homenet and mdnsext

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Naming and service discovery

- We are discussing naming and service discovery requirements in the homenet architecture draft
  - Probably the last part to nail down before WGLC
- The requirements include making naming and service discovery work across multi-link homenets
- The mdnsext BoF is discussing the same thing
  - But for a broader set of scenarios

- Question is what homenet should do
  - Press ahead with own requirements/solution?
  - Defer the topic to mdnsext?
  - Something else
- And NB. mdnsext is not (yet) a WG

mdnsext – draft problem statement

- Currently, zeroconf networking protocols are generally used to discover services within the scope of a single link, specific examples being mDNS (RFC 6762 in AUTH48) and DNS-SD (RFC 6763 in AUTH48)

- The problem is how best to extend these protocols to beyond the single link, e.g. in future multi-link home networks (as envisaged by the homenet WG) or in routed campus/enterprise networks or multi-link LLNs.

- In principle DNS-SD can be used with conventional unicast DNS for wide area service discovery spanning multiple links, but in practice this capability is not widely used.

- As a result, as demand for service discovery across routed networks grows, some vendors are beginning to ship their own early solutions.

- It is thus both timely and important that efforts to develop improved, scalable service discovery solutions for routed networks are coordinated towards producing a single, standards-based solution.

mdnsext mail list

- List:
  - mdnsext@ietf.org
- List info:
  - https://www.ietf.org/mailman/listinfo/mdnsext
  - 120 subscribers as of end of October
  - **But** only 17 messages as of Nov 4th

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- **Nov 04 2012**
  - Re: [mdnsext] xmDNS support in mdnsresponder for homenet, *Indtiny s*
- **Nov 01 2012**
  - Re: [mdnsext] xmDNS support in mdnsresponder for homenet, *Ray Bellis*
- **Oct 31 2012**
  - Re: [mdnsext] xmDNS support in mdnsresponder for homenet, *Indtiny s*
- **Oct 29 2012**
  - Re: [mdnsext] mdnsext BoF session at IETF 85, *Tim Chown*
  - Re: [mdnsext] draft-lynn-mdnsext-requirements-00, *Tom Pusateri*
  - [mdnsext] mdnsext BoF session at IETF 85, *Tim Chown*
  - [mdnsext] Draft mdnsext WG charter, *Tim Chown*
  - Re: [mdnsext] draft-lynn-mdnsext-requirements-00, *Jens Alfke*
  - Re: [mdnsext] draft-lynn-mdnsext-requirements-00, *Johnson, Neil M*
  - Re: [mdnsext] draft-lynn-mdnsext-requirements-00, *Kerry Lynn*
  - [mdnsext] xmDNS support in mdnsresponder for homenet, *Indtiny s*
- **Oct 27 2012**
  - Re: [mdnsext] draft-lynn-mdnsext-requirements-00, *Tom Pusateri*
- **Oct 17 2012**
  - [mdnsext] Announce, *Kerry Lynn*
  - Re: [mdnsext] mdnsext requirements, *Kerry Lynn*
  - [mdnsext] mdnsext requirements, *peter van der Stok*
- **Oct 12 2012**
  - [mdnsext] draft-lynn-mdnsext-requirements-00, *Tim Chown*
- **Oct 09 2012**
  - [mdnsext] Test - please ignore, *Ralph Droms*

Mdnsext BoF

- Held a BoF yesterday to consider whether there is the potential to form a WG (using principles in RFC 5434)
  - Good turnout (100+ estimated)
  - Good indication of people willing to do work (~25, including some vendors currently producing early bridging solutions)
  - Some excellent comments made at the mic
- So the BoF was positive, but before a WG can be considered we need to see:
  - More discussion on the list – demonstrate the critical mass
  - A more mature requirements text
  - A more refined charter, problem statement and planned deliverables
- The above can, and must, happen before a WG is formed

Draft mdnsext goals

1. To document a set of requirements for service discovery across routed, multi-link networks in the following four scenarios:
   - a) Commercial enterprise networks
   - b) Academic/educational/university campus networks
   - c) Multi-link home networks, such as those envisaged by HOMENET
   - d) Multi-link/single subnet (mesh) networks, such as ROLL/6LOWPAN
2. To develop an improved, scalable solution for wide-area service discovery spanning multiple links, applicable to the scenarios above.
3. To develop a solution to seamlessly integrate zeroconf (mDNS) and unicast (global DNS) name services, which should include consideration of both the name resolution mechanism and the namespace.

Presentations

- Two presentations made in the BoF
  - See https://datatracker.ietf.org/meeting/85/materials.html
- Use cases for Bonjour in routed networks (Stuart Cheshire)
  - Reviewed mDNS/DNS-SD, Educause petition, …
- Requirements
  - draft-lynn-mdnsext-requirements-00 (Kerry Lynn)
  - Scalability, usability, deployability
- Good discussion of both
  - Lines at the mic needed to be closed
  - Need to capture those discussions on the list

So…

- Where do we go with mdnsext and homenet?
- Thoughts?