

Mobile Wallet Libraries Resources for Zcash Shielded Transactions



The Electric Coin Co. provides open-source tools and libraries for any developer or team who wants to create shielded, mobile wallets.

Getting Started

What is [lightwalletd](#)?

Lightwalletd is a server written in Go. It downloads blocks from zcashd and processes them into a format optimal for mobile wallet performance. It is dockerized and provides client interfaces to download blockchain information.

What is [librustzcash](#)?

Librustzcash is written in Rust and contains the logic for handling shielded transactions. It is used in zcashd and in the SDKs. The mobile SDKs wrap librustzcash, providing an interface to its functionality so that it is easy to add these rust dependencies onto mobile devices.

What is a [compact block](#)?

A compact block is a standard Zcash block that has the minimal amount of information necessary to verify the status of the network and transactions. The purpose of this is to limit the amount of information a wallet must download to verify the status of the network and transactions. Compact blocks do not contain non-Sapling transactions, the memos from all Sapling transactions, and a few other miscellaneous items.

The compact block model is the basis of our protocol for light clients. It represents a savings of about 82% over downloading the whole chain.

Mobile Wallet Libraries

- Use these libraries for handling Sapling cryptography on mobile devices.
- Interface with librustzcash, which handles shielded address cryptography
- Prioritize bandwidth and efficiency (over full functionality) for verifying shielded transactions
- Demo app in Android and iOS that includes basic wallet functionality such as Get address, Fetch blocks from [Lightwalletd](#), Get private key, Show transactions, Send, Receive.
- [Android SDK](#) - built in Kotlin, targeting API 21, zcash-android-wallet-sdk
- [iOS SDK](#) - built in Swift, ZcashLightClientKit

Questions? We're here to help.

Zcash is a global, open-source community. If you have questions about implementing shielded support, please reach out and let us know.

Telegram: [Wallet Working Group](#)
[Discord](#)

Forum
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