DNS Extensions for Proxying IP in HTTP

draft-schinazi-masque-connect-ip-dns

IETF 119 – Brisbane – 2024-03-19

David Schinazi – dschinazi.ietf@gmail.com
Most VPN protocols allow exchanging DNS info

IKEv2 has INTERNAL_IP4_DNS / INTERNAL_IP6_DNS

OpenVPN can also send DNS in-band
CONNECT-IP Capsules

ADDRESS_ASSIGN / ADDRESS_REQUEST

ROUTE_ADVERTISEMENT

Intentionally punted DNS from RFC 9484 to a future extension
Having to exchange DNS out of band makes us sad
Solution: put DNS in a capsule
Rough idea: DNS_ASSIGNED / DNS_REQUEST

Each DNS name server has an IP address and a list of internal domains

Also exchange DNS search domains

Also carries request IDs similar to ADDRESS_ASSIGNED / ADDRESS_REQUEST

Inspired by IKEv2 (RFC 7296 & RFC 8598)
Is this interesting / reasonable?