

# The Increasingly Poorly Named Advertising Proxy Document

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# Motivating Use Cases

## Stub networks

- One network is non-legacy, one network is legacy
- Legacy hosts have different needs than non-legacy
- Can't assume cooperation from infrastructure

## Replacing mDNS with DNS

- May require cooperation from infrastructure
- Advertising proxy is now just for serving legacy clients/networks

# Three modes

1. Green-field network (e.g. stub network)
  - We control the resolver, so can do everything with DNS
  - No need for advertising proxy because no legacy hosts
  - Discovery proxy required for services on adjacent infrastructure
2. Non-cooperating infrastructure
  - We don't control the resolver, so no DNS
  - Must use advertising proxy to advertise SRP registrations
3. Cooperating infrastructure
  - Provides resolver
  - Provides SRP
  - Advertising proxy only required for legacy clients
  - Discovery proxy required for legacy services

# What we need

## An SRP Registrar

- Accepts SRP registrations
- Updates one or more DNS zones based on registrations

## An advertising proxy

- Publishes DNS zone(s) updated through SRP using mDNS

## A full-service DNS resolver

- Looks up names that are non-local using DNS
- Provides Discovery Proxy to support cross-link mDNS
- Authoritative for SRP zone(s)

# Current Document State

Latest advertising proxy documents:

- advertising proxy function
- full-service resolver function
- discovery proxy function
- authoritative server function

These are all just grouped under the name “advertising proxy,” which maybe isn’t the right name

# Esko: interaction between discovery proxy and “DNS server”

Esko asks:

- RFC 8766: discovery proxy *only* does authoritative service for the DNS zone(s) it proxies
- Can we do a discovery query in a specific zone and get answers from Discovery Proxy *and* SRP?
- How long do we wait for non-Push queries

Current document I think says:

- Do discovery proxy for specific zones
- SRP zones are different zones
- Client has to figure this out

Thread spec says:

- A query in default.service.arpa gets answers from multiple zones

# Discovery Broker

draft-sctl-discovery-broker-00 (expired 1/3/2018)

Query for one zone -> answers from multiple zones

Less work for the client

Doesn't really talk about mixing Discovery Proxy and  
Authoritative answers

Could revive this and update it

Could steal the name and fold it into the advertising proxy  
document

# Naming of “default” zone

Thread currently uses default.service.arpa to mean “query all known local discovery zones.”

This is wanted because constrained clients probably shouldn't have to query multiple legacy browsing domains

Is this the right name to use for the legacy browsing domain set?

What other special names do we need?

- Name(s) for SRP dataset(s)?
- Name for “this link”?



# Suppression of link-local addresses

Esko: RFC6762 says don't suppress the link-local address

RFC6762 is the mDNS RFC

- mDNS is single-link
- link-local is always valid in this case
- not suppressing it is correct behavior

Advertising Proxy is a different use case

- Explicitly for cross-link discovery
- link-local is often not valid
- suppressing it makes sense
- possibility for nuance?

# Working group should discuss

Uses of reserved domain names, e.g.:

- default.service.arpa
- SRP dataset naming
- “this link” naming
- do we prefer to unify namespaces?

Suppression of link-local addresses

Discovery Broker and Advertising Proxy documents

- Is Advertising Proxy turning into Discovery Broker
- Is there a Discovery Broker that is not an Advertising Proxy?