OSPF Topology 1 Tasks

Lab 1 – Task 1:

Configure OSPF Area 0 using 'Network' Statement in the backbone as per the diagram.

Lab 1 – Task 2:

Configure OSPF Area 20 and Area 50 without using 'Network' Statement in the OSPF Process as per the diagram.

Lab 1 – Task 3:

Configure OSPF Area 30 and Area 10 in the OSPF Process as per the diagram, where in Area 10, Subnet 192.1.191.0/25 R10 should be DR and R11 should be BDR and there should not be any other DR/BDR election in Area 10 and Area 30.

Lab 1 – Task 4:

Configure OSPF Area 40 and Area 60 in the OSPF Process as per the diagram, where in Area 60, Subnet 192.189.224.0/24 R20 should be DR and R24 should be BDR.

Lab 2 – Task 1:

Redistribute BGP on R6 and R8 for redistributing prefixes from ISP-1 and ISP-2 respectively.

Lab 2 – Task 2:

Configure Area 10 and Area 30 in a way so that all the external routes should be filtered but there should be reachability to external prefixes.

Lab 3 – Task 1:

Configure Area 30 in a way so that it will filter LSA-3 (Inter-Area) prefixes as well along with the LSA-4 and LSA-5 and use same default route to reach inter-area prefixes as well.

Lab 4 – Task 1:

Redistribute BGP on R17 in Area 40 and R20 in area 60 in a way so they will inject external routes by adding internal cost in it and seed them with external cost of 60 instead of default external cost.

Lab 5 – Task 1:

Configure OSPF Area 40 in a way, so that it will Restrict the External prefixes coming from ISP-1 and ISP-2 but should have default route to reach them as well as it should also allow prefixes coming from ISP-3.

Note: Default Route in Area 40 should be implicit default route.

Lab 6 – Task 1:

Create Loopback 10 on R11 and assign these addresses:
interface Loopback10
 ip address 10.255.2.11 255.255.255.0 secondary
 ip address 10.255.3.11 255.255.255.0 secondary
 ip address 10.255.4.11 255.255.255.0 secondary
 ip address 10.255.5.11 255.255.255.0 secondary
 ip address 10.255.6.11 255.255.255.0 secondary
 ip address 10.255.7.11 255.255.255.0 secondary
 ip address 10.255.1.11 255.255.255.0
!
- Make Sure R2 gets all routes with /24 prefix length
- Summarize those routes to /21

Lab 6 – Task 2:

Create Loopback 19 on R19 and assign these addresses:
interface Loopback19
 ip address 19.255.2.11 255.255.255.0 secondary
 ip address 19.255.3.11 255.255.255.0 secondary
 ip address 19.255.1.11 255.255.255.0
!
- Make Sure R2 gets all the routes with /24 prefix length
- 19.255.2.0/24 should be filtered when it is advertised to Area 0 (check R2 routing table)

Lab 6 – Task 3:

R17 should filter 103.4.4.0/24 when redistributing it into OSPF.

Lab 6 – Task 4:

R17 should advertise a summary route into OSPF for BGP received routes.