

Dependencies

The following sections list the prerequisite software required for OpenDNSSEC.

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Software versions

The following sections list the prerequisite software required for OpenDNSSEC. For Ubuntu users, the name of the package (where relevant) is listed.

The version of the package available from the Ubuntu download sites may not be compatible with OpenDNSSEC; in that case, the latest version of the package should be obtained (and built if required).

Users of operating systems with different software packaging should consult the appropriate documentation.

Implicit in these sections is the assumption that the operating system has the following languages installed: C, C++, Ruby. If any are absent, consult the documentation for your operating system.

In all cases, a location from where to get a copy of the package source code and build instructions for the package are given.

As there are some dependencies between the prerequisite components, they should be installed in the order listed here.

Note, where no version number is specified any fairly recent distribution (e.g. Ubuntu 10.04) will have a new enough version of the software in its standard repositories. Also note that these are minimum version numbers, so they provide API calls that we use; there may be bug fixes in later versions which are useful.

Software	min. version for 1.3.0	min. version for trunk
ldns*	1.6.9**	1.6.12
libxml2, libxml2-dev, libxml2-utils	2.6.16	2.6.16
ruby, rubygems		
dnstruby	1.52	1.52
libopenssl-ruby		
java	not required	
sqlite3, libsqlite3, libsqlite3-dev	3.3.9	3.3.9
(mysql-client, libmysqlclient15, libmysqlclient15-dev)	5.0.3	5.0.3

* Note that due to issues found in ldns version 1.3.11 (and later) of OpenDNSSEC does not support version 1.6.14 or 1.6.15 of ldns.

** Version 1.3.5 and later require 1.6.12. (Note that an issue was also found where OpenDNSSEC 1.3.11 and earlier will not build against ldns 1.6.16 on platforms that rely on the OpenDNSSEC implementation of strlcpy/cat. This will be fixed in 1.3.12.)

ldns

ldns is a DNS programming library used in the signer component.

Ubuntu Users

Make sure the the packages "libldns-x.z.y" (where "x.y.z" is the ldns version number) and "libldns-dev" are installed on your system.

Installing from Source Distribution

Download a copy of ldns from <http://www.nlnetlabs.nl/downloads/ldns>.

When downloaded and unpacked, "cd" into the directory into which you have unpacked the tar file and issue the following commands:

```
./configure --disable-gost
make
sudo make install
```

This installs the `ldns` library in `/usr/local/lib`. If you require the software to be installed elsewhere, add the switch `--prefix=<location>` to the `./configure` command.

libxml2

`libxml2` is a C-library for handling XML. It is used in all parts of OpenDNSSEC.

Ubuntu Users

Install the packages `"libxml2"`, `"libxml2-dev"`, and `"libxml2-utils"`.

Installing from Source Distribution

Download a copy of `libxml2` from <http://xmlsoft.org/downloads.html>.

When downloaded and unpacked, `cd` into the directory into which you have unpacked the tar file and issue the following commands:

```
./configure
make
sudo make install
```

This installs the `libxml2` library in `/usr/local/lib`. If you require the software to be installed elsewhere, add the switch `--prefix=<location>` to the `./configure` command.

Ruby Gems

Ruby Gems is the standard way of installing Ruby packages. It is only used for the installation of the `DNSRuby` package.

Ubuntu Users

Install the package `"rubygems"`.

Installing from Source Distribution

Download a copy of `RubyGems` from <http://rubyforge.org/projects/rubygems>.

When downloaded and unpacked, make sure that `"ruby"` is in your path, then issue the following command:

```
sudo ruby setup.rb
```

... to install `RubyGems`. The command `"gem"` will be installed in the same place as the `"ruby"` command.

dnstruby

`dnstruby` is a third-party DNS library used by the Auditor.

There is no Ubuntu package for `dnstruby`. Instead, on all operating systems, install `dnstruby` using the command:

```
sudo gem install dnstruby
```

OpenSSL for Ruby

The Auditor uses the `OpenSSL` library for some operations.

Ubuntu Users

Install the package `"libopenssl-ruby"`.

Installing from Source Distribution

Most operating systems seem to include this software as part of the operating system. Consult your documentation for more information.

SQLite

SQLite is a cut-down SQL database system, used by the KASP component of OpenDNSSEC.

Ubuntu Users

Install the packages "sqlite3" and "libsqlite3-dev".

Installing from Source Distribution

Download a copy of SQLite from <http://www.sqlite.org/download.html>.

When downloaded and unpacked, "cd" into the directory into which you have unpacked the tar file and issue the following commands:

```
./configure
make
sudo make install
```

This installs sqlite in */usr/local/bin*. If you require the software to be installed elsewhere, add the switch `--prefix=<location>` to the `./configure` command.

MySQL

You can choose to use MySQL instead of SQLite for the KASP database. This will give you better performance when handling thousands of zones.

Ubuntu Users

Install the packages "mysql-client", "libmysqlclient15", "libmysqlclient15-dev".

Installing from Source Distribution

Download it from <http://dev.mysql.com/downloads/mysql>

At this site there are links for various different systems, or to the source code if you want to build the code yourself. Full documentation is also available from the download page.