Gateway-Initiated 4over6 Deployment

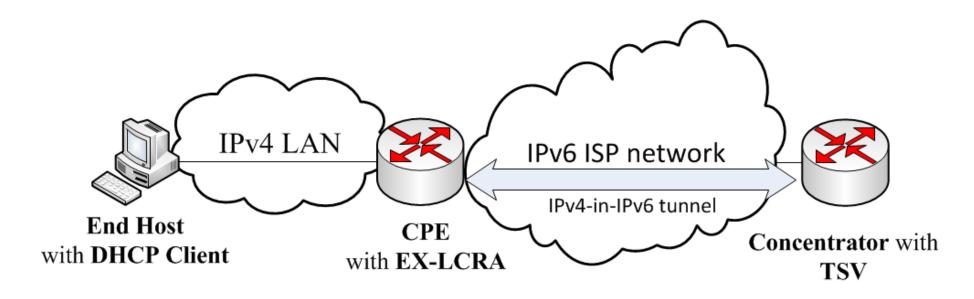
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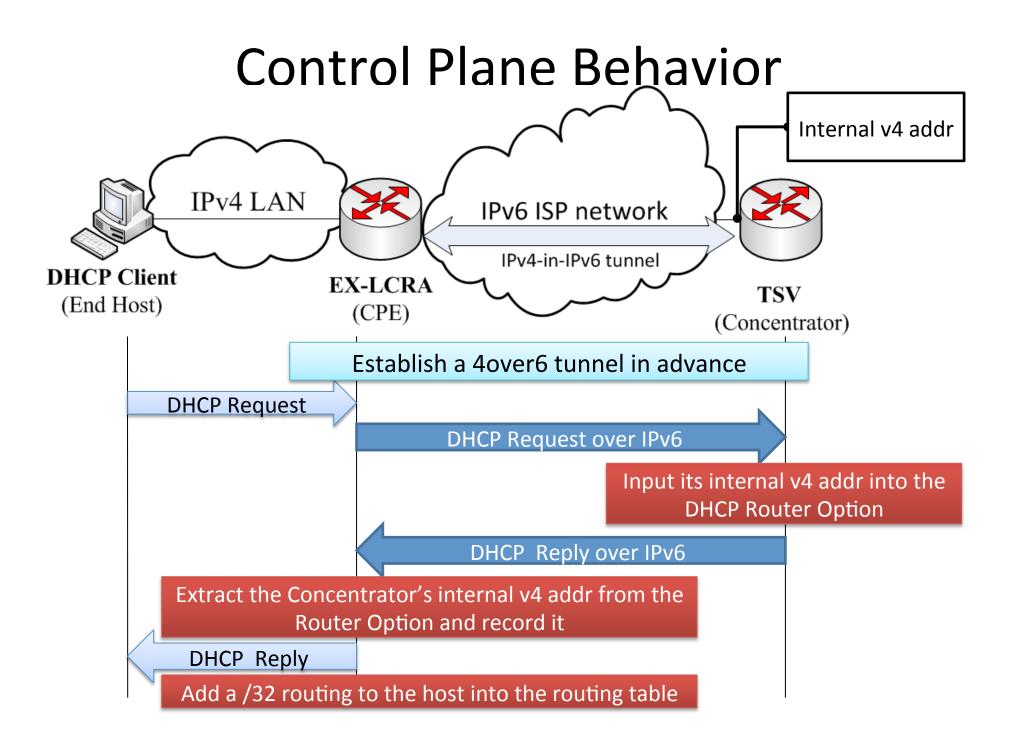
Motivation

- Host behind the CPE may want to perform server function in Public/Lightweight 4over6 scenario
- Provision public IPv4 addresses to hosts behind 4over6 CPEs
- Carry out no modifications on DHCP clients of the hosts

GI-4over6 Architecture



- Major Extensions to the Original Public 4over6 Arch.
 - Extend the original function of LCRA (EX-LCRA)
 - Extend the original function of 4over6 CE (4over6 Gateway)



Data Plane Behavior IPv4 LAN IPv6 ISP network IPv4-in-IPv6 tunnel **DHCP Client EX-LCRA TSV** (End Host) (CPE) (Concentrator) Ask for the MAC addr of the **ARP Request** Concentrator's v4 addr Check the ARP Request. If it's asking for the MAC addr of the Concentrator's v4 addr Answer the request with **ARP Reply** CPE's own v4 Addr Encaps. Encaps. IPv4 Packet IPv4-in-IPv6 Packet **IPv4** Packet

Ask for comments

Your comments are welcome

Backup

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Relative Consideration

- There should be some ways to configure 4over6 Gateway by remote DHCP servers or local user
 - 4over6 GW get configuration information from the server through DHCP communication
 - By default 4over6 GW allocates private IP to hosts (as original 4over6 CPE do), then it could be configured in a web-based way to act as described above