

White Paper 2.7

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Thank you

Firstly, we would like to express our sincere gratitude to our first external contributor, Alexander Braun, for his continuous support of this project, his motivation and his vast knowledge.

Our sincere thanks also go to all the other advisors, Jean-Paul Saija, Dominic Hofer, Patrick Schilz, Tom Graham, David Wachsman, Yudianto Tri, Reto Hartinger, Oliver Gnehm, Michele Fabio, Prof. Dr. Sven Reinecke and Prof. Dr. Winfried Koeniger for their insightful comments and encouragement, but also for the hard questions, which motivated us to widen our research and consider our product from different perspectives.

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Executive Summary

Loyalty market offers USD 500bn opportunity for blockchain infrastructure

- Today's point-based loyalty market is inefficient for both brands and customers
- Converting points into real-value loyalty tokens on the blockchain has enormous potential

qiibee's LoyaltyToken Protocol capitalizes at significant scale and adoption rate

- Brands issue own loyalty tokens via plug & play and enjoy full flexibility of loyalty program design
- In 2018 only, 10 brands confirmed loyalty token and DAPP issuance on qiibee

Massive demand for the qiibee token, QBX, is driven by substantial B2B usage of loyalty tokens

- Buying QBX on the public market is required to back, issue and use loyalty tokens on qiibee
- This not only creates demand but also decreases the free-circling QBX supply.

Team, advisors and partners have the blockchain expertise and executional track record to deliver

- qiibee is pushed by well-known experts, funds and market makers: Block Collider, Fingenom, Bamboo, BitBoom
- Adoption is boosted by 5 partnering agencies that resell QBX-based loyalty tokens and white-label DAPPs

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1. What is our mission?

At qiibee, our mission is to establish a loyalty ecosystem for hundreds of brands that service thousands of customers.

We help brands run their loyalty programs on the blockchain and aim to become an efficient protocol that enables brands to operate their own loyalty programs, where they maintain full control. Apart from providing a robust blockchain-agnostic protocol, qiibee streamlines the integration experience for brands by offering a software development kit, which has a direct impact on brands' time and resources. In this sense, consolidating the loyalty market means creating a loyalty ecosystem that is based on the same foundation and enabling different loyalty program owners to either move their existing loyalty programs from off- to on-chain or create their own loyalty tokens and reward their loyal customers. qiibee will also support brands with the help of marketing agencies and the qiibee software developer kit.

We give loyal customers the freedom they deserve.
Within the qiibee ecosystem, customers will always have full control of and transparency about their loyalty programs and tokens. What is more, they have a larger set of options to choose from and a more convenient way of managing their loyalty programs. Also, they are free to exit the ecosystem anytime and can participate in the crypto market without buying crypto with their own FIAT money.

In sum, we want to offer brands and customers the possibility to easily engage with blockchain technology, directly and indirectly, without the need for cost intensive integration for brands or an upfront investment for customers.

By making the loyalty landscape more efficient and user-friendly, we aim to make it a better experience for both brands and the customers.

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2. What problems are we solving?

For brands, loyalty is a tricky game.

According to Reuters & Affinity Capital Exchange (2017), an **estimated USD 500 billion in points are left unredeemed by members**: This figure clearly shows that brands have to make their programs more effective to really drive customer behavior. While loyalty programs have become fairly common, at the same time, customers increasingly expect more personalized and shared interactions across brands' loyalty programs, which makes it essential for brands to rethink their loyalty strategies (Bond Brand Loyalty, 2017, p.2).

What makes it so hard for brands to successfully navigate the loyalty landscape?
First, loyalty in itself is connected with **high customer acquisition costs for the brands**. Not only are loyalty programs expensive to set up, but it is difficult to attract new customers by means of a loyalty program. In general, customers are reluctant to sign up for a new loyalty program since the value added is not always immediately apparent and there is a vast amount of programs available.

Moreover, the **loyalty landscape is characterized by low levels of engagement and redemption**. Most of the time, customers collect the points but rarely redeem them. Against this background, it is difficult for brands to boost the level of activity with their programs.

Also, the **loyalty points translate into an outstanding liability for the brands, as they are accounted for as deferred revenue**. In this sense, the brand has to determine the amount that reflects the consideration to which it expects to be entitled in exchange for the goods and services. For this, it needs to estimate the redemption value of their loyalty points, where variations could have a significant influence on their respective yearly profit or loss.

Lastly, there are **operational risks and inefficiencies inherent in loyalty programs**. Given the vast amount of personal customer data a company holds, the risk of a massive data breach is apparent. Complex data protection requirements and account guidelines make it more complicated to manage the security risk.

Loyal customers on the other hand have a hard time in today's loyalty market.

First, it is a **highly fragmented market with a large number of loyalty programs** available, making it more difficult for customers to pick the most suitable program. Customers face a personal barrier to sign up and actually use the programs.

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Second, current **loyalty programs lock in their customers by not offering any options for exchange**. In this sense, customers also entirely rely on the brands on how much and what exactly they can receive for their collected points.

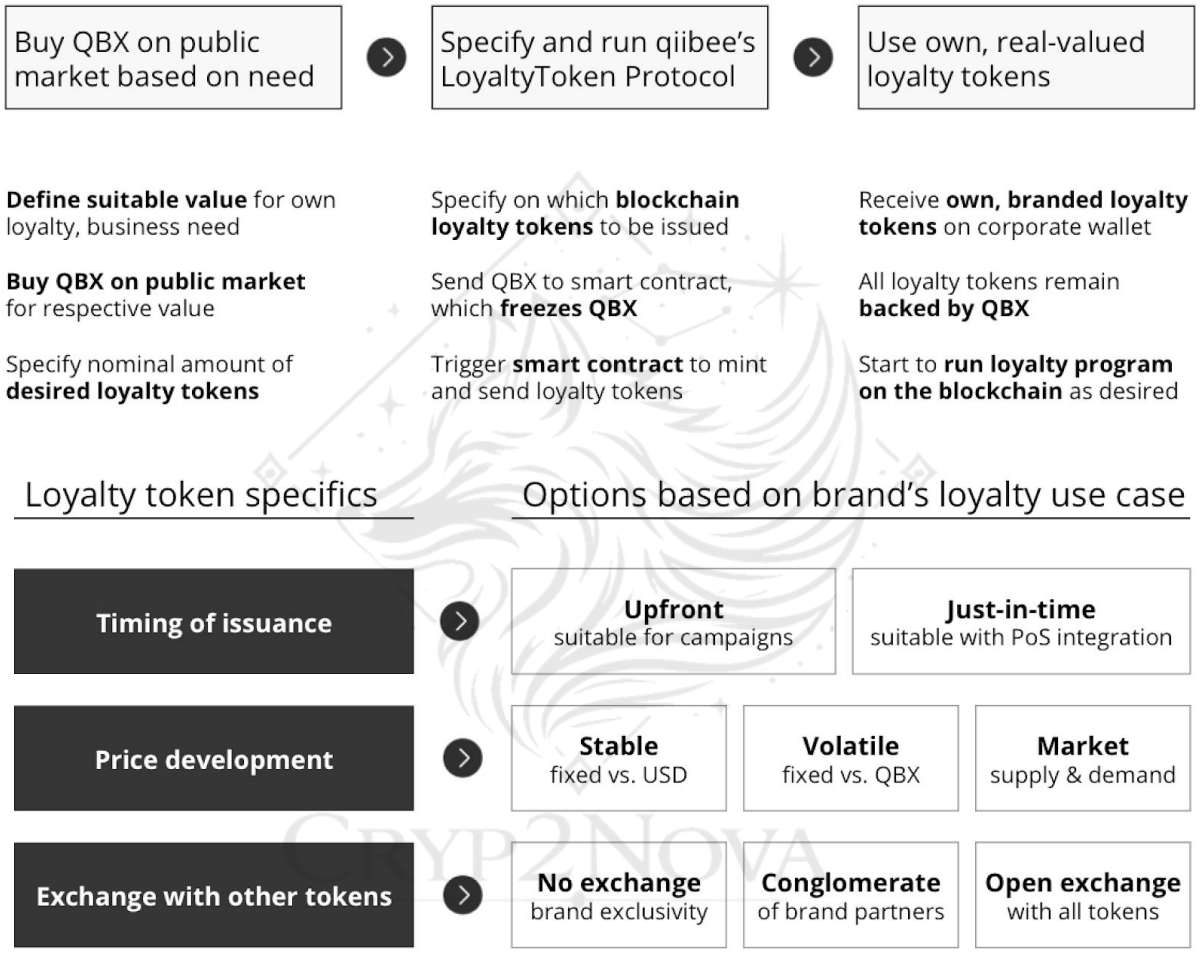
Third, the **points do not have a real value outside of the brand context**, meaning that generally speaking, customers cannot cash out their received loyalty points.

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3. Where are we already?

qiibee's standardized plug & play solution enables brands to easily issue their own tokens with the LoyaltyToken Protocol, while still having full freedom to specify their loyalty tokens.

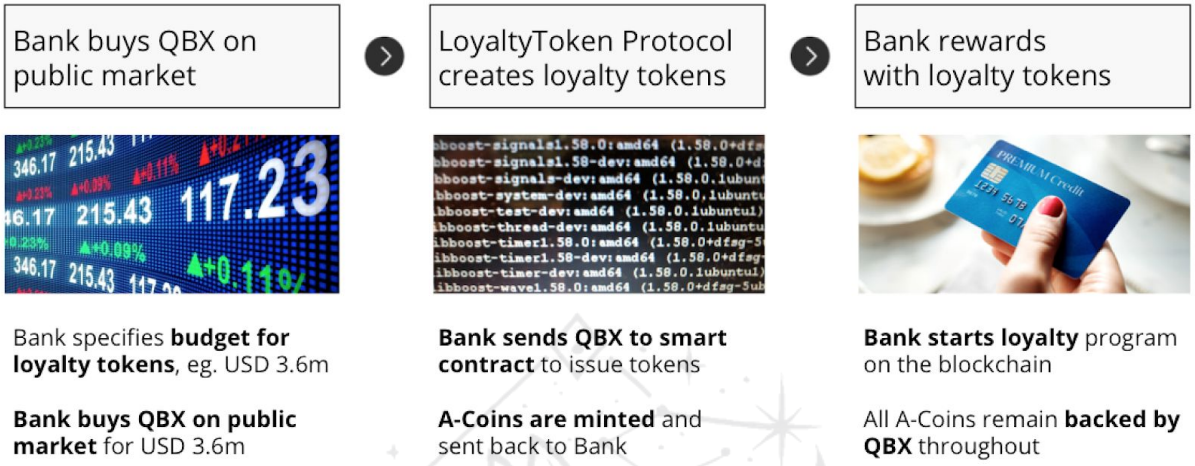


Although there is a pipeline with various brands waiting to be integrated, qiibee has decided to limit the rollout to thoroughly test and optimize based on product feedback from brands and customers.

3.1. Example: Bank issues credit card with token rewards

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While the campaign of this company is still to be announced, the use case demonstrates the flexibility of qiibee's LoyaltyToken Protocol. Through the connection to qiibee's LoyaltyToken Protocol, the traditional FIAT bank is able to issue its own crypto loyalty credit card, whereby customers will be rewarded with loyalty tokens for every purchase they make.



3.2. Live use case 1: Sausalitos issued tokens & DAPP on qiibee

We have teamed up with Sausalitos, Germany's leading cocktail bar and restaurant chain (https://www.sausalitos.de). The company has more than 40 locations across Germany and on average services over 4 million customers each year. With their contribution in our Token Sale, they are able to use their QBX to create their own token "Cryptolitos" and use the qiibee LoyaltyToken Protocol.

In this rollout, Sausalitos will be reselling their tokens to suppliers in order to push their products and deals. Customers on the other hand will be rewarded for their consumption and are also able to switch their legacy points into the loyalty token "Cryptolitos". For the test phase, a total of 333.333 QBX are distributed.

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Brand profile

Sausalitos is **Germany's leading cocktail bar and restaurant chain** with more than 40 locations.

Based on qiibee they built a whole loyalty program, **decentralized app** and **point of sale integration**.

5m customers expected customer reach in 1st year.

qiibee-based DAPP and loyalty tokens



Tokens for customer loyalty
Customers receive and redeem tokens through DAPP based on consumption

Re-selling of tokens to suppliers
Loyalty tokens are sold to suppliers, eg. Bacardi to push products and deals

Use tokens to convert old points
Customers can switch from legacy points to loyalty tokens

3.3. Live use case 2: Lattesso issued 20m coins on qiibee

Lattesso, one of the biggest coffee producers in Switzerland, is the first company to run their loyalty program on our LoyaltyToken Protocol.
Currently, Lattesso operates in seven different countries across Europe and Asia (DE, CH, AT, BE, NLD, LUX, RU) and sells approximately 14 mio. cups of coffees in 2018.

For the rollout, a total of 2 million coffee cups have been distributed, each one with a code under the Lattesso-Cookie, which could be redeemed for a Lattessocoin (LTS) on www.lattessocoin.com. New users were asked to open a Lattesso account, through which a user-specific qiibee wallet was created, where all of LTS and later tokens from other brand rollouts are stored. Customers were able to collect their Lattesso tokens and save these in their wallets, see their accounts' value development and make a backup to restore the wallet in case their phone is lost. Check out the Lattesso rollout document (https://static.qiibee.com/qiibee-Lattesso-Roll-Out.pdf) for further details.

As of now, we are preparing the engagement options for Lattesso, like the redemption strategy for collected tokens.

The rollout was initiated at the Blockchain Summit in Zug in April 2018 and the coffee cups have been available in stores since the 5th of May 2018.

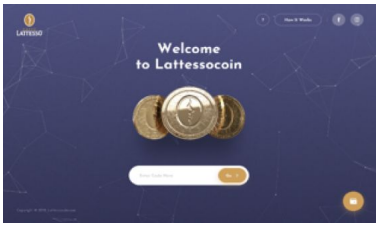
Tokenize



Reward



Engage



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Lattesso created **Lattessocoin** with the LoyaltyToken Protocol	**2m customers in 7 countries** are rewarded with coins	Customers **open a wallet** and activate their Lattessocoins
Coffee cups were redesigned and carry a code	**Time-to-market was 4 weeks**, from token issuance to reward	Lattesso has rich opportunities to **engage loyal customers**

3.4. Live use case 3: Built loyalty token exchange on qiibee

The qiibee app (explained in section “Decentralized Loyalty Apps”) enables users to store and exchange loyalty tokens for one another, giving them the ultimate freedom of choice on where they want to redeem their tokens. Users are therefore not limited to one single loyalty program, but can benefit from every brand inside the qiibee protocol. On the other hand, brands will be able to approach all the users of the qiibee protocol via different tools such as airdrops and campaign promotions inside the qiibee app.

3.5. Further sales pipeline

qiibee has received a large amount of attention from brands in Europe and in Asia, who are interested in running their existing or new loyalty programs on the blockchain.

MindNow	SAUSALITOS	CAFFÈ LATTESSO	LOYLOGIC
“90% of my business partners and clients want to issue tokens on qiibee. As a tech-focused agency we think this is a game changer for us and our clients.”	*“To get our own token we would need to do a full ICO which is impossible from multiple angles – qiibee is the ideal solution for businesses.”*	*“Our customers love the vision to exchange real tokens that might rise in value – we have a clear first mover advantage.”*	*“With the qiibee LoyaltyToken Protocol we will be able to develop and launch new loyalty concepts based on blockchain technology.”*
Jean-Paul Saija *Partner MindNow*	*Christoph Heidt* *CEO Sausalitos*	*Erich Kienle* *CEO Lattesso*	*Dominic Hofer* *CEO LoyLogic*

For most brands, loyalty programs are an integral part of their marketing and customer relationship strategy, which is crucial for effective customer retention. The rich pipeline

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across products and industries is also highly valuable in terms of the varied product feedback we can expect.

At qiibee, we are extremely motivated by the heavy adoption of the LoyaltyToken Protocol and DAPPs and committed to continuously expanding our product offering while scaling the number of brands in our ecosystem.

4. What are the benefits?

We have seen several issues brands and customers alike face when engaging with loyalty programs.

For brands, high customer acquisition costs, low engagement and redemption, high outstanding liabilities and operational risks and inefficiencies impede successful customer engagement.

For customers, the fragmentation of the loyalty market, the lock-in effect and low usability of points, the lack of a real value of collected points as well as the absence of ownership of personal data make it less desirable to be active on loyalty programs. We believe that qiibee offers the solution to these issues.

4.1. Brand perspective

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Plug & Play
Connect to the LoyaltyToken Protocol and launch your token

Engaged customers
Higher engagement and customer lifetime value

Remove liability
Real value tokens free up your balance sheet

Remove cost and risk
Blockchain technology is very efficient and secure

There are four key benefits when considering the LoyaltyToken Protocol from a brand perspective:

1) **Brands can "Plug & Play" with their loyalty program.** How does it work? In a first step, the brand's marketing department sets the budget for the loyalty program, which needs to be converted into brand loyalty tokens. The qiibee protocol then creates the brand tokens and sends them to the brand. It is important to highlight that the brand still has full control of the interaction with the customer, for instance over its individual app's interface. In addition, the brand can also determine exactly how it wants to reward its loyal customers and how it wants to configure the redemption process.

2) **Increased level of engagement a brand can achieve.** It has full flexibility in the construction of its reward and redemption structure. The fluctuation of the brand's token value in terms of FIAT also positively affects customer engagement, since customers are seemingly interested in the value of the tokens and are thereby incentivized to hold them for a longer period. On top of that, a brand can tap into a large loyalty community of existing customers on the qiibee ecosystem, which makes it easier to boost new loyalty programs and attain a wide customer reach.

3) **Elimination of liabilities on the company's balance sheet**. Since the tokens that it will give out are tradeable and have a "real" value rather than constituting

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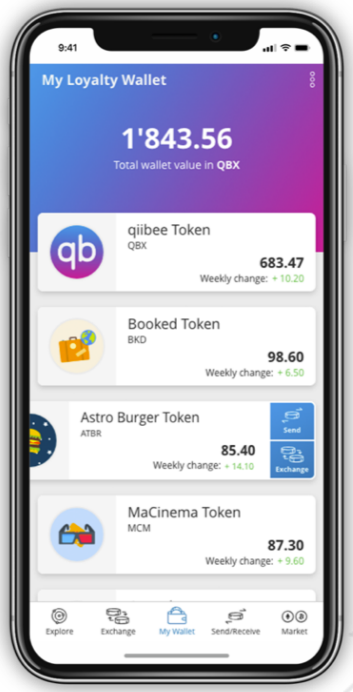
a promise from the company to be delivered in the future, the tokens will not be accounted for as deferred revenue.

4) **Reduced costs and risk.** Given that a brand's program is built on the qiibee protocol, the set-up costs for a new program are very low. Customers are also responsible for their own wallets, so the risk of a massive data breach is mitigated.



4.2. Customer perspective

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Access them all
Store all your loyalty tokens in one place

Trade them all
Exchange loyalty tokens against one another

Earn real value
Sell your loyalty tokens for other cryptocurrencies or FIAT

Enjoy security
Blockchain technology protects your data

When looking at the customer perspective, there are again four key advantages of using qiibee for the collection of loyalty tokens:

1) **Overview of all their loyalty tokens** collected from different brands in the qiibee ecosystem. Customers can still use their favorite brands' loyalty programs and interfaces and later import the collected tokens into one common place.

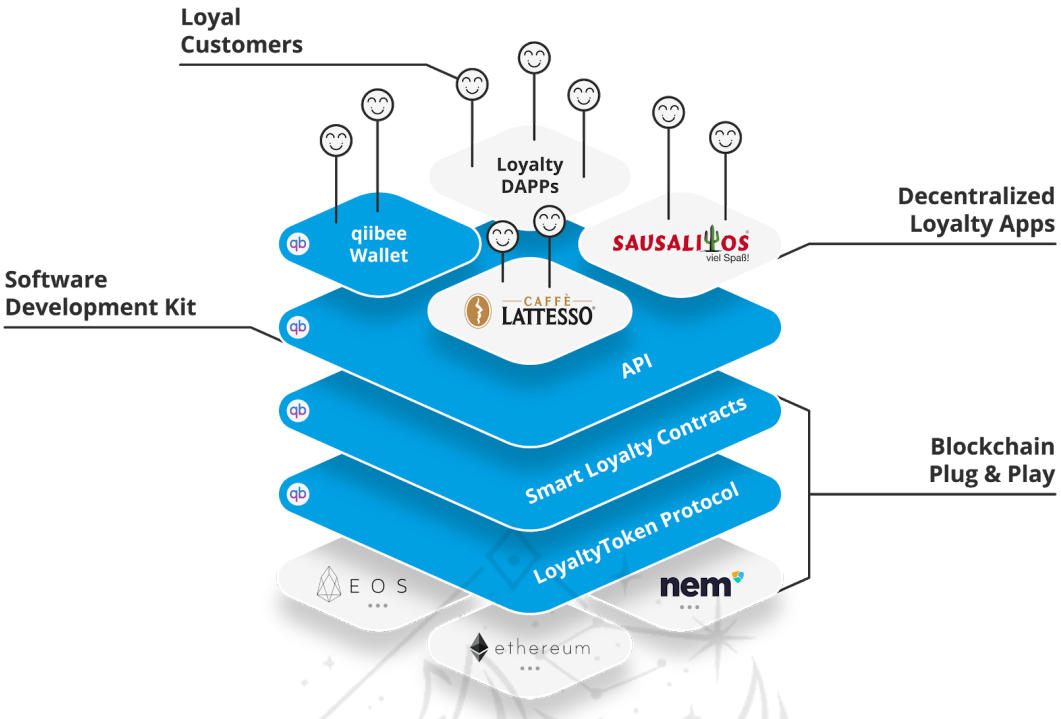
2) **Transactions with their loyalty tokens.** They can trade them with other customers in the ecosystem, send or receive tokens from others and participate in the different brands' redemption offers.

3) **All brand tokens are cryptocurrencies tied to the qiibee token (QBX), which will be publicly traded**. This way, the brand tokens have a real value outside of the brand context.

4) **Cash out.** The qiibee ecosystem offers the customer the ability to sell loyalty tokens for FIAT or other cryptocurrencies via third party integrations.

5. How does it work?

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General overview of the current ecosystem

The image above represents our current general overview of qiibee's product offering:

Our loyal customers who benefit from having real value, usability and freedom.

Decentralized loyalty apps. The qiibee wallet is one of the means by which loyal customers can interact with the LoyaltyToken Protocol. The qiibee wallet directly communicates with our API which talks to the protocol.

Our SDK streamlines the loyalty token creation process for brands. As part of the SDK, the API is the main component and it acts as a bridge between a decentralized app and our protocol**.** It is also how brands can join the ecosystem and build and configure their own loyalty tokens.

The LoyaltyToken Protocol enables the communication between the public Ethereum chain and the different *loyalty blockchains* to make it possible for brands to set up and run their loyalty programs.

Blockchain infrastructure. Our protocol is capable of communicating with both the public Ethereum chain and the *loyalty blockchains.* Together, these blockchains make up the blockchain infrastructure.

Brands and customers will not only be able to make the most of the blockchain and crypto technology, but also benefit from an easy and user-friendly experience.

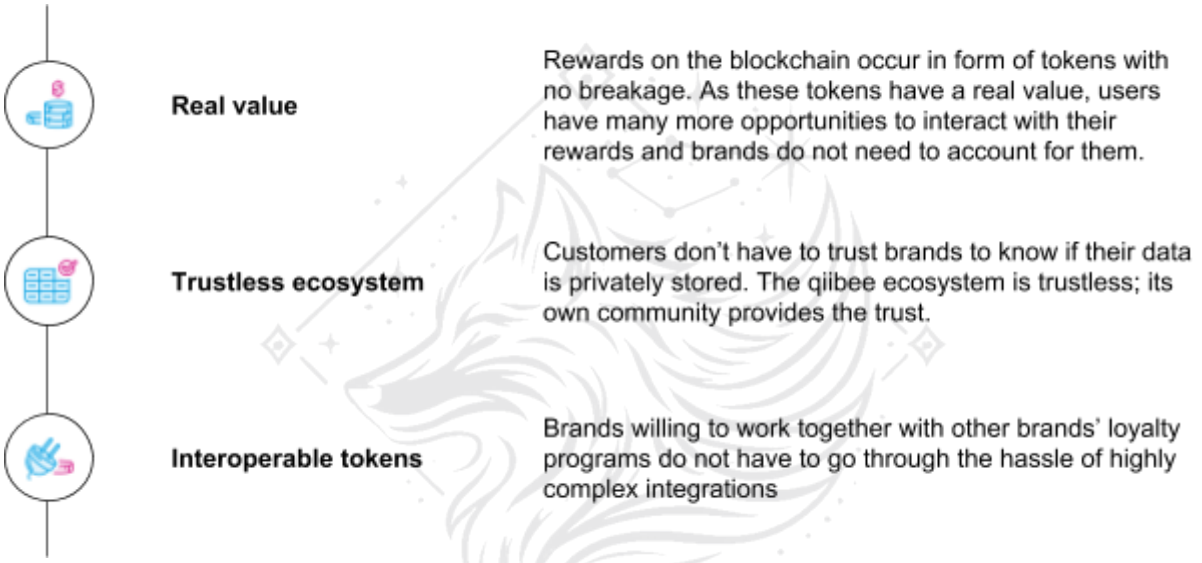
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Customers have full freedom of choice and backed up value in form of QBX.

Brands have full control over their total brand loyalty token supply and can thereby easily increase or decrease the loyalty token supply. Consequently, the QBX price increases with each new brand that enters the ecosystem.

Why do we need blockchain technology?

Blockchain provides an ideal framework for tackling the weaknesses of today's loyalty market: points without a real value, trusted programs (weak data privacy), and highly centralized loyalty programs.



5.1. Decentralized Loyalty Apps (DAPPs)

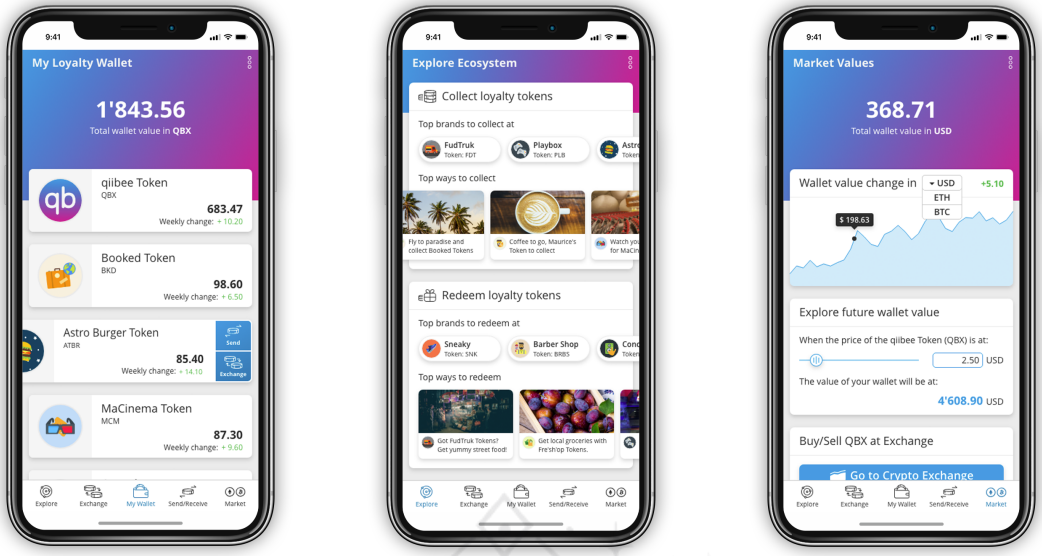
Brands can build their own decentralized loyalty apps so customers can track their loyalty tokens on it as well as send tokens to and receive tokens from other customers. Developers can connect to our API to easily create these apps.

qiibee app

The qiibee app is one way that our loyal customers can interact with our protocol. The qiibee app directly communicates with our API, which uses the protocol to communicate with the blockchain and represents the most convenient way for customers to track all their loyalty tokens from different brands. They can send and receive tokens, check their current balances and receive the latest updates and news from the brands they like.

The qiibee app is the "gateway" for customers to experience the entire qiibee ecosystem:

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One wallet for all programs. Customers only need to create a wallet once, which can be used for all loyalty programs.

Overview of loyalty tokens. All collected loyalty tokens will be displayed in the overview section.

Ecosystem information. The user will get additional information on new and ongoing loyalty programs inside the qiibee ecosystem. This provides full transparency and the chance to compare different programs.

Value development of token portfolio. The user can see the value development of the token portfolio in qiibee tokens (QBX), FIAT (USD, EUR, CHF, etc.) and other cryptocurrencies (e.g. BTC, ETH). As it is intended that the QBX will be freely tradeable on various exchanges, the total FIAT value of the token portfolio will always be changing and thereby also incentivizes users to log in and check their balance.
Through third-party integration, users also have the opportunity to sell their qiibee tokens if they wish to do so.

Exchange & trade loyalty tokens with other qiibee users. The user will be able to exchange and send/receive loyalty tokens from other users in the qiibee ecosystem. This gives customers even more freedom and control over their loyalty programs.

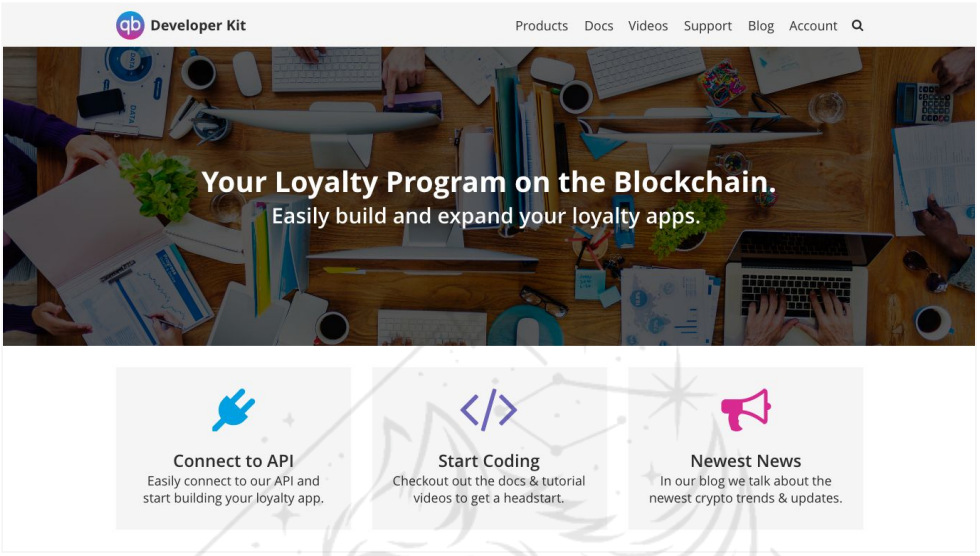
5.2. Software Development Kit (SDK)

The SDK streamlines and facilitates application development running on the LoyaltyToken Protocol, which saves the time, money, and extensive know-how required to build it from scratch. Loyalty program owners can focus on their businesses and their

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applications, while we support them with our SDK. The bigger the community maintaining and building on the qiibee protocol, the stronger qiibee's loyalty ecosystem.

Additionally, we will also develop an interactive dashboard where brands won't have to rely on developers; rather any non-technical individual will be able to set up the loyalty programs.



The SDK is made up of three aspects:

- An **API** that brands' developers can use to easily communicate with the protocol and (1) create loyalty tokens, (2) issue more supply, (3) see relevant analytics information such as transaction history, current supply, etc, and (4) exit the ecosystem. They can also see and modify the token settings: name, symbol, decimals, rate to QBX, etc.
- The **dashboard**, which is basically an interactive and user-friendly application that wraps up all the functionality available on the API. This is targeted to brands that don't want to rely only on developers.
- **Documentation**, tutorials and the support center for developers on how to use the API.

You can find the code and documentation on https://api.qiibee.com.

5.3. qiibee's LoyaltyToken Protocol

Our protocol provides a trustless, secure and provable manner for issuing loyalty tokens backed by a crypto asset across different blockchains. It also guarantees liquidity by allowing easy redemption, tradability and exit options.

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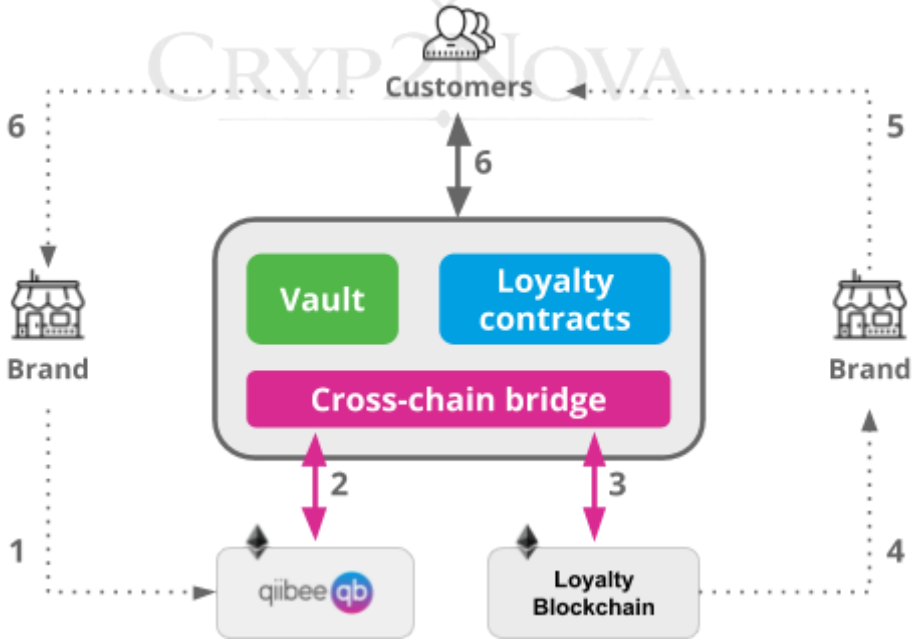
The LoyaltyToken Protocol is made up of four fundamental components: one blockchain containing a crypto asset that backs the loyalty tokens with a real value, one or more different blockchains where the loyalty tokens reside, a set of loyalty contracts that specify how these loyalty tokens are, behave and can be exchanged between them, and a cross-chain bridge to enable cryptographically secure communication and transfer of value between the different blockchains.

By staking QBX tokens through the qiibee protocol, brands can issue loyalty tokens on different blockchains. The QBX token is currently living on the public Ethereum chain and its main utility is to act as the backing asset for each loyalty token.

One of the main responsibilities of the protocol is to **establish communication** between the public Ethereum chain and one or more different *loyalty blockchains* (where loyalty tokens reside), which can guarantee cryptographically secure issuance. The qiibee protocol is, therefore, *blockchain-agnostic* as it does not rely on a particular blockchain.

For the foundation of its protocol, qiibee has chosen to go over Ethereum-based blockchains as the *loyalty blockchains* because of its ease of development, the size of its community and the demand from existing brands. We support the vision that the Ethereum blockchain is currently one of the best solutions for a wide variety of decentralized businesses but, nevertheless, as stated before, the qiibee protocol is blockchain-agnostic so we will be working towards providing compatibility with different blockchains.

It is important to note that we will be considering loyalty blockchains supporting high transaction throughput at low costs, as the idea of the qiibee ecosystem is to be mainstreamed to a massive public.



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qiibee protocol high-level overview

The image above shows a high level overview of the qiibee protocol flow:

1) Brand stakes QBX on the public Ethereum chain in order to issue loyalty tokens
2) The cross-chain bridge freezes and locks the QBX tokens in the vault
3) The cross-chain bridge, through a provably communication between the public Ethereum chain and the *loyalty blockchain*, issues the loyalty tokens on the loyalty blockchain.
4) Loyalty tokens are sent to the brand account.
5) Brand can now reward customers.
6) Customers can then redeem their loyalty tokens or exchange them for QBX.

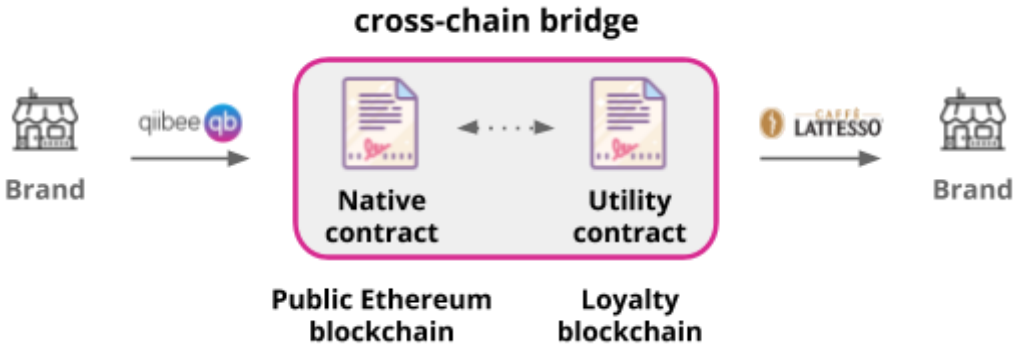
Establishing a cross-chain communication

Highly popular blockchains (e.g Ethereum) are normally chosen to build projects on. As a result, they are soon susceptible to slow transactions with high fees. With cross-chain bridges value and data can travel seamlessly between blockchains.
For example, the QBX tokens can remain on the main Ethereum network, while the loyalty tokens that will be very frequently traded can be on a network that is more performant. In other words, cross-chain bridges allow us to move computationally intense operations to better-performance chains reducing costs significantly.

The qiibee protocol is responsible for enabling one blockchain to verify the events authenticity on the other one in a provably and secure way.

Whenever an exchange between the QBX and a *loyalty token* takes place, the qiibee protocol must provide a way to atomically perform those actions on both chains. This is achieved by the concept of *bridge*.

A bridge allows a value to travel seamlessly between the two chains. We will be focusing our attention first on building this bridge between the public Ethereum chain and another Ethereum-compatible chain running a PoA consensus algorithm. The communication involves smart contracts running on both sides.



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As it's shown in the image above, the *cross-chain bridge* communicates both with the Ethereum chain and an Ethereum-based loyalty chain.

- The bridge listens to events from the `NativeContract` deployed on the public chain
- On the other side of the bridge, transactions signed by the PoA validators are accepted by the `UtilityContract` deployed to the loyalty blockchain.

| *The bridge trust is inherited from validators of the loyalty blockchain.*

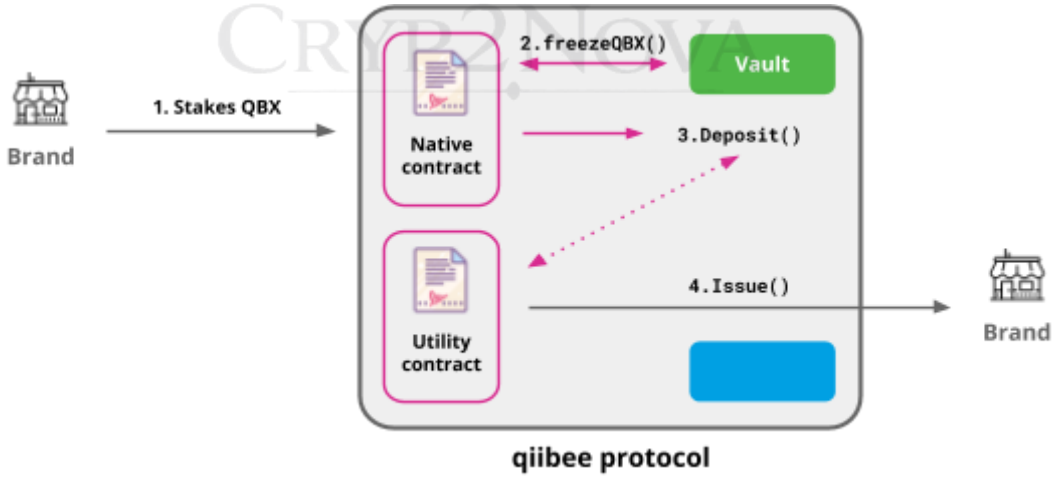
The bridge connects two chains: the *public Ethereum blockchain (PEB)* and a *loyalty blockchain (LB)*. The qiibee protocol sets one bridge contract on each side (the `NativeContract` and the `UtilityContract`, respectively) and will take care of the inter-chain communication.

When brands stake QBX into the `NativeContract`, they get the corresponding amount of loyalty tokens according to the brand's setting for it. Brands can use the `UtilityContract` as they would use any ERC20 token.

Note that for this first approach, we are considering chains with a proof-of-authority consensus. Relays between the chains happen in a byzantine fault tolerant way using the authorities of the loyalty blockchain.

Loyalty token issuance

Brands need to stake QBX in order to create new loyalty tokens. Once they do it, the staked QBX are frozen and locked in a vault as long as the loyalty tokens are in circulation. Hence, the QBX functions as a sort of entrance and exit to the qiibee ecosystem and works as the backing token for the loyalty tokens.



`brand` stakes an `amount` of QBX into the `NativeContract` by calling

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`NativeContract.stake(amount, tokenAddress)` function and passing as argument the amount of QBX to stake and the contract address of the loyalty token.

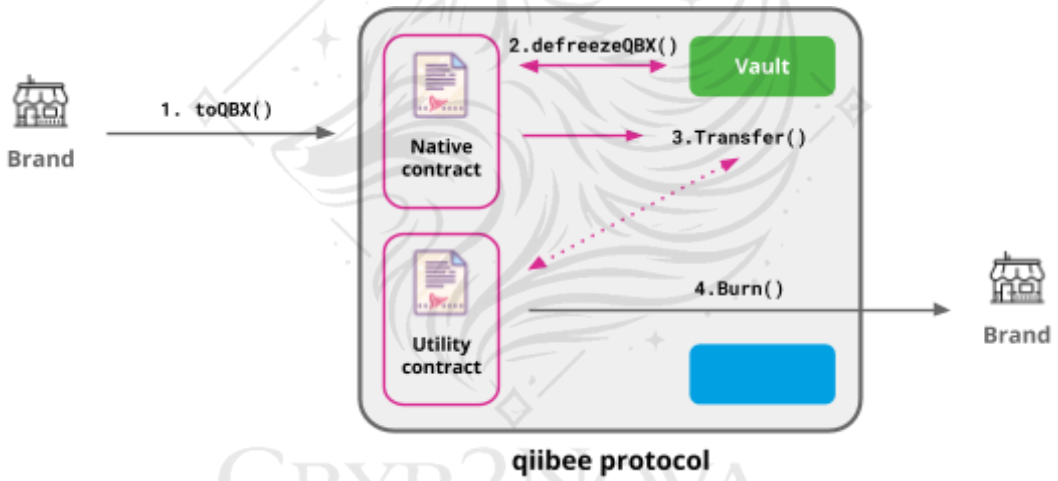
Then, through a `callback` function this contract emits an `Issue(brandAddress, amount, tokenRate, tokenName)` event. The `tokenRate` is the conversion rate between the loyalty token to QBX.

For each event, every validator of the *loyalty blockchain* calls the `Issue(brandAddress, amount, txHash)` function.

Once the set of validators reach consensus the loyalty tokens are issued to the `brand`.

Loyalty token exit to QBX

Both brands and customers can decide to exchange their loyalty tokens to QBX, because they want to have an exit (in case of brands) or because they want to keep their tokens in the form of QBX and, potentially, get FIAT money by selling their QBX on an exchange.



`brand` or `customers` execute `UtilityContract.toQBX(address, amount)` to convert a given `amount` of loyalty tokens into QBX. So, this function reduces the balance of the `brand` or `customer`'s account for that loyalty token and then emits an `Exit(address, amount)` event.

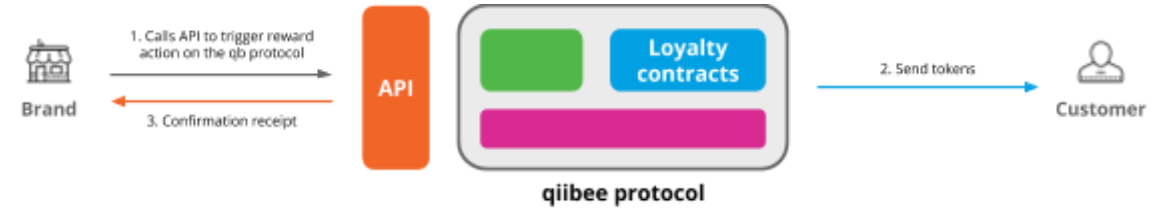
For every `Exit()` event, validators create a message containing `address`, `amount` and `txHash` of the transaction referenced by the event. Once the set of validators reach consensus, the loyalty tokens are burnt and the QBX are defreezed and transferred to the `address`.

For our current implementation, we are running tests based on a modified version of *parity-bridge* [https://github.com/paritytech/parity-bridge/], which securely relays these conversions.

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Reward and redemption

Brand rewards customer with loyalty tokens



Customer redeems his loyalty tokens



Loyalty tokens exchange

Another feature of the qiibee ecosystem is to provide a way to make the loyalty tokens compatible with one another by creating an exchange mechanism. For our first implementation, these exchanges will happen within the same Ethereum-based chain.

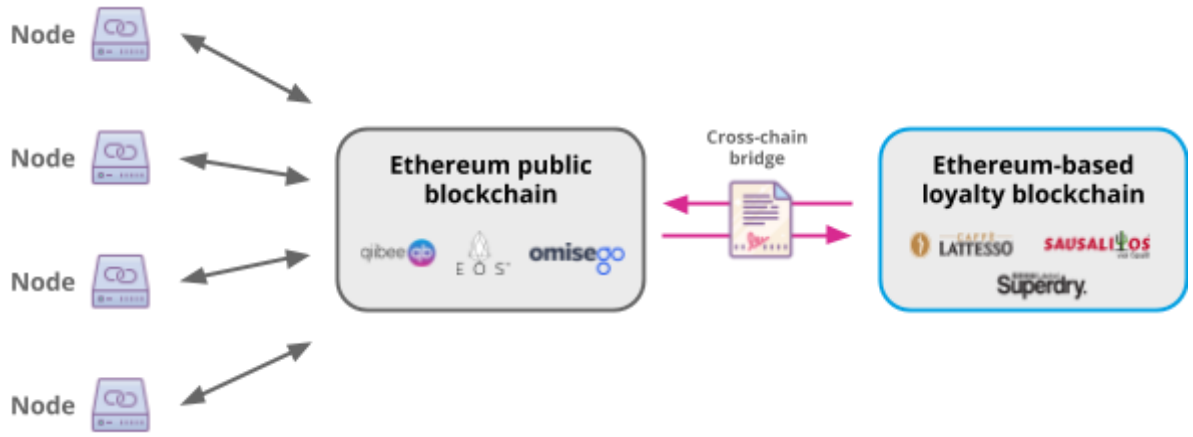
Customer exchanges loyalty token X for loyalty token Y



5.4. Blockchain infrastructure

Our first implementation involves an Ethereum-based loyalty blockchain. The image below shows the qiibee vision in terms of its blockchain infrastructure:

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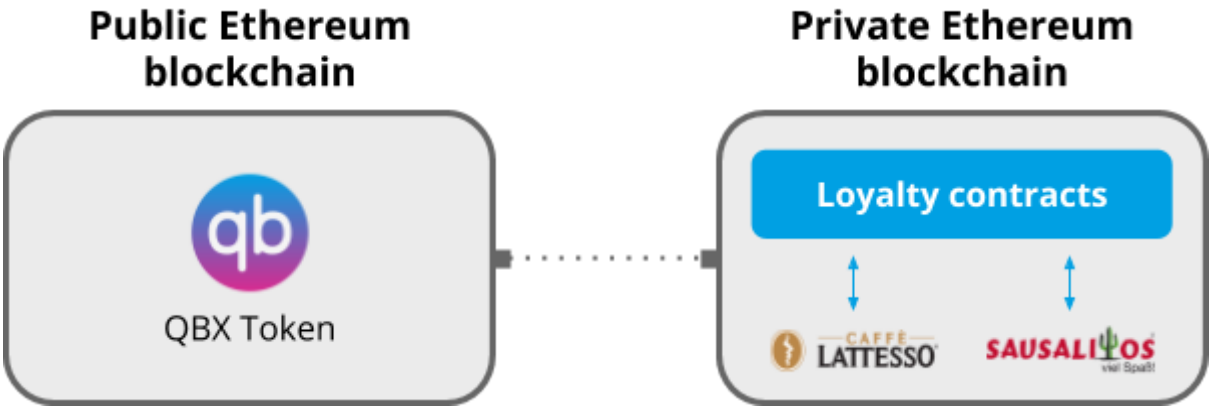
The *Ethereum-based loyalty blockchain* provides and ensures high-speed transactions for low or no fees. These characteristics are key for an ecosystem that wants to offer microtransactions and be made mainstream.

The exact implementation of the public permissioned blockchain is still an open discussion for the team. Nevertheless, we are mainly focusing our research on Parity and the PoA Network blockchains and we are currently running PoCs and have already gone live with a private blockchain (more details on section 9.5). As part of the consensus algorithm to be adopted, we are considering Proof-of-Authority, Proof-of-Stake and Tendermint.

Our current infrastructure

As part of our first PoC, we have already built an Ethereum-based private chain that works similarly to the public one, with a Proof-of-Work consensus mechanism. Current running nodes of this blockchain are maintained by the qiibee foundation and hosted on different servers across different countries to guarantee more security and avoid a single point of failure.

As a general overview of the current implementation, we can say that the qiibee ecosystem stands on the two mentioned chains, which will interoperate:



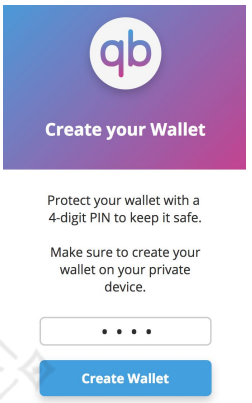
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On the left side of the image we can see the *public Ethereum blockchain* while on the other, we have the *private Ethereum blockchain*. The mining of blocks happens only when a new transaction is executed. Each one of the nodes is in charge of validating and confirming transactions happening as a result of the rewards that brands give to customers.

This first approach has some important limitations: trust relies completely on qiibee and its API. Thus, having a private chain is not the way to go to build loyalty programs on top of the qiibee protocol.

qiibee wallet generation

Customers joining a brand's loyalty system will have to generate a qiibee wallet (an Ethereum-based wallet) if they don't have it yet. As the majority of the customers might not be aware of what this means and in order to help brands to offer their customers an easy way to create their qiibee wallets, we have designed the *qiibee web wallet (QWW)*.



The QWW aims to make it easy for brands to generate Ethereum wallets for their customers while still allowing customers to use one account for all their loyalty programs. This wallet works locally on each customer's computer or device (to ensure greater security) and it grants them access to their wallet information, including their recovery mnemonic phrase and private key.

After a customer opens a loyalty account on the brand's site (e.g www.lattessocoin.com) they will be automatically redirected to the QWW, as shown in the image above.

If they already had a qiibee wallet, they won't have to do anything. Otherwise, they will be prompted to set a password to secure the newly generated wallet.

Let's consider the following scenarios:

- Alice wants to open a loyalty account in Lattesso. She's never had a qiibee wallet before — so she goes to lattessocoin.com and signs up. Then, Lattesso's site will detect, through the qiibee web wallet, that she does not yet own a wallet. The QWW will create a wallet and send the address to the Lattesso site.

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Alice does not have a qiibee wallet

- Alice wants to open a loyalty account with Lattesso. She already has a qiibee wallet. She goes to lattessocoin.com and signs up. Then, Lattesso's site will detect, through the qiibee web wallet, that she does have a wallet. Thus, it will just send Alice's existing wallet address back to Lattesso site.



Alice already has a qiibee wallet

What happens if a customer wants to collect other loyalty tokens? Must they generate a new wallet each time?

- No. So long as a customer uses the same device, our web wallet will detect his/her wallet. Whenever a new wallet is generated, its information is locally stored on the device's browser.

If a customer switches over to different device, they can import the existing wallet by copy-pasting the mnemonic phrase generated (available at https://wallet.qiibee.com/mnemonic.html).

The qiibee team is working hard to provide a host of options to make exporting-importing as painless as possible. Such options include: automatic export from your mobile device browser to the qiibee mobile applications, QR scanning, etc.

Private key storage

At qiibee, we don't store customer's private keys. Whenever a customer creates a wallet, this process is performed client-side. That means that the generation process is executed on their desktop computer or mobile device, not on our or other external servers.

This ensures (1) anonymity, as we never ask customers to provide personal data that may be linked to their wallet address and (2) security, since we don't have any way to access customer funds, neither will any bad actors.

However, customers should note that if they lose a device, they could lose access to their funds as well. Because we don't store any wallet information on the backend, we

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don't have a way to recover it. This is why it is so important that users save their private keys or mnemonic phrase [https://en.bitcoin.it/wiki/Mnemonic_phrase] in one or more safe places.

5.5. Revenue model

The guiding principle to determine revenue streams for qiibee's business model is value. If qiibee can help brands run their loyalty programs on the blockchain and offer customers more transparency and control over their loyalty tokens, it will be successful. Despite not being final, the most important sources of revenue will most probably be revenue from brands. These might include items such as set-up fees for the creation of loyalty tokens, transaction fees for the maintenance of a loyalty program and the fees for promotions in the qiibee app, such as airdrops to targeted customers or highlighted campaigns. As of today, qiibee is not planning on taking fees from customers using the services.

As of today, qiibee is not planning on taking fees from customers using the services.

5.6. Product roadmap

The new product has been designed to offer tools for brands to independently set up and control their loyalty programs and, simultaneously, to offer customers greater transparency into existing loyalty programs on the ecosystem, a convenient way to manage all programs in one place and the opportunity to cash out QBX tokens.

The product is the current distillation of extensive customer interviews from the off-chain solution and feedback from the sales partners. In the following, qiibee's high-level product roadmap for the next months until the end of the year is illustrated.



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6. QBX Token Economics & Token Sale

6.1. QBX Token Economics

We believe it is extremely important to give participants of our Token Sale a deep understanding of the economics of the qiibee token, QBX.

Design of token economics	Implications for token value
The total supply of QBX is limited and no QBX will be created after the Token Sale	There is no inflation of QBX value
Players need to invest into QBX on the public market to setup loyalty tokens	QBX value is directly driven by demand from businesses to run loyalty on the blockchain
Exchange rate of each loyalty token is fixed vs. QBX through a smart contract	Exchange rates of loyalty tokens are transparent and based on QBX value
All loyalty tokens are backed by bought QBX which are frozen via a public smart contract	QBX serves as a locked-up value storage for all loyalty tokens on qiibee ecosystem
The total supply of all loyalty tokens is limited and purely driven by invested value	There is no inflation of loyalty token value

By structuring the use cases and lifecycle of QBX, demand from agencies, loyalty system providers, brands, merchants and loyal customers to use loyalty tokens is directly translated into demand for QBX on public exchanges.

Loyalty players		QBX entry point	Use cases of loyalty tokens	
B2B	**Agencies**	Resell QBX to brand portfolio	Run campaigns with brands	Offer white label solutions
	Brands	Buy QBX for own loyalty token	Use loyalty tokens for reward and airdrop	Use loyalty tokens to convert old points
	Merchants	Buy QBX for own loyalty token	Resell loyalty tokens for suppliers deals	Use loyalty tokens for product push
	Loyalty System Providers	Resell QBX to brands	Use QBX based loyalty tokens	Use qiibee blockchain infrastructure
B2C	**Loyal Customers**	Buy QBX to enter loyalty ecosystem	Use loyalty tokens to redeem and get deals	Buy and use loyalty tokens as gifts
		Direct demand for QBX on public exchange	**Indirect demand for QBX on public exchange through loyalty tokens and business usage**	

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Annual budgets from the loyalty industry build a natural and fundamental driver of the QBX business model. For example, will marketing agencies partnering with qiibee make the loyalty programs part of their own portfolio, provide them with their marketing expertise and offer them to their existing brand clients. This approach has three main advantages: It allows for strong partnerships with interests that are aligned between the parties involved, fast scaling of sales pipeline via multiplicators and improving of the product offering based on bundled sales feedback from agencies.



Our traction shows: The loyalty industry is ready to invest and enters loyalty on the blockchain.

The B2B demand estimation is based on our H1 2018 agency sales figures with:

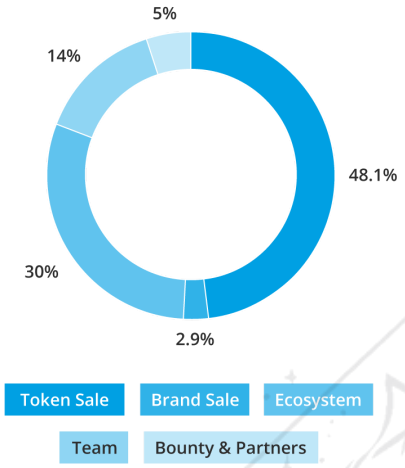
- On average 9 new brands or merchants per year and agency
- 25 new brands launched in 2018

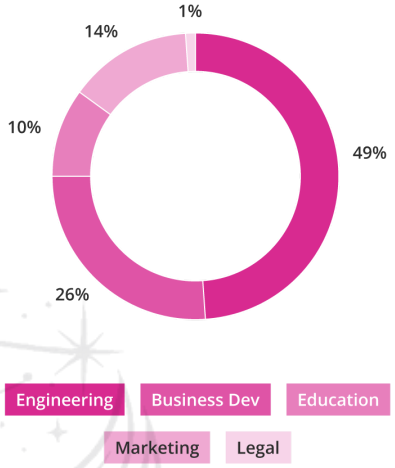
In this demand estimation, there is neither B2C demand nor direct adoption from brands independent of agencies considered. We are aware that brands will need

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support in buying and selling QBX and work therefore with various brokers to help us handle the demand volume.

6.2. QBX Token Sale





6.3. Frequently asked questions

How many qiibee tokens (QBX) will be sold in the TGE?
In total, 48.1% of all QBX will be distributed in the TGE.

What happens to the remaining 51.9% of all QBX?
2.9% Brand Sale: easily onboard new brands and expand qiibee ecosystem.
30% Ecosystem: qiibee ecosystem, community, loyalty programs.
14% Team: Includes current and future advisors as well as existing and future team members.
5% Bounty & partners: Used to build a strong community and compensate partners for their effort, research, network, trust and exposure.

What are the soft and hard cap of the qiibee token sale?
The soft cap of USD 3m has already been reached. The hard cap of the Token Sale is USD 11.25m.

What happens if not all QBX will be sold?

What is the QBX price in the Token Sale?
1 QBX = 0.0001 ETH. Fixing price vs. ETH is necessary due to our smart contract. The exchange rate to ETH will be used to determine the amount of QBX if a contribution is made in another currency.

Who can participate in the qiibee Token Sale?
Everyone passing the KYC & AML process is able to participate in the qiibee token sale. Citizens and/or residents of restricted countries are not allowed to purchase QBX during the TGE.

How will qiibee use the KYC & AML data?
All KYC & AML data will be checked externally by Intrum Justitia. This is a trusted third party authority which is compliant with FINMA. All data will be deleted.

What can I do with the qiibee token?
Brands can use the QBX to create and distribute their own loyalty token. Customers can collect, exchange and redeem these loyalty tokens inside

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The generated brand traction is overwhelming. If not all allocated QBX for the Token Sale can be sold, these QBX will be transferred to the Brand Sale pot and used to onboard brands in the near future.

Which currencies will be accepted?
BTC, ETH, BCH, LTC, XRP, DASH, ETC, USD, EUR, CHF, OMG, NPXS, BAT, GNT, BNT, STORM, WINGS, REP, BNB, ZRX

What is the minimum and maximum contribution size in the Token Sale?
Minimum = 200 USD, maximum = 10'000 USD*

* If you are interested in bigger contribution, send us an email at: contribute@qiibee.com

What loyalty bonus will participants of the Token Sale receive?
5% bonus for contributions in the first week.

the qiibee ecosystem or convert them to QBX to exchange for crypto and FIAT.

Is the QBX transferable?
The QBX will be transferable after the end of the Token Sale. QBX will only be locked for the ecosystem (36 months), team (36 m.), advisors (6 m.), Pre-Sale (6 m.).

When will QBX be listed on exchanges?
It is our goal that QBX will be listed on several exchanges after the Token Sale.

Why do I need an ERC20 compatible receiver wallet address?
QBX is a ERC20 token. In order to receive the QBX, every contributor needs an ERC20 compatible wallet address. This address can not be an exchange wallet! Otherwise the QBX will the be lost and not useable by the contributor. Mobile: we recommend to create a *qiibee wallet*. Desktop, we recommend to create a *myetherwallet*.

7. Who is qiibee?

11
full time employees

qiibee has expanded its core team from 7 to 18 employees since the closing of the seed round in January 2018.

7
product & tech

Currently, the company is hiring to expand its product and tech team from 5 people to 8 people until the Token Sale.

3
years core team

What makes the team especially interesting is that the founding team has been with the company since 2015.

70%
have entrepreneurial experience

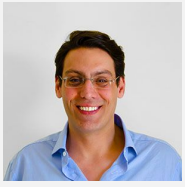
70% of the team has been part of the foundation of a company before joining qiibee.

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16

years experience in loyalty

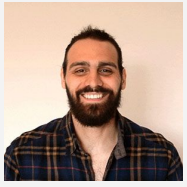
The total number of years of experience in the loyalty space is more than 16.



Gabriele Giancola
Sales & Partnerships

"I leverage my industry network and build strategic partnerships"

- Co-founded and built qiibee with his brother Gianluca
- Former GE with 6 years of experience in the loyalty sector
- MA Management, St. Gallen



Gianluca Giancola
Design & UX

"I create qiibee's look & feel in design and user experience"

- Co-founded and built qiibee with his brother Gabriele
- Founder of gratis-auto.ch and designed with Snips and University of Basel
- MA Graphic Design, IED Milan



Felicia Giancola-Teora
Finance & Legal

"I manage all legal, tax and financial matters of qiibee"

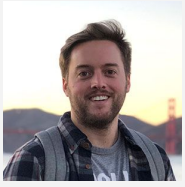
- Founder and owner of Sires, a worldwide trading company
- 30 years of experience in management of international platform businesses



Pascal Schindelholz
Blockchain & Infrastructure

"I develop qiibee's blockchain and overall infrastructure"

- Building and maintaining crypto mining environments since 2012
- Owner of a web and internet application agency
- Passion for secure and independent infrastructures



Federico Alconada
Blockchain Architecture

"I build and architect qiibee's overall blockchain protocol"

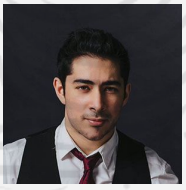
- Ethereum blockchain engineer
- Former software engineer at Avature and CERN
- MSc Computer Science, top 1% student at UNLP, Buenos Aires



Aaron de Miranda Colaço
Blockchain Engineering

"I build qiibee's private and permissioned blockchain"

- Built POCs and POVs using Ethereum, Quorum, and Hyperledger Fabric
- Consulted large companies to integrate blockchain
- BEng, Information Technology, India



Dan Octavian
Back End Development

"I build and implement qiibee's back end systems"

- 3 years of experience in challenging Silicon Valley startup environment
- Passion for decentralized technology
- MEng Computer Science at Imperial College London



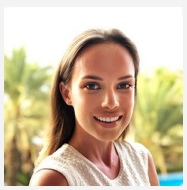
Elvis Dedic
Decentralized Application Engineering

"I implement qiibee's wallet app and frontend components"

- Track record on mobile applications development with React Native.
- Active user on Leetcode and Hackerrank.
- BA, English Language and Literature at Faculty of Philosophy, Sarajevo



Claudio Sgarbi
Token Economics



Jacqueline Bieri
Marketing & PR



Kai Wang
China Expansion

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"I design the economics of qiibee together with brands & advisors"

- Helped to build Spirit of Switzerland, a Swiss Liquor distributor
- Passion for financial modeling
- BA Business Management, University of St. Gallen

"I lead all the marketing, pr related matters and connect with our loyal community"

- Built her own blog with 9,000 followers and worked with major brands, e.g. Ritz Carlton
- MA Brand Management, Regent's University London

"I enjoy enhancing & enriching qiibee enroute to Asian market"

- Eight years of experience in supply chain management, capital markets and business development
- Bronze Medal in Chinese National Entrepreneurship Competition
- MBA, Sun-yet-sen University

In order to get a thorough understanding of the strategic, legal and marketing implications of our business we make use of the expertise of our trusted and highly competent advisors and strategic partners.

Excellent advisors share their network and expertise



Chris Cracchiolo
Lead Advisor

"I provide qiibee with indispensable brand and customer insights"

- Vice President and General Manager of Global Membership Rewards and Loyalty Benefits at American Express
- Has led numerous high-performing teams responsible for managing and growing relationships with some of American Express' largest and most strategic partners



Alexander Braun
Loyalty Advisor

"I support qiibee from day 1 and will stay for the long run"

- Early blockchain adopter, and crypto investor and miner
- Acting as qiibee's direct-marketing & sales expert
- Independent business owner



Jean-Paul Saija
Loyalty Advisor

"I grow qiibee further building on my experience and know-how"

- Partner at MindNow, moving the loyalty world on qiibee
- Founded more than 20 start ups
- CEO of dealini.ch, a tech focused loyalty agency



Dominic Hofer
Loyalty Advisor

"I work with the qiibee team on the next big idea for loyalty"

- Founder and CEO of Loylogic, the global leader in e-payment solutions for loyalty programs
- Seasoned loyalty expert with deep expertise and focus



Patrick Schilz



Omer Ozden



Tal Cohen



Yudianto Tri

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Blockchain Advisor

"I push qiibee with my blockchain knowledge and network"

- Board member, Block Collider
- Worked for String Labs and Dfinity
- Shaped Crypto Valley in Zug
- MBA INSEAD

China Strategic Advisor

"I advise qiibee on fundraising and strategy in China"

- Partner at Dfund and DGroup
- International Partner, ZhenFund
- Chairman, RockTree Capital
- Chairman of the World Blockchain Council's Legal Committee

Blockchain Advisor

"I advise qiibee on token economics and token sale"

- Blockchain expert, co-founder, and leader of 3 successful tech ventures and a McKinsey strategy consultant
- CEO of Compass Blockchain, CEO & Co-founder, Sirin Labs
- Industry manager, Google

Loyalty Advisor

"Loyalty on the blockchain will be a game changer in Southeast Asia"

- President of the retail association in Indonesia
- Serial entrepreneur pushing qiibee in Southeast Asia
- Member of the chamber of commerce



Oliver Gnehm
Legal Advisor

"I successfully steer qiibee through the legal landscape"

- Attorney and partner at Bader Gnehm & Partner since 2009
- Expert in blockchain regulation
- MSc Decision Sciences from the London School of Economics



David Wachsman
PR Advisor

"I build and maintain qiibee's reputation in the public"

- Founder and CEO of Wachsman, the world's largest blockchain PR agency
- Previously held roles in advertising and political affairs



Prof. Dr. Sven Reinecke
Academic Advisor

"I strategize on customer retention and loyalty"

- Director Institute of Marketing at the University of St. Gallen
- Co-Founder of the Swiss Virtual Business School VBS AG
- "Best Practice in Marketing"



Prof. Dr. Winfried Koeniger
Academic Advisor

"I offer economics perspective to complement the business aspects"

- Professor of Economics at the University of St. Gallen
- PhD in Economics from the European University Institute
- Expert in Empirical Economics

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Jean-Paul Saija for example, who is CEO of dealini.ch, a creative agency with tech focus based in Switzerland, has been crucial in securing partnership deals.

Dominic Hofer, founder and CEO of Loylogic, the global leader in e-payment solutions for loyalty programs, has been an important source of insights into the loyalty market.

Furrerhugi, a Swiss PR agency with an established network in Switzerland has been instrumental in building our reputation in the Swiss market.

PrimeTax, Swiss law agency focusing on tax-related issues, has worked out our tax ruling with the government in Zug.

This is just a selection of the valuable contributions we have received from our advisors and partners so far:

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We are trusted by strong contributors and partners

Trusted Contributors

Swiss Confederation Commission for Technology and Innovation CTI

LOYLOGIC

BABY WHALE GROUP

GROSSEN INVEST AG

Fingenom

mindnow

bamboo FUND

飞亚资本 FIAT CAPITAL

CHAIN CAPITAL

bitboom 亿|爵|资|本

Trusted Partners

WACHSMAN

furrerhugi.

BADER · GNEHM & PARTNER

CHAINSECURITY

PrimeTax

MARKET ACROSS

openzeppelin

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Industry Relationships

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Colloquy 2017 Loyalty Census report, https://www.colloquy.com/reports/

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