

Homenet vs. mDNS hybrid

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mDNS/DNSSD hybrid overview

Information collection is triggered by DNS queries

Answers are done over DNS

Network topology is revealed, hence presumably stable and understandable

Caching is useful but is not required

Homenet mDNS hybrid

Use the same basic methodology and data model as mDNS hybrid, but

- Build and maintain a stable cache
- Topology is not revealed
- Duplicates are cross-defended once
- There is a real DNS zone for forward and reverse lookups, which can be securely updated or use mDNS security model
- Names in the DNS zone are defended on all links using mDNS

Queries

Homenet naming infrastructure (HNI) use DNSSD for queries, not mDNS, so homenet routers do not answer mDNS queries.

HNI defends names (see previous slide) using mDNS

HNI listens for DNS queries on every link with a LLaddr

Data Model

DNS queries see answers from DNS zone and mDNS

mDNS data is stored in a per-link cache

Open question: does a DNS Update claiming a name defend that name on all links on creation? Does it supersede the same name in mDNS if that name exists?

Open question: do we maintain a DNS zone with a serial number that contains all mDNS data as well? This is best for consistency

Status

The draft exists in my head

This is very much a work in progress, and I need to do a lot more thinking

I could use help thinking about it if there are people who are interested

Tomatoes solicited, but please bear in mind that homenets are *not* the same as managed small networks, which were the main motivating case for the DNSSD work.