



BIND 10

BIND 10: Push to Production

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Presentation Overview

- Why are we making BIND 10?
- What is BIND 10?
- Past, Present, and Future
- How is BIND 10 for you?



What is BIND?



- BIND is DNS software
- Current version is BIND 9
 - Runs on Unix-like systems, and Windows
 - Multi-threaded, monolithic application
- Used by 80% of DNS servers worldwide
 - Not 80% of domains, queries, or users
- Supports DNS protocols as defined by IETF
 - RFC 1034/1035, XFR, DDNS, DNSSEC, ...
- Maintained and supported by ISC



Motivations for BIND 10



- BIND 9 is more than 10 years old
- The computing world has changed
 - Multi-core machines, massive RAM, ...
- The networking world has changed
 - Fiber everywhere, mobile devices
- DNS software “marketplace” has evolved
 - Special-purpose servers, new ideas
- A new architecture for the next 10+ years



What is BIND 10?



- Authoritative DNS server
 - DNSSEC-enabled
 - SQL or in-memory data source
 - Master and/or slave mode
- Recursive DNS server
 - No DNSSEC yet (but coming)
- DNS libraries

What is Special about BIND 10?



- DNS software that is...
- Customizable
 - Both “out-of-the-box” and bespoke
 - Full run-time control (no restarts!)
- Scalable
- Reliable
 - Tested
 - Resilient to failures and software errors
- Re-usable
 - Well-defined APIs and libraries



Past: BIND 10's Origin



- Paul Vixie & João Damas's vision
- ISC sought sponsors for BIND 10
- Generous sponsors provided initial funding:

<https://www.isc.org/bind10/sponsors>

- Initial sponsors formed:
BIND 10 Steering Committee
- Official kick-off date 2009-04-01

Past: Putting the “Open” Back in “Open Source”



- BIND 10 development is *public*
- <https://bind10.isc.org>
 - Plans, designs, meeting minutes, ...
 - Build reports, bug tickets, ...
 - Public Git repository
- Working with other open source
 - Giving back to upstream libraries
- Goal: a product *and* a community

Present: 5 Year Timeline



- ✓ Year 1: Authoritative-only server
- ✓ Year 2: Recursive server
- Year 3: Production-ready server
- Year 4: Drop-in BIND 9 replacement
- Year 5: Really fun stuff
 - Cluster support
 - Embedded support
 - Smart, adaptive DNS behavior

Future: Push to Production



- What is “production-ready”?
 - Depends on your environment
- Features
- Reliability and trustworthiness

<https://bind10.isc.org/wiki/Year3Plan>

Future: Feature Strategy



- Pending feature list
 - Sorted based on user survey, sponsor requests, and developer intuition
- Public release every 6 weeks
 - Each adds new features

Future: Feature List



- ✓ TSIG
- Logging
- ACLs
- IXFR
- DDNS
- Hooks
- Command tool
- Views
- DNSSEC validation

Future: Reliability and Trustworthiness



- Tests
 - Build, unit
 - Functional, interoperational
- Production experience
 - Progressively more ISC services
 - `bind10.isc.org`, AS112, ...
- External test program
 - http://bind10.isc.org/wiki/external_test

BIND 10 and You



- A DNS guru?
 - Try it now. Get the Git snapshot.
 - Sign up to bind10-dev e-mail list.
- A DNS company?
 - Download the latest tarball.
 - Sign up to bind10-announce e-mail list.
- An ISP?
 - BIND 10 will be ready for you soon!
 - Talk to BIND 10 team about your needs.

BIND 10 Needs Sponsors



- ISC is a small, non-profit company
- New sponsors can help
- We need money!
 - Also developers, testers, build systems
- Varied types of sponsors important
 - Not just TLDs or even DNS companies

More information at:

<http://www.isc.org/bind10>

Thank You to our Generous Sponsors



BIND 10



Questions?

