DNS Configuration for Proxying IP in HTTP

`draft-ietf-masque-connect-ip-dns-05`

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IETF124, November 2025, Montreal

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Quick recap…

- This is NOT a new way to transport DNS or perform NAT64
- This is about signaling DNS resolver **and PREF64** configuration over capsules to get on par with traditional VPNs

Changes from -04

- Added new PREF64 Capsule
- Similar to PREF64 from RFC8781 (Discovering PREF64 in RA)
- No lifetimes since sender can always send fresh Capsule reliably
- Multiple PREF64 prefixes MAY be included
- No PREF64 prefixes MAY be included (invalidate previous PREF64 configuration)

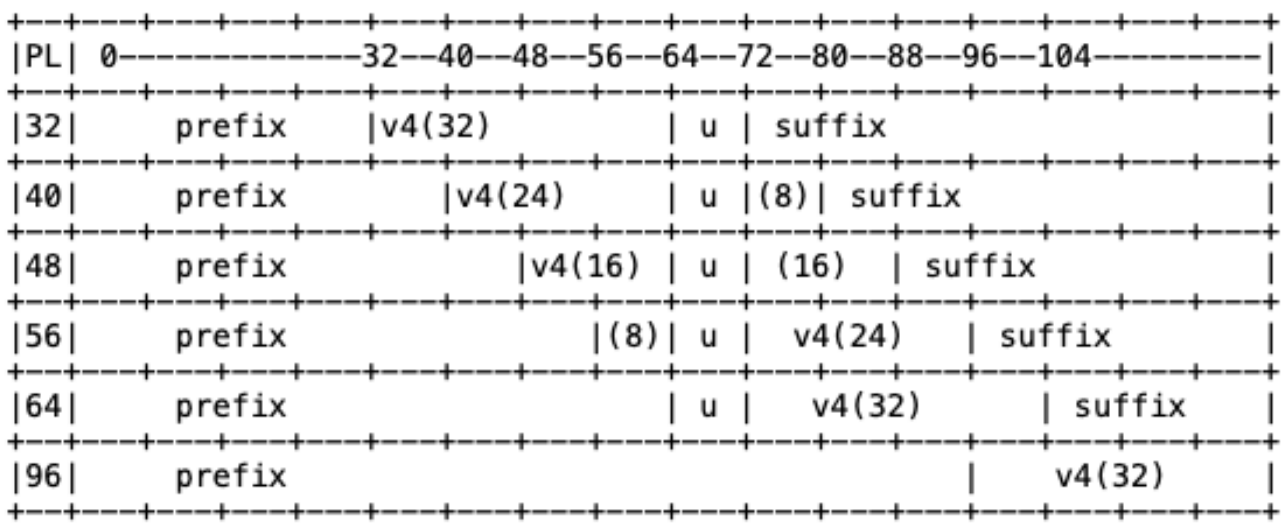
PREF64 Capsule

Unlike RA encoding we have the luxury of a whole byte instead of 3 bits

```
PREF64 Capsule {
  Type (i) = PREF64,
  Length (i),
  NAT64 Prefix (104) ...,
}
```

```
NAT64 Prefix {
  Prefix Length (8),
  Prefix (96)
}
```

Always 96 bits long. “Prefix length” determines where to insert IPv4 address as explained in section 2.2 of RFC6052



As far as we know nobody actually uses non-zero suffix but some people do use Prefix Length other than 96 bits

Next steps

- WGLC?