IPv6-only Terminology Definition

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Problem and Goal

• Folks getting confused about “IPv6-only”
• Clarify what we mean “IPv6-only”, so we are all in-sync

• How:
  – Stating that IPv4 is NOT being forwarded “natively”
  – State the “scope”, a specific network “part”
Example: IPv6-only network?

IPv6-only network

Cellular network

Corporate network

IPv6-only

PLAT DNS64/NAT64

464XLAT

IPv6-only

464XLAT Residential network

IPv6-only

IPv6-only

IPv6-only
Example, in detail

IPv6-only WAN

Cellular network

IPv6-only distribution

IPv6-only WAN

Transitional IPv6 router

Corporate network

IPv6-only LAN

Native Dual-Stack Transit/Peering

Dual-Stack Core

464XLAT Residential network

464XLAT
Overall Definition

• “IPv6-only” used exclusively in a given part(s) of a network, depending on if there is actual native forwarding of IPv4, so IPv4 is not configured, neither managed

• In other words:
  “where is IPv6 native”
Terms Defined

• Dual-stack
• Native dual-stack
• IPv6-only network
• IPv6-only WAN/access
• IPv6-only LAN
• IPv6-only host/router
• Transitional IPv6 host/router
IPv4-only?

- I believe is easy to subsume those definitions, as well as many others

- Does it make sense?
Next steps

• Questions?

• Become a WG item?

• Inputs?