Resource Directory Extensions

draft-amsuess-core-resource-directory-extensions-05
(and draft-amsuess-core-transport-indication-00)

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2021-03-12
Inside resource-directory-extensions

Exercising RD extension points

Reverse Proxy  “Please give me a public address”
Infinite Lifetime  to allow CTs to never come back
Zone identifier introspection  to peek beyond the split horizon
Multicast aggregation  Proxy poses as lookup interface, doing multicast discovery on demand
Opportunistic RD  including soft hand-over
Reverse Proxy

simplistic TURN for CoAP

Discoverable version of existing practice (LwM2M)

POST /rd?ep=timeserver leading to lookup
<coap://[2a02:b18:c13b:8010:8628:563f:7c92:13bc]/t>

POST /rd?ep=timeserver&proxy=on
<coap://timeserver.proxy.rd.coap.example.com/t>

Valuable in IETF110 without VPN
Wild URI aliasing

- Being a forward proxy
  - Discovery?
Proxy discovery in transport-indication-00

- Declare that there is a proxy

  ```
  </res>,<coap+tcp://h1.example.com>;
  rel=has-proxy;anchor="/"
  ```

  "CoAP-over-TCP on h1.example.com is a usable proxy for all resources hosted on /"

- No URI aliasing in the application (only on the wire if has-unique-proxy is set; then Uri-Host / Proxy-Scheme can be elided)
Next steps

- Talk about it
- Tune relationship semantics and directions to be practical
- Adjust and try out next-gen RD proxying that uses it