

NativeSPLinuxSourceBuild

Building the Native SP from Source on Linux

The following installation procedure will build the Shibboleth 2 SP and all its dependencies. Completion of the instructions will result in a functional and loaded but unconfigured SP installed under `/opt/shibboleth-sp`. If you'd like to use an alternative directory, modify all paths accordingly.

Building Shibboleth

The following packages must be built in the following order using the `./configure` commands listed. Unless specific version notes are given, any modern release is sufficient. Be sure to make and make `install` as appropriate for each package, including Shibboleth itself.

You will also need the [Boost](#) headers available (but don't need to actually build or install the full Boost library set).

- **log4shib:** `./configure --disable-static --disable-doxygen --prefix=/opt/shibboleth-sp`
- **Xerces-C:** `./configure --prefix=/opt/shibboleth-sp --disable-netaccessor-libcurl`
- **XML-Security-C:** `./configure --without-xalan --disable-static --prefix=/opt/shibboleth-sp`
- **XMLTooling-C:** `./configure --with-log4shib=/opt/shibboleth-sp --prefix=/opt/shibboleth-sp -C`
- **OpenSAML-C:** `./configure --with-log4shib=/opt/shibboleth-sp --prefix=/opt/shibboleth-sp -C`

When building Shibboleth, you can usually rely on the `configure` script to detect your Apache version and do the right thing, but in special cases, you can pass various options to control the Apache module version and locate the `apxs` script to use.

- **Shibboleth:** `./configure --with-log4shib=/opt/shibboleth-sp --enable-apache-13 --with-apxs=/usr/local/apache/bin/apxs --enable-apache-20 --with-apxs2=/usr/local/apache2/bin/apxs --prefix=/opt/shibboleth-sp`

Troubleshooting

If you're not comfortable researching and diagnosing `configure` and/or `make` errors, we strongly suggest you find somebody who is, or use a package of some sort rather than a direct source build. However, we'll compile some [tips on troubleshooting source builds](#).

Basic Configuration

These steps will configure Apache to load `mod_shib`, supply it with proper host and scheme information, and start `shibd`.

1. Set the `LD_LIBRARY_PATH` environment variable to the path containing Shibboleth dependencies and libraries. This may be required both in the script that starts the `shibd` daemon and when starting Apache (so you might put it in `/etc/sysconfig/httpd` or someplace similar).

```
export LD_LIBRARY_PATH=/opt/shibboleth-sp/lib
```

2. Edit `httpd.conf`:
 - Shibboleth includes sample Apache configuration files in `etc/shibboleth` for each version of Apache. You can add an `Include` to `httpd.conf` itself, but this isn't advisable because that file will be overwritten on subsequent installs/upgrades. Use it as a sample to add the necessary commands to your own configuration.
 - `UseCanonicalName On`
 - Ensure that the `ServerName` directive is properly set, and that Apache is being started with SSL enabled.
3. Restart Apache.
4. `shibd` must be independently started and run. The daemon should in the future be loaded and monitored along with all other major services.

```
/opt/shibboleth-sp/sbin/shibd
```

5. By default, the Shibboleth module is configured to log information on behalf of Apache to `/opt/shibboleth-sp/var/log/httpd/native.log`
6. `shibd` creates its own separate logs in `/opt/shibboleth-sp/var/log/shibboleth`