

dnssdext requirements

draft-lynn-mdnsexext-requirements-02

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Kerry Lynn <kerlyn@ieee.org>
Stuart Cheshire <cheshire@apple.com>
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Goals

- DNS-Based Service Discovery among links
 - Zero configuration (local)
 - Minimal configuration (global)
 - Administrative control where desired
- Scalability
 - Network traffic
 - CPU & memory requirements

Usability

- Smooth continuum from single link to site to global
- Convenient user interface
 - Not long flat list of service names

Change since draft-01

- Additional use case, for completeness:

(A) Personal Area networks,
e.g., one laptop and one printer.
This is the simplest example
of an mDNS network.

Initial Experiences

- Presto Print Server from Collobos Software
 - Translator from URF/IPP to printer-native protocol
 - Implements Wide-Area Discovery via unicast DNS
- One customer was trying to use a third-party “Bonjour Gateway” system
 - Didn’t work at all
- Presto Print Server was successful

IT Department Cooperation

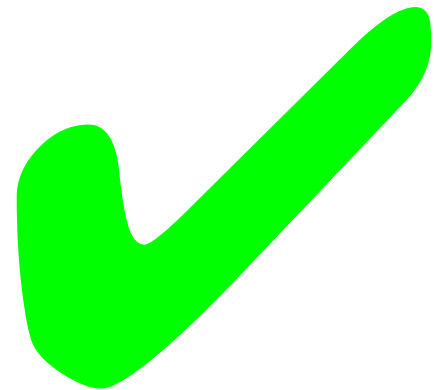


“Please delegate
printers.example.com
to our Collobos Print Server”

IT Department Cooperation

- Please add a couple of DNS records for us:

printers.example.com. NS collobos-ps.example.com.
collobos-ps.example.com. A 10.4.5.6



Recursive DNS Server Choices

- Unbound ✓
- BIND ✓
- Windows Server 2008 DNS ✗

“Windows Server 2008 R2 not properly forwarding dns-sd records. Why?”

<http://serverfault.com/questions/350903/>

Requirements Discussion

REQ1

The scope of the discovery should be automatically found by the discovering devices and/or configured.

REQ2

For use cases A, B and C*,
there should be
a zero configuration operation.

- A: Personal network
- B: Small home network
- C: Larger home network

REQ3

For use cases D and E*, there should be a way to configure the scope of the discovery and also support both smaller (ex: department) and larger (ex: campus-wide) discovery.

D: Enterprise networks

E: Higher Education

REQ4

For use cases D and E*, there should be an incremental way to deploy the solution.

D: Enterprise networks

E: Higher Education

REQ5

The new solution should integrate or at least should not break any current link scope DNS-SD/mDNS protocols and deployments.