Carrier Supporting Carrier Overview (CSC)

» Defined in RFC 4364 – "BGP/MPLS IP Virtual Private Networks (VPNs)"

- RFC 4364, Section 9 – Carriers' Carriers

» CSC used when one MPLS provider wants to use another MPLS provider as L3 transit

- E.g. Tier 2 ISP has customers in New York and LA but no nationwide infrastructure
- Tier 2 ISP uses Tier 1 ISP as transit between POPs

Backbone Carrier & Customer Carrier

» **Backbone Carrier**
- Provides MPLS VPN service to Customer Carrier
- Switches based on topmost label
- Device connecting to Customer Carrier is called CSC_PE

» **Customer Carrier**
- May or may not be MPLS enabled internally
- Must be MPLS enabled to Backbone Carrier
- Device connecting to Backbone Carrier is called CSC_CE

CSC_PE to CSC_CE Routing

» **CSC_PE to CSC_CE**
- VRF aware
- BGP + Label only in IOS XR
- BGP + Label or IGP + LDP in IOS

» **CSC_CE to CSC_PE**
- Not VRF aware
- BGP + Label only in IOS XR
- BGP + Label or IGP + LDP in IOS

Q&A