

DAY 2

WRAPUP

What we learned today

- VPN theory
 - Peer-to-peer VPNs
 - Overlay VPNs
- L3VPN theory
 - Route distinguishers
 - Route targets
 - MP-BGP
- IPv6 with L3VPN theory
 - 6VPE
- Starting to look at PE-CE routing



DAY 2

QUICK QUESTIONS...

1. What function does a **route distinguisher** (RD) perform?
 - a. Uniquely identifies a route for L3VPNs – it guarantees uniqueness in a SP routing domain
2. What does 6VPE do for a service provider?
 - a. Enables IPv6 L3VPNs for service providers, using an IPv4 MPLS core
3. Name three label distribution protocols
 - a. LDP
 - b. RSVP-TE
 - c. MP-BGP
4. How many bits in size is a route distinguisher (RD)?
 - a. 64 bits
5. What is a common practice for assigning route distinguishers in SP networks?
 - a. Using SP ASN and a unique id, e.g. 9889:1234 or 4771:9889
6. What function does a **Route Target** (RT) perform?
 - a. As an extended community, it acts like regular BGP communities and is used for **route policy** – to assign VPN routes to a VRF instance
7. When and where should you be configuring IPv6?
 - a. Yesterday, and everywhere you possibly can. Remember IPv4 is almost totally exhausted



DAY 3

THAT'S TOMORROW

- Continuation of our L3VPN labs
- PE-CE routing
- Providing Internet services in VPN (“route leaking” to the global table)
- L3VPN troubleshooting
- MPLS Traffic Engineering

