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DNSOP @ IETF 57

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Agenda

- House cleaning
- IPv6 DNS discovery (major part)
- .LOCAL TLD
- IPv6 DNS issues draft
- DS update in parent

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Dead Drafts

```
draft-ietf-dnsop-hardie-shared-root-server-07.txt
draft-ietf-dnsop-v6-name-space-fragmentation-02.txt
draft-ihren-dnsop-interim-signed-root-02.txt
draft-ihren-dnsop-v6-name-space-fragment-01.txt
```

The above drafts were pronounced dead and taken off the agenda of the working group.

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WG Last Call Drafts

```
draft-ietf-dnsop-ipv6-transport-guidelines-00.txt
draft-ietf-dnsop-serverid-01.txt
```

No new issues were presented. The chairs will take the drafts to WG last call.

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Active WG Drafts

```
draft-ietf-dnsop-bad-dns-res-01.txt
draft-ietf-dnsop-inaddr-required-04.txt
draft-ietf-dnsop-interim-signed-root-01.txt
draft-ietf-dnsop-ipv6-dns-issues-02.txt
draft-ietf-dnsop-ohta-shared-root-server-02.txt
draft-ietf-dnsop-respsize-00.txt
```

There was no discussion during the session. These drafts are still active.

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Expired Drafts

```
draft-ietf-dnsop-dontpublish-unreachable-03.txt
draft-ietf-dnsop-keyhand-04.txt
draft-ietf-dnsop-resolver-rollover-00.txt
draft-ietf-dnsop-rollover-01.txt
```

No one spoke in favour of revival of any of these. The chairs' approach is to let them die.

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Individual Drafts

```
draft-durand-dnsop-dynreverse-00.txt
draft-jeong-ipv6-ra-dns-autoconf-00.txt
draft-kato-dnsop-local-zones-00.txt
draft-morishita-dnsop-misbehavior-against-aaaa-00.txt
draft-park-ipv6-extensions-dns-pnp-00.txt
draft-yasuhiro-dnsop-increasing-dns-server-00.txt
```

The above drafts were deemed still active, but will remain individual drafts for the time being.

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WG Drafts to be

```
draft-hall-dns-data-03.txt
draft-warnicke-network-dns-resolution-02.txt
```

The above individual drafts were decided to be under serious consideration to become WG documents.

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IPv6 DNS Discovery

- Rob Austein made a presentation to try to set the framework for the discussion. He tried to clarify and enumerate the underlying generic problems faced by a DNS consumer node.
- Change of trust model:
  - IPv4: DHCP server owns the address.
  - IPv6 autoconfig: host owns host part, prefix owned by upstream router.

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IPv6 DNS Discovery

- Bob Hinden made a presentation trying to convey the message about why DNS discovery is important. Bob went through the different steps in a DNS consumer's life, identifying a number of steps where DNS discovery is necessary, and identifying a couple of different methods to achieve it.
- It was commented that it seemed like Bob wanted to overload service location on domain names, which was considered bad. Bob denied.

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IPv6 DNS Discovery

- Luc Beloeil made a very fast presentation about the IPv6 router advertisement DNS resolver option.
- There was a comment from the audience that DHCP service often is found in the upstream router anyhow, so why not use it?

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IPv6 DNS Discovery

- Syam Madanapalli made a presentation regarding IPv6 Extensions for DNS Plug and Play. His proposal, called 6DNAC has three steps:
  - domain name generation
  - duplicate domain name detection
  - domain name registration

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Discussion

- Difference to DynDNS:
  - They create names out of blue to have some thing to register.
- DHCPv6 and RA at the same time on same segment?
  - If network administrators do the the right thing - no. If not, it might cause unpredictable behaviour.

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Discussion

- Non-DHCP stuff can be used for ad-hoc networks.
- The security is still an issue. End client needs to verify signatures, so it needs NTP.
- Design team?
  - No, takes too long.

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Discussion

- Use PPP options?
  - No according to the PPP WG.
- Why is DHCP not the solution to this?
  - Small and easy – just do it!
  - Attractive: client just sends, and just receives.
  - The unsolicited RA message is one-to-many. One message reaches all clients on the segment. The DHCP proposals lead to bilateral exchanges that involve at least two-packets per client.

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Discussion

- Reliability issues in DHCP?
  - Doesn't apply to stateless DHCP in IPv6. Don't compare the two.
  - DHCP "light" is not different from DHCP, it is a subset thereof.
- You have to have a DHCP client anyhow on the client side. Why not use it for DNS discovery?
- Hum: DHCP vs. auto-discovery:
  - Chairs: no concensus.
  - Take to list.

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The .LOCAL TLD

- Root server operators have been see large quantities of queries for names in the .LOCAL and .LOCALHOST top level domains.
  - Other points: to 1/3 of the query load.
  - (Anything else thatn root name servers were hit by this type of data stream, it would be called a DOS attack.) ☺
- What can we do about this?

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The .LOCAL TLD

- For now:
  - just answer.
- In the future:
  - Not to answer?
  - Decision cannot be taken by the root operators.
- Alternative:
  - Delegate them to query sinks (like 10.in-addr.arpa).
  - ... and eventually to get the clients fixed.

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The .LOCAL TLD

- Akira Kato has written a draft that addresses these issues.
  - Presented in San Francisco (56th IETF). Nothing has happened since.
  - It might create a dangerous precedence.
- Result: WG item!

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IPv6 DNS Issues Draft

- Outstanding issues in draft-ietf-dnsop-ipv6-dns-issues-02.txt:
  - It's almost ready for last call.
- Remaining issues:
  - What do about reverse domain space, especially prepopulation?
  - Another revision with focus on reverse prepopulation is planned.

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DS Update in Parent

- DNSSEC is getting more and more operational.
- Test beds in different places.
- What about update DS in parent?
  - We need operational requirements before working.
- AD:
  - This is one of the main focuses of the group!
  - Degenerate case: root key management.
- WG item!