Báo Cáo Đồ Án MMT-NC

Project 1 – Internet routing

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Logo

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Bộ môn Mạng máy tính nâng cao

Khoa Công nghệ thông tin

Đại học Khoa học tự nhiên TP. HCM

I. Mục lục

1. Các bước thực hiện

a. Cấu hình địa chỉ IP

b. Cấu hình định tuyến OSPF

c. Cấu hình định tuyến RIPv2 và Redistribute

d. Cấu hình định tuyến BGP

2. Kết quả

3. Nguồn tham khảo

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II. Trình bày

1. Các bước thực hiện

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a. Cấu hình địa chỉ IP

* PC

Graphical user interface, text, application, email

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Graphical user interface, text, application, email

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Graphical user interface, text, application, email

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* Router
  + R1

Router 1 cần gắn thêm 1 cổng PT-ROUTER-NM-1CFE để có thêm 1 cổng kết nối

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* R2

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* R3

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* R4

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* R5

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* R6

Graphical user interface, text, application, email

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b. Cấu hình định tuyến OSPF

Để tiến hành config router

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* R1

Router(config)#router ospf 1

Router(config-router)#network 100.100.2.0 0.0.0.3 area 0

Router(config-router)#network 110.110.2.0 0.0.0.3 area 0

Router(config-router)#network 200.200.2.0 0.0.0.15 area 0

Router(config-router)#default-information originate

Router(config-router)#redistribute connected subnets

* R2

Router(config)#router ospf 1

Router(config-router)#network 100.100.2.0 0.0.0.3 area 0

Router(config-router)#network 120.120.2.0 0.0.0.3 area 0

Router(config-router)#default-information originate

Router(config-router)#redistribute connected subnets

* R3

Router(config)#router ospf 1

Router(config-router)#network 110.110.2.0 0.0.0.3 area 0

Router(config-router)#network 150.150.2.0 0.0.0.3 area 0

Router(config-router)#default-information originate

Router(config-router)#redistribute connected subnets

c. Cấu hình định tuyến RIPv2 và Redistribute

**Tiến hành cấu hình ospf và ripv2 trên R6 và R4**

* AS 200
* R4

// RIPv2

Router(config)#router rip

Router(config-router)#version 2

Router(config-router)#network 150.150.2.0

Router(config-router)#network 140.140.2.0

Router(config-router)#no auto-summary

Router(config-router)#default-information originate

// Redistribute

Router(config-router)#redistribute ospf 1 metric 1

Router(config-router)#redistribute connected metric 1

// OSPF

Router(config-router)#ex

Router(config)#router ospf 1

Router(config-router)#network 150.150.2.0 0.0.0.3 area 0

Router(config-router)#default-information originate

Router(config-router)#redistribute connected subnets

Router(config-router)#redistribute rip subnets

* R5

//RIPv2

Router(config)#router rip

Router(config-router)#version 2

Router(config-router)#network 140.140.2.0

Router(config-router)#network 220.220.2.0

Router(config-router)#no auto-summary

Router(config-router)#default-information originate

// Redistribute

Router(config-router)#redistribute ospf 1 metric 1

Router(config-router)#redistribute connected metric 1

* AS 300
* R6

// RIPv2

Router(config)#router rip

Router(config-router)#version 2

Router(config-router)#network 120.120.2.0

Router(config-router)#network 130.130.2.0

Router(config-router)#no auto-summary

Router(config-router)#default-information originate

// Redistribute

Router(config-router)#redistribute ospf 1 metric 1

Router(config-router)#redistribute connected metric 1

// OSPF

Router(config-router)#ex

Router(config)#router ospf 1

Router(config-router)#network 120.120.2.0 0.0.0.3 area 0

Router(config-router)#default-information originate

Router(config-router)#redistribute connected subnets

Router(config-router)#redistribute rip subnets

* R7

// RIPv2

Router(config)#router rip

Router(config-router)#version 2

Router(config-router)#network 130.130.2.0

Router(config-router)#network 210.210.2.0

Router(config-router)#no auto-summary

Router(config-router)#default-information originate

// Redistribute

Router(config-router)#redistribute ospf 1 metric 1

Router(config-router)#redistribute connected metric 1

d. Cấu hình định tuyến BGP

* R2

Router(config)#int lo1

Router(config-if)#ip add 2.2.2.2 255.255.255.255

Router(config-if)#ex

Router(config)#router bgp 100

Router(config-router)#neighbor 6.6.6.6 remote-as 300

* R3

Router(config)#int lo2

Router(config-if)#ip add 3.3.3.3 255.255.255.255

Router(config-if)#ex

Router(config)#router bgp 100

Router(config-router)#neighbor 4.4.4.4 remote-as 200

* R6

Router(config)#int lo3

Router(config-if)#ip add 6.6.6.6 255.255.255.255

Router(config-if)#ex

Router(config)#router bgp 300

Router(config-router)#neighbor 2.2.2.2 remote-as 100

* R4

Router(config)#int lo4

Router(config-if)#ip add 4.4.4.4 255.255.255.255

Router(config-if)#ex

Router(config)#router bgp 200

Router(config-router)#neighbor 3.3.3.3 remote-as 100

* R1

Router(config)#router bgp 100

* R7

Router(config)#router bgp 300

* R5

Router(config)#router bgp 200

2. Kết quả

* R1

Text

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* R2

Text

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* R3

Text

Description automatically generated

* R4

Text

Description automatically generated

* R5

Text

Description automatically generated

* R6

Text

Description automatically generated

* R7

Text

Description automatically generated

**Lưu ý**: khi gửi PDU giữa các router và PC đôi khi sẽ bị failed, chỉ cần fast forward time (Alt + D) vài lần rồi thử lại là được

* PC1 ̶˃ PC2 và PC3

Graphical user interface, text

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* PC2 ̶˃ PC1 và PC3

Graphical user interface, text

Description automatically generated

* PC3 ̶˃ PC1 và PC2

Graphical user interface, text

Description automatically generated

3. Nguồn tham khảo

<http://thietbibk.com/ccna-rs-ccna5-0-cau-lenh-cau-hinh-dinh-tuyen-ospf-tren-topo-ipv4/>

<https://www.daihockhonggiay.com/blogs/post/link-state-ospf>

[CCNA - [Lab 6] Cấu hình định tuyến RIPv2 cho Router Cisco | Lab Network System Security (securityzone.vn)](https://securityzone.vn/t/lab-6-cau-hinh-dinh-tuyen-ripv2-cho-router-cisco.77/)

[Lab 1.1 Redistribute | Lab Network System Security (securityzone.vn)](https://securityzone.vn/t/lab-1-1-redistribute.602/)

<https://securityzone.vn/t/bgp-lab-01-cau-hinh-bgp-co-ban-part-1.1079/>

<https://www.daihockhonggiay.com/blogs/post/cau-hinh-tong-hop-3-giao-thuc-ripv2-ospf-eigrp>