**LibreSSL vs WolfSSL**

**Initial Remarks**

LibreSSL and wolfSSL are both open-source cryptographic libraries, but they have different origins, focuses, and features. Here are the key differences between LibreSSL and wolfSSL:

1. Origin and Forking: LibreSSL is a fork of OpenSSL that was created by the OpenBSD project. It was developed in response to security concerns and code quality issues in OpenSSL. WolfSSL, formerly known as CyaSSL, is an independent project that started as a lightweight SSL/TLS library for embedded systems.
2. Codebase and Features: LibreSSL and wolfSSL have different codebases and feature sets. LibreSSL aims to provide a drop-in replacement for OpenSSL with a focus on security, code simplicity, and compatibility with existing applications and protocols. It removes or rewrites code from OpenSSL that is considered unnecessary, deprecated, or problematic. WolfSSL, on the other hand, is designed to be a compact and lightweight library suitable for resource-constrained environments such as embedded systems. It emphasizes efficiency and small footprint while providing essential SSL/TLS and cryptography functionality.
3. Development and Community: LibreSSL is primarily maintained by the OpenBSD project and benefits from the contributions and expertise of the OpenBSD community. WolfSSL is developed and maintained by the wolfSSL company, which provides commercial support and services around the library. Both projects have their own development processes and community support.
4. Platform Support: Both LibreSSL and wolfSSL support multiple platforms, including Linux, Windows, macOS, and various embedded systems. However, LibreSSL's primary focus is on Unix-like systems, including OpenBSD, while wolfSSL emphasizes cross-platform compatibility.
5. Licensing: LibreSSL is released under the OpenBSD License, which is a permissive license similar to the ISC License. WolfSSL is dual-licensed, offering both a GPLv2 license and commercial licensing options for proprietary use.
6. Industry Adoption: LibreSSL has gained significant adoption, particularly in the OpenBSD and BSD communities, and is included as the default SSL/TLS library in OpenBSD. WolfSSL is also widely used, especially in embedded systems and IoT devices, and has a broad user base.

When choosing between LibreSSL and wolfSSL, consider your specific requirements, platform support, licensing preferences, and the level of OpenSSL compatibility needed. If you are looking for an OpenSSL-compatible library with a focus on security and code quality, LibreSSL may be a suitable choice. If you need a lightweight library with a small footprint and efficiency for embedded systems, IoT devices, or resource-constrained environments, wolfSSL may be a better fit.

**Testcase Directories:**

1. 20220421\_170304\_libressl-2.4.0-wolfssl-3.9.6-update-1\_tgt-0\_all
2. 20220421\_174256\_libressl-2.4.0-wolfssl-3.9.6-update-1\_tgt-1\_all
3. 20220511\_172017\_libressl-2.4.0-wolfssl-3.9.6-update-1-rank-1-5016a\_tgt-0\_all
4. 20220511\_180814\_libressl-2.4.0-wolfssl-3.9.6-update-1-rank-1-5016a\_tgt-1\_all
5. 20220511\_184232\_libressl-2.4.0-wolfssl-3.9.6-update-1-rank-2-99ce4\_tgt-0\_all
6. 20220511\_192222\_libressl-2.4.0-wolfssl-3.9.6-update-1-rank-2-99ce4\_tgt-1\_all