# 1 Release Notes for BIND Version 9.13.0

# 1.1 Introduction

BIND 9.13 is an unstable development release of BIND. This document summarizes new features and functional changes that have been introduced on this branch. With each development release leading up to the stable BIND 9.14 release, this document will be updated with additional features added and bugs fixed.

## 1.2 Note on Version Numbering

Prior to BIND 9.13, new feature development releases were tagged as "alpha" and "beta", leading up to the first stable release for a given development branch, which always ended in ".0".

Now, however, BIND has adopted the "odd-unstable/even-stable" release numbering convention. There will be no "alpha" or "beta" releases in the 9.13 branch, only increasing version numbers. So, for example, what would previously have been called 9.13.0a1, 9.13.0a2, 9.13.0b1, and so on, will instead be called 9.13.0, 9.13.1, 9.13.2, etc.

The first stable release from this development branch will be renamed as 9.14.0. Thereafter, maintenance releases will continue on the 9.14 branch, while unstable feature development proceeds in 9.15.

# 1.3 Download

The latest versions of BIND 9 software can always be found at http://www.isc.org/downloads/. There you will find additional information about each release, source code, and pre-compiled versions for Microsoft Windows operating systems.

#### 1.4 Security Fixes

• None.

#### 1.5 New Features

- BIND now can be compiled against the **libidn2** library to add IDNA2008 support. Previously, BIND supported IDNA2003 using the (now obsolete and unsupported) **idnkit-1** library.
- **named** now supports the "root key sentinel" mechanism. This enables validating resolvers to indicate to which trust anchors are configured for the root, so that information about root key rollover status can be gathered. To disable this feature, add **root-key-sentinel no**; to named.conf.
- The **dnskey-sig-validity** option allows the **sig-validity-interval** to be overriden for signatures covering DNSKEY RRsets. [GL #145]

#### 1.6 Removed Features

- **dnssec-keygen** can no longer generate HMAC keys for TSIG authentication. Use **tsig-keygen** to generate these keys. [RT #46404]
- Support for OpenSSL 0.9.x has been removed. OpenSSL version 1.0.0 or greater, or LibreSSL is now required.
- The **configure --enable-seccomp** option, which formerly turned on system-call filtering on Linux, has been removed. [GL #93]
- IPv4 addresses in forms other than dotted-quad are no longer accepted in master files. [GL #13] [GL #56]
- IDNA2003 support via (bundled) idnkit-1.0 has been removed.
- The "rbtdb64" database implementation (a parallel implementation of "rbt") has been removed. [GL #217]

• The **-r** randomdev option to explicitly select random device has been removed from the **ddns-** confgen, rndc-confgen, nsupdate, dnssec-confgen, and dnssec-signzone commands.

The **-***p* option to use pseudo-random data has been removed from the **dnssec-signzone** command.

#### **1.7 Feature Changes**

- BIND will now always use the best CSPRNG (cryptographically-secure pseudo-random number generator) available on the platform where it is compiled. It will use **arc4random()** family of functions on BSD operating systems, **getrandom()** on Linux and Solaris, **CryptGenRandom** on Windows, and the selected cryptography provider library (OpenSSL or PKCS#11) as the last resort. [GL #221]
- BIND can no longer be built without DNSSEC support. A cryptography provder (i.e., OpenSSL or a hardware service module with PKCS#11 support) must be available. [GL #244]
- Zone types **primary** and **secondary** are now available as synonyms for **master** and **slave**, respectively, in named.conf.
- **named** will now log a warning if the old root DNSSEC key is explicitly configured and has not been updated. [RT #43670]
- **dig +nssearch** will now list name servers that have timed out, in addition to those that respond. [GL #64]
- **dig +noidnin** can be used to disable IDN processing on the input domain name, when BIND is compiled with IDN support.
- Up to 64 **response-policy** zones are now supported by default; previously the limit was 32. [GL #123]
- Several configuration options for time periods can now use TTL value suffixes (for example, 2h or 1d) in addition to an integer number of seconds. These include fstrm-set-reopen-interval, interface-interval, max-cache-ttl, max-ncache-ttl, max-policy-ttl, and min-update-interval. [GL #203]

#### 1.8 Bug Fixes

• None.

#### 1.9 License

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#### 1.10 End of Life

BIND 9.13 is an unstable development branch. When its development is complete, it will be renamed to BIND 9.14, which will be a stable branch.

The end of life date for BIND 9.14 has not yet been determined. For those needing long term support, the current Extended Support Version (ESV) is BIND 9.11, which will be supported until at least December 2021. See https://www.isc.org/downloads/software-support-policy/ for details of ISC's software support policy.

# 1.11 Thank You

Thank you to everyone who assisted us in making this release possible. If you would like to contribute to ISC to assist us in continuing to make quality open source software, please visit our donations page at http://www.isc.org/donate/.