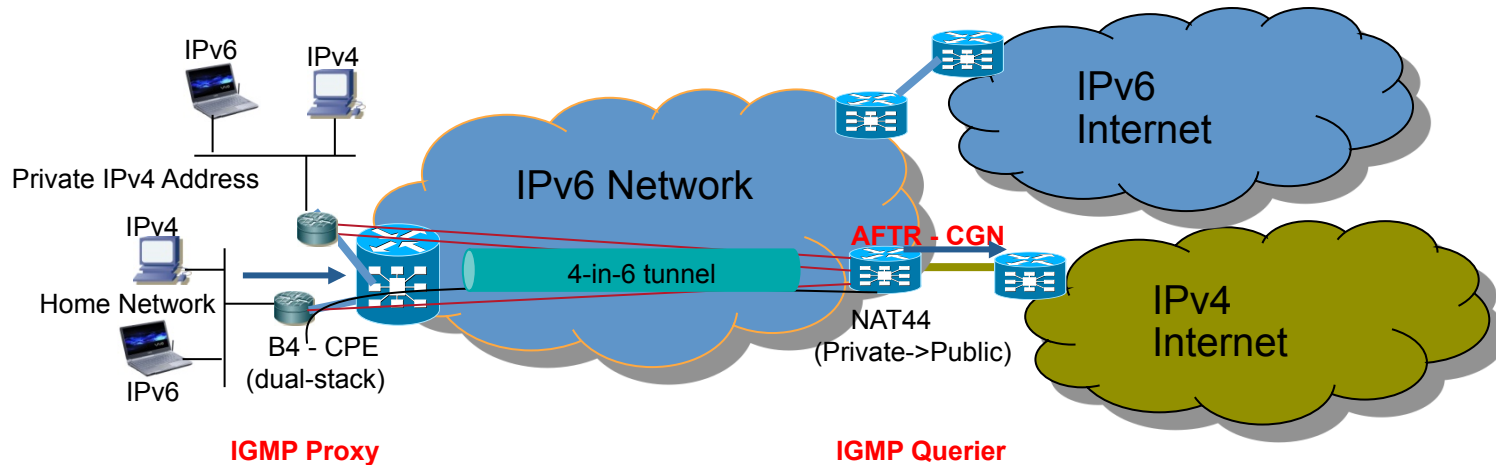


Multicast Support for Dual Stack Lite

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draft-sarikaya-softwire-dslitemulticast-00.txt

DS-Lite Multicast



- DS-Lite B4 MUST support IGMP Proxy
- DS-Lite AFTR MUST support IGMP Querier
- ASM/SSM transparently supported
- For SSM, IGMPv3 must be supported

DS-Lite Multicast Operation

- B4 establishes a tunnel interface with AFTR
- IGMP messages and v4 multicast data are carried in v4 in v6 tunnel between B4 and AFTR
- B4 sends aggregated IGMP report messages to AFTR
- B4 receives v4 multicast data, decapsulates it and then delivers it to the hosts
- Due to the shared link no duplication is needed
- AFTR acts as the default multicast querier for all B4s
- AFTR receives v4 multicast data, first replicates and then forwards in IPv4-in-IPv6 tunnel to B4s
- PROS: Encapsulation based no translation
- PROS: Does not require native multicast in access

Layer 2 Support

- Assumption: DS-Lite network supports IPv4 multicast in Layer 2
- Switches maintain a list of multicast routers and the ports using multicast router discovery protocol (RFC 4286)
- IGMP join/leave messages add/remove filter entries
- Multicast data packets are forwarded downstream based on the filter entries
- IPv4 snooping switches IPv6 protocol field values in IPv4-in-IPv6 tunnel

Next Steps

- **WG draft?**