

# AlternativeJSSE

## JSSE Implementations

[HttpClient](#) does not come with support for SSL/TLS because it doesn't have to. Both security protocols are for the transport layer, while the HTTP protocol operates on top of the transport layer. You can mix and match [HttpClient](#) with any independent SSL/TLS implementation. Our [SSL/TLS guide](#) explains how to do this. The standard [Java API for SSL/TLS](#) is called [JSSE \(Java Secure Socket Extension\)](#). This page lists some JSSE providers, that is implementations of the API, which you can use. It starts with JSSE providers that are bundled with JDKs, then follow independent packages.

Some of the [SSL code](#) in the [HttpClient](#) contrib package is hard-coded against the SUN JSSE provider, since classes under `com.sun.*` are referenced. If you are using a different provider, you have to adapt the code to use the respective API of that provider. Problems you may encounter with some JSSE implementations are sometimes caused by the fact that the secure sockets provided not always correctly implement all socket operations used by [HttpClient](#).

### SUN JSSE

SUN JDKs since 1.4 are shipped with the SUN JSSE provider. There is a separate package that can be downloaded and installed for older JDKs. The SUN JSSE provider is reported to be stable for use with [HttpClient](#) since JDK 1.4.2. Older versions, and the separate download packages for older JDKs, are reported to cause problems.

### IBM JSSE

IBM JDKs ship with an IBM JSSE provider replacing the one from SUN. Here is the [documentation](#) for the JSSE. Platform specific security information for the IBM JDK 1.4.2 is available [here](#). Information about older JDKs seems to be unavailable or is well hidden.

### JESSIE

[JESSIE](#) stands for *JESSIE Executes Secure Sockets In Excess*. It is a free implementation of JSSE with a relaxed GNU license.

### SSLava

[Oracle Phaos SSLava](#)

### iSaSiLk

Developed at the Technical University of Graz, [iSaSiLk](#) is not a cheap, but a good SSL/TLS implementation. [Recommended by Oleg](#).