1 Release Notes for BIND Version 9.15.1

1.1 Introduction

BIND 9.15 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 9.16 release, this document will be updated with additional features added and bugs fixed.

1.2 Note on Version Numbering

Until BIND 9.12, 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". More recently, BIND adopted the "odd-unstable/even-stable" release numbering convention. There will be no "alpha" or "beta" releases in the 9.15 branch, only increasing version numbers. So, for example, what would previously have been called 9.15.0a1, 9.15.0a2, 9.15.0b1, and so on, will instead be called 9.15.0, 9.15.1, 9.15.2, etc.

The first stable release from this development branch will be renamed as 9.16.0. Thereafter, maintenance releases will continue on the 9.16 branch, while unstable feature development proceeds in 9.17.

1.3 Supported Platforms

To build on UNIX-like systems, BIND requires support for POSIX.1c threads (IEEE Std 1003.1c-1995), the Advanced Sockets API for IPv6 (RFC 3542), and standard atomic operations provided by the C compiler.

The OpenSSL cryptography library must be available for the target platform. A PKCS#11 provider can be used instead for Public Key cryptography (i.e., DNSSEC signing and validation), but OpenSSL is still required for general cryptography operations such as hashing and random number generation.

More information can be found in the PLATFORMS.md file that is included in the source distribution of BIND 9. If your compiler and system libraries provide the above features, BIND 9 should compile and run. If that isn’t the case, the BIND development team will generally accept patches that add support for systems that are still supported by their respective vendors.

1.4 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.

1.5 Security Fixes

- In certain configurations, named could crash with an assertion failure if nxdomain-redirect was in use and a redirected query resulted in an NXDOMAIN from the cache. This flaw is disclosed in CVE-2019-6467. [GL #880]

- The TCP client quota set using the tcp-clients option could be exceeded in some cases. This could lead to exhaustion of file descriptors. This flaw is disclosed in CVE-2018-5743. [GL #615]

- A race condition could trigger an assertion failure when a large number of incoming packets were being rejected. This flaw is disclosed in CVE-2019-6471. [GL #942]
1.6 New Features

- In order to clarify the configuration of DNSSEC keys, the trusted-keys and managed-keys statements have been deprecated, and the new dnssec-keys statement should now be used for both types of key.  
  When used with the keyword initial-key, dnssec-keys has the same behavior as managed-keys, i.e., it configures a trust anchor that is to be maintained via RFC 5011. 
  When used with the new keyword static-key, it has the same behavior as trusted-keys, configuring a permanent trust anchor that will not automatically be updated. (This usage is not recommended for the root key.) [GL #6]

- The new add-soa option specifies whether or not the response-policy zone’s SOA record should be included in the additional section of RPZ responses. [GL #865]

1.7 Removed Features

- The dnssec-enable option has been deprecated and no longer has any effect. DNSSEC responses are always enabled if signatures and other DNSSEC data are present. [GL #866]

- The cleaning-interval option has been removed. [GL #1731]

1.8 Feature Changes

- named will now log a warning if a static key is configured for the root zone, or if any key is configured for "dlv.isc.org", which has been shut down. [GL #6]

- When static and managed DNSSEC keys were both configured for the same name, or when a static key was used to configure a trust anchor for the root zone and dnssec-validation was set to the default value of auto, automatic RFC 5011 key rollovers would be disabled. This combination of settings was never intended to work, but there was no check for it in the parser. This has been corrected, and it is now a fatal configuration error. [GL #868]

- DS and CDS records are now generated with SHA-256 digests only, instead of both SHA-1 and SHA-256. This affects the default output of dnssec-dsfromkey, the dsset files generated by dnssec-signzone, the DS records added to a zone by dnssec-signzone based on keyset files, the CDS records added to a zone by named and dnssec-signzone based on "sync" timing parameters in key files, and the checks performed by dnssec-checkds.

- JSON-C is now the only supported library for enabling JSON support for BIND statistics. The configure option has been renamed from --with-libjson to --with-json-c. Use PKG_CONFIG_PATH to specify a custom path to the json-c library as the new configure option does not take the library installation path as an optional argument.

1.9 Bug Fixes

- The allow-update and allow-update-forwarding options were inadvertently treated as configuration errors when used at the options or view level. This has now been corrected. [GL #913]

- When qname-minimization was set to relaxed, some improperly configured domains would fail to resolve, but would have succeeded when minimization was disabled. named will now fall back to normal resolution in such cases, and also uses type A rather than NS for minimal queries in order to reduce the likelihood of encountering the problem. [GL #1055]
1.10  License

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1.11  End of Life

BIND 9.15 is an unstable development branch. When its development is complete, it will be renamed to BIND 9.16, which will be a stable branch.

The end of life date for BIND 9.16 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.

1.12  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/.