

DAY 3

WRAPUP

What we learned today

- VPN theory
 - PE-CE routing with RIP
 - PE-CE routing with BGP
 - VRF Lite
- Inter-AS VPN theory
 - Back-to-back VPN (Option A)
 - MP-EBGP with ASBRs (Option B)
 - MP-EBGP with Route Reflectors (Option C)
 - Carrier Supporting Carrier (CSC)
- Internet access in VPNs
 - With and without NAT
- MPLS Traffic Engineering (TE)
 - RSVP-TE
 - TE Theory



DAY 3

QUICK QUESTIONS...

1. What sort of routing protocol is RIP? Where might it be suitable in our MPLS networks?
 - a. Distance Vector (D-V)
 - b. On simple PE-CE interfaces
2. What constraints does RIPv1 have? What about RIPv2?
 - a. RIPv1 does not support Variable Length Subnet Masks (VLSM) – RIPv2 does
 - b. RIPv1 and RIPv2 don't support IPv6 – RIPv6 is needed
3. Is VRF-lite MPLS?
4. Where might you use Inter-AS VPNs?
5. What functions does MPLS TE provide?
 - a. Fast ReRoute (FRR) protection for link and node failures
 - b. Strict path traffic engineering
 - c. Link coloring .. Admission control .. QoS aware traffic engineering
6. Does your head hurt yet from MPLS functionality?
 - a. Yes
7. Does MPLS TE give you automatic Quality of Service?
 - a. No!
8. Does MPLS TE bandwidth connection admission control guarantee bandwidth through the network?
 - a. No!



DAY 4

THAT'S TOMORROW

- First half:
 - Labs
 - We will close off the labs from day 2 and day 3 to make sure everyone has a good understanding of L3VPNs, PE-CE routing, etc
- Second half:
 - L2VPN theory
 - Ethernet over MPLS as primary focus, with P2P, MP, and P2MP topologies
 - A quick look at the MEF architectures
 - L2VPN practical configurations
 - Inter-AS L2VPN