464 Customer-side Translator (CLAT) Node Recommendations

https://datatracker.ietf.org/doc/draft-ietf-v6ops-claton/
https://github.com/furry13/v6ops-464xlat-enable

Jen Linkova (Google)
Tommy Jensen (Microsoft)
Since IETF 119

Terminology

• “Native IPv4” = “IPv4 connectivity or default gateway provided by the network without using any form of IPv4-as-a-service or translation mechanisms (such as 464XLAT).”

• Replaced “session” with use of “the same IPv4 5-tuple”

(many other edits to make networking terminology clearer)
Since IETF 119

Changed the SHOULD NOT use CLAT when IPv4 is available requirement to be MUST NOT

• This combats attacks when the network is IPv6 unaware, but an attacker advertises a PLAT anyway

Escape hatch: “unless otherwise explicitly configured” by an admin (this MUST NOT be default behavior)
Since IETF 119

IPv4 availability is any address from DHCP or a non-link-local address through manual or automated fallback config

Clarified ipv4only.arpa. queries are to be sent to the network’s advertised DNS server specifically
Open PRs / issues

CLAT pronunciation: draft needs to settle this question

Hallway survey says...
• 70% [silat] / [silQt]
• 30% [klat] / [klQt]
• 1 respondent: who cares?

Phonetic transcription [] uses X-SAMPA
https://www.phon.ucl.ac.uk/home/sampa/ipasam-x.pdf
Open PRs / issues

PR#28 – Use IPv4 default route for deciding IPv4 connectivity (instead of address type, “non-link-local”)

Issue #29 – Offer a MAY for implementors who may not want to ensure their address is checksum neutral

Issue #25 – be consistent about PLAT versus NAT64
Open topics that needed new drafts

Issue #18 – Update RFC 7050’s current requirements for declaring communication with a DNS64 server as secure
• https://datatracker.ietf.org/doc/draft-jens-7050-secure-channel/

Issue #13 – We need to do something about tracert going dark on the IPv4 path when 464XLAT has encapsulated the packets
Now what?

• Thank you everyone for your pre-adoption feedback!
• Thoughts on the open topics?
• Any other feedback?