Obyte Overview

Obyte is a decentralized platform for the storage and transfer of information that is aggregated in the network following the pattern of a directed acyclic graph ("__DAG__"), instead of the linear accumulation that characterizes blockchain structures. The platform is being developed by a team led by Obyte's founder, Mr. Churyumov. The platform launched on December 25, 2016.

The Obyte Platform and Currency

As described in the Obyte Whitepaper ("__Whitepaper__"), "Obyte is a decentralized system that allows tamper proof storage of arbitrary data, including data that represents transferrable value such as currencies, property titles, debt, shares, etc." According to the Obyte website, the Obyte platform has six core features: (1) an "atomic exchange," which does away with the necessity of "trust[ing] any centralized exchanges"; (2) multi-signature for security, through which users can require "funds be spendable only when several signatures are provided"; (3) immutability of storage, meaning that once data is "stored in the Obyte database, it can neither be revised nor removed"; (4) the ability to issue regulated assets, which can be "compatible with KYC/AML requirements," and which must be "cosigned by the issuer"; (5) use of on-chain trusted data providers known as oracles when dealing with "untrusted counterparties"; and (6) "settlement finality" to ensure that transactions "cannot be revised" once certain criteria are met.

Data is stored and ordered in the Obyte platform following a DAG-patterned structure, rather than blockchain. Transactions that transfer value are stored in such DAG-patterned structure which, unlike blockchains, allows unrestricted access to all with no blocks and no block producers. DAG also removes scalability limits common for blockchains, such as blocksize issue. There is no single central entity that stores or processes all payments or manages or coordinates admission of new units into the database. Instead, transactions created by users are cryptographically linked to each other, and once a user adds a new transaction, other users add theirs on top, and the number of other transactions that link to the initial user's transaction grows like "a snowball (that's why we call it Obyte)." Anyone is allowed to add a new unit provided that they sign it and pay a fee. The current state of the DAG (but not each individual transaction) is identified by reference to transactions effected on the platform by 12 "highly reputable users with confirmed real-world identities" (*i.e.,* not anonymous, as the remaining Obyte users are) who operate as full nodes that "help the network determine the order of the transactions" and identify and invalidate attempted double-spend transactions. Each of these 12 users is referred to as a "witness." In exchange for the work of witnessing transactions, witnesses collect a portion of the transaction fees paid to the platform as described below.

The Byte, the native currency on the Obyte platform, is the only acceptable currency for fees. The Byte is used to pay for adding data into the Obyte database. The fee is exactly equal to the size of the transaction in bytes; for example, it costs 1,000 units of the Byte to add 1Kb of data. As explained in the Whitepaper, the Byte was designed as a barrier to entry on the database to "roughly reflect the utility of storage for the user and the cost of storage for the network." Fees paid on the platform are of two kinds:

payload fees and header fees. Payload fees are equal to the size of the content stored, and header fees are equal to the size of anything else being stored (*e.g.,* signatures, headers, etc.). Header fees received from one user (payor) are paid to the first subsequent user that references the payor's unit as parent of the storage unit created by such subsequent user. Payload fees are equally allocated among all witnesses that store information to the platform within a pre-determined degree of proximity following the transaction in which the payload fees being allocated were collected. As the Whitepaper details, the price of one unit of the Byte is "a measure of the utility of the storage in this database, and actual users will have their opinion on what is a reasonable price for this." Thus, if the price of the Byte rises above what users find reasonable, users "will find ways to store [fewer] bytes [of data,]" thereby decreasing the demand for the Byte and lowering its price. The total supply of the Byte is 10^{15} Bytes. As of July 10, 2018, the team announced that it holds approximately 32% of the total supply of the Byte in undistributed funds.

A primary functionality of the platform is the smart contract. On the platform, risk-free conditional smart payments allow a payor to set conditions for when a payee receives payment. This functionality supports prediction markets, in which users can create peer-to-peer smart contracts that can be unlocked if a specific event occurs, which can be used for betting and insurance. For example, this allows peer-to-peer insurance in which users can buy and sell insurance from other users to hedge against negative events. The platform's conditional payment contract system is supported by oracles, which are trusted third parties who monitor specific world events and import their results into Obyte as a data feed. Combining the conditional payment system with trusted data from oracles allows users to speculate on a wide range of events, including sports, weather, travel, politics, and prices. For example, flight delay insurance using smart contracts was launched on the platform in April 2017.

Obyte platform also allows users to create at a minimal cost (a small fee applies because creating an asset requires posting data to the Obyte database), new assets (coins or tokens) that represent anything with value, such as debt, shares, property, or other fiat or crypto currencies, and can be sent to anyone with a Obyte wallet or used in a smart contract. Users can define the rules that govern the transferability of their assets, such as spending restrictions that require each transfer to be co-signed by the issuer of the asset, for example, which allows financial institutions to comply with existing regulations. Obyte platform also allows users to send cryptocurrency, including Bytes, via e-mail (even to recipients who are not yet on the Obyte platform), as well as make peer-to-peer payments by chat within apps on the platform.

Obyte platform functionality described in the Whitepaper was available at the time of the launch date and first airdrop, but some of it existed only on the platform level and could only be used by developers. Obyte full functionality was not yet available to regular (non-developer) users, who generally access the platform through the Obyte wallet and apps and functionality for all users increased over time with improvements to the wallet and the development of additional apps, and that, as of July 10, 2018, the Obyte team announced in a blog post that "almost all functionality as described in the whitepaper is now actually available."

Byte Distributions
Distribution of the Byte to users has been for free. There has been no initial coin offering for cash consideration. As the Obyte website proclaims, "mass adoption requires wide distribution, that's

why 99% of all bytes […] are to be distributed for free." To that end, the Obyte team previously distributed the Byte to existing BTC holders with Obyte or other connected cryptocurrency wallets and existing holders of the Bytes by airdrop in proportion to their existing balances in both currencies. These distributions were split into several rounds. The first distribution round occurred on December 25, 2016, the date of the platform's launch, and comprised 10% of the total supply of the Byte. In subsequent rounds, the total distributed supply reached 64.5% of the total supply of the Byte. These distributions were timed as follows:

- February 11, 2017 - 1.8% distributed
- March 12, 2017 - 2% distributed
- April 11, 2017 - 2.3% distributed
- May 10, 2017 - 2.9% distributed
- June 9, 2017 - 6.6% distributed
- July 9, 2017 - 11% distributed
- August 7, 2017 - 16% distributed
- September 6, 2017 - 5.7% distributed
- November 4, 2017 - 6.1% distributed

In July 2018, the Obyte team reported in a blog post that the initial airdrop strategy was not building the Obyte community as anticipated. As the blog post noted, "airdrops were mostly seen as 'free helicopter money' best turned back into Bitcoin," and that "round after round of airdrops only got us diminishing returns and an ever falling price of the currency on exchanges." Accordingly, as reported by the blog post, Mr. Churyumov announced that the platform had ceased this airdrop mechanism and is now focused on other means of distribution to develop the ecosystem.

Other coin distribution methods to date have included: (1) cashback for purchases at partner merchant stores; (2) engaging with the platform as a store or payment processor to be included as part of the cashback program; (3) verification and referral rewards for various user verifications; (4) rewards to users who pass a quiz in Telegram; (5) subsidies that offset part of the fees paid when buying the Byte with certain credit cards; (6) rewards for donating one's computing resources to the World Community Grid; (7) various giveaways, including through the YouTube channels of platform supporters; (8) mass sending of "textcoins" to subscribers of partners; and (9) Steem rewards and referral rewards.

The platform also employs a grants program, which awards grants from a Obyte Community Fund, which is funded by donations and undistributed Obyte currency. Grants are paid for work that contributes to the Obyte ecosystem, including development, marketing, and promotional work that adds value to the platform as a whole. There are four trustees in change of managing the Community Fund, including Obyte's founder, Tony Churyumoff. Obyte community members will be actively involved in the decision-making for the most important issues, and community feedback will be considered by the trustees, who make funding decisions with simple majority votes.