# LocalRoot - Project Update

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# LocalRoot

LocalRoot: Serve Yourself *{Beta}*

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About LocalRoot
Getting Started
Your TSIG Keys
Your Servers
Logout

## 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
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## 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!

# RFC7706

*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

| Last Transfer (UTC) | Enabled | Active | Delete | Config |
|---|---|---|---|---|
| Mon Oct 22 05:27:48 2018 | ✓ | ✓ | 🗑 | [get config] |

# News(4/4): Better Configuration Generation

- 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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