

# **BIND 10 @ 6 months**

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# Presentation Outline

- Background & Motivation
- Goals & Features
- Status



# Where Did BIND 9 Come From?

- Designed to solve BIND 8 problems
- Heavy emphasis on security
- Reference implementation for DNS



# Motivation for BIND 10

- BIND 9 is almost 10 years old
- Computing world has changed
- Networking world has changed
- DNS software “marketplace” evolved
- Need a new architecture for the next 10+ years



# BIND 10 Project

- ISC sought funders for BIND 10
  - Generous sponsors provided initial funding
    - DENIC is a founding sponsor
- <https://www.isc.org/bind10/sponsors>
- Initial sponsors form BIND 10 Steering Committee
  - Official kick-off date 2009-04-01

# BIND 10 Timeline

- Year 1: Authoritative-only server
- Year 2: Recursive server
- Year 3: Fully functional server
- Year 4: Drop-in BIND 9 replacement
- Year 5: *Really* fun stuff



# BIND 10 Technologies

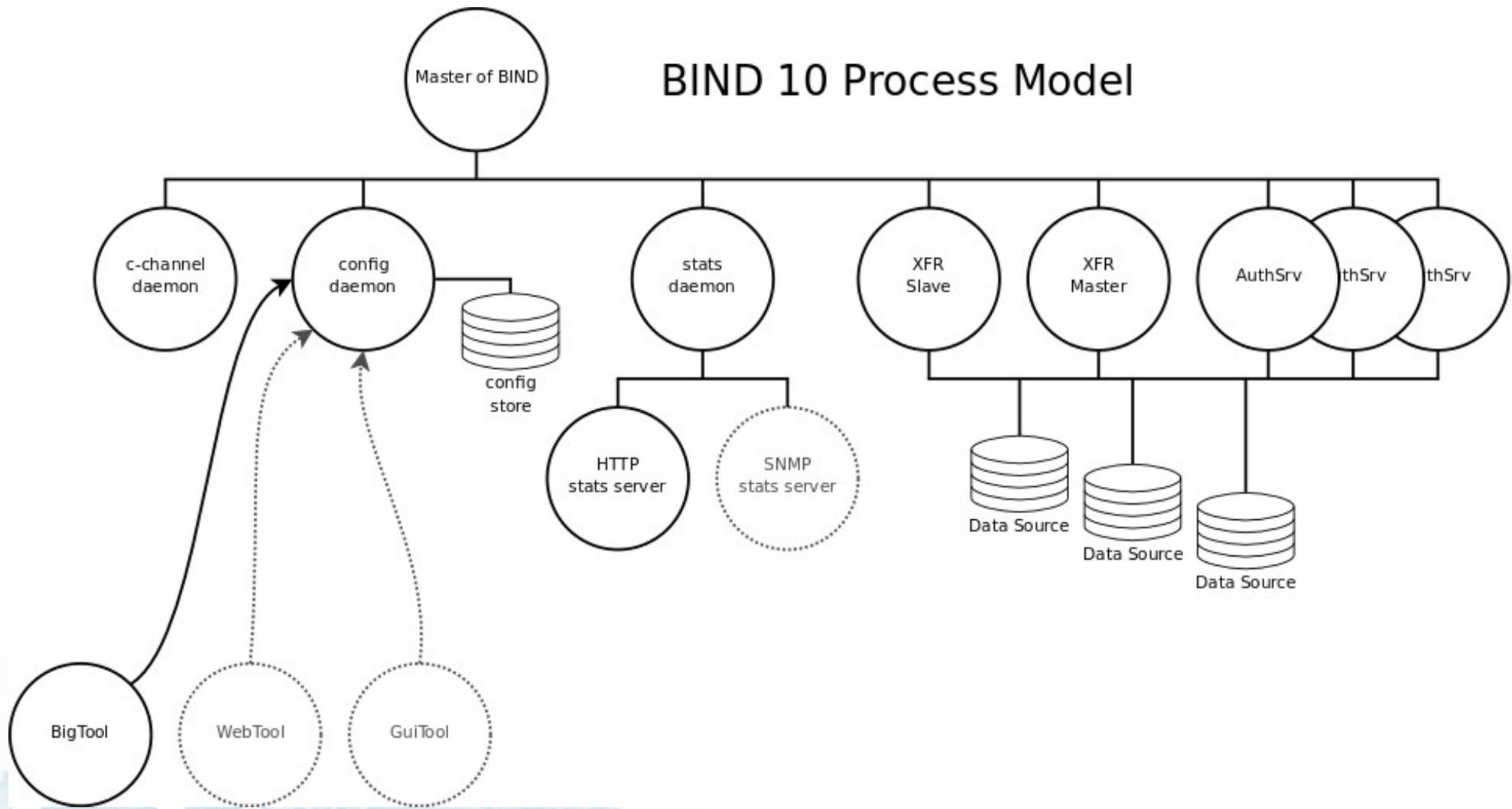
## Architecture & Design:

- Modularity
- Well-defined APIs and libraries
- Full runtime control

## Features:

- Customization
- Resilience to failures
- Cluster support

# BIND 10 Process Model



# Flexible Data Sources

- Zone files (of course)
- SQL (of course)
- DBD
- LDAP
- File system
- djbdns?

*...generic data sources!*

# When you say “SQL”, what do you mean?

Motivations for SQL are varied...

- Out-of-memory data source
  - Reduced system requirements
  - Faster load time
- Integration with existing SQL systems
  - Custom provisioning systems
  - Single database for network information
- We bought an SQL database!

# Captive vs. Free SQL

- “Captive” SQL
  - BIND “owns” the SQL database
  - Allows for efficient caching
  - Simplifies IXFR, DDNS
- “Free” SQL
  - BIND is one user of an SQL database
  - Other users may update the database
  - Limited caching possible
  - Complicated data synchronization

# Development

- BIND 10 development is *public*
  - <https://bind10.isc.org>
  - [bind10-dev@lists.isc.org](mailto:bind10-dev@lists.isc.org)
  - Public Subversion repository
- BIND 10 team coding away
  - 5 ISC staff
  - 2 JPRS staff, 2 CNNIC staff



# Status

- No user-runnable software today
- Developer prototypes available:
  - DNS message API
  - c-channel API & daemon
  - Configuration API & daemon
  - Statistics API & daemon
  - Administrator command-line tool

# Shameless Call for Support

- ISC is a small, non-profit company
- New sponsors would be great
  - We need money!
  - Varied *types* of sponsors also needed
- Contributors of any kind are useful
  - Requirements, wish-lists, sanity checks
  - DNS administrators, users, developers
  - Coders

# Thanks to DENIC

- For helping make BIND 10 possible
- For inviting me here today

