



SNEAK PEEK

Cisco Support Community Expert Series Webcast

Configuring and Troubleshooting MPLS VPN

Sept 15, 2015

with Vinit Jain

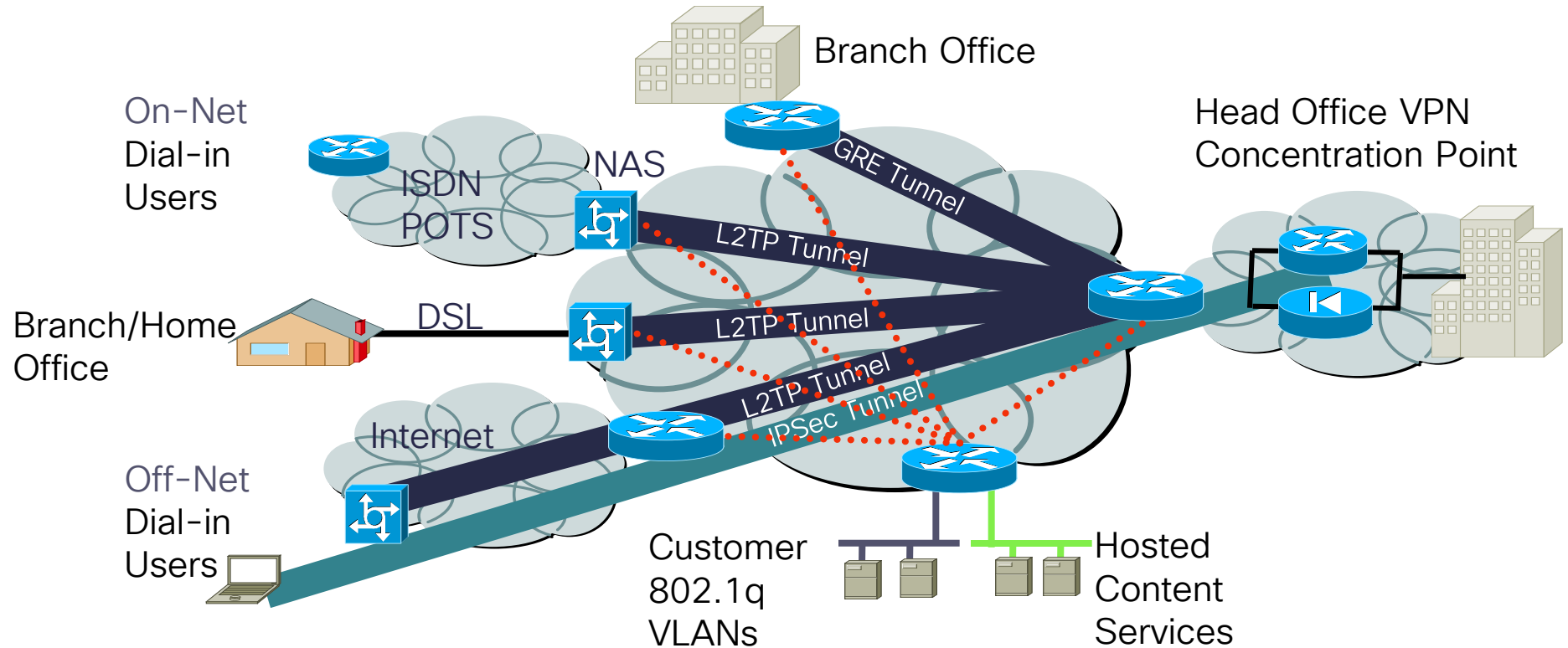
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Agenda

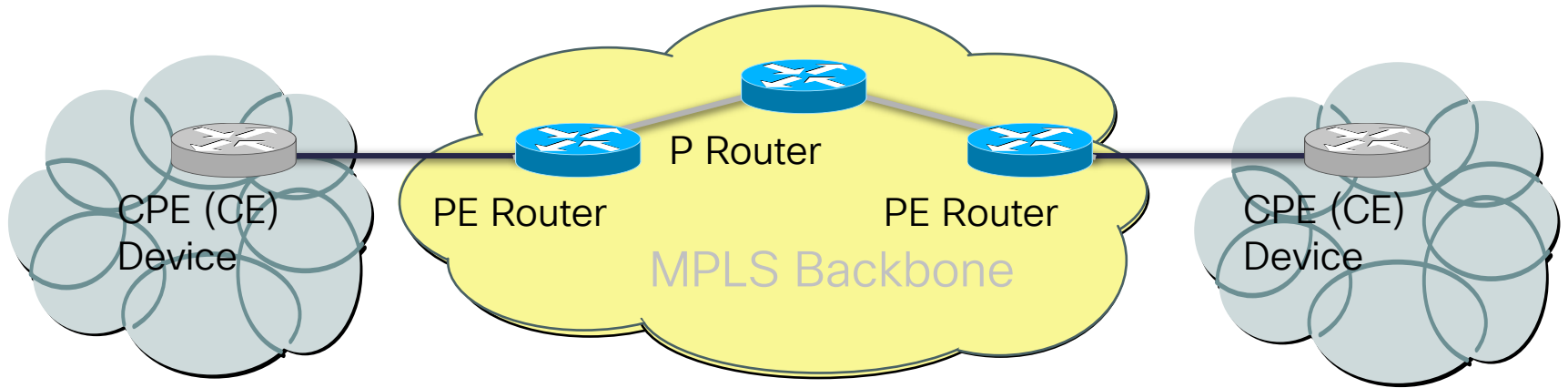
- Introduction to MPLS VPN
 - MPLS VPN Overview
 - Terminologies
 - Understanding MPLS VPN Control Plane and Data Plane
 - Basic MPLS VPN Configuration
 - Live Troubleshooting Demo

Overlay VPN Scenarios



RFC 2547 / 4364 MPLS VPN Model

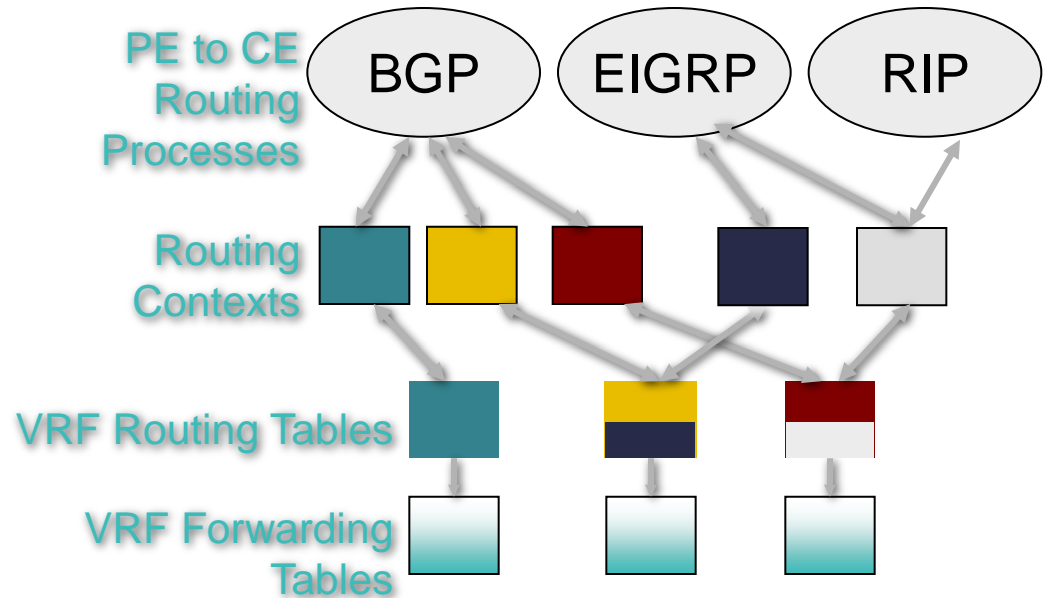
Combined Benefits of Overlay and Peer-to-Peer VPN Models



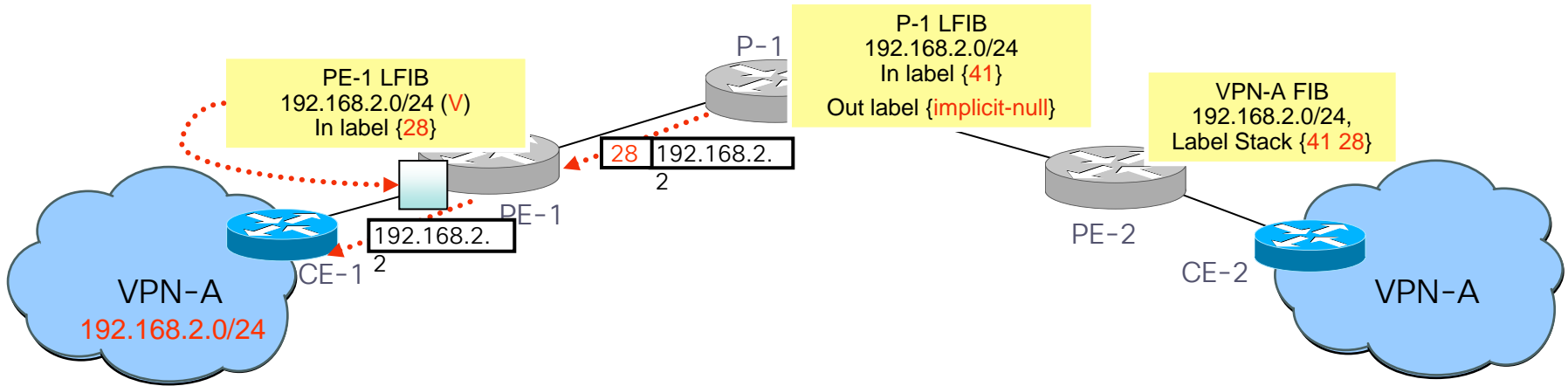
- ☺ Routing between Sites Is Optimal
- ☺ Duplicate IP Addressing Capability
- ☺ Secure Service
- ☺ PE Routers Hold Only Relevant VPN Routes
- ☺ Complete Isolation between Customers
- ☺ No Complex Filters or Dedicated Routers

VRF and Multiple Routing Instances

- Routing processes run within specific routing contexts
- Populate specific VPN routing table and FIBs (VRF)
- PE-CE Protocols - BGP, OSPF, EIGRP, RIP, Static, (ISIS only on IOS)



MPLS VPN Forwarding



- Penultimate PE router removes the IGP label
- Egress PE router uses the VPN label to select which CE to forward the packet
- VPN label is removed and the packet is routed toward the VPN site using the relevant VRF

Check out some additional information on MPLS VPN on the Cisco Support Community.

Configuration Example: Route-Reflectors Implementation in MPLS VPN

<https://supportforums.cisco.com/document/138646/configuration-exampleroute-reflectors-implementation-mpls-vpn?>

BGP PE-CE Routing Protocol Overview In MPLS VPNs-Part I

<https://supportforums.cisco.com/document/138546/bgp-pe-ce-routing-protocol-overview-mpls-vpns-part-i?>

If you are not yet a registered user on the community, [Click here](#) to register and become an active participant on the community.



Hope you enjoyed this little peek into the webcast.
Remember it was just a peek. Sept. 15, you get a chance to see the whole thing.



Register Now: <http://bit.ly/cscsept15webcast>

At the webcast you will be able to learn so much more and get a chance to submit questions for the expert to answer during the broadcast.
We'll see you there!