Project proposal

Decentralized Sports Betting

Group PONZI

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Motivation

The Internet has radically changed the sports betting market. Online providers of sports betting are becoming increasingly popular with customers and are constantly opening up new markets. However, many providers are based abroad (e.g. in Malta or Cyprus), where the tax and legal framework is more attractive. Such a company structure creates little trust among potential customers. These sports betting platforms are centralized. Players trust a third party to proceed with their assets according to a protocol. Additionally, these providers design their odds in a way that they profit in long term. For these reasons, a decentralized betting platform has potential to eliminate the third party. Without such a third party, players now make bets against other players with their defined odds and without higher fees. As a decentralized betting platform is secure by design, the betting protocol being transparent to the players establishes trust as well.

Approach

We utilize Ethereum to develop a DApp. The final application should have a user interface through which players can create and place bets. One smart contract offers methods to list all available games to bet on and the functionality to create an own bet. Once a bet is established between two players, a new smart contract is created that records the establishment, collects the bets from both players, and records the game outcome and the player who won. The winner is then allowed to claim the reward. The results of the individual games are to be connected via an external REST interface (e.g. Sportradar).

Challenges

- Identification of users.

- Type of profit. Do players use Ether or some other form of asset?

- How are winnings delivered?

- Getting external data. Such a challenge can be solved using an *Oracle*, but how can we establish trust with that?

- Reduce or eliminate the need for a trusted third party.

Schedule and milestones

One milestone half way through the project demo may be appropriate. The first half is dedicated to a more detailed design and specification of the platform followed by the implementation and utilization of a fully trusted single Oracle providing mock game outcomes as a naive first approach. The other half will be used to research on how a trustless Oracle can be designed and implemented.