MASQUE IP Proxying Requirements

Use Cases & Requirements

draft-ietf-masque-ip-proxy-reqs

Let's agree on what "MASQUE IP Proxying" means

- Two approaches to IP Proxying have been discussed:
  - (1) Current Approach: we proxy IP **packets** (including the header)
  - (2) Alternative Proposal (Issue 26): we proxy IP **payloads** (with metadata via side channels)
- Going back to the use cases we've been discussing
  - Some simple use-cases can be implemented with either
  - VPN is simpler with (1) (both traditional and site-to-site), without adding state-tracking and round-trips for each new target-server address
- (2) can easily be implemented with extensions to (1)
- (1) can be implemented simply by forwarding unmodified IP packets
- **Proposal**: go with (1) and ensure we have all extension knobs necessary to enable "IP payload" use-cases

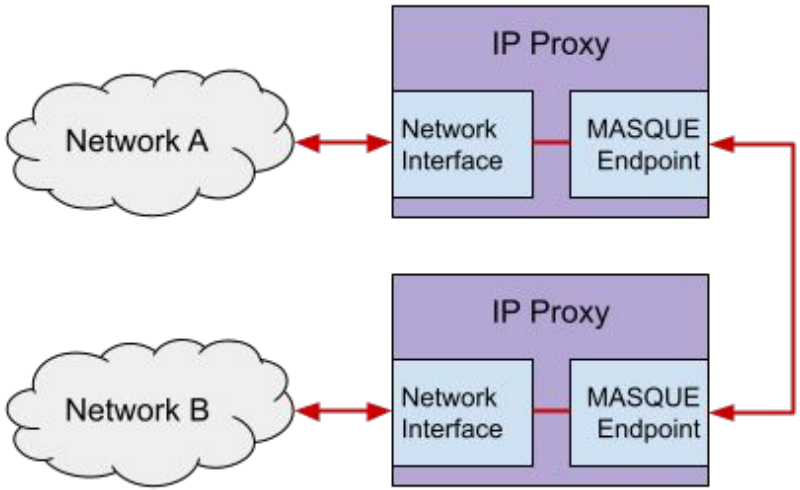
Let's agree on what IP assignment/addressing means

- "MASQUE IP Proxying" will provide two important building blocks:
  - "data plane": carrying IP packets (IPsec, WireGuard, etc.)
  - "control plane": IP assignment (IKEv2 Traffic Selectors, DHCP, etc.)
- DHCP does not mandate which IP subnet you use (e.g. 10.0.0.0/8), it just provides a way for an address to be assigned – that seems best here
- **Proposal**:
  - **In scope**: requirement to communicate IP addresses and IP routing information required for successful operation across varied endpoint network architectures
  - **Out of scope**: requirements on endpoint network architecture

Open Issues

Issue #12 IP Assignment non-requirement is unclear

- Current requirements doc contains the text "does not discuss how the IPs assigned are determined, managed, or translated."
- Editors will clarify this text based on the discussion today (incorporate in-scope, out-of-scope language)



Issue #24 HTTP/2 fallback

- Current requirements only say protocol SHOULD support H2 as a fallback.
- There are still many networks that block UDP
- **Proposal**: The protocol MUST support operation over HTTP/2.
  (Note that we're not requiring all implementations to support it)

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