

21CY681 - INTERNET PROTOCOL LAB - VIII

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Assignment Topic: Configuring Routing protocols using Cisco Packet Tracer

AIM:

To configure a the border gateway protocol and describe the working process by using cisco packet tracer.

SIMULATION TOOL :Cisco packet tracer

PROCEDURE:

We have placed three routers accordingly with which three connections are made.

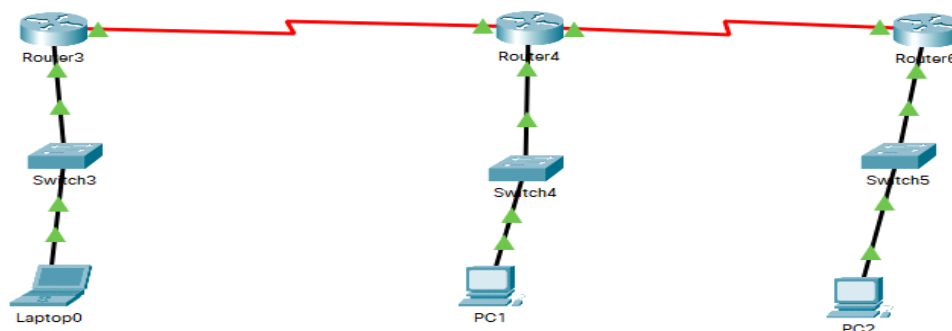


Figure :1 Border gateway protocol

From the figure 2,we have used CLI to configure the BGP as areas are being divided ,so for area 1 bgp is configured as the following commands,

```

Router(config)#router bgp 1
Router(config-router)#network 192.168.1.0
Router(config-router)#network 10.0.0.0
Router(config-router)#neighbor 192.168.2.0 ?
    next-hop-self  Disable the next hop calculation for this neighbor
    remote-as       Specify a BGP neighbor
Router(config-router)#neighbor 192.168.2.0 remote-as 2
Router(config-router)#neighbor 192.168.3.0 remote-as 3
Router(config-router)#neighbor 10.0.0.2 remote-as 2
Router(config-router)#neighbor 11.0.0.2 remote-as 3
Router(config-router)#exit
Router(config)%%BGP-5-ADJCHANGE: neighbor 10.0.0.2 Up
%BGP-5-ADJCHANGE: neighbor 11.0.0.2 Up

```

Fig :2

From the figure 3,we have used CLI to configure the BGP as areas are being divided ,so for area 2 bgp is configured as the following commands,

```

-----
Router(config)#router bgp 2
Router(config-router)#network 192.168.2.0
Router(config-router)#network 10.0.0.0
Router(config-router)#network 11.0.0.0
Router(config-router)#neighbor 192.168.1.0 remote-as 1
Router(config-router)#neighbor 192.168.3.0 remote-as 3
Router(config-router)#neighbor 10.0.0.1 remote-as 1
Router(config-router)%%BGP-5-ADJCHANGE: neighbor 10.0.0.1 Up

Router(config-router)#neighbor 10.0.0.1 remote-as 1
Router(config-router)#neighbor 11.0.0.2 remote-as 3
Router(config-router)#exit
Router(config)%%BGP-5-ADJCHANGE: neighbor 11.0.0.2 Up

```

Fig :3

From the figure 4 ,we have used CLI to configure the BGP as areas are being divided ,so for area 3 bgp is configured as the following commands,

```

Router(config-router)#exit
Router(config)#router bgp 3
Router(config-router)#network 11.0.0.0
Router(config-router)#network 192.168.3.0
Router(config-router)#neighbor 192.168.2.0 remote-as
    ^
% Invalid input detected at '^' marker.





Router(config-router)#neighbor 192.168.2.0 remote-as 2
Router(config-router)#neighbor 192.168.1.0 remote-as 1
Router(config-router)#neighbor 10.0.0.0 remote-as 1
Router(config-router)#neighbor 10.0.0.1 remote-as 1
Router(config-router)#neighbor 11.0.0.1 remote-as 2
Router(config-router)%%BGP-5-ADJCHANGE: neighbor 11.0.0.1 Up

Router(config-router)#exit
Router(config)%%BGP-5-ADJCHANGE: neighbor 10.0.0.1 Up

```

Fig :4

RESULT :

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit
	Successful	Lapt...	PC1	ICMP		0.000	N	0	(edit
	Successful	Lapt...	PC2	ICMP		0.000	N	1	(edit

As we have tried sending packets ,it has reached the destination successfully.