

# 1 Release Notes for BIND Version 9.11.9

## 1.1 Introduction

BIND 9.11 (Extended Support Version) is a stable branch of BIND. This document summarizes significant changes since the last production release on that branch.

Please see the file `CHANGES` for a more detailed list of changes and bug fixes.

## 1.2 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.

## 1.3 License Change

With the release of BIND 9.11.0, ISC changed to the open source license for BIND from the ISC license to the Mozilla Public License (MPL 2.0).

The MPL-2.0 license requires that if you make changes to licensed software (e.g. BIND) and distribute them outside your organization, that you publish those changes under that same license. It does not require that you publish or disclose anything other than the changes you made to our software.

This requirement will not affect anyone who is using BIND, with or without modifications, without redistributing it, nor anyone redistributing it without changes. Therefore, this change will be without consequence for most individuals and organizations who are using BIND.

Those unsure whether or not the license change affects their use of BIND, or who wish to discuss how to comply with the license may contact ISC at <https://www.isc.org/mission/contact/>.

## 1.4 Security Fixes

- 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]

## 1.5 New Features

- The new GeoIP2 API from MaxMind is now supported when BIND is compiled using **`configure --with-geoip2`**. The legacy GeoIP API can be used by compiling with **`configure --with-geoip`** instead. (Note that the databases for the legacy API are no longer maintained by MaxMind.)

The default path to the GeoIP2 databases will be set based on the location of the **`libmaxminddb`** library; for example, if it is in `/usr/local/lib`, then the default path will be `/usr/local/share/GeoIP`. This value can be overridden in `named.conf` using the **`geoip-directory`** option.

Some **`geoip`** ACL settings that were available with legacy GeoIP, including searches for **`netspeed`**, **`org`**, and three-letter ISO country codes, will no longer work when using GeoIP2. Supported GeoIP2 database types are **`country`**, **`city`**, **`domain`**, **`isp`**, and **`as`**. All of the databases support both IPv4 and IPv6 lookups. [GL #182]

## 1.6 Bug Fixes

- Glue address records were not being returned in responses to root priming queries; this has been corrected. [GL #1092]

## 1.7 Red Hat Specific Changes

- By default, BIND now uses the random number generation functions in the cryptographic library (i.e., OpenSSL or a PKCS#11 provider) as a source of high-quality randomness rather than `/dev/random`. This is suitable for virtual machine environments, which may have limited entropy pools and lack hardware random number generators.

This can be overridden by specifying another entropy source via the **random-device** option in `named.conf`, or via the **-r** command line option. However, for functions requiring full cryptographic strength, such as DNSSEC key generation, this *cannot* be overridden. In particular, the **-r** command line option no longer has any effect on **dnssec-keygen**.

This can be disabled by building with **configure --disable-crypto-rand**, in which case `/dev/random` will be the default entropy source. [RT #31459] [RT #46047]

## 1.8 End of Life

BIND 9.11 (Extended Support Version) will be supported until at least December, 2021. See <https://www.isc.org/donations/support-policy/> for details of ISC's software support policy.

## 1.9 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/>.