Multicast Transition to IPv6 Only in Broadband Deployments

draft-tsou-v6ops-multicast-transition-v6only

Tina Tsou <tena@huawei.com>
Tom Taylor <tom111.taylor@bell.net>

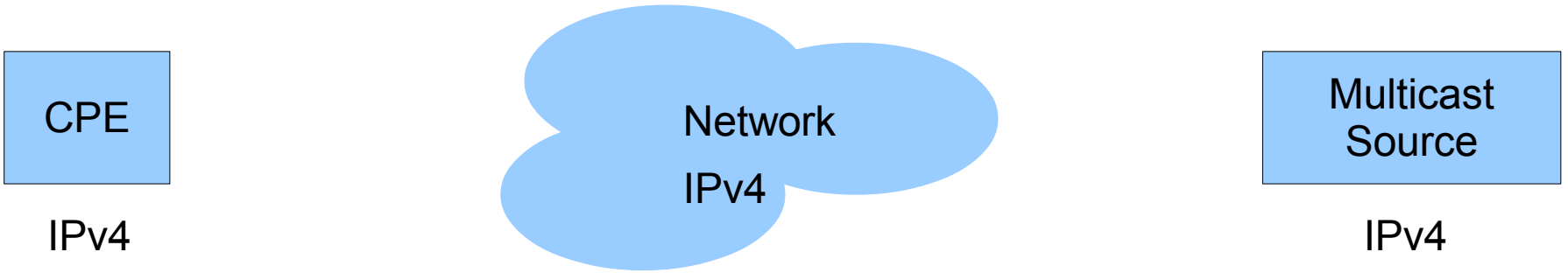
Intentions For The Draft

- Build draft out to meet the requirements specified by draft-ietf-v6ops-v4v6tran-framework
- Obtain comments from this meeting that will help the process along

Assumptions

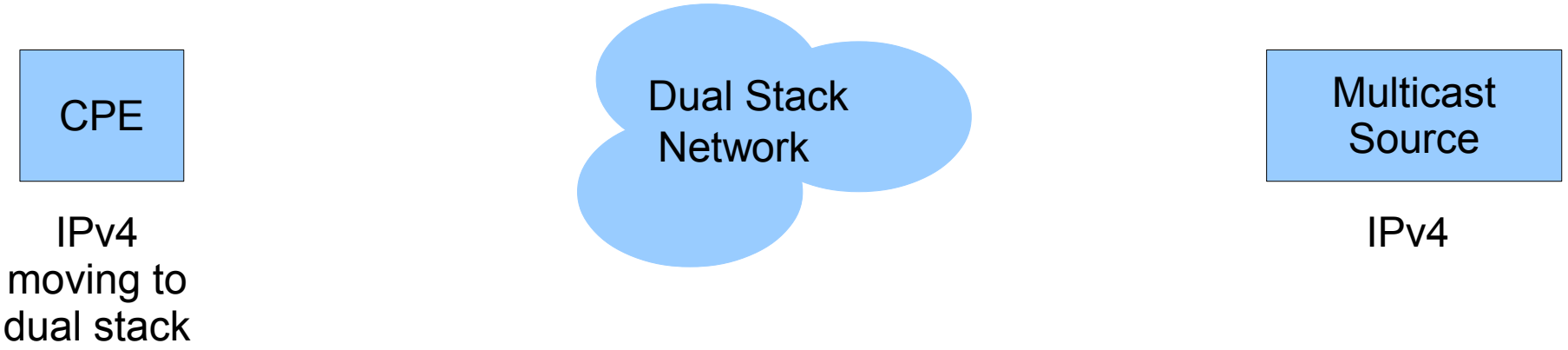
- IPTV scenario with provider control of technology from source to CPE
  - “source” = Designated Router
- Need to amortize investment in IPv4 equipment
- No shortage of IPv4 multicast addresses

Stage 0: End-to-End IPv4



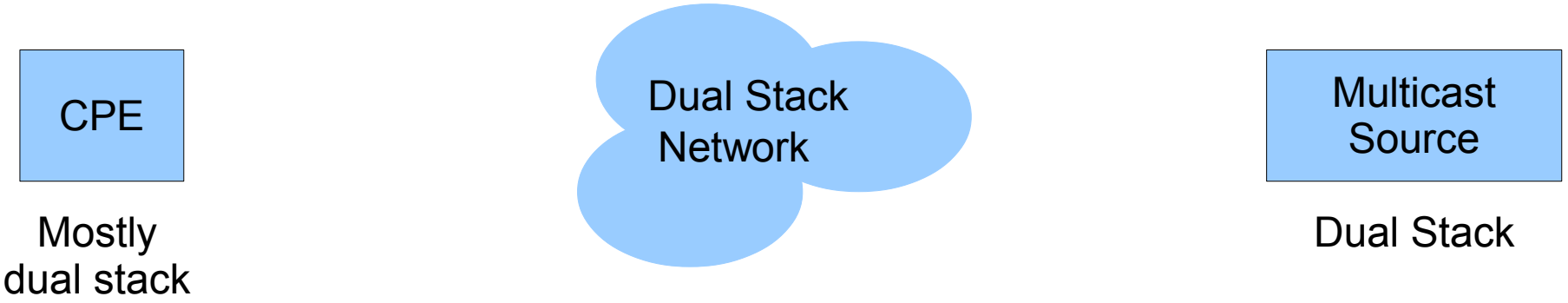
- Early IPv6 unicast solution is 6rd

Stage 1: Upgrade Network, Gradually Replace CPE



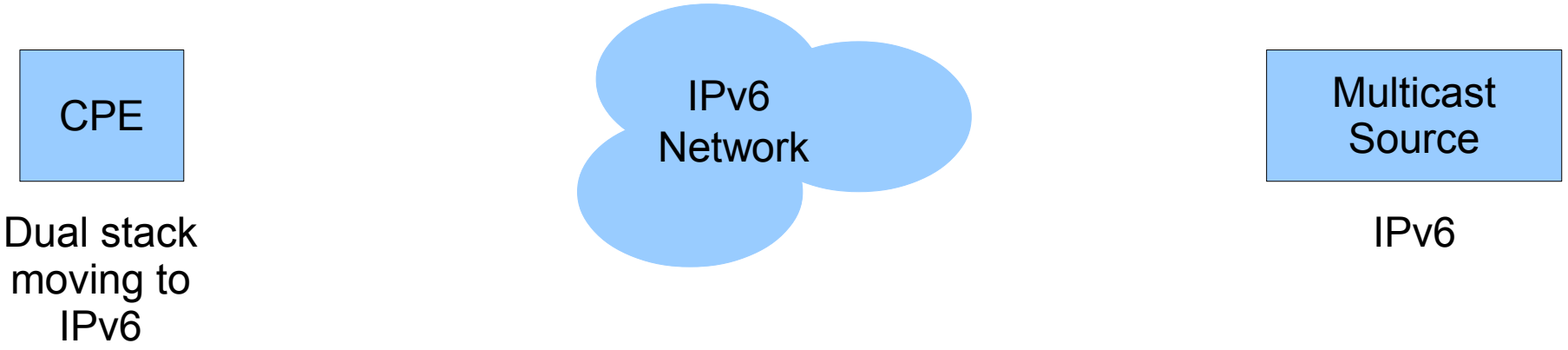
- IPv6 unicast solution is native dual stack
- IPv4 unicast solution is native dual stack, DS Lite, or GI DS Lite
- Set-top boxes (CPE) gradually replaced by dual stack devices running IPv4

Stage 1.5: Upgrade Source, IPv6 Multicast For Testing Only



- IPv6 unicast solution is native dual stack
- IPv4 unicast solution is native dual stack, DS Lite, or GI DS Lite
- Set-top boxes (CPE) almost all replaced by dual stack devices running IPv4

Stage 2: Turn Off IPv4



- IPv6 unicast solution is native IPv6
- IPv4 unicast service terminated
- Set-top boxes (CPE) are mostly dual stack devices running IPv6, gradually being replaced by pure IPv6 devices