

BBUCK.IO

Abstract

Whether they are played on a console or on a phone, video games are played by over 1.2 billion people. Developers attempt to compete for these gamers by creating in game value systems like currency or skins.

While it is clear that people like incentives, the current ones are incapable of translating to real world value. In a desperate attempt to see some level of compensation for the time they've spent playing a game,

gamers have turned towards skin gambling as a means of betting on themselves (or others) in certain games. Currently, it is very risky for gamers to transact value with each other over the internet given that they are a decentralized community. However, after seeing Bitcoin gain incredible traction on the Silk Road, its clear that blockchain can unify the decentralized by eliminating transactional risks. In order to

unify and legitimize the decentralized world of gamers, while still allowing them to maintain their independence, Bbuck plans to introduce a custom token that will serve as a means of exchange for everyone in the community. A token that only gamers can mine and also safely transact with one another.

A way for someone to get paid for doing what they already love to do. From simulated mining to a blockchain enforced tournament process, this paper will explore the various mechanics that are necessary for getting paid to play.

Table of Contents

1.Intro to mining

1.2. Synthetic Currencies

2. Simulated mining

2.1 User Friendly Wallets

2.2 Distribution Process

3. Mining Allocation Algorithm

3.1 Anchors

3.2 Branches

4 Smart and Social Tournaments

4.1 Staking Brackets

4.2 Determining Rules

4.3 Enforcing the Rules

5 Gaming the System

5.1 Bots

5.2 The Jury System

6. Determining Skill

7. Platform Economics

Intro to Mining

Any traded currency, regardless of its country of origin, is pegged to the value of something. For instance, when the world decided to adopt the Bretton Woods system in 1946, it meant that most countries would settle their international transactions in US dollars. The primary reason the US was chosen is because it promised to redeem other central banks holdings of dollars to a fixed rate of 35 dollars per ounce of gold. At the time, this implied that all the major currencies of the world pegged their monetary value to the value of gold with the US being the enforcer of those terms. This was the case until the year 1971 which is when Richard Nixon made an announcement that the US would no longer uphold its redemption promise to gold. This had many different effects on a variety of different economies, however for the purposes of this paper, the largest one was the fact that the US dollar had shifted away from having a value pegged to gold, to having a value pegged on its unparalleled efficiency of organized violence. In other words, the dollar now had value because the US had enough military strength to say it did.

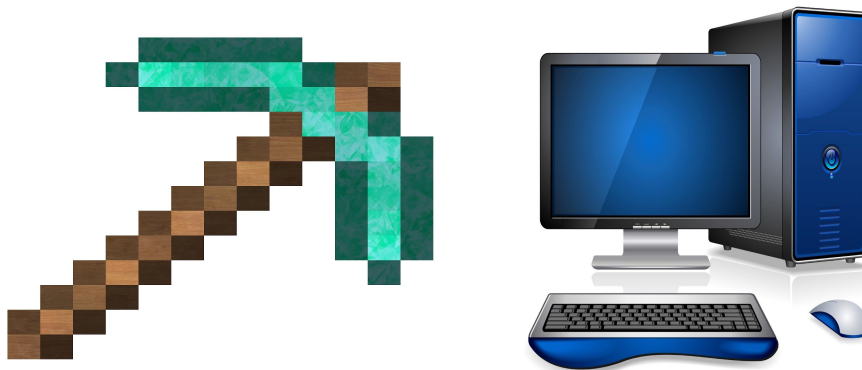
This value system continued to set precedent until the introduction of Bitcoin in 2009. This new currency created an innovative way for computers to exchange time and resources for value. This tradeoff is representative of the same value exchange that occurs when people mine gold (hence the term Bitcoin miners). Given the drastic increase in both the acceptance and price of Bitcoin, it is becoming more and more clear that this new form of mining is an effective way to generate value.

Vitalik Buterin took this concept one step further when he introduced Ethereum. By utilizing mining and mixing it with a concept known as smart contracts, the Ethereum foundation created programmable money. It allows people to set their own parameters that are implementable in a huge variety of different value transfers. In other words, a farmer could now make his own 1-1 digital representation of his corn bushels and send it to a distributor in another continent. While regular currency is already capable of this, Ethereum made the agreement automatically enforceable through its smart contracts, decentralized by utilizing its mining network which in turn, led to it being a faster alternative to a centralized escrow service. This spurred the growth of new fundraising models known as “Initial Coin Offerings” which were businesses seeking crowdfunding in exchange for the future use of their service.

Since mining is dependent on the consensus of a decentralized group of computers, it is very important that the computers doing the mining don't fall under the control of a single entity as this could lead to hacks and mass theft. The Stellar consensus protocol decided to solve this problem by using computers known as validators and placing them under the supervision of already trusted entities (like IBM).

Ironically, one of the biggest critiques and downfalls of mining is its heavy dependence on the consensus of a decentralized group of computers. Bitcoin is becoming especially more vulnerable to this reliance

since companies such as Bitmain can simply buy more computers to take over more of the mining network. If a company like Bitmain were to succeed in its consolidation of Bitcoins mining network, they could have the power to hijack the network and manipulate its distribution method to something more favorable. This issue was an important consideration that Bbuck had to make when deciding which blockchain entity to launch our token on which is why we decided to choose the Stellar network. Rather than using the mining process pioneered by Bitcoin, Stellar solves the problem of value exchange for time and resources by using its native currency called lumens. In order for anyone to transact on their network, they must have a balance of at least 20 lumens in their wallet. In order to maintain a trustless and decentralized network akin to Bitcoin, Stellar uses computers known as validators and places them under the supervision of already trusted entities (like IBM). Since Stellar relies on fewer computers to authenticate its transactions, its able to support a much higher rate of transactions than other blockchains on the market.



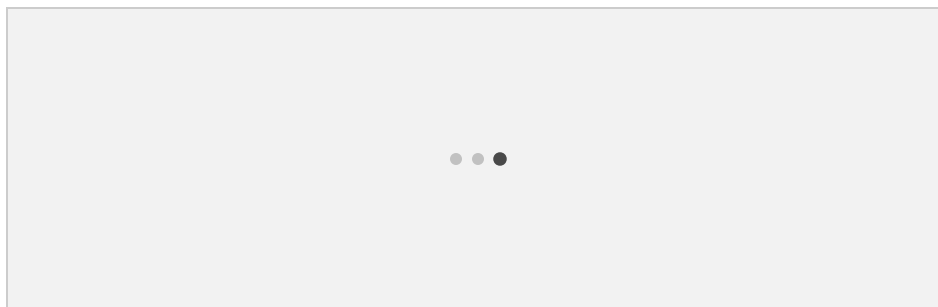
Synthetic Currencies

Monetizing video games is something that nearly all moderate gamers have considered doing at one point or another. Since people need incentives to do the things they do and it would be costly for games to provide a cash incentive for their users, developers created a unique way to simulate the rewards necessary. Some examples of these simulated incentive systems range from Runescape gold pieces to skins (costumes) in Counter Strike Global Offensive. When users play the game, they are essentially subscribing to a social system where the in game currency represents the value. The more a person accumulates this currency (skins, gold peices, etc) in the game, the more impressive they look to their peers which inevitably makes them feel good. Since people pay money to feel good, it leads to developers generating revenue for themselves via microtransactions. While this is good for the developers, its a problem for gamers since the currency they've just spent a significant time accumulating (by adhering to the games value system) isn't transferable to other video games. This transferability problem is actually quite common in the real world as well. For instance, a Starbucks in Arizona does not accept Pesos for

their coffee. However, Pesos still have value and Starbucks, being a business, wants to capture that value. So, in order to accept Pesos, they must subscribe to that value system. They can do that by simply opening up a coffee shop in Mexico.

As it currently stands, only the top 1% of gamers are able to monetize their gaming efforts either from competition, sponsorship, or advertising. In an attempt to maintain value for their time, Gamers have created entire peer to peer economies from things like skins in CSGO. As users earn skins through the game Counter Strike Global offensive, they are able to transfer them over to third party sites and trade them with other players. Bbuck plans to provide an alternative to the skin system so that gamers can maintain a value (proportional to their time and skill) as they continue to play video games. Bbuck will serve as a trading mechanism that can be applied across all video games regardless of the platform or genre. This has drastic improvements over the skin system that CSGO has created since a Bbuck can be applied to all games instead of just one.

This is also beneficial for the game companies themselves since they can now be offered a revenue stream that they didn't have before.

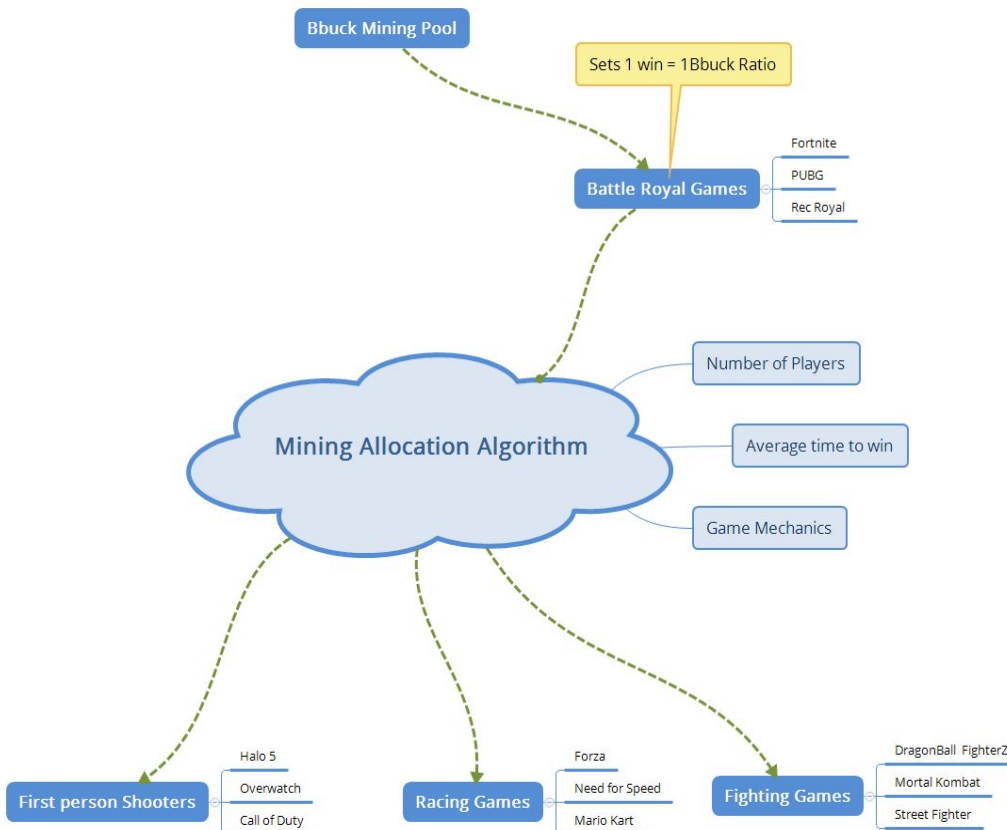


Simulated Mining

Value, as it has been represented in every currency ever created, is essentially a reward that's distributed by a greater societal structure. The more you contribute to that structure (going to work, creating a business, investing, etc.) the more of that reward you receive in compensation. Since mining is crucial to establishing value in a decentralized network's reward system (Bitcoin in the Bitcoin network, Ether in the Ethereum network, etc.) and since Stellar doesn't utilize mining to establish the Lumens value, Bbuck has created a way to simulate that process as a means of establishing value with its token.

In traditional mining, all the computers that participate on the network are also the ones that lend their computing power to secure it. Simulated mining, on the other hand, leverages Stellar's validators for processing secure transactions but still requires users to solve problems before being rewarded. The problems represented in this case are the synthetic (and highly addictive ones) that video games create. When gamers solve these conflicts (win the game), they receive a Bbuck in return. Of course in the gaming world, winning a match in a game like Mortal Kombat isn't the same as winning a match in Overwatch. To bridge this gap, we will create a standard for what it means to win a video game. We will

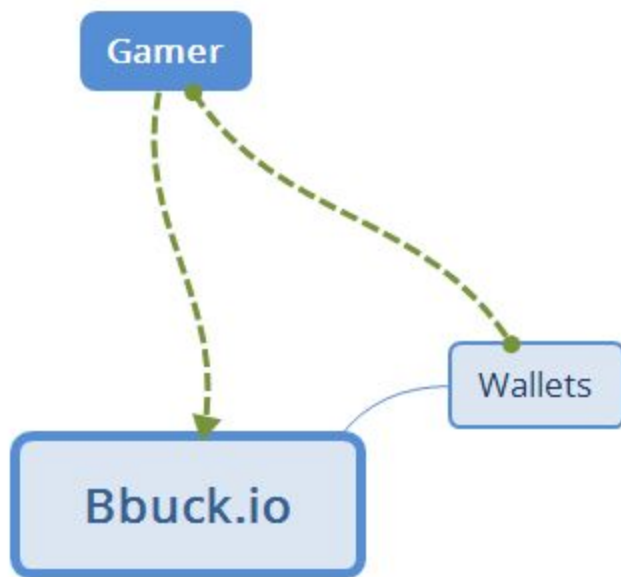
do this by first only giving out Bbucks to gamers who win a game in the battle royale genre. The reason for this is because out of all the multiplayer video games in existence, these 3 are perhaps the most challenging to win on a consistent basis. Since the games are also played with the random assemblance of up to 100 people, it is ideal in ensuring a fair distribution of the tokens.



User friendly wallet

The most pressing priority for Bbuck is to always develop with a “gamer first” mentality. We will first introduce gamers to blockchain and Bbuck by taking care of the entire wallet creation process for the user.

We will accomplish this by using Stellars Horizon API which will serve as the interface between stellar-core and the Bbuck application. This will allow gamers to simply and securely submit transactions to the network and also check the status of their accounts. By leveraging Stellars expansive network of validators to handle the processing of the transactions, Bbuck only needs to worry about building and maintaining a gaming community.



For further simplicity, we will also be leveraging Stellar's federated server. This will allow gamers to customize their public key ID within our database while still maintaining the integrity of their Stellar account. By doing so, gamers will be able to enter their gamertag as the public key ID as opposed to a random assimilation of characters. Of course, one of the problems that arise from a user-reported gamertag is the possibility of false reporting. In order to ensure authenticity, gamers will have to undergo a validation process. This process will consist of a gamer signing into their gaming account and sending a randomly generated code to another user. This recipient of this code will be an in-game user who will be owned and managed by Bbuck. Once the Bbuck character receives the unique code from the gamer, they will be verified and have a wallet automatically generated for them.

Distribution process

In total, there will be 2,500,000,000 Bbucks premined into existence. However, no individual or entity (including Bbuck) will have the authorization to access these premined tokens prior to them being earned by gamers. The Genesis Bbuck account that contains all of the premined coins will be viewable to anyone who wants to see it and the rules in which the account will allocate tokens will be viewable as well.

The governing entity of the Bbuck.io platform will have full control over choosing the games that receive a Bbuck allocation. The games that do earn these rights, however, will not receive a higher or equal quantity of Bbucks that the initial battle royal games receive. All games that are chosen to receive Bbucks will also go through a strict screening process where the criteria needed to win in the game will be examined thoroughly. These criteria, along with other factors that make the game difficult, will be applied to a predefined formula that will determine the Bbuck allocation rate for the game. The factors that will be

taken into consideration will be things such as the game mechanics, number of players, difficulty to win, etc) will be determine the risk assessment for the game at question.

Mining Allocation Algorithm

Similar to the federal open market committee, Bbuck will set the mining allocation rate (**MAA**) for every game that syncs with its platform. This implies a different mining rate for every game that is added on its platform. The primary factors that will go into determining this rate will be the genre of game, the time it takes to win in PvP, the amount of players involved, and several other factors.

Anchors

Anchor represents the video game title that will set the standard for the rest of the genre. Any other game in the genre can opt into the mining pool, but it won't be able to have a higher mining rate than the genre's anchor. In order to set the initial standard of an anchor, the battle royale games of Fortnite, PUBG, and Rocket League will be chosen. Once a user wins one of these games, starting with Fortnite, they will receive a Bbuck.

In order to compensate the anchors for accessing their users' wins and keeping the game fair, there will be a fee, similar to Ethereum's gas, that will be paid out to the developers of the game. This gas fee will vary in accordance to the number of users on the developer's game as well as the difficulty of the game. While the developers will mine fractional shares of a Bbuck, gamers will always receive a full Bbuck in their account (assuming they've won a battle royale game). Because the value of the Bbucks are directly correlated with the difficulty of the game, anchoring games would be heavily incentivized to keep their games fair. Additionally, a game's status as an anchor lasts until all the Bbucks are mined into existence which would heavily incentivize gamers to play the anchor game's title until the latter occurs.

Branches

Branches encompass every other game that isn't an anchor. Branches will be any game that competes in the same genre (Street Fighter and Mortal Kombat for instance).

One of the benefits that branches would create for users is the possibility of mining Bbucks in games that gamers might be better at playing. For instance, gamers might not be as good at Street Fighter as they are at Mortal Kombat but with branches, they will have the choice to mine from both. A complicated economic formula will be created to ensure that the mining allocation rate is fair. This formula will be developed by expert economists and mathematicians in the future iterations of Bbuck. For the time being, a basic formula for this would take into consideration the time it takes to win a branch game divided by the time it takes to win in the anchor game. For instance, if the time it takes an average user to win a game of Fortnite is 8 hours and it only takes 20 minutes to win a game of Mortal Kombat (the genre's anchor in this case), the equation would be something like $20\text{min}/480\text{min}=.041$. Now if a gamer wanted to mine from Street Fighter, they would receive a rate that's slightly lower than Mortal Kombat's.

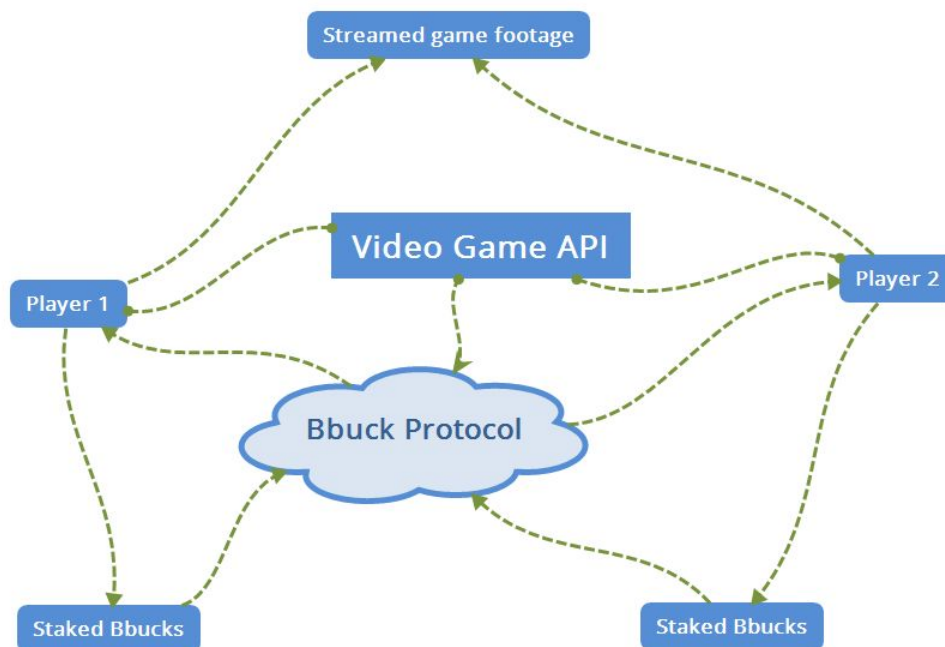
Nearly every game in a genre will be chosen as a branch. People who are good at fighting games like DragonBall FighterZ can earn Bbucks at a rate correlated with the difficulty of winning a game of Fortnite.

Smart and Social Tournaments

In order to facilitate p2p transactions amongst players, it will be crucial for gamers to have a secure location to meet, play and transact. With blockchain technology, Bbuck aims to decentralize and automate the entire tournament process in a fun, engaging, and secure way.

Staking Brackets

To provide simplicity for gamers, there will be no more than 4 brackets where gamers can stake Bbucks on themselves. The amount of Bbucks used in each bracket will be 1, 5 and 10 respectively. For the fourth bracket, gamers will be able to stake any amount of Bbucks as long as its over 10. This bracket is intended for highly skilled gamers and professionals. Players who are staking in this bracket will have live staking enabled on their streams so that players can bet for or against them. Players in this bracket will receive a small portion of the Bbuck bets that gamers place during their match.



Determining rules

Gamers have a variety of different preferences when playing their favorite game. To solve this problem, Bbuck will choose the game type and rules that it decides to support on its platform. When deciding which match type and rules to support in a specific video game, Bbuck will use the default matchmaking rules for one solo and one team playlist.

For people who are mining, they will have the option to choose between a standard solo playlist and a team one (depending on the game genre). Once the MAA is set, gamers will only need to log into their Bbuck account and win a game in their desired playlist. Upon victory, the miner will be rewarded with Bbucks regardless of the other players having a Bbuck account or not. Everyone who creates a Bbuck account will become a miner by default. Their Bbuck allocation will be entirely dependent on the games they decide to play.

Enforcing the rules

After a gamer has Bbucks, they will be able to stake them on themselves in video game matches against other random players. The match types will vary between solo and team matches. However, unlike the miners who can simply play and earn, gamers must stream their game clips to the platform when they want to play against another person. There are 2 main reasons why gamers must do this.

The first reason is because it will give the platform entertainment value while also allowing the gamer to gain publicity for their game play. Anyone who has a Bbuck account will have access to a news feed that displays game streams of their favorite pros, friends, and the highest staked matches occurring at the time. Users will be able to interact with these clips and the gamers producing them in various ways.

The second reason is for verification. Bbuck will use an object detection algorithm called YOLO (you only look once). By utilizing this algorithm and machine learning, Bbuck will be able to detect the characters in the game, the odds of someone winning, and ultimately the victor of the match. This process will significantly streamline the current solution which is having people moderate the matches.

There are numerous casual gamers who may not desire to bet on themselves or even on highly skilled players. It is because of cases like this that Bbuck will also query the games API for verification so that gamers can still mine. By creating a Bbuck account, a person who decides to play a game on their phone while waiting for the bus will still be able to monetize their gaming efforts without uploading a video or manually submitting any information to the account.

Gaming the system

In any circumstance where currency is used to bet on the outcome of a skill based match, there will always be an incentive to fix the match. In order to mitigate the issue of bad actors on the Bbuck platform, there will be several different steps that are taken.

Bots

The introduction of a cross platform currency implies a strong incentive for people to create bots. If the bot was attempting to directly attack the Bbuck platform, the most likely method they could do so would be by either falsely claiming a users game account or by auto generating many different ones.

In the case that the bot is able to game the authentication system and claim a users account, it wouldn't have any power over the system. In an attack like this, the biggest target would be professional gamers (such as Ninja) who's Bbucks would now be auto allocated to someone who isn't him. In cases like this, the professional gamer would simply contact Bbuck who can then determine the proper course of action moving forward. These options will be kept under the discretion of Bbuck since these kinds of cases would be extremely unlikely for the average gamer.

Another case where bots would pose a problem is if they were to auto generate or falsely claim many different accounts. People could most likely use these bots to enhance their in game performance and win nearly every game they play. Indeed, the burden of security will fall more on to the game developers than it does Bbuck, at least initially. When Bbuck allows for games to stream on the platform, it will then be clear to outside observers when their are bad actors.

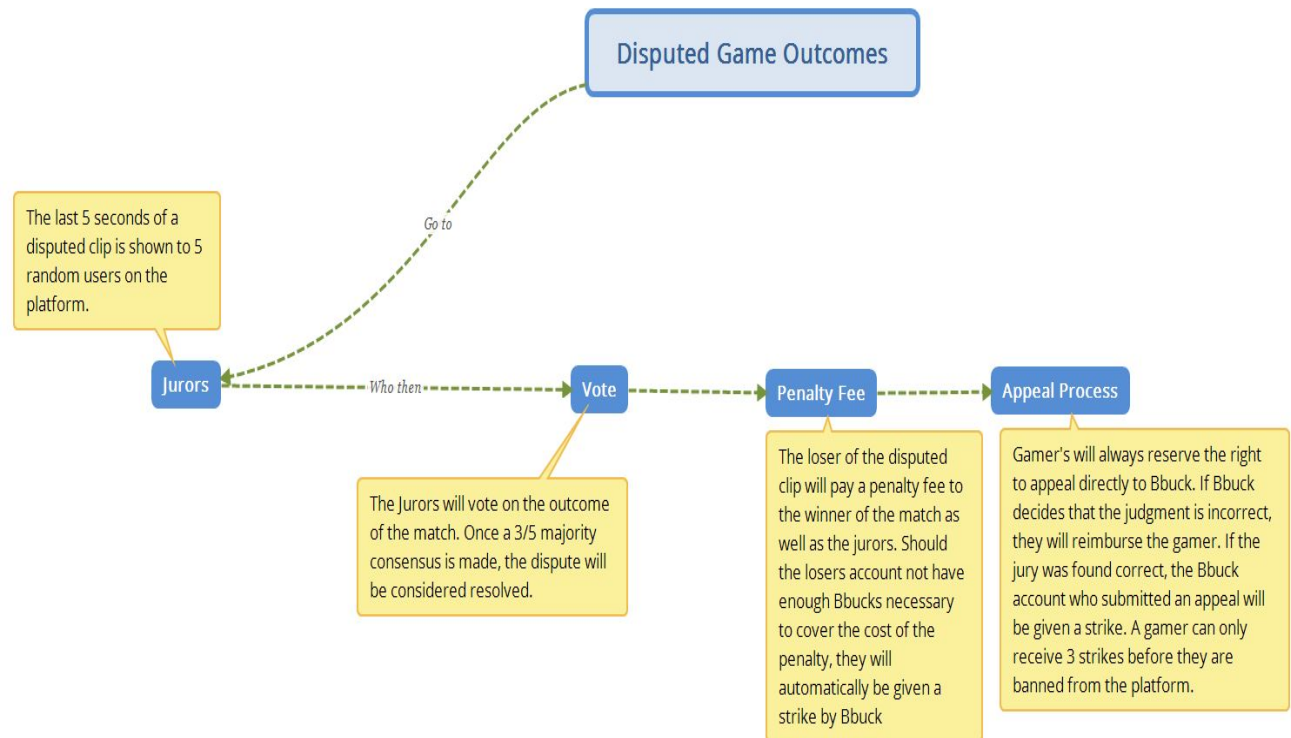
The first thing preventing match fixing is Bbucks brackets which limits the total amount users are allowed to bet. Not only would it lower the incentive for gamers to fix matches, but it would also be impossible to earn a massive portion of Bbucks should they decide to fix a match.

In addition to this, Bbuck will also only allow custom brackets for people who are verified on the platform. In this case, verified users would be considered pros or highly active gamers who have played many staked matches on the platform. Once the user is verified and can enter into high staked matches, they will also have betting enabled on their streams. This would allow the average gamer to bet against other gamers who are watching the match.

The Jury System

The second kind of reputation system will rely on the community to provide match authenticity. Since no one likes losing, its likely there will be cases when players leave the game right before losing or due to some network error, are kicked from the game early. In either of these cases, there will need to be some system in place to ensure that the staked funds are allocated appropriately. The solution to this problem will be a community based voting system. Since all matches played on the platform will be streamed, users will be periodically shown the last several seconds of any game that was disputed. The people who watch these last several seconds of the game will be known as the jury and will have the responsibility to vote on the match outcome shown in the disputed clip. A total of 5 players will make up the jury and upon correctly identifying the outcome of the match (based on a majority consensus) they will be rewarded in Bbucks. The people who correctly identified the match outcome in the clip will be paid out by the person found incorrect in the clip at question. Upon the event that the person found guilty questions the verdict of the jury, they will have the ability to appeal directly to Bbuck. If Bbuck makes a final determination in favor of the appealer, the Bbucks will be refunded to the person who was penalized and no other action

will be taken. If Bbuck finds the jury correct in their verdict, the person will be given a strike and will only have 2 more left before being permanently banned from the platform.



Determining Skill

The Tier system

Since Bbuck will be facilitating the matchmaking process in skill based games, it will be absolutely vital to match gamers who possess a similar skill level. Bbuck will accomplish this by fully synchronizing a gamers previous game data with the platform. If Bbuck is unable to access the data associated with the users gamertag for some reason, then Bbuck will put them on a 10 game trial period where they will play against a random mix of gamers of varying skill levels. The purpose of this period is to gauge the skill of the user so that when the 10 days are up, they will be matched up with players who are within their abilities. This process will occur each time a user decides to switch game titles and their skill rating will be constantly updated as the user continues to use the platform. During this process, gamers will also need to stream their matches to the Bbuck platform. The streamed matches will teach the machine learning algorithm to better gauge the odds of a gamer winning against an opponent so that users can later make more informed staking decisions.

Platform Economics

Tolls/Taxes

Since Bbuck will be a free to enter network, there are several questions regarding value that arise. Just like how Bitcoin got its footing on silk road (centralizing a decentralized community), we believe Bbuck will provide the same value for gamers. Therefor, we believe that with the exception of a small private initial investment to set a price floor (similar to an investment bank issuing and purchasing new stock), Bbuck will grow organically. As it does, we believe its value will also increase in adherence to Metcalfs law.

To provide additional utility, there will be fees collected for every game that is staked on in the Bbuck platform. These fees will be in a range between .1% and .5% which is similar to existing exchanges. When users stake on themselves, Taxes will also be used to better the service. This aligns the incentives of both the users, who will need bbucks to participate in the network, and the Bbuck platform, which will need Bbucks to continue to function.

It is important to note that the largest benefactors of the Bbuck token are the users who are relatively good at the anchor games. They will essentially be rewarded with these tokens for simply playing the game they were already going to play regardless. People who aren't as gifted at the game, however, are going to primarily responsible for demand scarcity. Therfor, if they do enjoy the networks features, then they would likely purchase the token from a third party exchange in order to use the service (a true utility token).

Initially, there are no plans to attempt some level of tokenomic stability. While it is certainly a feature that the network will add later down the road, cryptonomic stability is certainly still an issue inside the blockchain world. It is also important to note that the Bbuck platform is intended to reward gamers for winning and not gamblers for speculating on price. Should someone want to join the platform without winning a video game, they would need to assume the financial risk associated with crypto currency by buying tokens from someone who earned their way on the platform.

