loopback0	8.8.8.8/32
	Loopback1	35.76.123.45/32
	Loopback2	78.13.47.231/32

- Cấu hình **CoreSW** làm **DHCP Server** cho **VLAN 10** và **VLAN 20**
- Cấu hình **định tuyến** để các subnet thông được với nhau
- Cấu hình **default route và NAT** trên **R-Edge** để các PC có thể truy cập Internet

Học viên tự cấu hình default route

Cấu hình NAT trên R-Edge như sau :

```
access-list 1 permit any
ip nat inside source list 1 interface Gi0/1 overload
interface Gi0/1
    ip nat outside
interface Gi0/0
    ip nat inside
```

- Cấu hình telnet cho **AccSW**, **CoreSW** và **R-Edge**, thỏa mãn các yêu cầu sau :
 - Xác thực bằng password : **Newstar@123**
 - Enable secret : **Newstar@123**
- Cấu hình **access list** trên **CoreSW** đảm bảo các yêu cầu sau :
 - Chặn ping từ tất cả IP đến **hai server**
 - Tất cả PC đều có thể truy cập vào **Public-Srv**
 - Tất cả PC đều có thể truy cập web vào **Private-Srv**
 - Chỉ có PC trong **vlan 20 (IT)** mới có thể toàn quyền truy cập vào **Private-Srv**
 - Chỉ có PC trong **vlan 20 (IT)** mới có thể **telnet** vào thiết bị, và
 - Với **AccSW** và **CoreSW**, chỉ có thể telnet vào IP trong **VLAN 100**.
 - Với **R-Edge**, chỉ có thể telnet vào IP **private** của router.
 - Chặn các PC và server truy cập đến **loopback 2** của **ISP**
 - Các PC và server vẫn truy cập được đến các địa chỉ còn lại của ISP

Các bước thực hiện

Bước 1 : đấu nối và đặt tên thiết bị như sơ đồ

Bước 2 : Tạo VLAN

AccSW			
AccSW(config)# vlan 10 AccSW(config-vlan)# name NhanVien AccSW(config-vlan)# exit AccSW(config)# vlan 20 AccSW(config-vlan)# name IT AccSW(config-vlan)# exit AccSW(config)# vlan 100 AccSW(config-vlan)# name Mgmt AccSW(config-vlan)# exit			
Kiểm tra :			
AccSW# show vlan brief			
VLAN	Name	Status	Ports
1	default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20 Fa0/21, Fa0/22, Fa0/23, Fa0/24 Gig0/1, Gig0/2
10	NhanVien	active	
20	IT	active	
100	Mgmt	active	
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

CoreSW			
CoreSW(config)# vlan 10 CoreSW(config-vlan)# name NhanVien CoreSW(config-vlan)# exit CoreSW(config)# vlan 20 CoreSW(config-vlan)# name IT CoreSW(config-vlan)# exit CoreSW(config)# vlan 30 CoreSW(config-vlan)# name Server CoreSW(config-vlan)# exit CoreSW(config)# vlan 100 CoreSW(config-vlan)# name Mgmt CoreSW(config-vlan)# exit			
Kiểm tra :			
CoreSW#show vlan brief			
VLAN	Name	Status	Ports
-----	-----	-----	-----

1	default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20 Fa0/21, Fa0/22, Fa0/23, Fa0/24 Gig0/1, Gig0/2
10	NhanVien	active	
20	IT	active	
30	Server	active	
100	Mgmt	active	
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

Bước 3 : Gán port vào VLAN

AccSW			
<pre>AccSW(config)#interface range F0/1-10 AccSW(config-if-range)#switchport mode access AccSW(config-if-range)#switchport access vlan 10 AccSW(config-if-range)#exit AccSW(config)#interface range F0/11-20 AccSW(config-if-range)#switchport mode access AccSW(config-if-range)#switchport access vlan 20</pre>			
Kiểm tra :			
AccSW#show vlan brief			
VLAN	Name	Status	Ports
1	default	active	Fa0/21, Fa0/22, Fa0/23, Fa0/24 Gig0/1, Gig0/2
10	NhanVien	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10
20	IT	active	Fa0/11, Fa0/12, Fa0/13, Fa0/14 Fa0/15, Fa0/16, Fa0/17, Fa0/18 Fa0/19, Fa0/20
100	Mgmt	active	
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

CoreSW		
<pre>CoreSW(config)#interface range F0/2-3 CoreSW(config-if-range)#switchport mode access CoreSW(config-if-range)#switchport access vlan 30</pre>		
Kiểm tra :		
CoreSW#show vlan brief		
VLAN	Name	Ports
---	-----	-----

1	default	active	Fa0/1, Fa0/4, Fa0/5, Fa0/6 Fa0/7, Fa0/8, Fa0/9, Fa0/10 Fa0/11, Fa0/12, Fa0/13, Fa0/14 Fa0/15, Fa0/16, Fa0/17, Fa0/18 Fa0/19, Fa0/20, Fa0/21, Fa0/22 Fa0/23, Fa0/24, Gig0/1, Gig0/2
10	NhanVien	active	
20	IT	active	
30	Server	active	Fa0/2, Fa0/3
100	Mgmt	active	
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

Bước 4 : Cấu hình trunk

AccSW

AccSW(config)#**interface F0/24**

AccSW(config-if)#**switchport mode trunk**

Kiểm tra :

AccSW#**show interfaces trunk**

Port	Mode	Encapsulation	Status	Native vlan
Fa0/24	on	802.1q	trunking	1

Port	Vlans allowed on trunk
Fa0/24	1-1005

Port	Vlans allowed and active in management domain
Fa0/24	1,10,20,100

Port	Vlans in spanning tree forwarding state and not pruned
Fa0/24	1,10,20,100

CoreSW				
CoreSW(config)# interface F0/1				
CoreSW(config-if)# switchport trunk encapsulation dot1q				
CoreSW(config-if)# switchport mode trunk				
Kiểm tra :				
CoreSW# show interfaces trunk				
Port	Mode	Encapsulation	Status	Native vlan
Fa0/1	on	802.1q	trunking	1
Port	Vlans allowed on trunk			
Fa0/1	1-1005			
Port	Vlans allowed and active in management domain			
Fa0/1	1,10,20,30,100			
Port	Vlans in spanning tree forwarding state and not pruned			
Fa0/1	none			

Bước 5 : Đặt IP cho thiết bị

AccSW					
AccSW(config)# interface vlan 100					
AccSW(config-if)# ip address 192.168.100.2 255.255.255.0					
AccSW(config-if)# no shut					
Kiểm tra :					
AccSW# show ip interface brief					
Interface	IP-Address	OK?	Method	Status	Protocol
FastEthernet0/1	unassigned	YES	manual	up	up
FastEthernet0/2	unassigned	YES	manual	up	up
FastEthernet0/3	unassigned	YES	manual	down	down
FastEthernet0/4	unassigned	YES	manual	down	down
FastEthernet0/5	unassigned	YES	manual	down	down
FastEthernet0/6	unassigned	YES	manual	down	down
FastEthernet0/7	unassigned	YES	manual	down	down
FastEthernet0/8	unassigned	YES	manual	down	down
FastEthernet0/9	unassigned	YES	manual	down	down
FastEthernet0/10	unassigned	YES	manual	down	down
FastEthernet0/11	unassigned	YES	manual	up	up
FastEthernet0/12	unassigned	YES	manual	up	up
FastEthernet0/13	unassigned	YES	manual	down	down
FastEthernet0/14	unassigned	YES	manual	down	down
FastEthernet0/15	unassigned	YES	manual	down	down
FastEthernet0/16	unassigned	YES	manual	down	down
FastEthernet0/17	unassigned	YES	manual	down	down
FastEthernet0/18	unassigned	YES	manual	down	down
FastEthernet0/19	unassigned	YES	manual	down	down
FastEthernet0/20	unassigned	YES	manual	down	down
FastEthernet0/21	unassigned	YES	manual	down	down
FastEthernet0/22	unassigned	YES	manual	down	down
FastEthernet0/23	unassigned	YES	manual	down	down
FastEthernet0/24	unassigned	YES	manual	up	up
GigabitEthernet0/1	unassigned	YES	manual	down	down
GigabitEthernet0/2	unassigned	YES	manual	down	down
Vlan1	unassigned	YES	manual	administratively down	down
Vlan100	192.168.100.2	YES	manual	up	up

CoreSW					
CoreSW(config)# interface vlan 10					
CoreSW(config-if)# ip address 192.168.10.1 255.255.255.0					
CoreSW(config-if)# no shut					
CoreSW(config-if)# exit					
CoreSW(config)# interface vlan 20					
CoreSW(config-if)# ip address 192.168.20.1 255.255.255.0					
CoreSW(config-if)# no shut					
CoreSW(config-if)# exit					
CoreSW(config)# interface vlan 30					
CoreSW(config-if)# ip address 192.168.30.1 255.255.255.0					
CoreSW(config-if)# no shut					
CoreSW(config-if)# exit					
CoreSW(config)# interface vlan 100					
CoreSW(config-if)# ip address 192.168.100.1 255.255.255.0					
CoreSW(config-if)# no shut					
CoreSW(config-if)# exit					
CoreSW(config)# interface F0/24					
CoreSW(config-if)# no switchport					

```
CoreSW(config-if)#ip address 10.0.0.2 255.255.255.252
```

Kiểm tra :

```
CoreSW#show ip interface brief
```

Interface	IP-Address	OK?	Method	Status	Protocol
FastEthernet0/1	unassigned	YES	unset	up	up
FastEthernet0/2	unassigned	YES	unset	up	up
FastEthernet0/3	unassigned	YES	unset	up	up
FastEthernet0/4	unassigned	YES	unset	down	down
FastEthernet0/5	unassigned	YES	unset	down	down
FastEthernet0/6	unassigned	YES	unset	down	down
FastEthernet0/7	unassigned	YES	unset	down	down
FastEthernet0/8	unassigned	YES	unset	down	down
FastEthernet0/9	unassigned	YES	unset	down	down
FastEthernet0/10	unassigned	YES	unset	down	down
FastEthernet0/11	unassigned	YES	unset	down	down
FastEthernet0/12	unassigned	YES	unset	down	down
FastEthernet0/13	unassigned	YES	unset	down	down
FastEthernet0/14	unassigned	YES	unset	down	down
FastEthernet0/15	unassigned	YES	unset	down	down
FastEthernet0/16	unassigned	YES	unset	down	down
FastEthernet0/17	unassigned	YES	unset	down	down
FastEthernet0/18	unassigned	YES	unset	down	down
FastEthernet0/19	unassigned	YES	unset	down	down
FastEthernet0/20	unassigned	YES	unset	down	down
FastEthernet0/21	unassigned	YES	unset	down	down
FastEthernet0/22	unassigned	YES	unset	down	down
FastEthernet0/23	unassigned	YES	unset	down	down
FastEthernet0/24	10.0.0.2	YES	manual	down	down
GigabitEthernet0/1	unassigned	YES	unset	down	down
GigabitEthernet0/2	unassigned	YES	unset	down	down
Vlan1	unassigned	YES	unset	administratively down	down
Vlan10	192.168.10.1	YES	manual	up	up
Vlan20	192.168.20.1	YES	manual	up	up
Vlan30	192.168.30.1	YES	manual	up	up
Vlan100	192.168.100.1	YES	manual	up	up

R-Edge

```
R-Edge(config)#interface Gi0/0
R-Edge(config-if)#ip address 10.0.0.1 255.255.255.252
R-Edge(config-if)#no shut
R-Edge(config-if)#exit
R-Edge(config)#interface Gi0/1
R-Edge(config-if)#ip add 200.0.0.2 255.255.255.252
R-Edge(config-if)#no shut
```

Kiểm tra :

```
R-Edge#show ip interface brief
```

Interface	IP-Address	OK?	Method	Status	Protocol
GigabitEthernet0/0	10.0.0.1	YES	manual	up	up
GigabitEthernet0/1	200.0.0.2	YES	manual	up	down
GigabitEthernet0/2	unassigned	YES	unset	administratively down	down
Vlan1	unassigned	YES	unset	administratively down	down

ISP

```
ISP(config)#interface Gi0/0
ISP(config-if)#ip add 200.0.0.1 255.255.255.252
ISP(config-if)#no shut
```



```

ISP(config-if)#exit
ISP(config)#interface loopback 0
ISP(config-if)#ip add 8.8.8.8 255.255.255.255
ISP(config-if)#exit
ISP(config)#interface loopback 1
ISP(config-if)#ip address 35.76.123.45 255.255.255.255
ISP(config-if)#exit
ISP(config)#interface loopback 2
ISP(config-if)#ip address 78.13.47.231 255.255.255.255
ISP(config-if)#exit

```

Kiểm tra :

```
ISP#show ip interface brief
```

Interface	IP-Address	OK?	Method	Status	Protocol
GigabitEthernet0/0	200.0.0.1	YES	manual	up	up
GigabitEthernet0/1	unassigned	YES	unset	administratively down	down
GigabitEthernet0/2	unassigned	YES	unset	administratively down	down
Loopback0	8.8.8.8	YES	manual	up	up
Loopback1	35.76.123.45	YES	manual	up	up
Loopback2	78.13.47.231	YES	manual	up	up
Vlan1	unassigned	YES	unset	administratively down	down

Đặt IP cho Public-Srv

The screenshot shows the 'Public-Srv' window with the 'Config' tab selected. The 'IP Configuration' section is expanded, showing the 'Static' radio button selected. The IP Address is set to 192.168.30.2, Subnet Mask to 255.255.255.0, Default Gateway to 192.168.30.1, and DNS Server to 0.0.0.0. The 'IPv6 Configuration' section is also visible, with 'Static' selected and a Link Local Address of FE80::205:5EFF:FE4E:6398.

Physical Config Services Desktop Programming Attributes

IP Configuration X

IP Configuration

☐ DHCP ☒ Static

IP Address: 192.168.30.2

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.30.1

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::205:5EFF:FE4E:6398

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

Đặt IP cho Private-Srv

Private-Srv

Physical Config Services Desktop Programming Attributes

IP Configuration X

IP Configuration

☐ DHCP ☒ Static

IP Address 192.168.30.3

Subnet Mask 255.255.255.0

Default Gateway 192.168.30.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::20C:CFFF:FE48:8292

IPv6 Gateway

IPv6 DNS Server

☐ Top

Bước 6 : cấu hình DHCP trên CoreSW

CoreSW
CoreSW(config)#ip dhcp pool VLAN-10
CoreSW(dhcp-config)#network 192.168.10.0 255.255.255.0
CoreSW(dhcp-config)#default-router 192.168.10.1
CoreSW(dhcp-config)#exit
CoreSW(config)#ip dhcp pool VLAN-20
CoreSW(dhcp-config)#network 192.168.20.0 255.255.255.0
CoreSW(dhcp-config)#default-router 192.168.20.1
CoreSW(dhcp-config)#exit
CoreSW(config)#ip dhcp excluded-address 192.168.10.1
CoreSW(config)#ip dhcp excluded-address 192.168.20.1

Cho các PC nhận IP bằng DHCP

PC-NV-1

Physical Config Desktop Programming Attributes

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IP Address: 192.168.10.2

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.10.1

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::204:9AFF:FECD:71C3

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

PC-NV-2

Physical Config Desktop Programming Attributes

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IP Address: 192.168.10.3

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.10.1

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::201:C7FF:FE6B:4AA1

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

PC-IT-1

Physical Config Desktop Programming Attributes

IP Configuration X

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IP Address 192.168.20.2

Subnet Mask 255.255.255.0

Default Gateway 192.168.20.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::290:CFF:FEE0:10CE

IPv6 Gateway

IPv6 DNS Server

Top

PC-IT-2

Physical Config Desktop Programming Attributes

IP Configuration X

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IP Address 192.168.20.3

Subnet Mask 255.255.255.0

Default Gateway 192.168.20.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::201:97FF:FE88:AD6D

IPv6 Gateway

IPv6 DNS Server

Top

Bước 7 : Cấu hình định tuyến để các subnet thông nhau

CoreSW
CoreSW(config)# ip routing CoreSW(config)# ip route 0.0.0.0 0.0.0.0 10.0.0.1
Kiểm tra :
CoreSW# show ip route Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2 E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area * - candidate default, U - per-user static route, o - ODR P - periodic downloaded static route Gateway of last resort is 10.0.0.1 to network 0.0.0.0 10.0.0.0/30 is subnetted, 1 subnets C 10.0.0.0 is directly connected, FastEthernet0/24 C 192.168.10.0/24 is directly connected, Vlan10 C 192.168.20.0/24 is directly connected, Vlan20 C 192.168.30.0/24 is directly connected, Vlan30 C 192.168.100.0/24 is directly connected, Vlan100 S* 0.0.0.0/0 [1/0] via 10.0.0.1

R-Edge
R-Edge(config)# ip route 192.168.0.0 255.255.0.0 10.0.0.2
Kiểm tra :
R-Edge# show ip route Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2 E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area * - candidate default, U - per-user static route, o - ODR P - periodic downloaded static route Gateway of last resort is not set 10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks C 10.0.0.0/30 is directly connected, GigabitEthernet0/0 L 10.0.0.1/32 is directly connected, GigabitEthernet0/0 S 192.168.0.0/16 [1/0] via 10.0.0.2 200.0.0.0/24 is variably subnetted, 2 subnets, 2 masks C 200.0.0.0/30 is directly connected, GigabitEthernet0/1 L 200.0.0.2/32 is directly connected, GigabitEthernet0/1

Bước 8 : Cấu hình default route và NAT trên R-Edge

R-Edge
R-Edge(config)# ip route 0.0.0.0 0.0.0.0 200.0.0.1 R-Edge(config)#

```

R-Edge(config)#access-list 1 permit any
R-Edge(config)#ip nat inside source list 1 interface Gi0/1 overload
R-Edge(config)#interface Gi0/1
R-Edge(config-if)#ip nat outside
R-Edge(config-if)#exit
R-Edge(config)#interface Gi0/0
R-Edge(config-if)#ip nat inside

```

Kiểm tra :

```
R-Edge#show ip route
```

```

Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

```

```
Gateway of last resort is 200.0.0.1 to network 0.0.0.0
```

```

      10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       10.0.0.0/30 is directly connected, GigabitEthernet0/0
L       10.0.0.1/32 is directly connected, GigabitEthernet0/0
S       192.168.0.0/16 [1/0] via 10.0.0.2
      200.0.0.0/24 is variably subnetted, 2 subnets, 2 masks
C       200.0.0.0/30 is directly connected, GigabitEthernet0/1
L       200.0.0.2/32 is directly connected, GigabitEthernet0/1
S*      0.0.0.0/0 [1/0] via 200.0.0.1

```

```
R-Edge#ping
```

```

Protocol [ip]:
Target IP address: 8.8.8.8
Repeat count [5]:
Datagram size [100]:
Timeout in seconds [2]:
Extended commands [n]: y
Source address or interface: GigabitEthernet0/0
Type of service [0]:
Set DF bit in IP header? [no]:
Validate reply data? [no]:
Data pattern [0xABCD]:
Loose, Strict, Record, Timestamp, Verbose[none]:
Sweep range of sizes [n]:
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.8, timeout is 2 seconds:
Packet sent with a source address of 10.0.0.1
.!!!!
Success rate is 80 percent (4/5), round-trip min/avg/max = 0/0/0 ms

```

Lúc này, các PC và Server có thể truy cập Internet

PC-NV-1

Physical Config Desktop Programming Attributes

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Request timed out.
Reply from 8.8.8.8: bytes=32 time=12ms TTL=253
Reply from 8.8.8.8: bytes=32 time=12ms TTL=253
Reply from 8.8.8.8: bytes=32 time=12ms TTL=253

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 12ms, Maximum = 12ms, Average = 12ms

C:\>|
```

Top

PC-IT-1

Physical Config Desktop Programming Attributes

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:

Reply from 8.8.8.8: bytes=32 time=1ms TTL=253
Reply from 8.8.8.8: bytes=32 time=1ms TTL=253
Reply from 8.8.8.8: bytes=32 time=1ms TTL=253
Reply from 8.8.8.8: bytes=32 time<1ms TTL=253

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>|
```

Top

Public-Srv

Physical Config Services Desktop Programming Attributes

Command Prompt

```
Packet Tracer SERVER Command Line 1.0
C:\>ping 35.76.123.45

Pinging 35.76.123.45 with 32 bytes of data:

Reply from 35.76.123.45: bytes=32 time<1ms TTL=253
Reply from 35.76.123.45: bytes=32 time=13ms TTL=253
Reply from 35.76.123.45: bytes=32 time<1ms TTL=253
Reply from 35.76.123.45: bytes=32 time=10ms TTL=253

Ping statistics for 35.76.123.45:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 13ms, Average = 5ms

C:\>|
```

☐ Top

Private-Srv

Physical Config Services Desktop Programming Attributes

Command Prompt

```
Packet Tracer SERVER Command Line 1.0
C:\>78.13.47.231
Invalid Command.

C:\>ping 78.13.47.231

Pinging 78.13.47.231 with 32 bytes of data:

Reply from 78.13.47.231: bytes=32 time=1ms TTL=253
Reply from 78.13.47.231: bytes=32 time<1ms TTL=253
Reply from 78.13.47.231: bytes=32 time=11ms TTL=253
Reply from 78.13.47.231: bytes=32 time=10ms TTL=253

Ping statistics for 78.13.47.231:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 11ms, Average = 5ms

C:\>|
```

☐ Top

Bước 9 : Cấu hình telnet

AccSW
AccSW(config)# enable secret Newstar@123 AccSW(config)# line vty 0 4 AccSW(config-line)# password Newstar@123 AccSW(config-line)# login

CoreSW

```
CoreSW(config)#enable secret Newstar@123
CoreSW (config)#line vty 0 4
CoreSW (config-line)#password Newstar@123
CoreSW (config-line)#login
```

R-Edge

```
R-Edge(config)#enable secret Newstar@123
R-Edge (config)#line vty 0 4
R-Edge (config-line)#password Newstar@123
R-Edge (config-line)#login
```