Rivan CYBER INSTITUTE

TEAM RIVAN Next Gen Labs
Route Switch TShoot Lab

Device : Port

P1: 2001	**R4:** 2009
P2: 2002	**R3:** 2010
A1: 2003	**R2:** 2011
A2: 2004	**R1:** 2012
S1: 2005	**I3:** 2013
D1: 2006	**I2:** 2014
D2: 2007	**I1:** 2015
S2: 2008	**I4:** 2016

BGP
Border Gateway Protocol

AS
(Autonomous System)

I1: 45
I2: 2
I3: 3
I4: 45
R1: 1

Lo 8.8.8.8

Lo 55.55.55.55

e0/3 I4 e0/1
35.3.5.5   45.4.5.5
e0/2
25.2.5.5

Lo 33.33.33.33
35.3.5.3
e1/1

Lo 22.22.22.22
25.2.5.2
e0/2

Lo 44.44.44.44
45.4.5.4
e1/2

e1/2 I3 35.3.2.3   35.3.2.2 e1/2 I2 e1/1 24.2.4.2   24.2.4.4 e1/1 I1 e1/3
e1/3   209.9.9.3   e1/3   207.7.7.2   208.8.8.4

207.7.7.1

209.9.9.1 e1/3 e1/2 e1/1 208.8.8.1
R1
e1/0
10.1.1.1   10.1.1.2

OSPF
Open Shortest Path First

e1/2
R3 e1/1 10.1.1.6   10.1.1.5 e1/1 R2
e1/2
10.1.1.9   10.1.1.10

e1/2
R4
e1/0   e1/1
10.1.4.5   10.1.4.9

OSPF Areas

Area 0	R3: e1/1
	R2: e1/1
Area 34	R4: e1/2
	R3: e1/2
Area 12	R2: e1/2
	R1: e1/0

EIGRP
Enhanced Interior Gateway Protocol

S1
DNS Server
e1/0

10.1.4.6   10.1.4.10
e1/1   e1/1
e1/0 D1   D2 e1/0

S2
Web Server
e1/0

VLAN 10 10.2.1.1
VLAN 20 10.2.2.1
VLAN 200 192.168.1.129

VLAN 10 10.2.1.2
VLAN 20 10.2.2.2
VLAN 200 192.168.1.130

P1
e0/0 A1   A2 e1/0
e0/0

VLAN 200 192.168.1.131   VLAN 200 192.168.1.132

P2
e1/0

Tasks:

1. Configure D1 & D2 as DHCP servers for clients on VLAN 10.

2. Place PC1 & PC2 to VLAN 10.

3. Add IP Addresses on PC1 & PC2 via DHCP

4. Configure default and static routes to PC1 & PC2, and A1 & A2.

5. Configure EIGRP on D1, D2, & R4.

6. Set Loopbacks on R1, R2, R3, & R4, then configure them for OSPF with the specified OSPF Areas.

7. Configure Redistribution on R4 so that EIGRP and OSPF will distribute routes to each other.

8. Configure BGP on R1, I1, I2, I3, & I4 using the specified AS Number.

9. Add Loopback 8.8.8.8 on I4.

10. Configure static routes on I1, I2, & I3 so that they can reach the 10.0.0.0 network.

11. Ping and Traceroute 8.8.8.8 on either PC1 or PC2 to prove connectivity.