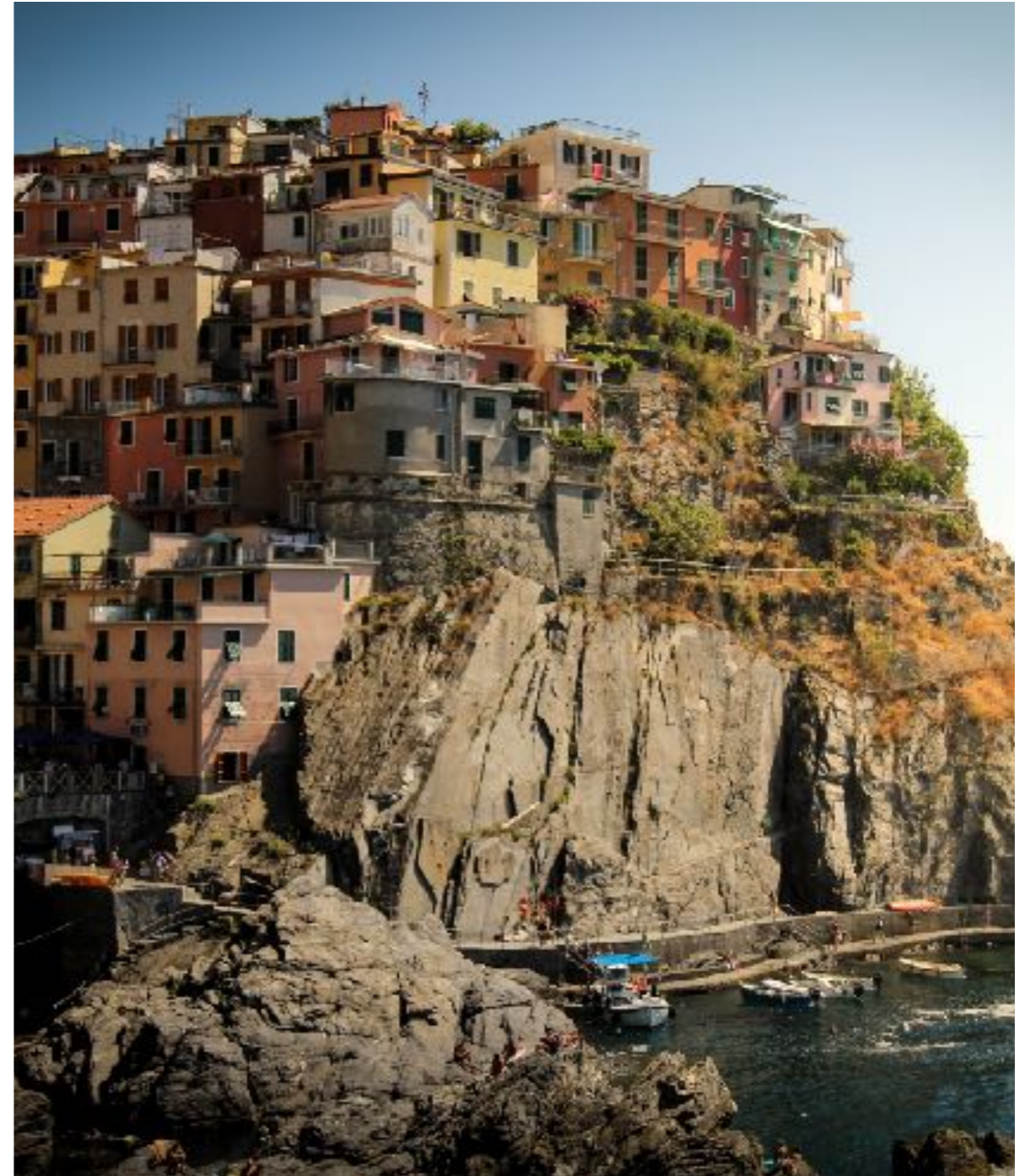# BIND 9
The Past, The Present and The Future

Ondřej Surý @ ISC
FOSDEM 2018, Brussels

BIND 9.0: The Past

- First released in 2000

- Other things from 2000:

  - gcc 2.95.2

  - Linux kernel 2.4.0

  - GNOME 1.2

  - Qt 2.0

  - Window 2000

  - First camera phone

  - Playstation 2 launched

  - New century started (only in pop-culture and US)

|	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
BIND 9.0																			
BIND 9.1																			
BIND 9.2																			
BIND 9.3																			
BIND 9.4(-ESV)																			
BIND 9.5																			
BIND 9.6(-ESV)																			
BIND 9.7																			
BIND 9.8																			
BIND 9.9																			
BIND 9.10																			
BIND 9.11																			
BIND 9.12																			

BIND 9

Past Releases

BIND 9.12: The Present

- NSEC Aggressive Use

- Serve Stale (TTL Stretching)

- Response Policy Interface

- Major Refactoring [1]

- Speedup factor: 1.25-6

- CDS/CDNSKEY tools

- EDDSA Support
  (when available in OpenSSL)

1. https://www.isc.org/blogs/evan-hunt-presented-the-bind-9-12-refactoring-at-dns-oarc/
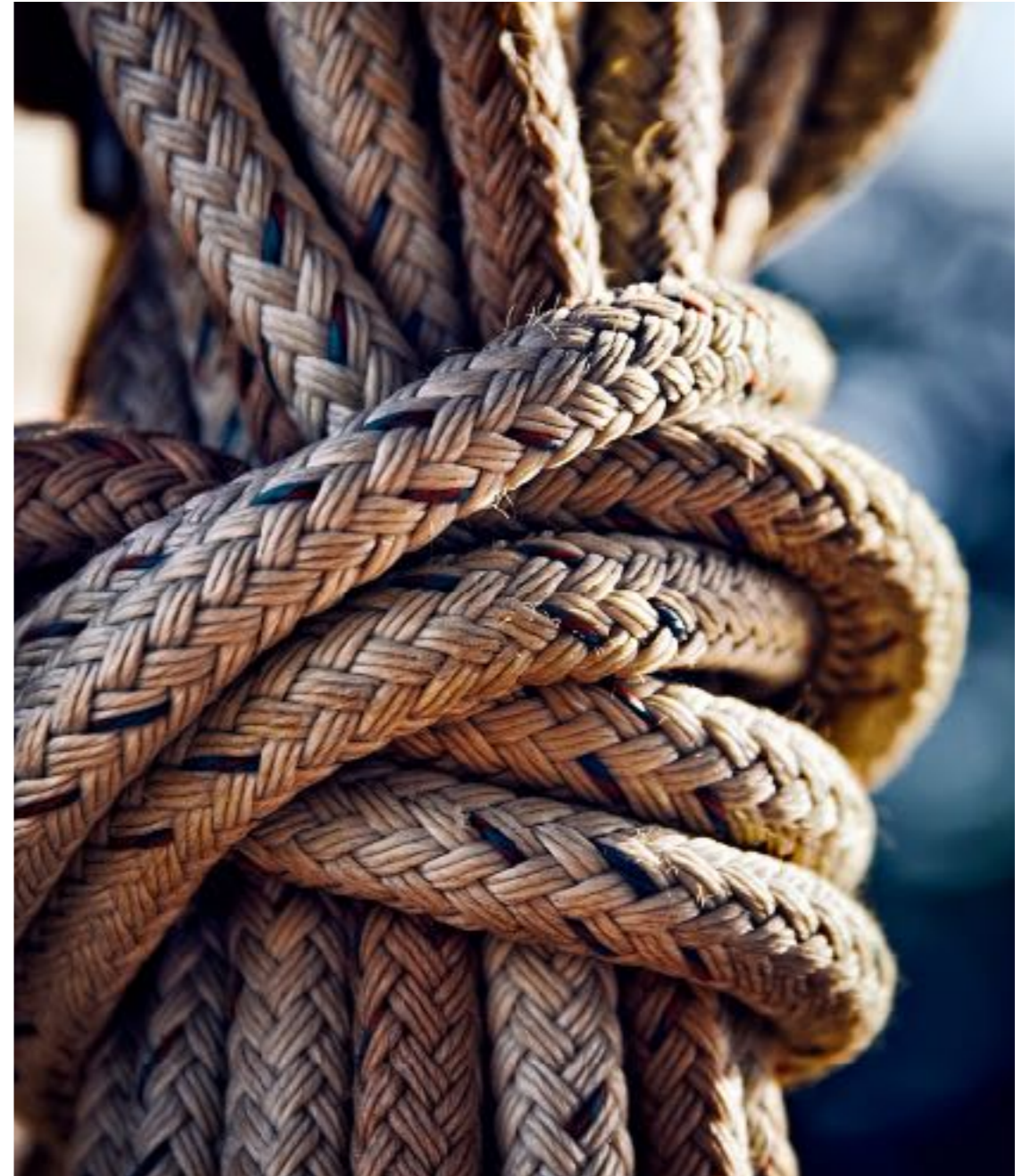
BIND 9: The Future

- Open Development

- Faster Release Cycle

- Reduce Supported Platforms

- New Features

- More Refactoring
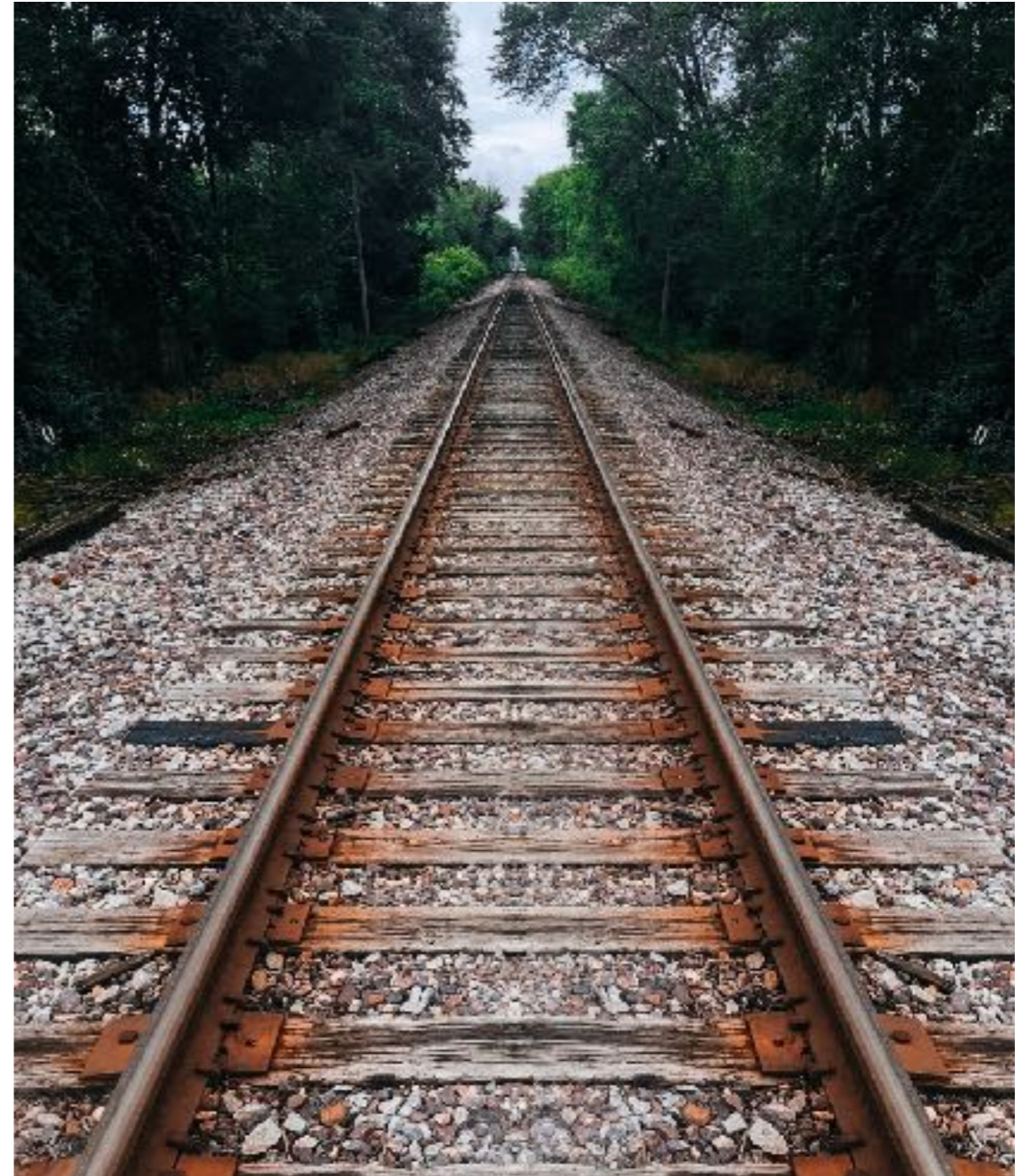
Open Development

- Open (By Default) Issue Tracker

- Public Merge Requests

- Public Wiki

- Public Continuous Integration

- (Future) Public Web Forum to discuss BIND and DNS

ISC GitLab

- Work In Progress

- Self-hosted Instance

- https://gitlab.isc.org/isc-projects/bind9

Faster Release Cycle

- Odd Numbers — Development Release

  - 9.13.x, 9.15.x, 9.17.x

  - Releases as we go

  - Best Effort Support

- Even Numbers — Stable Release

  - When Development Release stabilise

  - 9.13.<last> → 9.14.0

  - Supported until next Stable Release = ~ 1 year

- Every Second Stable Release — Extended Support Version

  - Supported until next ESV Release with overlap = 4 years

BIND 9

Future Releases

Supported platforms

- At every release cycle we evaluate the life-cycle:

  - Major Linux distributions

  - FreeBSD, OpenBSD, NetBSD

  - Selected proprietary operating systems (Mac OS X, Windows, Solaris)

- Create a list of operating systems and distributions still supported by vendors

- Support the list for the life-cycle of each major release (9.14, 9.16, 9.18)

- There will be several Tiers:

  - Supported Tier (We will patch it)

  - Best Effort Tier (Send us the patch)

  - Non-supported Tier (Don't even bother sending a patch)

Modernise

- The new list of supported platforms will allow us:

  - Fully utilise modern C language standards

    - Depend on standard libraries (POSIX, etc…)

    - Use C11 language constructs (probably stick with the VC11++ subset)

  - Use external libraries when appropriate

  - Reduce the code we have to maintain in BIND9

Planned Features

- Local Root Zone Copy (RFC7706-like implementation)

- Modules & Hooks

  - Ability to load dynamic module and hook into query-response processing

  - Refactor non-core functionality into modules

Introducing BINDCoin!

- Every DNS Server as a Mining Node

- DNS Smart Contracts

- DNS Caches as permanent storage[1]

- ICO Resource Record

- Stocks will skyrocket!!!

1. https://blog.apnic.net/2016/04/04/dns-zombies/

For people only reading the slides: This is a joke!

Refactoring

"In anything at all, perfection is finally attained not when there is no longer anything to add, but when there is no longer anything to take away, when a body has been stripped down to its nakedness."

–Antoine de Saint Exupéry

BIND's not yet dead, baby, BIND's not yet dead!

Thank you!