

Unidouble: An autonomous e-commerce platform

Why

An e-commerce platform stored on a blockchain have these characteristics compared to traditional e-commerce website:

1. Full privacy of his users
2. No blacklisting of users and items sold
3. No data collected
4. All the money made by the e-commerce is available for items delivery or for charity

The objective of Unidouble is to be a better version of Ebay.

How

A user can create a seller account that contain a public key. He has to keep the corresponding private key the same way he keep the private key of his account. He can after that list new items that are stored on-chain. Items have a country, category, price, quantity, title, image and a description.

Another user can buy this item, in that case 94% of the price will go to the seller, 5% to the Solana program and 1% kept by the program. This 1% will be given back to the buyer when he will review the item.

A 5% fee is necessary to stop a seller from buying his own item and make a fake review.

The delivery address of the buyer is stored encrypted on-chain. The seller is the only one to be able to decipher it thanks to the Diffie–Hellman key exchange algorithm.

Solana and IPFS

Solana has been chosen for his fast and cheap transactions. The data is temporary stored on-chain. Listing an item costs less than 0.1 Solana that the seller get back when he removes the item.

Only a front end is needed since everything is stored on-chain. We can therefore host the website on IPFS to make it unstoppable.

It should be better to store all the data on IPFS and to only keep a hash as a proof of ownership on the Solana blockchain. By storing everything on-chain, The current implementation of Unidouble is a first step towards an autonomous e-commerce platform.