3 Way Smart Contracts on the Blockchain

Impact.com often connects 3 parties together, who do not necessarily know each other and have no formal relationship, but need to do trusted business with each other.

UNDERSTANDING THE PROBLEM

3 Parties:

    A. Entity paying for goods (e.g., manufacturer or brand) - Payer
    B. Entity providing the goods (e.g., an advertiser) - Provider
    C. Entity receiving goods (e.g., end-user or social influencer) - Receiver

The goal of the smart contract is to create a system that:

1. Ensures the payer's money is spent as intended
2. Guarantees payment to the provider upon confirmation of delivery
3. Ensures the receiver gets the goods before payment is released

PROGRAM FLOW

The first action is taken by the Payer (brand) who mints the Voucher (NFT) and in the process locks the value of the voucher in an Escrow on the blockchain linked to the Voucher. The Payer then sends the Voucher to a Receiver (influencer) who can use it by sending it to the Provider. In return for sending the Voucher to the Provider, the Receiver gets given the goods which are to be marketed. The Provider may redeem the Voucher by collecting the value from the Escrow and burning the Voucher.

TECHNICAL DESIGN

We have chosen Solana as our blockchain of choice due to low transaction fees and greater performance over Ethereum. NFTs provide a secure digital representation of the voucher along with capability of linking the Escrow which holds the SOL value of the voucher through the NFT's metadata. The blockchain program which we have developed includes 2 primary functions *InitEscrowMintVoucher* and *ReleaseEscrowBurnVoucher* which are explained on the following page. On the front-end, each party will have their own UI catered for their role. Users will login using their Solana Wallet.

SPRINTS

1. Blockchain Voucher System [Already Implemented], Basic UI for each of the 3 parties to invoke the transactions on the blockchain.
2. Transferring of the Vouchers through UI using QR codes, blockchain transaction history, improved Security.
3. Administrator System, statistics tracking and visualization, more personalized UX