Virtual Subnet : A L3VPN-based Subnet Extension Solution

draft-xu-virtual-subnet-10

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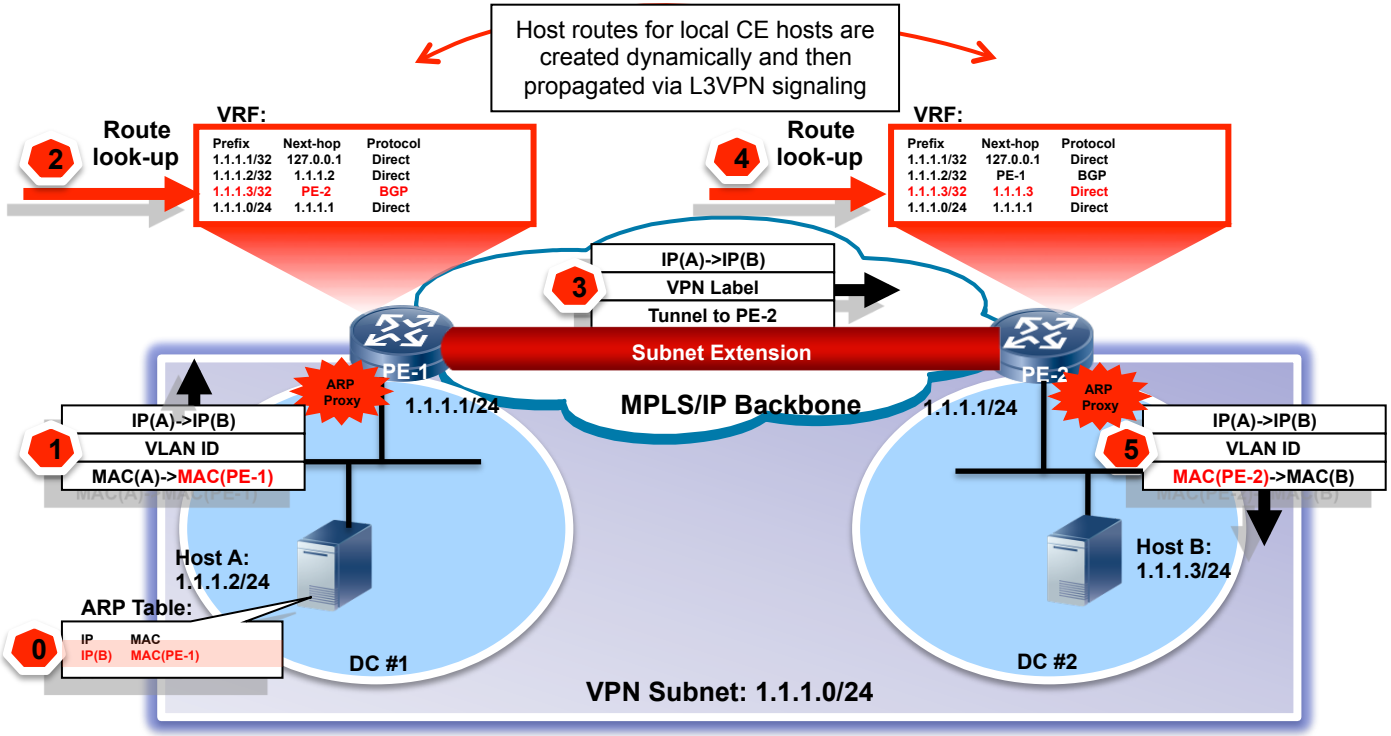
Virtual Subnet Overview

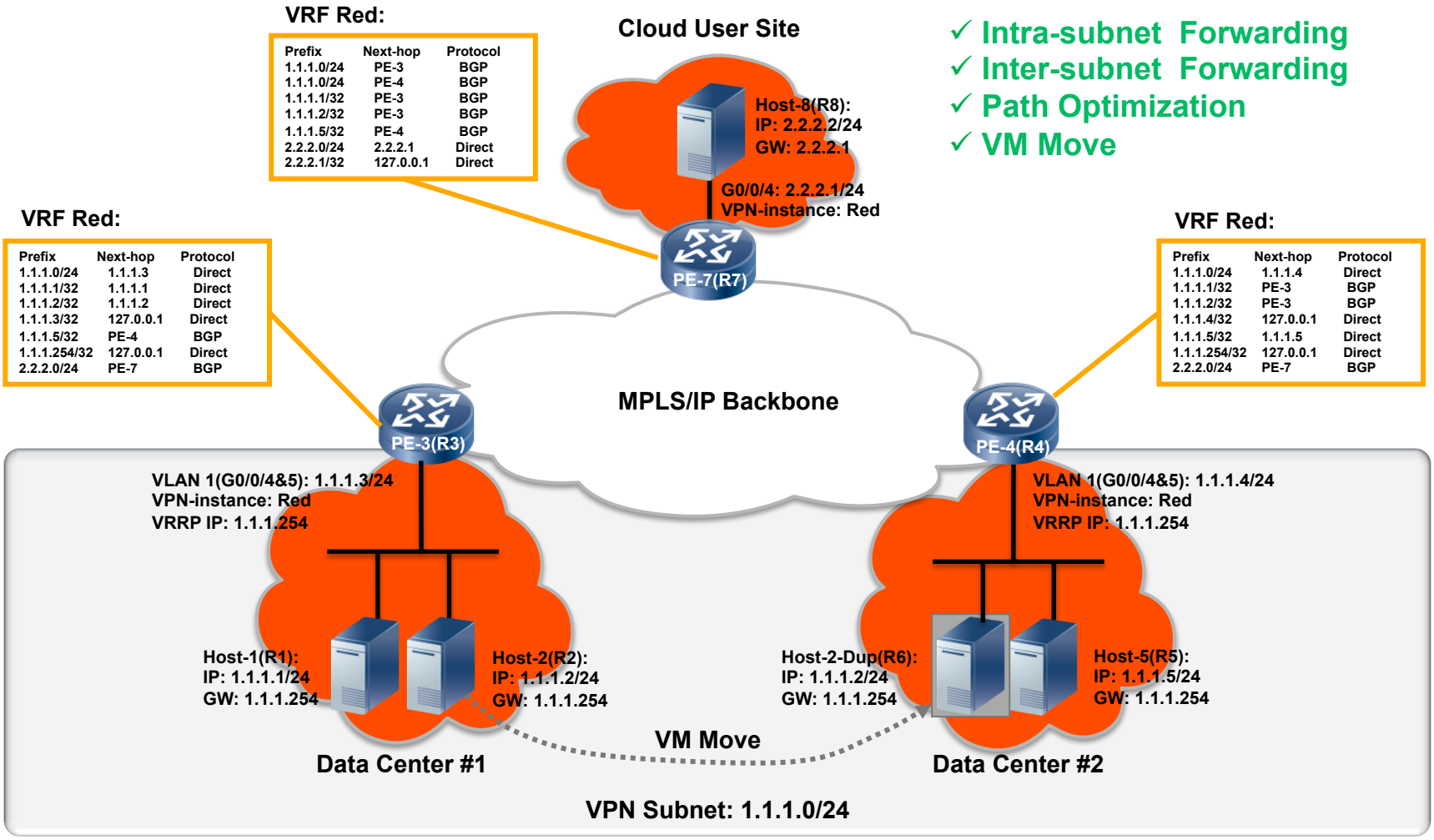


- **Virtual Subnet is a L3VPN-based subnet extension solution for data center interconnection in which:**
  - CE hosts (e.g., VMs) of a given VPN subnet are dispersed across multiple data centers.
  - Host routes for local CE hosts are created dynamically on each PE router and then propagated to remote PE routers via L3VPN signaling.
  - Intra-subnet customer traffic across data centers is forwarded by PE routers according to L3VPN forwarding procedures.

Major Changes from -09 Version

- The current version is based on an pre-assumption that the attachment and detachment of local CE hosts (e.g.,., VMs) have been discovered timely and accurately by PE routers by some means which are outsides the scope of this document, thus:
  - Delete the text about how to deal with ARP requests for unknown target hosts in section 3.4 of “ARP/ND Proxy”.
  - Delete the text about how to detect the VM detachment in section 3.5 of “CE Host Mobility”
- Delete the text about the longest-matching algorithm for ARP/ND cache lookup in Section 3.7. of ARP/ND Cache Table Scalability on Default Gateways.

Virtual Subnet Demo at Bits-N-Bites



Next Steps

- **WG adoption of this draft as an informational draft?**
  - **This document demonstrates how to reuse the proven L3VPN technology to realize data center interconnect with concrete experiments and verifications, which would be helpful for those operators who are considering the deployment of L3VPN technology within or across their data centers.**