MPLS Lab 2 Tasks

Task 1:

- Configure IS-IS in the Service Provider Network
- Enable Prefix-Suppression for IS-IS
- Configure Basic Segment-Routing (Prefix SID-MAP using Loopback 0 IPv4 addresses)
- Enable Segment-Routing MPLS for the IS-IS process

Task 2:

- Configure BGP on all Edge routers (XRv99 is a Core/P router).
- ONLY Enable VPNv4 Unicast Address-family.
- CSR11 and CSR13 must also act as Route-Reflectors.
- Configure Router-ID on all Edge routers and Cluster-ID on RRs statically (Use Lo0 IPv4 Address).

Task 3:

- Provide MPLS L3VPN Service to Customer A (CustA)
- Use BGP as the PE-CE Routing Protocol
- Use the same AS# 65001 on all CE devices for BGP
- CustA-R1 and CustA-R2 should form iBGP sessions with each other, Configure SoO extended community value on PE devices for the sites if it is necessary.

Task 4:

- Provide MPLS L3VPN Service to Customer B (CustB).
- Use OSPF as the PE-CE Routing Protocol.
- Customer Edge devices sould receive PE learned routes as Inter-Area.

Task 5:

- Provide MPLS L3VPN Service to Customer C (CustC).
- Use EIGRP as the PE-CE Routing Protocol.

Task 6:

- Provide MPLS L3VPN Service to Customer D (CustD).
- Use Static-Routes as the PE-CE Routing Protocol.

Task 7:

- Configure Route-Leaking between two VRFs:
  CustD-R2 and CustD-R3 should be able to reach Loopback 100   of   CustB-R3 using their Loopback 0 interfaces.

Task 8:

- C Provide VPWS (xConnect) service for CustE

Task 9:

- Provide VPLS (Kompella) service for CustI.

Task 10:

- Provide EVPN VPWS service for CustG.

Task 11:

- Provide EVPN Single-Homed service for CustH

Task 12:

- Provide EVPN Multi-Homed service for CustF