HTTP Proxy-Status Parameter for Next-Hop Aliases

draft-ietf-httpbis-alias-proxy-status

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HTTPBIS

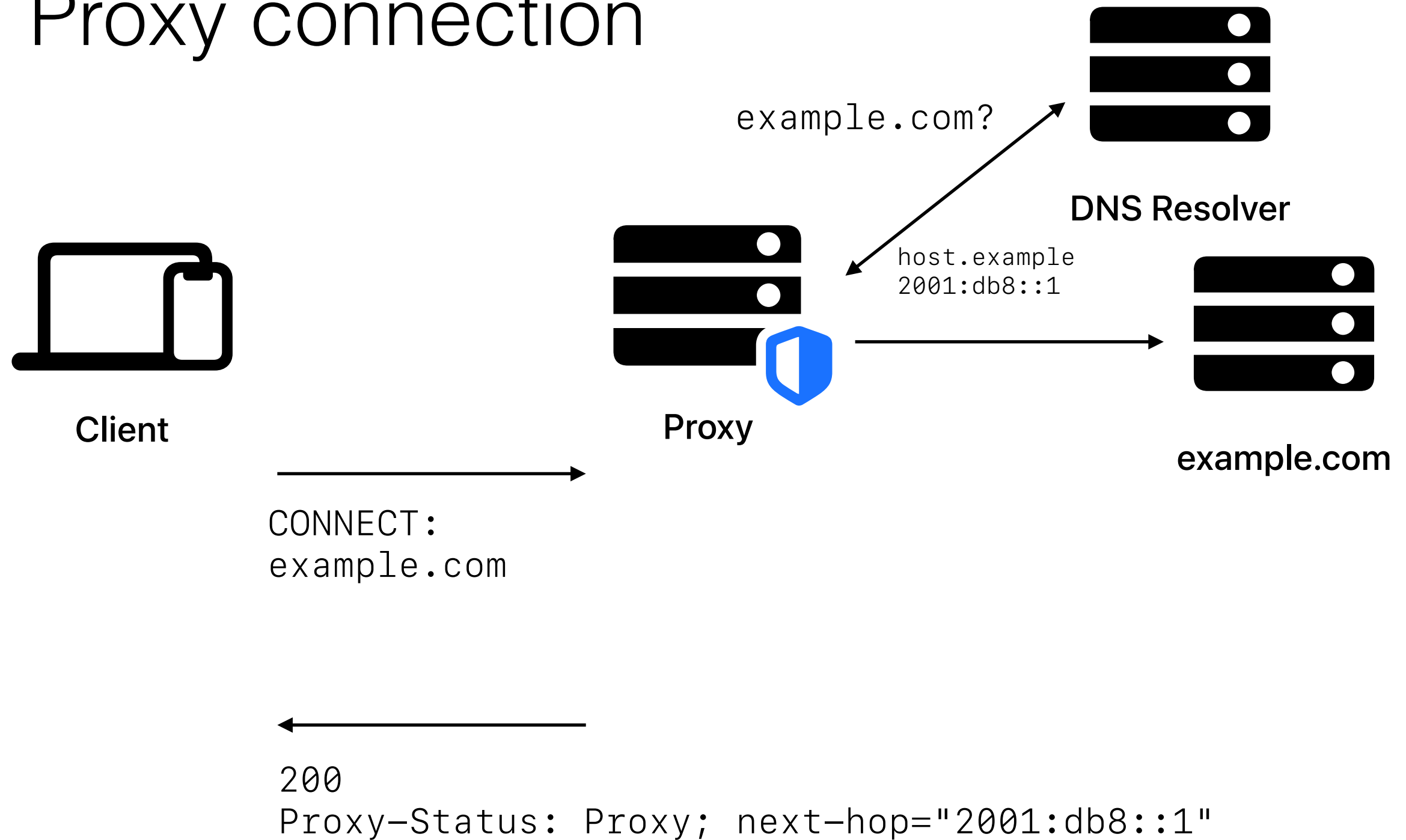IETF 113, March 2023, Yokohama

Why next hop aliases?

Proxy status already communicates next hop info

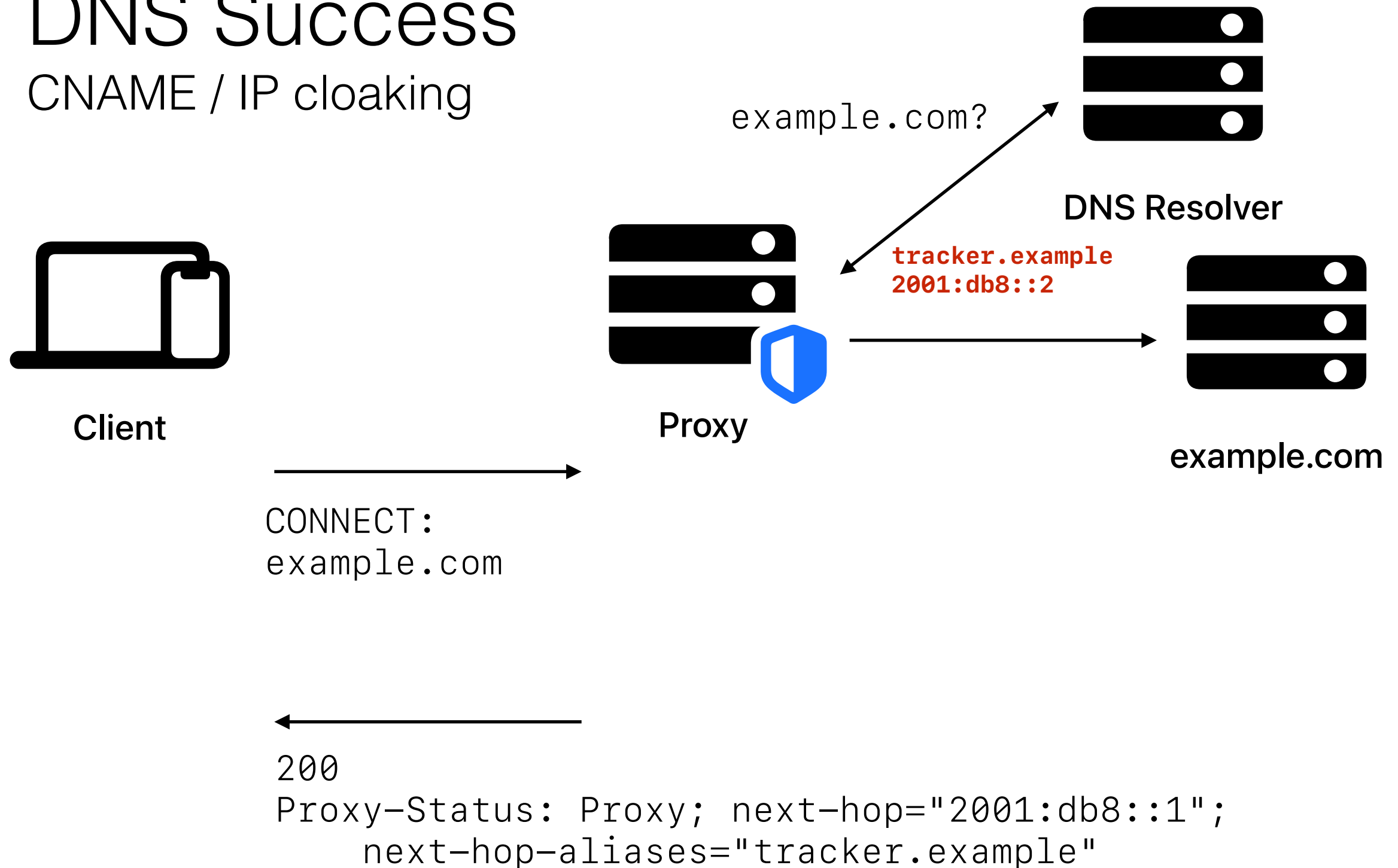Currently, just a single item (name, alias, or IP address)

Detecting when a proxy connection has resolved to a known tracker, etc, via CNAME cloaking is useful for clients

Proxy connection

example.com?

DNS Resolver

host.example
2001:db8::1

Proxy

Client

example.com

CONNECT:
example.com

200
Proxy-Status: Proxy; next-hop="2001:db8::1"

DNS Success
CNAME / IP cloaking

example.com?

DNS Resolver

`tracker.example`
`2001:db8::2`

Proxy

example.com

Client

```
CONNECT:
example.com
```

```
200
Proxy-Status: Proxy; next-hop="2001:db8::1";
       next-hop-aliases="tracker.example"
```

Parameter definition

next-hop-aliases

Structured field string

Comma-separated list of alias and canonical names from CNAME records

Percent-encoding escaping (for rare cases)

May contain the empty string to indicate no CNAME records

Open (editorial) issues

#2476 Add reference to structured fields

#2358 Refer to AI_CANONNAME

AI_CANONNAME *does not* give you the results needed for the full chain, so this is more of a cautionary reference

Next steps

Any other changes?

WGLC after next revision?