

# Sirius introduce

Starcoin

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# Outline

Sirius  
Introduce

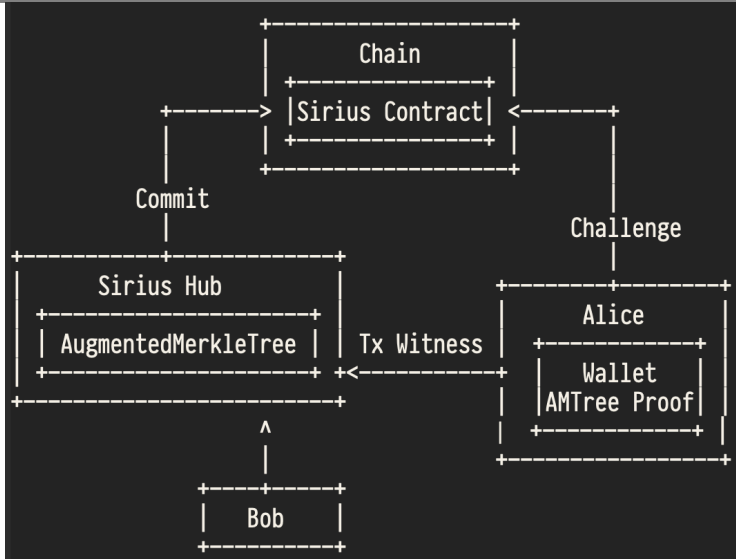
Architecture  
HighView

# About

A blockchain layer 2 protocol implementation, currently supported Ethereum. Project is under heavy development, not production ready.

# Overview

Sirius implement a 2nd-layer financial intermediary protocol secure against double-spending that guarantees users control of funds through leveraging a smart contract enabled (currently on Ethereum) decentralized blockchain ledger as a means of dispute resolution.



# Client

Clients hold private keys that control their identities and use them to sign off-chain transactions while communicating with hub. They also use the private keys to control their on-chain wallets.

# Hub

The hub will periodically commits the off-chain ledger state as a proof to the blockchain. once a untrusted or malicious operation happen, the client can issue a challenge to hub and withdraw their funds.

# Smart contract

The smart contract act as a On-chain Verifier between hub and local transaction Ledger.



	Sirius	Plasma
Data Structure	Account State Augmented Merkle Tree	UTXO/Block
Data Privacy	Hub owner record all tx, user only know tx related self.	All tx is public to all user
Proof	Account State Proof	Transaction Membership Proof
Commit Proof Period	Eon(n blocks, n is custom hub setting)	Every block
User Cost	Check commit every Eon	Check every Plasma block