



Bookmakers with Oracles

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Introduction

In the Sports betting industry is a high competition market. The bookmakers are fighting for their margins and customers are looking for the best odds (prices) in market. New concepts, bets and a better user experience are under constant development and revision to stay ahead of the competition. As first step several online bookmakers started to accept cryptocurrencies like Bitcoin or Ethereum for the payments made by customers. But almost none of them is using a smart contract oracle service to fill their bets. Nevertheless, there are new companies being founded that implement that technology from scratch and are therefore among the first adopters in this industry. Often providing their own utility token to place bets and even letting the customer become a bet creator to enhance customer involvement. If these early concepts proof to be successful, a wide range of adoption could follow in the future. In the following will be a list and introduction of current bookmakers that are known to work which oracles.

General Betting Process Overview

Most of the online bookmakers that are working with oracles, have their own stakeable utilization token you must use to place bets and they are a peer-to-peer betting exchange, allowing users both to offer and take bets. In the following infographic is a simplified version of how most bookmakers with oracles offer their bets.

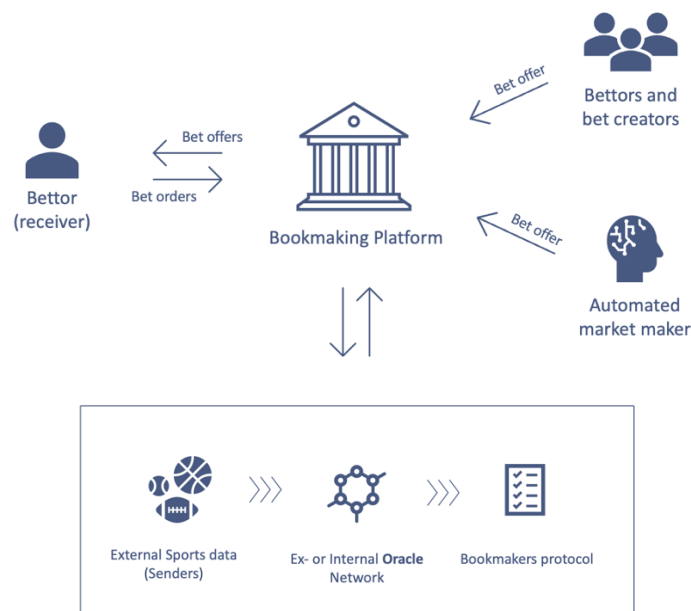


Figure 1: Betting Process Overview (own illustration)

First, bettors (peer-to-peer betting; multi peer betting) or the automated market maker (peerless direct chain betting), mostly run by the bookmaker, are generating bet offers while also calculation the fitting odds. These are then displayed at the bookmaking platform and can be seen by the end consumer (receiver). These Bettors can then submit an order to fill it.

This step is already realized in the Bookmakers protocol. When an event happens the data or the result from senders is delivered to the oracle network and paid out through the protocol directly. There are always more technical aspects to this simplified illustration that differentiate from bookmaker to bookmaker.

Bookmakers with Oracles

SportX

The SportX beta was launched in March 2019 with its operations in Ireland. SportX beta is a smart contract protocol, which is set of with web applications on Ethereum but mainly Polygon blockchains. It is an almost decentralized sports book that facilitates the creation, trading, and settlement of crypto-based sports betting and political prediction markets. Through the commitment of community ownership and decentralized finance, SportX wants to provide a transparent betting platform that is owned, operated, and governed by their community (SportX (2022a)).

Currently SportX consist of different sections:

1. There is the SX Protocol, that comprises a set of open-source smart contracts, which create, proceed and settle all bets on-chain in the background.
2. there is the consumer facing front-end where users interact with the SX protocol and place their bets with a web 3 wallet.
3. The SX token enables a shared community and decentralized governance through staking as well as advantages in liquidity, security, and reliability. More precisely, it serves as payment for transaction fees (gas costs), used for staking by validators to validate transactions and earn fees and it is both a voting and betting currency in SX governance. There is a total maximum token supply of 1 billion SX; 55% for community members, 23% for the development team, 17% for early backers and 5% for strategic partners and marketing initiatives.
4. The SX On-Chain treasury is used for liquidity mining programs, promotional programs and technology development while being controlled by the community (SX Network (2021)).

The current protocol charges bettors 4% on net profit of winning bets. There are different fee discounts on bets for people that stake, as well as staking rewards and the ability to participate in governance (SportX (2022c)).

At the moment the SportX team creates and resolves SportX betting markets by itself but is working on an oracle solution. While having looked at different oracle projects like Chainlink, UMA and API3, they decided to select the UMA Optimistic Oracle solution to settle their betting market in near future (SportX (2022b)).

In the following some technical data can be seen from SportX (2022d) and Coingecko (2022a):

All time betting volume:	161'160'191 USD
Staking yield yearly:	22.93%
Price SX token:	0.391 USD
Market cap:	30'879'422 USD
Max. all time winnings:	1'110'757 USD
Biggest bet made:	66'150 USD

Wagerr

Wagerr is a decentralized sports book that runs entirely on its own open source blockchain and was founded in 2017, while being operational since 2018. Build on the Ethereum technology, the system is strictly using Application Specific Smart Contracts (ASSC), with a second layer network controlled by Oracle Masternodes. Therefore, it is a two tiered system comprised of standard proof of stake wallets and Oracle Masternodes. The first layer is the standard transactional layer in which basic wallets earn rewards for block formation, as well as provide network security, with confirming blocks of transactions that constitute the blockchain. The second layer of the network, the oracle Masternodes, function as consensus agents, forging betting contracts, retrieving sporting events outcomes data, and consensually validating results that trigger contractual payouts. In fact, if a user or node believes they did not receive a proper payout, they can request a petition by the Masternodes. To obtain the overturn of an invalid betting contract a Supermajority consensus (75%) must be reached. If a node continues to submit match data that falls out of the consensus it will be punished. They also secure the decentralized governance of the Wagerr network (Mah and Christensen (2020)).

Wagerr has its own utility token WGR that is the native currency of the Wagerr Blockchain. The tokenomics is quite simple and focuses on two principles: Create demand for WGR by creating a product that has strong utility and suppress the supply of WGR via burning when users interact with the Wagerr protocol (Wagerr (2022b)).

There are three possible ways to place a bet:

1. The head-to-head betting process, in which the blockchain mediates between the two bettors talking opposite sites on an upcoming event. The fee in this case is 2% on the winner's side, 1% goes to the oracle and 1% gets burned.
2. The multi-user betting allows multiple players to be paired against a single bettor, particularly in low volume markets orders are easier to fulfill. In this case the transaction fee in total is 4%, 2% for the oracle processing the transaction and 2% gets burned.
3. The peerless direct chain betting, gives the player the option to bet directly against the chain, using the chain itself to take their bet automatically. The transaction fee in this case is 6%, divided equally between the Oracle and the burned tokens.

In general, Wagerr pays out winning bets by minting the coins for the payout. Due to the fees of 2%-6% and half the rate getting burned, the protocol removes 1%-3% permanently out of the system. The higher the price of an WGR token the less tokens are getting burned and

vice versa. This ensures a deflating economy with a growing token price and less market volatility (Mah and Christensen (2020)). In theory, everybody can become a Masternode owner as long as he has at least 25'000 WGR in collateral. The Masternode block rewards are estimated to be at around 9 WGR a week and for the Oracle service approximately 42 WGR a week. Currently 3232 Oracle Masternodes are online.

In the following some technical data can be seen from Wagerr (2022a), Coingecko (2022b) and (Mah David (2022)):

All time betting volume:	34'364'812 USD
Staking yield yearly:	2.33%
Price WGR token:	0.024 USD
Market cap:	6'108'546 USD
Total WGR bets:	1'301'438'280 WGR
Biggest bet made:	180'000 USD

Chipz

Chipz is a decentralized, web-based sports betting platform that was founded in 2021. Their guaranteed payout are managed through smart contracts running on Ethereum, more precisely it's created on Binance Smart Chain (BSC) (Chipz (2022b)). Chipz allows any bettor to place a bet in a sports event, if someone has facilitated the bet. The platform interacts as intermediary and charges a low-cost fee for the creation of a book and a small part of the winning payouts. Therefore 3% of all bets made on the platform will be placed into a revenue share pool, where CHPZ holders can stake their tokens to earn from the platform (Chipz (2022a)). CHPZ is the native ERC-20 token of Chipz with a fixed total supply of 105'000'000 CHPZ (20% team tokens locked; 20% private sale; 15% public presale; 15% liquidity; 15% advisors; 15% development) and a 38 million circulating supply. It is needed to host a betting room or stake and it can be used to participate in bets. Bettors that create a new betting room and therefore become a bookmaker earn staking rewards for providing liquidity until the sport event will happen, same for participants that are staking to a liquidity pool (Thompson, Garza and Lelly (2021)). Therefore, the platform offers a 15% annual percentage yield (APY) staking reward while the bet is going on (Coinmarketcap (2022)). CHPZ will eventually also serve as a governance token to let the community of bookmakers and gamblers decide on key issues of the system.

Bookmakers can create their own fee structures and determine the number of participants entering their rooms and will be rated by other bettors with a five-star rating system. They're going to be differentiated according to how often they host rooms as unraked, ranked or verified bookmakers.

Currently Chipz is oracle-agnostic, meaning technically a custom data source can be used as an oracle. But on the other hand, they also use a decentralized tool called Realit.io as their main oracle with Kleros dispute resolution as the final arbitrator. In future they are planning to include Chainlink or Aragon Court to their oracle system (Thompson, Garza and Lelly (2021)).

Currently you can't place bets on the Chipz website despite the planned beta release in Q1 of 2022 (Chipz (2022a)). In the following some technical data can be seen from Coinmarketcap (2022a):

All time betting volume:	N.A.
Staking yield yearly:	15%
Price CHPZ token:	0.023 USD
Market cap:	2'506'497 USD

Augur

The Forecast Foundation set out in 2015 to develop a platform on the principles of decentralization, censorship resistance, and freely available, open markets to all. They developed an open-source trading protocol and oracle system that is decentralized, governed and owned by its own community. In mid-2018 Augur v1 was launched as one of the first full-fledged applications on Ethereum, a trustless decentralized oracle and peer to peer protocol for prediction markets, that eventually settled over 20 million USD in user bets in hundreds of markets. Two years later they came up with the second version of the Augur protocol (Augur v2) on Polygon as a second layer solution, mainly because of the rising transaction costs on the Ethereum mainnet and a new oracle system (Augur (2022b)).

The platform provides its own native REP token, to create prediction markets, to participate in the Augur betting outcome reporting process, to dispute the outcomes of results, and as a currency of reward. Still, it is not mandatory to use REP to be part of a bet, other currencies like ETH or DAI are also accepted for betting (Cryptopedia Staff (2022)). The foundation provides a total supply of 11 million REP (Coinmarketcap (2022b)).

At the moment Augur Turbo is the mainly used and newest version, a layer two Polygon based prediction market that features daily markets in sports, crypto, and other categories (Augur (2021a)). It consists of a set of smart contracts written Solidity and deployed on the Ethereum chain (Augur (2022a)). There are three different types of prediction markets within this protocol:

- Binary (YES/NO): Mostly straight forward market outcome, that can be answered with yes or no. Example: Will the price of ETH be above 4000 USD on July 31, 2022?
- Multiple Choice: A market in which more than two outcomes are possible. Example: Who you think will win the 2023 Super Bowl?
- Scalar: In this market a lower and an upper bound is used to structure a bet. Example: What will the price of ETH be in 30 days between 2000 USD and 4000 USD (Cryptopedia Staff (2022))?

To facilitate the user experience for betting on event outcomes, Augur has a four-step execution protocol simply explained in the following:

1. Market creation: In general, everyone can create a betting market based on a real-world event. The foundation provides templates, in which the resolution source and the creator fee can be determined.
2. Market trading: Users buy or sell shares in an event's outcome; therefore, the price fluctuates on the amounts of placed bets (Kraken (2022)). The price of a share will always be between 0.99 USD and 0.01 USD, depending on the likelihood of an event.



Shares can be traded until the happening of an event. Once the outcome of an event has taken place, the value of the shares with the correct outcome will be 1 USD, all other options will be worth nothing (Augur (2021a)).

3. Reporting: The outcome of an event was in an older version transferred through Augur's oracle. Reporters report on the market, and the consensus outcome from all reporters is considered as the truth. Those whose report was different than the consensus lose their staked REP which is then distributed to those who reported it correctly with the consensus (Kraken (2022)). With the new turbo protocol Chainlink oracles are used to fetch sports data from multiple premium data providers (Augur (2021b)).
4. Settlement: Users can close their positions and collect their payouts after the event. Or trade their positions before the event happens.

Since the end of 2021 the Forecast Foundation announced that Augur Turbo will use Chainlink on the Polygon network. As reasons for that, they mention Chainlink's high-quality data, reliable nodes, decentralized infrastructure and transparent performance (Augur (2021b)).

In the following some technical data can be seen from Coinmarketcap (2022b), Augur (2022b), DappRadar (2022) and Coinmarketcap:

All time betting volume:	over 20'000'000 USD	(Augur v1)
	631'808 USD	(Augur Turbo)
Staking yield yearly:	2.5%	
Price REP token:	13.67 USD	
Market cap:	150'253'353 USD	

Conclusion

We are in an early stage of the oracle adoption in the betting market, that is strongly competitive. Some of the big companies made first adaptations to their regular betting, with the introduction of cryptocurrencies as instrument for their payments. New platforms are trying to establish the use of oracles as data providers, some of them even have the goal to be fully decentralized. But as with all new adoptions many of the companies are also failing on the way of establishing a change. It has to be clear, that the upper list is just a snapshot of running platform solutions and will probably change quite fast. As already mentioned in the Report 'Overview of oracles in sports betting' there are many advantages bookmaker can profit from. The question will be if big established bookmakers are willing to adapt in this highly regulated and competitive market. In the following a ranking of the platforms mentioned above measured on market cap:

1. Augur 150'253'353 USD
2. SportX 30'879'422 USD
3. Wagerr 6'108'546 USD
4. Chipz 2'506'497 USD

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