LocalRoot - Project Update

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LocalRoot

LocalRoot: Serve Yourself {Beta}

LocalRoot

Our LocalRoot service allows you to serve a copy of the DNS Root Zone from your recursive resolver. For more information about LocalRoot, please see our About LocalRoot page and Getting Started pages.

- About LocalRoot
- Getting Started
- Your TSIG Keys
- Your Servers
- Logout

NEWS

2018-08-28

- Configuration generator can auto-include private address spaces (eg. 10.0.0./8)
Purpose

- Pre-Cache DNS records
- Make it easy to deploy
- Supports RFC7706
Why use it?

- Local service speedups
  - True for all zone records pre-cached
    - A, AAAA, DANE, etc
- Prevents outages
  - Outage protection for any zone you have a local copy of
- Privacy protecting
  - The best way to protect your privacy is to not ask any questions!
The primary goals of [RFC7706] are to provide faster negative responses to stub resolver queries that contain junk queries, and to prevent queries and responses from being visible on the network.

- Most queries to the root don’t exist as TLDs
  - Negative answers are cached for a shorter time
  - 7706 can help with high latency over slow links
- DNS traffic is observable to on-path third-parties
  - Privacy leakage of possibly sensitive domain names
  - 7706 means no questions traverse the network
News (1/4)

- **Required**: Unfortunately the tsig names have changed and you MUST update your configuration to get proper TSIG protected data transfers.
- It’s now possible to delete unused servers and TSIGs.
- New E-Mail account notification preferences
- Many minor UI improvements
News(2/4): Support for Two New Zones!

- Additional zones supported:
  - arpa
  - root-servers.net
News(3/4): Server screen improvements

- Last transfer seen timestamp now shown in your server list

<table>
<thead>
<tr>
<th>Last Transfer (UTC)</th>
<th>Enabled</th>
<th>Active</th>
<th>Delete</th>
<th>Config</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon Oct 22 05:27:48 2018</td>
<td>✔️</td>
<td>✔️</td>
<td>🗑️</td>
<td>[get config]</td>
</tr>
</tbody>
</table>

- Tweakable config generator options:
  - Configuration types (full vs partial)
  - Auto-inclusion of private address spaces (eg. 10.0.0./8)
  - Zonefile storage directory

Configuration Generator

Generating configuration for server dawn.hardakers.net at 68.78.72.17

What type of configuration do you want to generate:

Full recursive resolver configuration

Where do you want to store zonefile data?
(This directory must exist and be writable by the user running named!):

/var/named

Include other local network private address blocks:

- 10.0.0.0/8
- 172.16.0.0/12
- 192.16.0.0/12

Update
Future LocalRoot Goals

- Improved infrastructure
  - e.g. multiple DNS servers
  - IPv6 support
- Email notifications on:
  - Lack of recent AXFRs
  - Failing TSIG
- Unbound and other resolver configuration
- Other sources of DNS data
  - e.g. TLDs
  - Selectable list
- Publishing all code for reuse
Questions

https://localroot.isi.edu/

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