Sikker - Decentralized Escrow System

Light Paper - pre-WhitePaper

Sikker is a decentralized ‘Escrow’ system.
It fills the need for a third-party decentralized application to rely on,
so the two parts of an exchange happening can truly and safely rely on a stone cold and nice algorithm that will do what the two parts agreed to, no more no less.

What is ‘Escrow’ ?

The ‘Escrow’ standard payment system has been around since the beginning of the Internet.
It simply consists of trusting a third-party, whether it is a company or service provider, each one with their greedy middlemen, as they keep the money a buyer spends until the seller gives him the sold item or service.
This service is usually not free at all, as the infrastructure and the staff has costs, and this ends up as a painful supplement of a few % of the total.
In the end, it is a nice security that favors the buyer a bit, and proposing an escrow service as a marketplace is a real bonus.

Why Sikker ?

As mentioned above, this security has a cost, and when centralized, the profits made are directly going in the greedy middleman’s pocket.
With a decentralized alternative, used as a tool by marketplaces, not only the usage costs would be a fraction of the centralized ones, but for the customers it would be a real sign of trust to know that the payment system they use is not owned by anybody and fully autonomous, following the exact rules they decided.

1 - The costs of a decentralized alternative

Why would Sikker be less expensive than a centralized alternative ?
Let's first focus on what Sikker need for running:

➔ A backbone: the smart contracts

- The different smart contracts have to be written by developers, which is not exactly free. For the firsts versions, I, STCB, and my colleague Ange are working with heart for no other purpose than achieving a Solidity project and feeling of accomplishment of a useful decentralized application.

- The total deployment costs of the whole smart contracts bundle is less than 2000$ (for now at least), which is the biggest expense of the whole project and is the real heart of Sikker. Because once deployed, it runs on itself and can already be used without a graphical interface by professional customers.

➔ A Graphic User Interface: a website

- Web 3.0 is not only a developers place, it is the absolute opposite actually, and this is why we need a great graphic user interface to allow everybody to use Sikker on their own without going on a marketplace. This is, unfortunately, not free to develop and will cost a few hundred / thousands $ on further versions, but for now this work is done locally and does not cost.

- Hosting the website is not free either, but will cost only a few dozens $ a year, it will depend on the decentralization solution we will choose. With this included the domain name, which we will lately update to an unstoppable domain name powered by the blockchain, like ENS or Unstoppable Domains.

As you can see, the Sikker dapp would cost us about ~2000$ maximum if we deploy on Ethereum maint net, which is way less than LeBonCoin's or eBay's 'secure payment' systems, that usually costs several tens of thousands $, or hundreds of thousands $.
And so, we will need much thinner fees to make our solution sustainable, we are talking about 0.01% sort of fees.

2 - An unstoppable tool accessible to everyone

As a decentralized service provider, Sikker's strength depends entirely on the blockchain it is deployed on.
In the case of an Ethereum deployment, or of a comparable size network, it seems that nothing could really stop its behavior, for the good or for the bad.
Deploying an application on a blockchain not only makes it engraved in marble for the life length of the network, but also makes it accessible by anyone in the world with an internet connection.
Indeed, anyone that can connect to the network the dapp is deployed on, can also interact with it.

Add to the decentralized effect a 'DeFi classic' user interface, which makes the dapp understandable quickly by anyone, with easy handling, and then you understand how well it can be used by anybody - anybody can easily create payments tickets, manage them, fill or close them from an easy access website.

How to Sikker ?

Sikker works with a Ticket system.
There are two types of tickets:

-CE, which stands for Classic Escrow
-TMM, for Take My Money

The first category is for a classical escrow system use:
A seller promises to send a package to a buyer in exchange for money, the buyer promises to send money in exchange for the package, so how do we split the problem ?
The buyer and the seller agree on terms, such as a price, a retreat fee etc..
They create a CE ticket with the terms they agreed, and now their ticket will exactly follow those rules.
The buyer can lock the money until he receives the package, and when received he unlocks it. In a case of a fraud attempt, the retreat fee they planned will take effect when taking back the money, and nobody will end up happy.