ALTO IPv4/IPv6 Co-existence and Transition

draft-penno-alto-ipv4v6-00
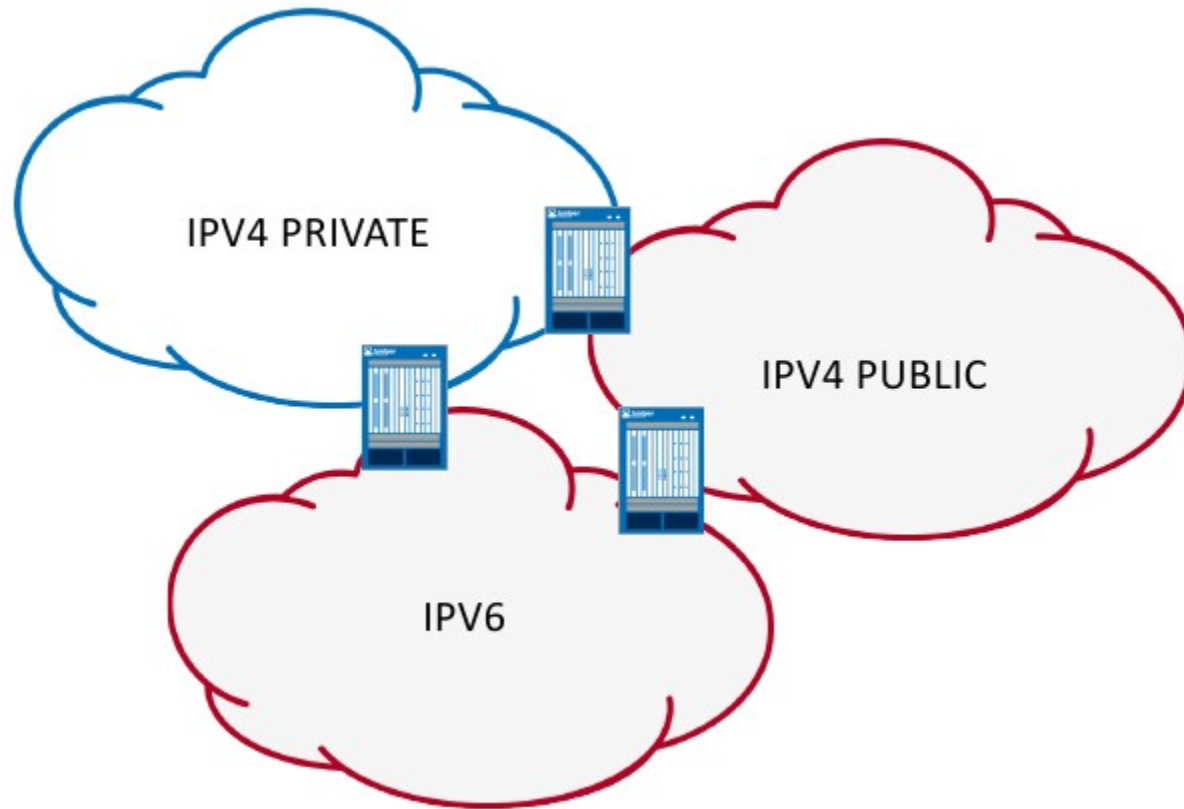
Reinaldo Penno, rpenno@juniper.net
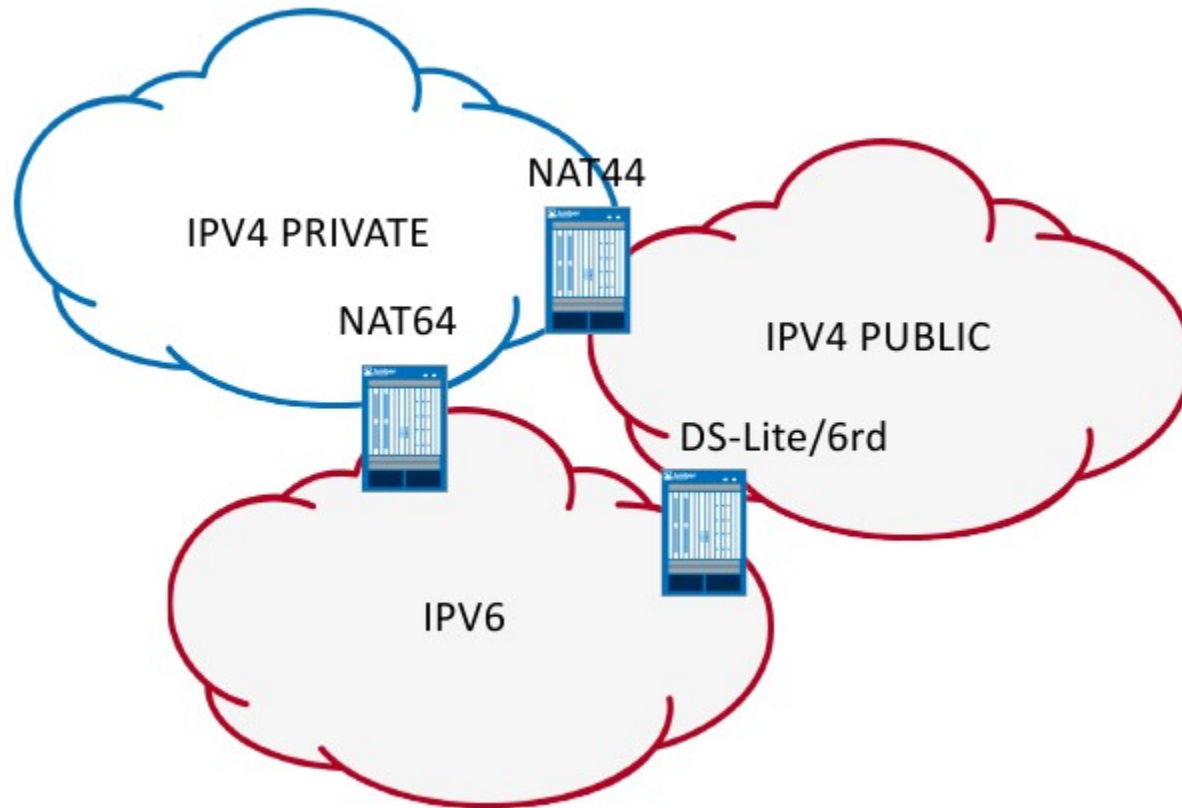Jan Medved, jmedved@juniper.net

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The Problem

- We are running out of IPv4

- Today there are already three address families on the Internet: IPv6, IPv4-Private, and IPv4-Public

- Most co-existence tools involve some kind of NAT
  - NAT moves into the network

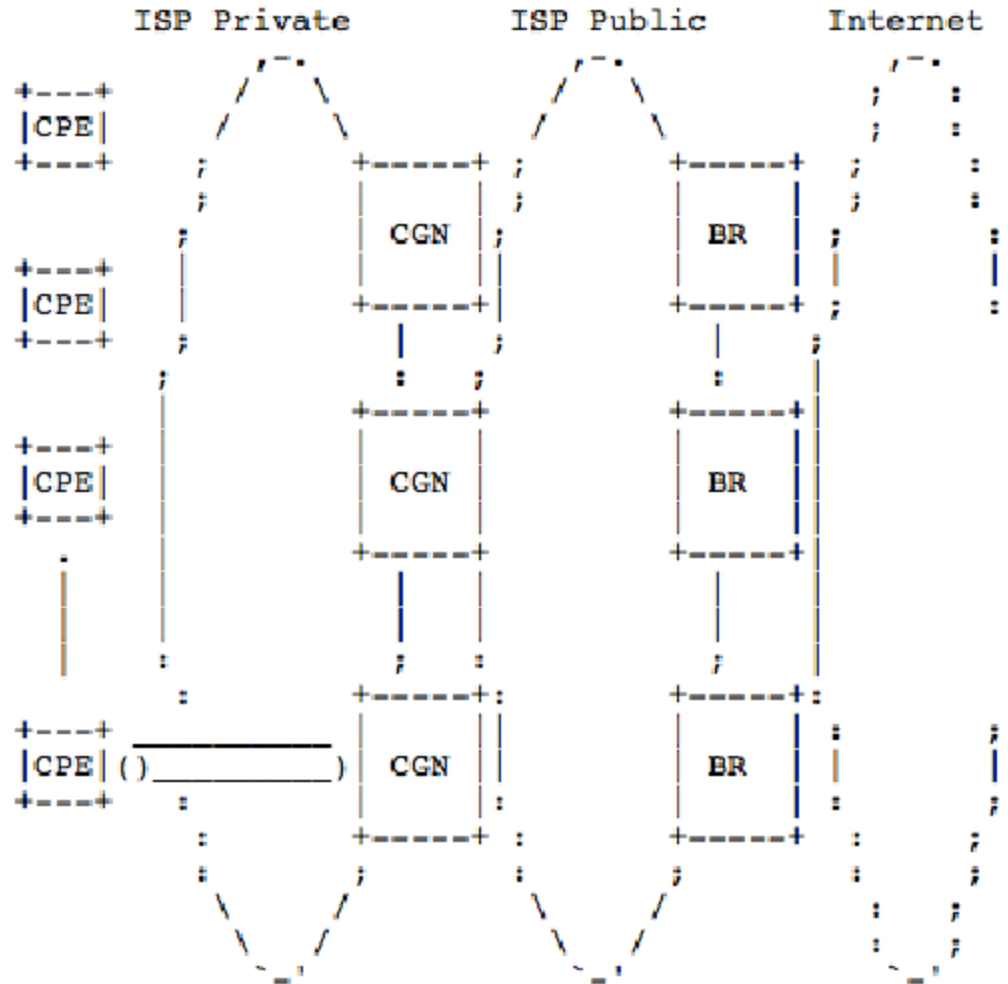- Other techniques involve creating an overlay

Multiple Address Families

Different Transition Techniques

Reference Architecture

Discussion Points

- Placement of ALTO Server
  - ALTO Server in ISP's Public network
  - ALTO Server in ISP's Private network
  - Overlays

- Network map
- Cost Map
  - Hairpinning, internal vs. Public
- Endpoint Property/Cost

- Map redistribution