# BOLT: Booster of Ledger Technology

@juinc
@jerry-jheng davidjuin0519@gmail.com
jerry128371@gmail.com

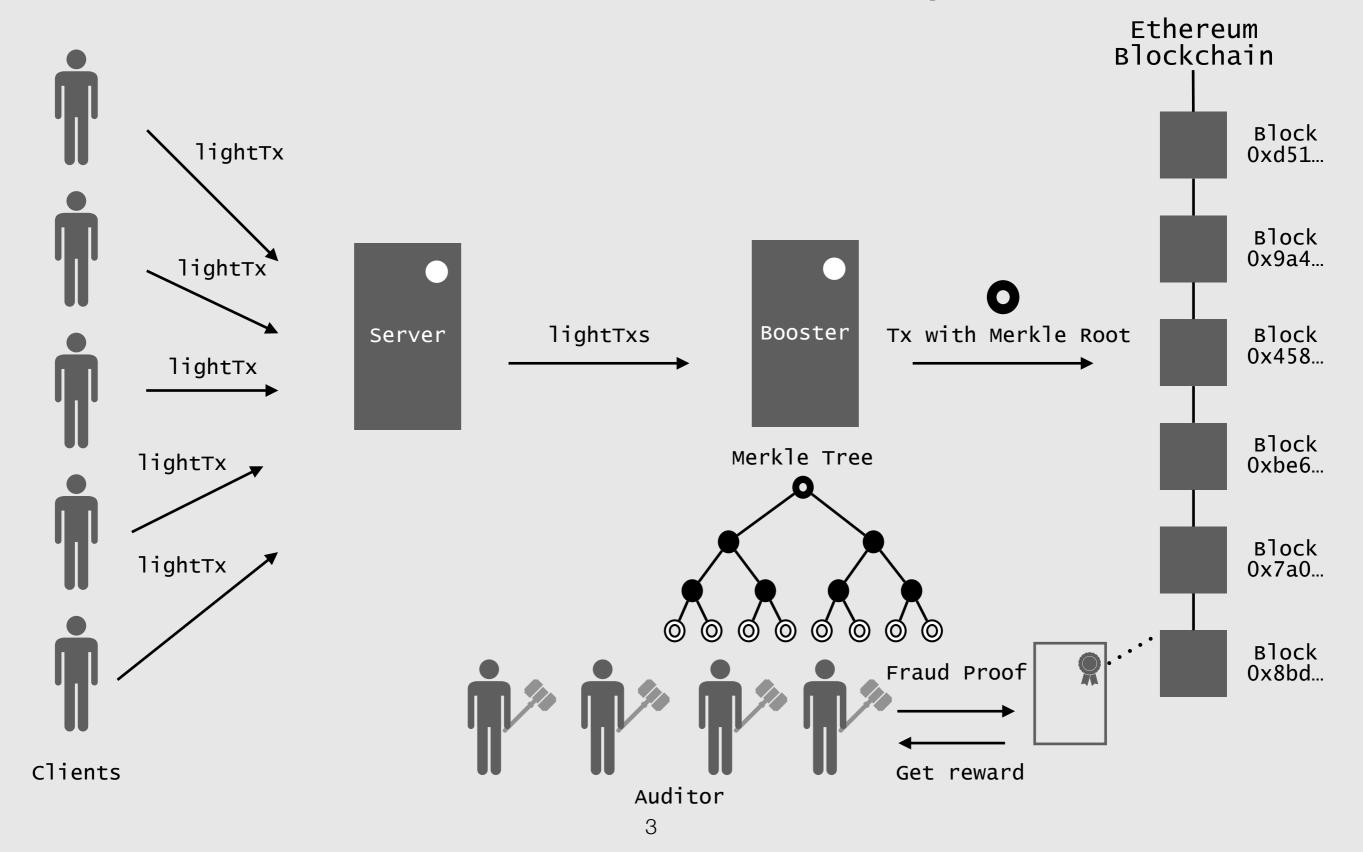


BOLT.infinitechain.io

## Outline

- ▶ Overview
- ▶ Is BOLT Secure?
- ▶ Game, Court and Fraud Proof
- ▶ Architecture
- ▶ Protocol
- ▶ Demo

## Architecture: Concept

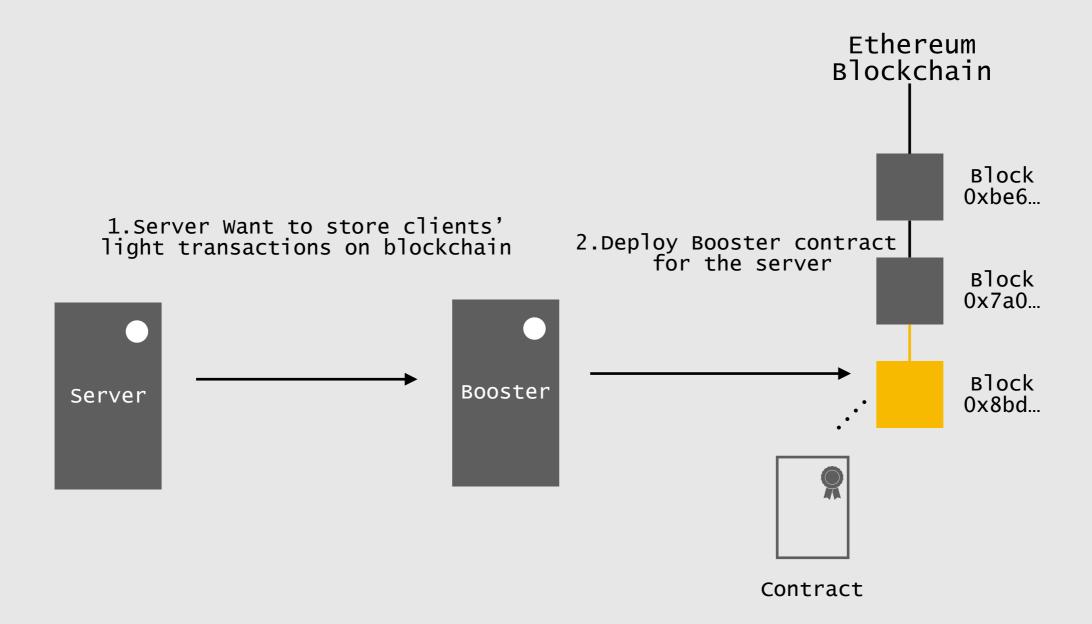


## Architecture: Light Transaction

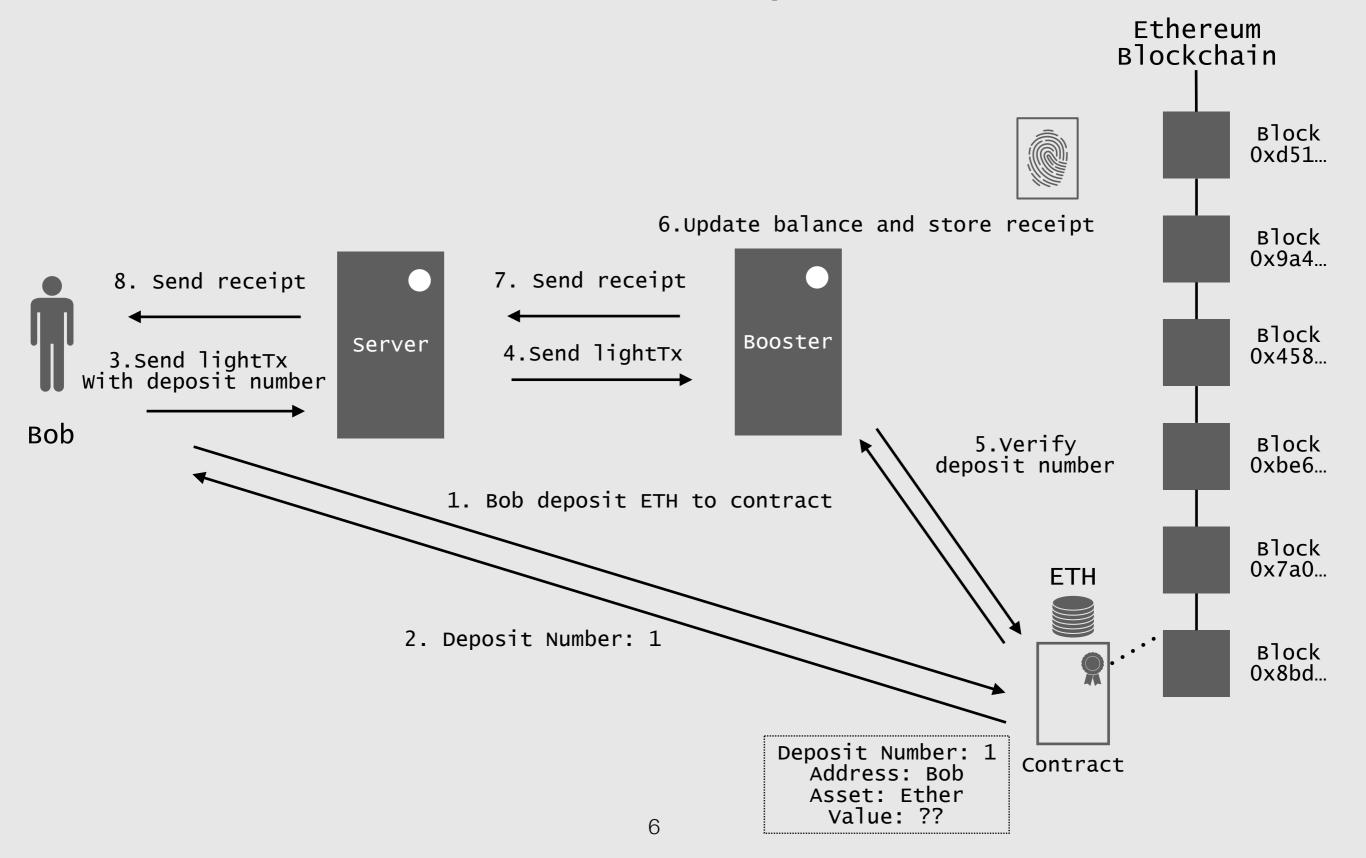
Light Transaction Type:

- ▶ Deposit
- ▶ Remittance
- ▶ Withdrawal

#### Protocol: 0



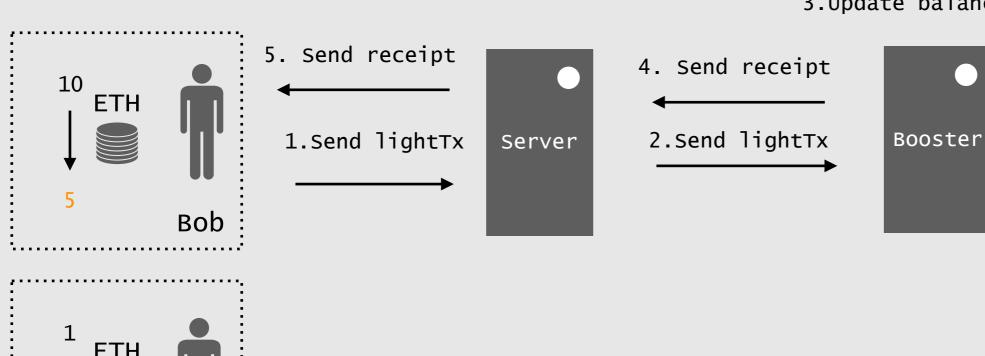
## Protocol: Deposit



#### Protocol: Remittance

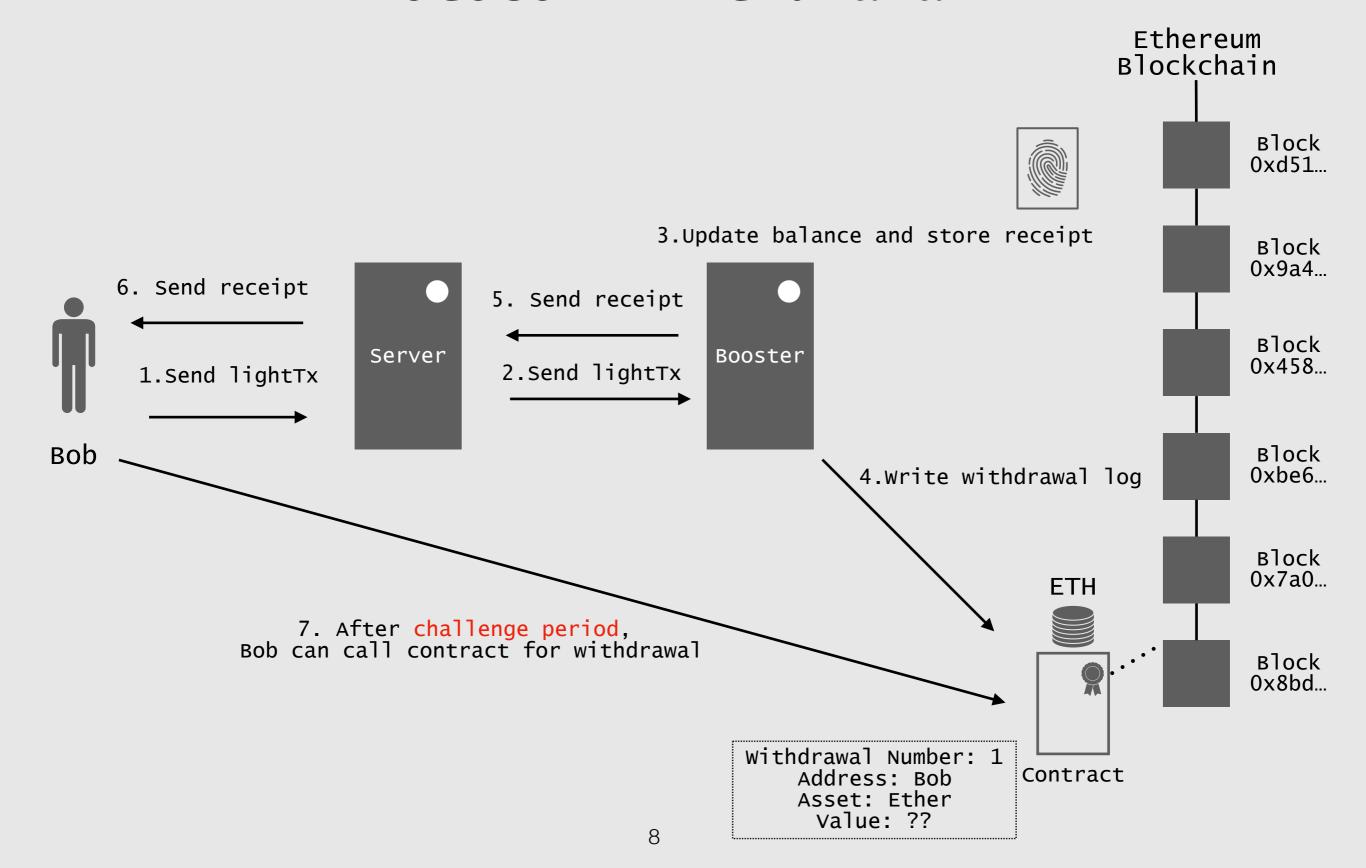


3.Update balance and store receipt

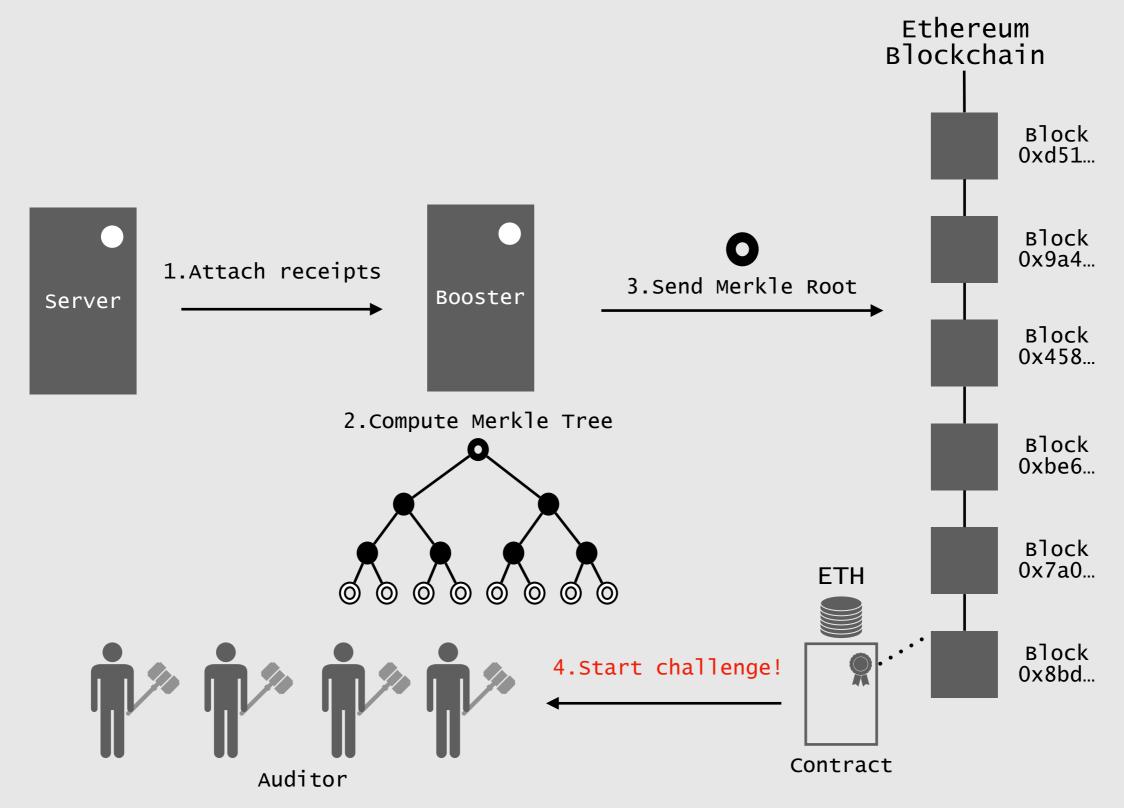


Alice:

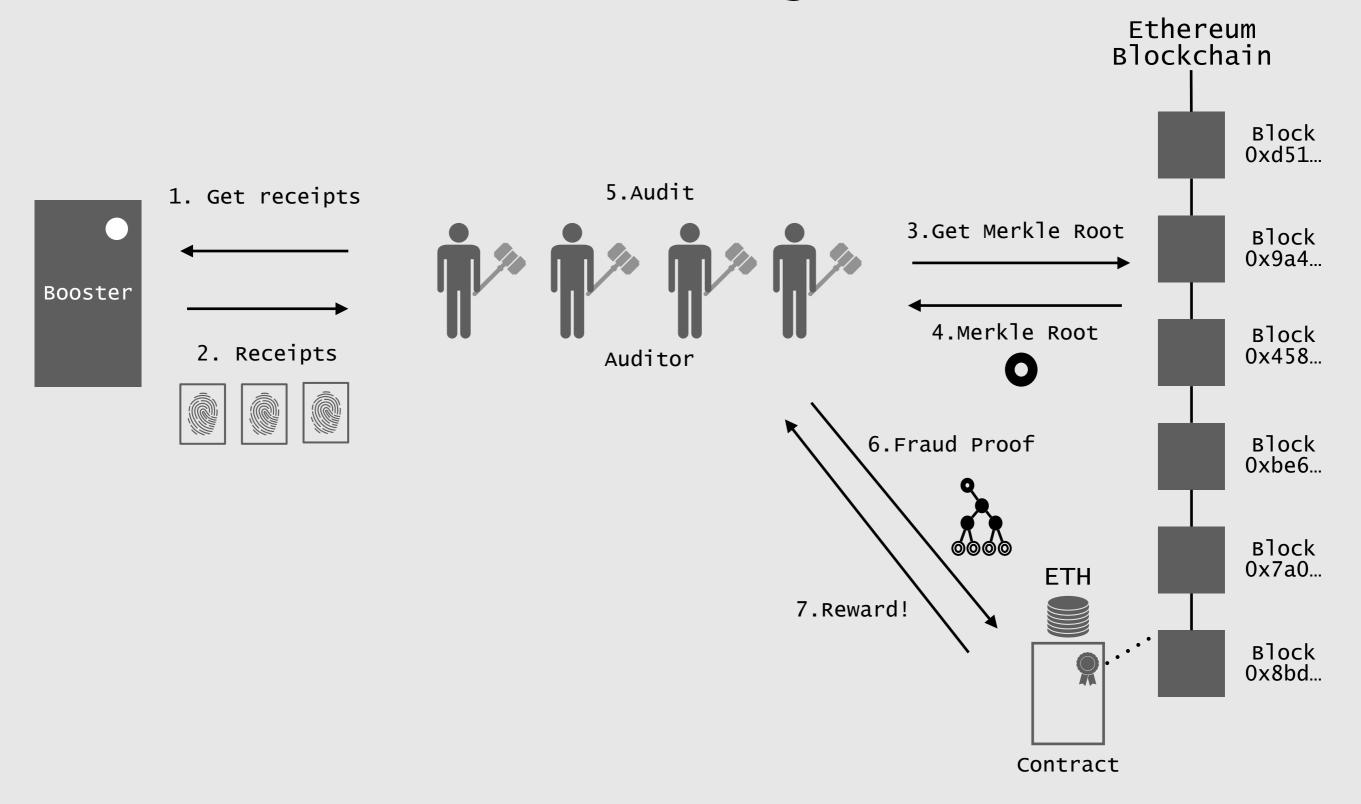
#### Protocol: Withdrawal



## Protocol: Challenge Start



## Protocol: Challenge Period

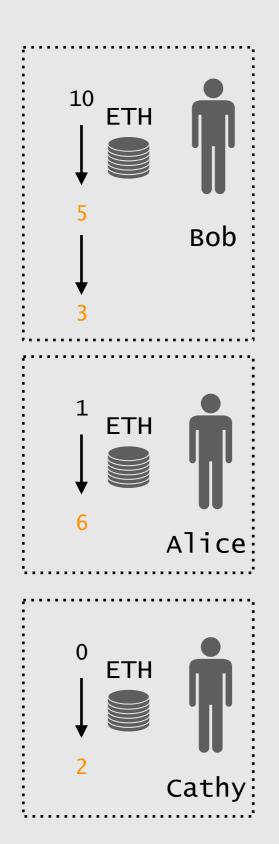


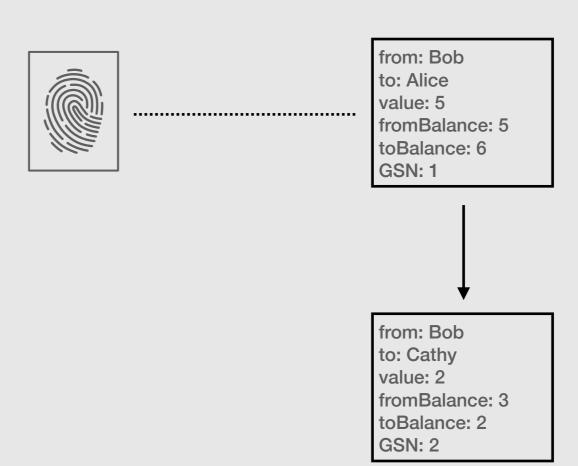
#### Protocol: Fraud Proof

#### Type:

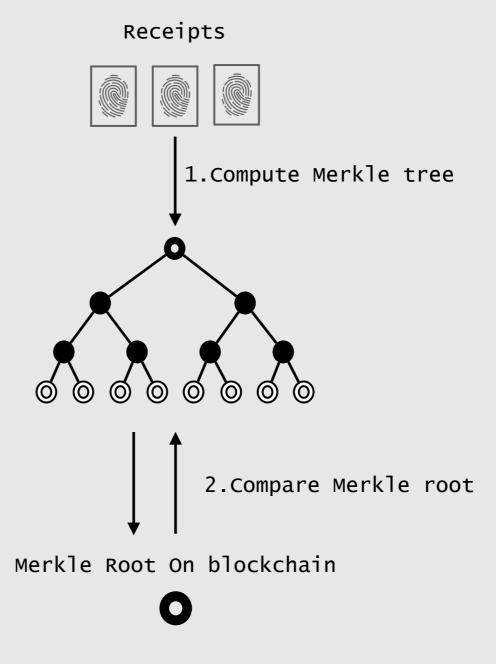
- ▶ Proof of existence
- ▶ Repeated GSN
- Skipped GSN
- Wrong balance status

## Protocol: Receipt Structure

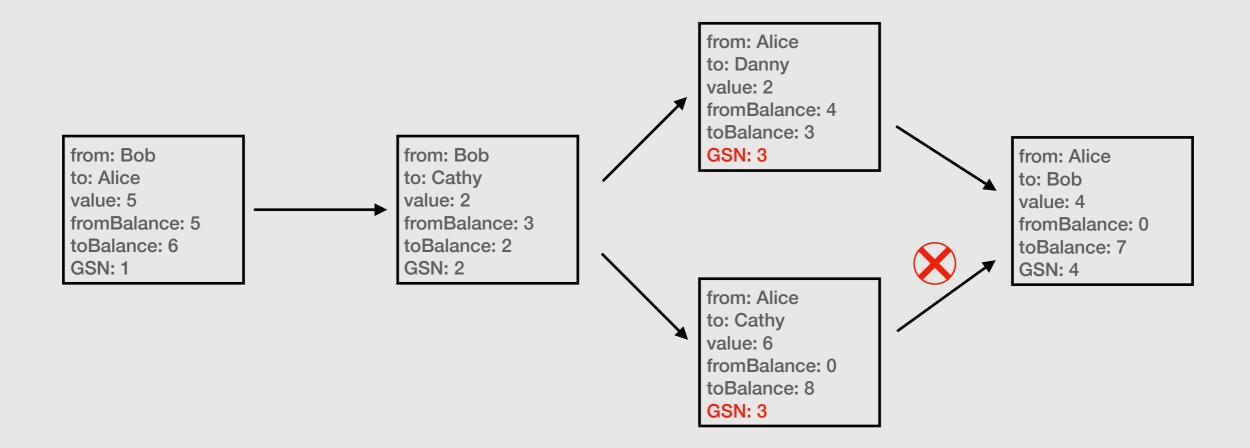




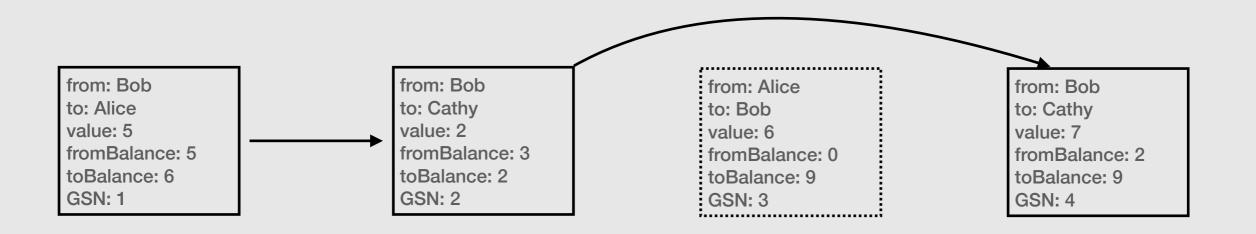
### Fraud Proof: Proof of existence



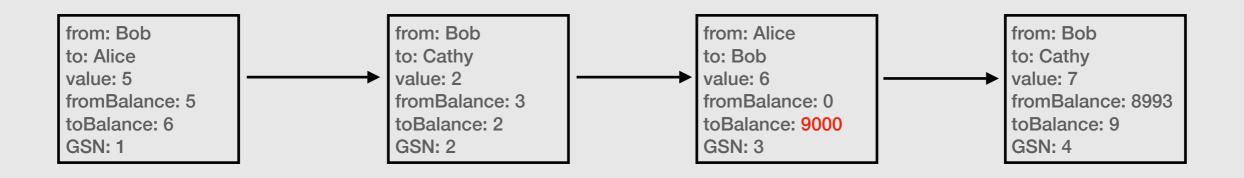
## Fraud Proof: Repeated GSN



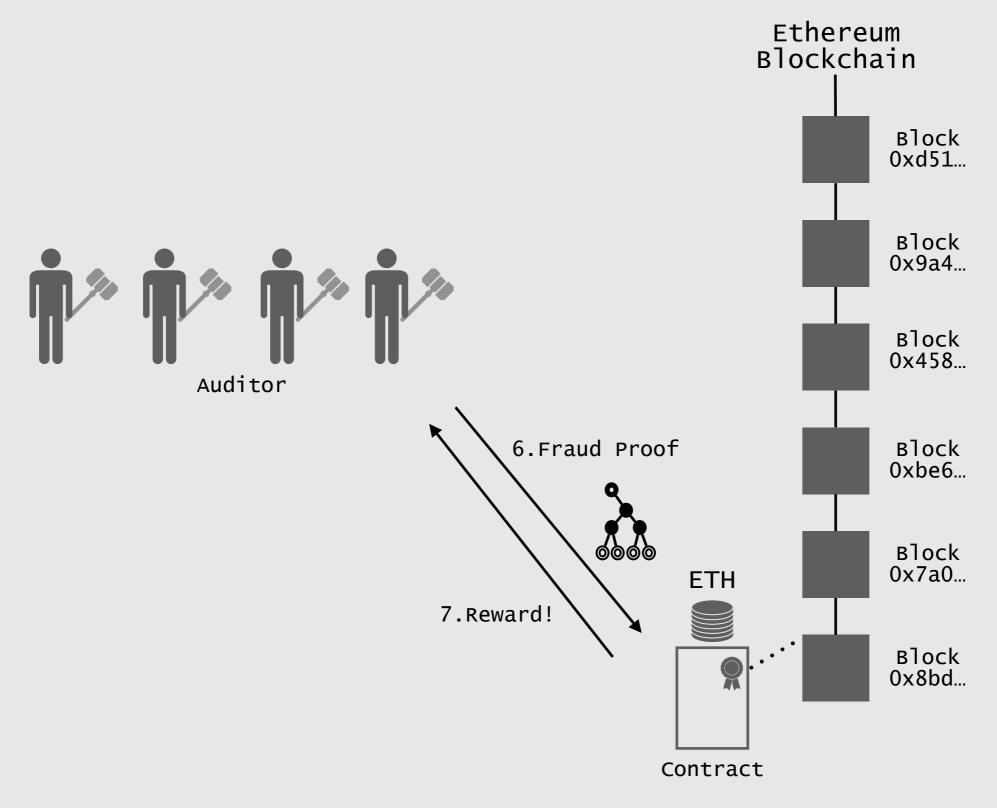
## Fraud Proof: Skipped GSN



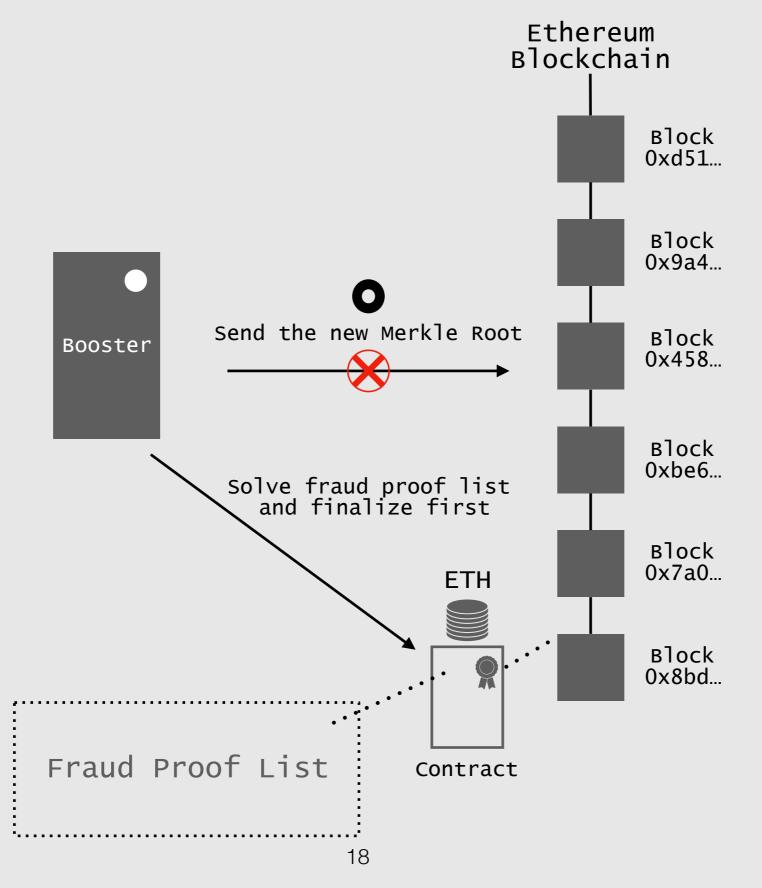
## Fraud Proof: Wrong Balance Status



## Protocol: Challenge



#### Protocol: Finalize



## Protocol: Force Withdraw



