mdnsext BoF

Chairs: Tim Chown, Thomas Narten

IETF85

Atlanta

6th November, 2012

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Agenda

* Administravia (10 mins, Chairs)
  Note Well and agenda bashing

* Goals of the BoF (10 mins, Chairs)
  NB. RFC5434, Section 1

* Use cases for Bonjour in routed networks (15 mins, Stuart Cheshire)

* Requirements (25 mins, Kerry Lynn)
  draft-lynn-mdnsext-requirements-00

* Open discussion (20 mins, Chairs)
  Charter bashing, commitment to do work

* Conclusion (10 mins, Chairs)
  What needs to happen to consider forming a WG?

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*

RFC 5434 - reminder

- If a WG is sought, the goal of the BoF is to demonstrate:
  - There is a problem that needs solving, and the IETF is the right group to attempt solving it.
  - There is a critical mass of participants willing to work on the problem (e.g., write drafts, review drafts, etc.).
  - The scope of the problem is well defined and understood, that is, people generally understand what the WG will work on (and what it won't) and what its actual deliverables will be.
  - There is agreement that the specific deliverables (i.e., proposed documents) are the right set.
  - It is believed that the WG has a reasonable probability of having success (i.e., in completing the deliverables in its charter in a timely fashion).

Presentations

- We will discuss the charter **after** the discussions led by Stuart Cheshire and Kerry Lynn
  - Use cases for Bonjour in routed networks (Stuart)
  - draft-lynn-mdnsext-requirements-00 (Kerry)

- We then need to consider what is required to move towards forming a WG
  - We need to build a critical mass
  - We need a more detailed requirements draft
    - And thus people committed to work on that

Use cases for Bonjour in routed networks

Stuart Cheshire

draft-lynn-mdnsext-requirements-00

Kerry Lynn

The draft charter

http://wiki.tools.ietf.org/bof/trac

mdnsext 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 or enterprise networks.

- The Zigbee Smart Energy Profile 2.0 commercial standard currently under development has specified mDNS as its method of zero configuration discovery. However, its use of multi-link wireless mesh subnets (LLNs) and disparate physical layers will require extensions to mDNS to allow it to operate across multiple links.

- 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 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 the HOMENET WG
    - d) Multi-link/single subnet (mesh) networks, such as ROLL/6LOWPAN subnets
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.

mdnsext deliverables

Deliverables:

The WG will produce three documents: an Informational RFC on the requirements for wide-area service discovery protocols; a Standards Track RFC documenting a wide-area service discovery solution that is applicable to those scenarios; and a Standards Track document describing a solution to seamlessly integrate mDNS and global DNS name services.

Milestones

Jan 2013 Formation of the WG

Apr 2013 Adopt requirements draft as WG document

Aug 2013 Submit requirements draft to the IESG as an Informational RFC

Aug 2013 Adopt wide-area service discovery solution draft as WG document

Aug 2013 Adopt mDNS and global DNS integration solution draft as WG document

Dec 2013 Submit wide-area service discovery solution draft to the IESG as Standards Track RFC

Dec 2013 Submit mDNS and global DNS integration solution draft to the IESG as Standards Track RFC

Questions - scoping

- Is it clear that there is a useful problem to solve here, and the IETF is the place to do it?
- But do we think the problem statement is clear enough and well-scoped?
- How mature is our understanding of the requirements?
- And thus do we think we can solve the problem?
- Are the three goals and deliverables appropriate?
- What is the draft charter missing?

Questions - critical mass

- We need people committed to do the work
- So, who would be willing to author (and work on)
  - The requirements document ?
  - The wide-area service discovery solution ?
  - The mDNS and global DNS name service integration solution?
- Who would be willing to review documents?
- Based on the commitment, do we want to move forward towards a WG?
  - Note this may require a second BoF at IETF86, subject to enough work happening before that meeting