

FYI

Communicating Proxy Configurations in Provisioning Domains

draft-ietf-**intarea**-proxy-config-pvd-01

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Motivation

Discover "modern" proxy types (connect-udp, connect-ip, connect-tcp, etc)

Work with existing, simple proxy configuration mechanisms (typing a name into a UI field)

Don't rely on PAC files, WPAD

...

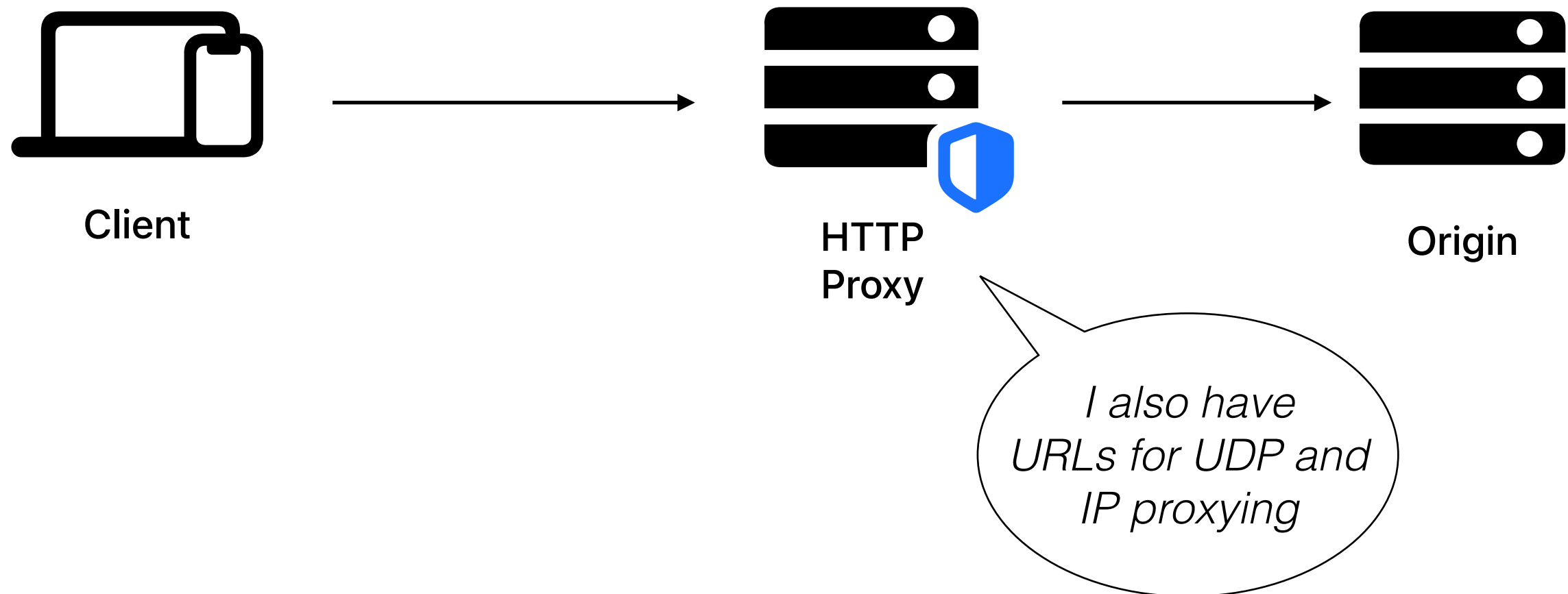
Protocol Overview

Use the PvD (Provisioning Domain) JSON format from RFC 8801 to add support for proxies:

- Ask a known proxy about other proxy protocols it supports — upgrade to secure MASQUE protocols, etc.
- Ask a known proxy about the configuration it has (which domains are allowed, etc)
- Learn about proxies offered by a network PvD

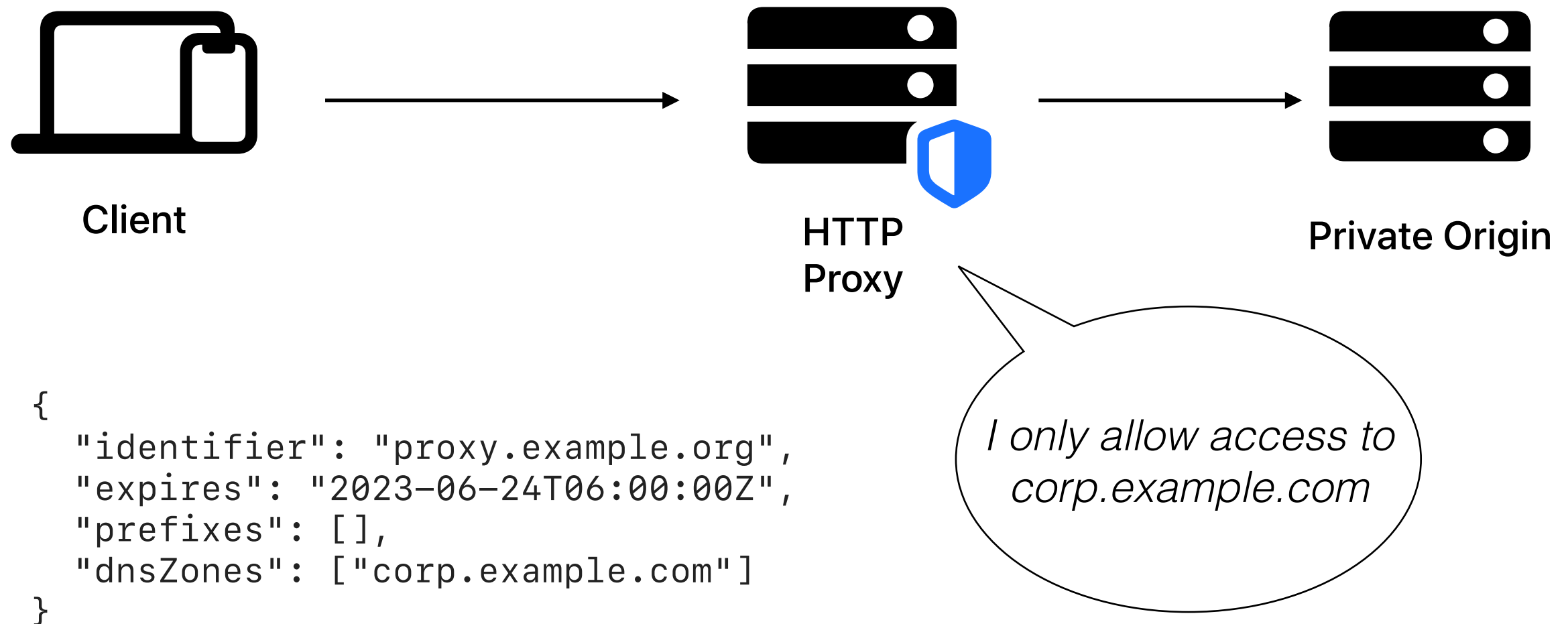
Related proxy discovery

Allows "upgrade" from legacy proxy types to template-based proxies (CONNECT-UDP, etc)



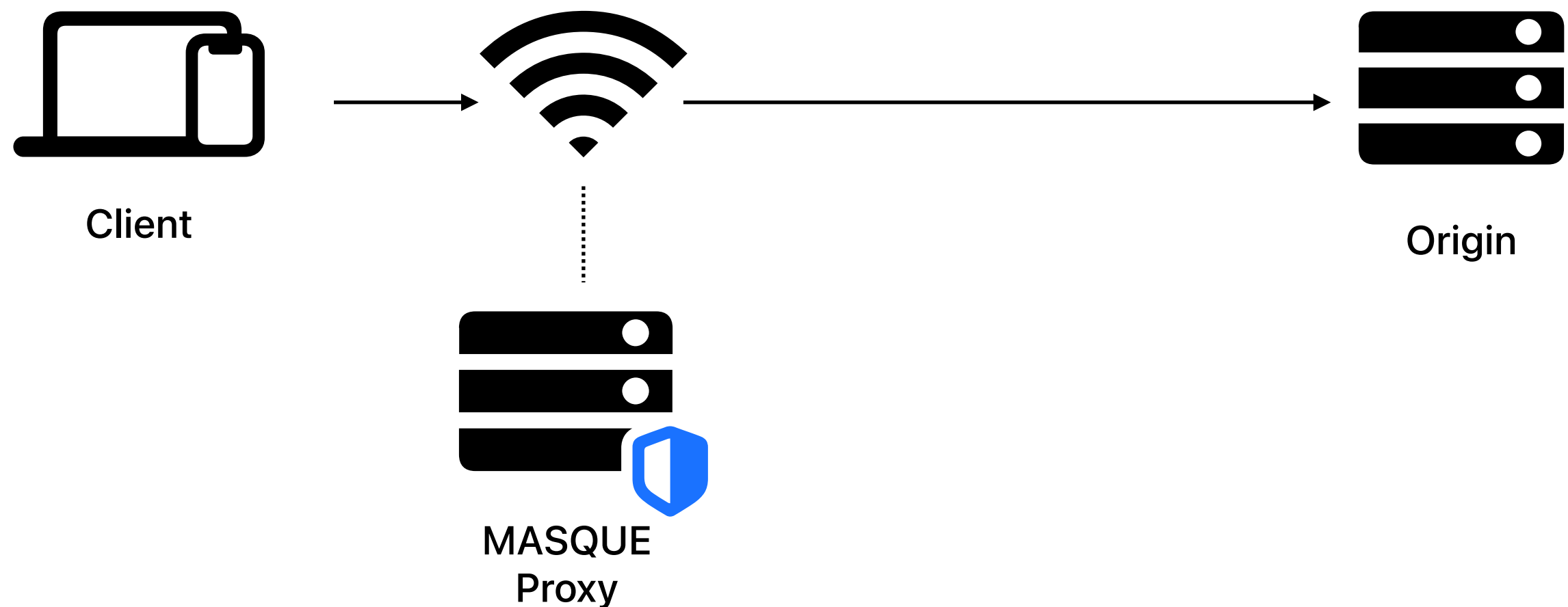
Proxy applicability discovery (split DNS, etc)

A proxy only allows access to certain hosts, or from certain users (not an "open" proxy)



Network-provided proxy discovery

Network (ISP, carrier) provides a proxy that can assist in mobility (AT-SSS) or privacy (act as a first-hop Private Relay proxy)



Example

Given a known proxy name `proxy.example.org`, the client will request:

```
:method = GET
:scheme = https
:authority = proxy.example.org
:path = /.well-known/pvd
accept = application/pvd+json
```

Example

```
:status = 200
content-type = application/pvd+json
content-length = xxx

{
  "identifier": "proxy.example.org.",
  "expires": "2023-06-23T06:00:00Z",
  "prefixes": [],
  "proxies": [
    {
      "protocol": "http-connect",
      "proxy": "proxy.example.org:80"
    },
    {
      "protocol": "connect-udp",
      "proxy": "https://proxy.example.org/masque{?
target_host,target_port}"
    }
  ]
}
```


Recent and open issues

- Adding ALPN hints
- Split DNS configs

- Authentication hints?