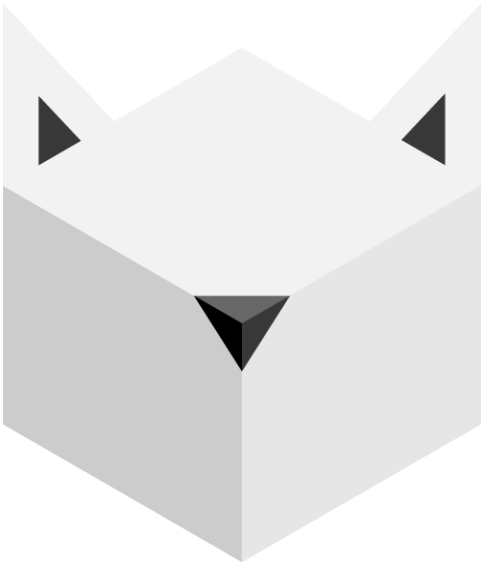

BlockCAT

Smart Contracts For Everybody

Last Revision: January 5th, 2018.

Contents

1 Executive Summary 4

2 Background 5

2.1 Smart Contracts and Their Motivation 5

3 Mission Statement and Objectives 7

3.1 Core Objectives 7

4 Why Ethereum? 8

5 Applications 9

5.1 Safe Remote Purchases and Escrows 9

5.2 Prediction Market Integration 9

5.3 Crowdfunding 9

5.4 Tamper Resistant Polls and Voting 9

5.5 Auctions 10

5.6 Proof of Existence 10

6 CAT Token Mechanics 11

6.1 CAT as an ERC20 Token 11

6.2 Marketplace Verification and Security 11

7 Technical Summary 13

7.1 Implementation Requirements and Considerations 13

7.2 Technologies and Decentralization 14

8 Operations and Roadmap 16

8.1 Key Activities 17

8.1.1 Platform Development, Testing, and Maintenance 17

8.1.2 Auditing 17

8.1.3 Business Growth and Development 17

8.1.4 Legal 18

8.2 Future Goals 18

9 Legal Considerations 19

References 20

Executive Summary

The Ethereum platform has opened our world to the possibility of "programmable money." We now have a blockchain-based currency with powerful smart contracts enabling a number of previously difficult applications without requiring trust in a centralized third party. Damage deposits, online shopping, delayed payments, joint purchases, and tamper-proof ballots are some of the many automated processes that stand to significantly benefit or be made possible by trustless computing networks such as Ethereum.

BlockCAT, short for **Block**chain **C**omplex **A**utomated **T**ransactions, is a decentralized platform that provides an easy to use web portal, hand crafted by our expert engineering team, to allow end users and organizations the ability to provision and deploy the smart contracts that drive these complex transactions, zero programming required. Other payment processing solutions can be eliminated from your financial workflow to reduce costs and streamline processes to increase efficiency. The BlockCAT marketplace will allow anyone to contribute and sell smart contracts, while our custom designed contract auditing system keeps our users safe in a completely decentralized manner. The BlockCAT platform will not require users of our smart contracts to know how to write any code, unlocking access to services that they would otherwise not be capable of using.

Unlike other decentralized systems that are currently available or under development, BlockCAT will never ask users to pay for functionality they do not require. Instead, the philosophy of BlockCAT is to offer these services "à la carte," in small pieces that can be chosen to suit each individual use case. Users pay as they go for only what they use, ensuring that everybody gets maximum value for what they spend. BlockCAT is the solution that provides a smart contract platform in a way that is accessible to everybody, worldwide.

Background

2.1 Smart Contracts and Their Motivation

Over the past three decades, the global economy has been revolutionized by the ability to move money electronically. The four largest American credit card issuers processed over two trillion USD ($2,000,000,000,000) worth of transactions in 2014 alone [1], and PayPal has processed over 100 billion USD worth of eCommerce transactions in just the first quarter of 2017 [2]. However, current popular solutions require trust in one or more centralized parties to carry out the transaction securely and correctly. Furthermore, centralized systems are difficult to automate beyond trivial problems, and large scale transaction processes frequently require experts such as lawyers, bankers, accountants, and software developers in order to ensure error-free and reliable methodology is followed throughout the entire lifecycle of a transaction.

The introduction of *blockchain* technology allows for electronic transactions to occur in a secure, deterministic, and tamper-proof way. Bitcoin (BTC), with it's market capitalization of over $250 billion USD, is one of the leading digital currencies.

Because blockchains can contain both information regarding asset movement and otherwise, it is possible to place special computer software on blockchains to be executed by a network of computers, called *smart contracts*. Smart contracts are the key to unlocking a world where any computer oriented task can be executed completely autonomously and correctly, without fear of external manipulation or tampering.

Imagine being able to easily set up recurring payments to pay your monthly rent, or to give your nephew some money that only unlocks on his birthday. You could even have money be automatically distributed amongst several friends to make paying back small loans a breeze, or allow groups of people to all contribute payment towards a single purchase. Using smart contract technology, these small financial tasks become available to anyone to use in a completely automated, independent fashion that utilizes the power of the world's distributed database by writing these tasks directly into the blockchain. Such technology eliminates the possibility of banks or financial institutes closing down and ruining your transactions, and guarantees that every payment will be carried out exactly as written without the risk of any improper handling or malicious interference. A common complaint many users have with services such as PayPal is that they hold too much power over funds or assets stored in their system, allowing them to freeze accounts and cancel transactions for any reason.

While ways of writing simple smart contracts exist for many digital currencies, it was not until Ethereum was launched in 2015 that truly valuable software could be built on top of blockchains. Ethereum is a blockchain-based computer network paired with the Ether currency, and has implemented a powerful distributed computing environment called the *Ethereum Virtual Machine* (EVM). As part of the platform, a programming language for writing smart contracts targeting the EVM called *Solidity* implements familiar high level programming concepts that allows more sophisticated smart contracts to be written. The Ethereum network has quickly become the most popular smart contract platform, even attracting the attention of major companies such as Microsoft, ING, Toyota, Samsung, J.P. Morgan,

State Street Corporation, Accenture, and Intel [3]. Ethereum averaged approximately 40,000 transactions per day in early 2017, but its explosive growth in traction and adoption has resulted in a 25x increase in daily transactions, with over 1,000,000 transactions served daily in late 2017.

Smart contracts, such as those built on the Ethereum platform, offer several key benefits:

1. Smart contracts are completely autonomous and require zero human intervention or oversight.
2. They are implemented using a programming language, and thus are unambiguous.
3. Properly written smart contracts are resistant to malicious attack or external tampering.

Unfortunately, these benefits come with their own barriers to mass adoption:

1. Smart contracts must be written by programmers, making them accessible to few potential users and enigmatic to those who cannot code.
2. While smart contracts are unambiguous in their meaning, only those familiar with the language can interpret them, making it difficult to reach agreement with any non-technical party.
3. Smart contracts, even when written by capable and well-intentioned developers, can contain bugs, which may result in the loss of assets. The DAO Hack [4], which attacked a Decentralized Autonomous Organization called *The DAO*, resulted in an outright loss of 3.6 million Ether valued at more than $60 million USD and also resulted in the price of Ether crashing by 35%. A bug-free smart contract would have prevented this hack from ever occurring.

Industries are moving to leverage this disruptive technology. Deloitte, now part of the *Enterprise Ethereum Alliance* (EEA) [3], said "By 2025, 10% of [the] global GDP will be stored on [the] blockchain" [5]. In order for the potential of ubiquitously applied smart contracts on blockchain currencies to be realized, the previously mentioned barriers will need to be overcome. Without simple to use, verified, and trusted methods for efficiently creating accurate smart contracts, widespread adoption will never occur. Put simply, democratized smart contracts will make advanced use of current blockchain possibilities available to the widest possible audience.

Mission Statement and Objectives

"Our mission is to provide the world a safe way of leveraging inexpensive smart contracts on the Ethereum network and beyond, creating intelligent and automated economic activity at scales not previously possible."

Our team firmly believes in the disruptive power of smart contracts, when made accessible. Whether the purpose is personal, business, or otherwise, accessible smart contracts have the potential to be the basis for emerging technology and economic and social activity. We see a future where smart contracts are used by non-technical individuals to buy and sell goods and services, finalize no-nonsense business deals without lawyers in seconds, implement intelligent on-premise and internet-based checkout systems, automate repetitive enterprise-grade fund transfer processes, and create entirely new organizational hierarchies with the press of a button – amongst many other possibilities, all with trust and simplicity. BlockCAT will be a timely and influential platform ready to usher in an explosion in the number of smart contracts utilized.

3.1 Core Objectives

BlockCAT has the following core objectives:

1. To build and become the *de facto* platform for creating and deploying smart contracts in an accessible fashion by delivering a device-agnostic web portal and a broad set of configurable templates for rapidly constructing, deploying, and optionally extracting data.
2. Make smart contracts quicker to use, more efficient, easier to understand, and less costly than current agreements, contracts, and multi-step payment solutions.
3. Provide smart contracts that are reliable and inexpensive enough that even the most technically acclimated smart contract developers will gain value from using our pre-built or customized contracts, at a fraction of the time and cost of manual deployment.
4. Implement the tooling necessary to create smart contracts that have minimal risk of failure.
5. Provide integration with a variety of other valuable services such as prediction markets, payment interfaces, and digital asset/currency exchanges.
6. Provide a marketplace for curating and selling smart contracts created by the world-wide blockchain community.

In summary, BlockCAT aims to make using smart contracts so simple, reliable, and, cost-effective that they become widely adopted, improving peoples' lives and making society more efficient.

Why Ethereum?

Ethereum has become the standard for decentralized distributed computing platforms. Its digital currency, Ether, has also become one of the most popular and fastest growing offerings. Many innovative companies are quickly joining the development ecosystem to deliver value not previously possible. The BlockCAT team believes that as more services come into existence on the Ethereum network, our product will become more valuable to everyone. The momentum behind Ethereum as a blockchain-based development platform is unrivaled at present.

In addition to its popularity, many large organizations have banded together to form the EEA, a consortium whose purpose is to ensure Ethereum is a suitable platform for reliable, enterprise-grade technologies backed on the blockchain. Major new projects are being increasingly demoed by both startups and established mega-companies on Ethereum, thanks to the rich environment it provides [6]. Their contributions will help ensure future versions of Ethereum reach their potential.

Ethereum is also a constantly evolving ecosystem. The Ethereum Foundation has demonstrated a clear commitment to continual innovation with planned milestone releases, going above and well beyond in having core developers engage and solicit feedback from the larger community, and in experimenting with new features. The Ethereum Foundation has spent their time and effort wisely, and also have provided new tooling that is well planned and valuable. As evidence of this, Ethereum's experimental *Viper* language for smart contracts will provide significant improvement in smart contract safety and security.

While we believe Ethereum currently provides the best and most robust platform for developing impactful and secure smart contracts, we also recognize that smart contract technology is a young and agile ecosystem, liable to rapid change both in future iterations of existing platforms, and in the emergence of future blockchain systems. We at BlockCAT are committed to our core philosophy of providing accessible smart contracts, and thus remain open to exploring additional platforms.

Applications

While far from an exhaustive list, the following examples provide some insight into the general idea and class of applications that BlockCAT targets. **Please note that this list in no way represents the set of complete features ready to be used. This document is not intended, at any point, to state or imply the currently implemented features of BlockCAT.**

5.1 Safe Remote Purchases and Escrows

If you wish to buy from a stranger online, you are required to trust that stranger will honor their agreement in sending the goods. Similarly, the seller must trust the buyer will be honest about receiving the goods. With smart contracts, the system becomes trustless as both parties must uphold their agreement to receive the goods or funds. With BlockCAT, anybody can set up these contracts on a per-use-basis without needing to write a single line of code, opening up the world of trustless online purchasing and other forms of escrows without the need for centralized systems.

5.2 Prediction Market Integration

Prediction markets, such as *Augur* [7] and *Gnosis* [8] provide an easy way to access external information not typically available to smart contracts, such as the results of elections. BlockCAT can leverage this information to provide simple ways of automating transactions that occur according to the results of this information.

5.3 Crowdfunding

Platforms such as *Kickstarter* [9] or *IndieGoGo* [10] are popular places to provide the initial funds for large scale projects. However, the project creators have little to no accountability to actually create and deliver their proposed project. BlockCAT will provide smart contract based crowdfunding that guarantees accountability from the creators. This additional trust throughout the whole crowdfunding system will therefore encourage more money to be invested into projects. Additionally, BlockCAT will integrate with payment platforms, so funders not holding digital currencies can effortlessly contribute.

5.4 Tamper Resistant Polls and Voting

Traditional online polling systems require significant trust, and are vulnerable to attack due to their centralized nature. Conducting polls through the use of smart contracts can provide strong and transparent voting systems that operate completely autonomously. Decentralizing the entire process guarantees that miscounts of ballots are impossible. Additionally, the immutable and open nature of the blockchain means that anybody can audit the process and

verify the results independently. BlockCAT ensures that this process is painless to setup and eliminates the need to manually program each poll, transforming the lengthy and tedious process into just a few clicks on our platform.

5.5 Auctions

Online auctions are vulnerable to many methods of user manipulation. Both bidders and sellers can fail to uphold their promise to pay or deliver goods once the auction has ended. Malicious users or bots can place fictitious bids to artificially inflate prices, and throw the bidding process into disarray. Centralized auction services can fail to resolve user conflicts and freeze funds for large amounts of time. BlockCAT will prevent these problems through decentralized smart contracts, ensuring all parties involved must conduct the auction in a fair and transparent way.

5.6 Proof of Existence

Typically, in order to certify ownership or existence of an item or idea, a centralized party must serve as an authoritative source of truth that others must trust. Using smart contracts, this ownership data can be written permanently into the blockchain, where it remains extremely resistant to malicious change or accidental data loss. BlockCAT makes it easy for anyone to perform proof of existence, by providing externally verifiable procedures for anybody to confirm the blockchain data is valid.

CAT facilitates two key operations within the BlockCAT platform:

1. CAT will be a safe, cost effective, and more flexible payment method for contract deployment.
2. Staked CAT will serve as the primary mechanism for verifying third party marketplace smart contracts in a secure and democratic fashion.

6.1 CAT as an ERC20 Token

CAT will be implemented as an ERC20 Token to ensure maximum compatibility with the Ethereum ecosystem. Opting for a token instead of directly transacting in Ether provides several key benefits:

The allowance feature of the ERC20 specification is similar to a Pre-Authorized Debit (PAD) that banks provide. Once an allowance has been made, small amounts can be withdrawn from a CAT holder's account to pay for fees, but the full balance remains safe in the account. This means the CAT held can remain in a paper or hardware wallet, ensuring that the security of the wallet remains uncompromised. Allowances are a unique feature not possible if Ether is used as the transactionary medium.

Without a third party service, certain blockchain queries are extremely expensive to execute.

For example, the query:

"Give me all the transactions sent by address X"

Requires a scan across all blocks and transactions within the chain in order to aggregate and return the desired results. Leveraging the built-in Event Logging system native to the EVM, smart contracts can store small amounts of data in a very cost effective and efficiently indexable way. Properly implemented, the same query as above on a CAT holder requires only a fraction of the computation power to execute, due to special search strategies and structures, such as bloom filters[11], that can be utilized when searching event logs.

In order for the staking mechanism to function properly, the distribution of the staked medium must be carefully controlled. By utilizing CAT, which we have carefully crafted and distributed to ensure optimal staking properties, we can fully control and understand the behaviour and environment of contract verification.

6.2 Marketplace Verification and Security

The BlockCAT Platform will allow third party smart contract developers to publish their contracts on our platform. This allows them to plug their contracts into the BlockCAT interface, hooking up their contract functionality to our easy-to-use UI. By establishing our smart contract ecosystem, we provide a strong, consistent, and familiar interface across many related but distinct smart contract challenges – directly addressing one of the biggest

challenges in cryptocurrency adoption: user experience. In the same way that automobiles from different manufacturers provide a consistent control scheme to reduce the learning curve of operating the vehicle, our marketplace will be an industry leader in standardizing smart contract interaction.

All published contracts will pay a portion of the fees collected back to the original author. In essence, our marketplace becomes an easy way to gain exposure and traction for well crafted smart contracts.

As part of the marketplace, security and verification of third party contracts is our top priority. A broken, flawed, or malicious smart contract could result in stolen or lost assets. We recognize this risk, and we will put in place the necessary safeguards to mitigate attack.

A key component of our security model will involve a staking mechanism. CAT holders will have the option to lock in their tokens and perform smart contract validation. The consensus provided by staked validators will be used as part of our algorithm that computes the validity and trustworthiness of a third party smart contract.

The staked CAT provides financial incentive against malicious actors. Once contract validity is resolved, any stakers deemed malicious will have their CAT forfeit and confiscated. This means any potential gain that could be extracted from manipulating the marketplace will be offset by the significant cost required to launch the attack.

To reward and positively incentivize stakers who behave in an honest and correct way, stakers will be paid a portion of the fees collected by the contract for their validation work. We believe that our validation model, when combined with the other security measures that will be put in place, will designate BlockCAT as the leading platform for high quality, trustable smart contracts.

7.1 Implementation Requirements and Considerations

The main value proposition of BlockCAT is to provide a painless platform for creating and deploying smart contracts to the Ethereum network. To accomplish this, our team will build a blockchain based application composed of a device-agnostic, web-based user interface and a set of audited smart contracts to securely create and deploy the smart contracts of our users' choosing.

Our primary technical concern is in reducing the gas cost[1] associated with the smart contracts used by the BlockCAT platform. By minimizing the cost overhead, we maximize the accessibility of BlockCAT and reduce the cost burden on our users. There exist multiple ways of implementing, managing, and deploying smart contracts for our users. We summarize the various options below.

For the most straightforward class of smart contract, such as setting up a delayed payment, we can utilize a cost saving technique known as *forwarding contracts* [12] to save over half of the gas cost that would have been required to deploy the contract as a standalone entity. This type of smart contract deployment currently works well for small contracts not larger than 4,096 bytes, with few function calls needed, though this option may become more economical for more smart contracts with the coming Metropolis Ethereum platform revision. Effectively, this strategy replaces the expensive, one-time cost of contract creation with a higher per-access overhead. Particularly for BlockCAT contracts of this class, where the expected number of times a user would interact with their contract is minimal, this shows to be the most optimal strategy in reducing overhead expenses. This is especially true when factoring in maintenance and bug-fixes.

Another strategy for deploying contracts involves creating contracts in groups, allowing one contract specification to be reused by another "master" contract many times. While this has a high initial cost, this technique is very cost efficient, assuming the smart contracts have no significant bugs. In effect, we again reuse one contract deployment for many instantiations of the same type of contract, over and over, at a much reduced cost. For many of our core, battle tested contracts, this will be the method we choose to use.

For smart contracts that are prone to change, custom built by the user, or otherwise unsuitable for the above two processes, we will deploy the contracts on a per-need basis. By leveraging all possible methods for deploying smart contracts, as dictated by the situation, we will provide the best possible value to our users.

Another challenge is in protecting BlockCAT smart contracts from non-authorized instantiators, especially moving forward with future Ethereum revisions. To prevent contract theft where appropriate, we will incorporate the payment code directly into the pre-deployed smart contracts, so that they cannot be instantiated without paying the BlockCAT fees. This ensures that the value and profit incentive paid to validators will remain safe and undiluted.

[1] These are the costs paid in compensation to Ethereum miners for use of the network resources.

To make BlockCAT as accessible as possible, our platform must make retrieving and reporting smart contract state simple and readily available. The most typical use case of this in BlockCAT is for the display of notifications at the various stages of a user's contract. Without incorporating this into our user interface, users would be forced to retrieve state programmatically, which is antithetical to the core principles of our platform. We intend to use events to minimize costs associated with reporting state information. BlockCAT will maintain a standard API and extensive documentation for these events, so that experienced developers can leverage these low cost events to roll their own user interface.

For marketplace contracts, we face a unique set of dilemmas not common to internally developed smart contracts. These contracts cannot be known ahead of time, a key requirement to parcelling them together as we deploy the main blockchain application. Further, they may be of arbitrary complexity, so cannot always be forwarded. Malicious developers might attempt to create smart contracts that claim more of the deployment profit than agreed upon, or worse, intentionally make their contracts vulnerable to attacks that render their services unusable. Bad contracts will hurt the ecosystem and put BlockCAT users at risk, and thus the prevention of such attacks or failures is heavily factored in any design choices made for the marketplace integration.

Thus, we propose the following: All contracts, from the marketplace or otherwise, will be purchased with our token, CAT. This token can only be spent through the smart contracts BlockCAT provides, meaning deploying marketplace contracts will ensure fees are processed correctly. Further, this token will be used to verify the trustability of marketplace contracts in a decentralized fashion.

Marketplace developers who have their smart contracts audited by a trusted and certified third party will also be given a higher portion of the CAT paid (with BlockCAT receiving an equally lower portion of the CAT paid) and such contracts will be marked as audited in the marketplace.

7.2 Technologies and Decentralization

Our team very much believes that decentralizing platforms such as BlockCAT greatly benefits the end users as well as our team. On the other hand, decentralization poses other hurdles, especially regarding private data and data under access control. Fortunately, several technologies have been developed that ease many of these challenges.

Of particular interest to our use cases, we will investigate and research the applicability of several core decentralized technologies, including the following:

Ethereum. The smart contracts that both manage BlockCAT and are eventually deployed will be compiled for and executed using the Ethereum network. As previously noted, other smart contract enabled computing networks may be supported in the future.

IPFS. IPFS provides public data storage by means of a distributed hash table and is commonly used for storing static files, such as front-end markup and code for web sites. We will use IPFS both for storing HTML and Javascript, in addition to any other static or seldom updated data that can be stored off of the blockchain in public view.

Sia. Some data, such as login account information, needs to remain private. In such cases, the data can be stored in a decentralized fashion using one of a number of services. Sia's solution incentivizes long-term participation in storing data at a competitive price.

The landscape for building DApps changes quickly, and the right way to build the application at the time of this writing may not hold true going forward. While this section is intended to give the reader some insight into how we will build our application, further evaluation and constraints may motivate us to change our plans.

Operations and Roadmap

Our team wants to proceed with due care and caution to minimize potential asset loss for users. As these smart contracts are deployed on the Ethereum blockchain as immutable code, it is particularly crucial that everything is thoroughly battle hardened and easily updateable to handle bugs. As part of the development process, we will source independent professional software auditing for all smart contracts, in addition to our internal verification pipeline – this comprehensive testing routine is allocated its necessary portion of time and is reflected in the paced release schedule. BlockCAT features will be released in the following order:

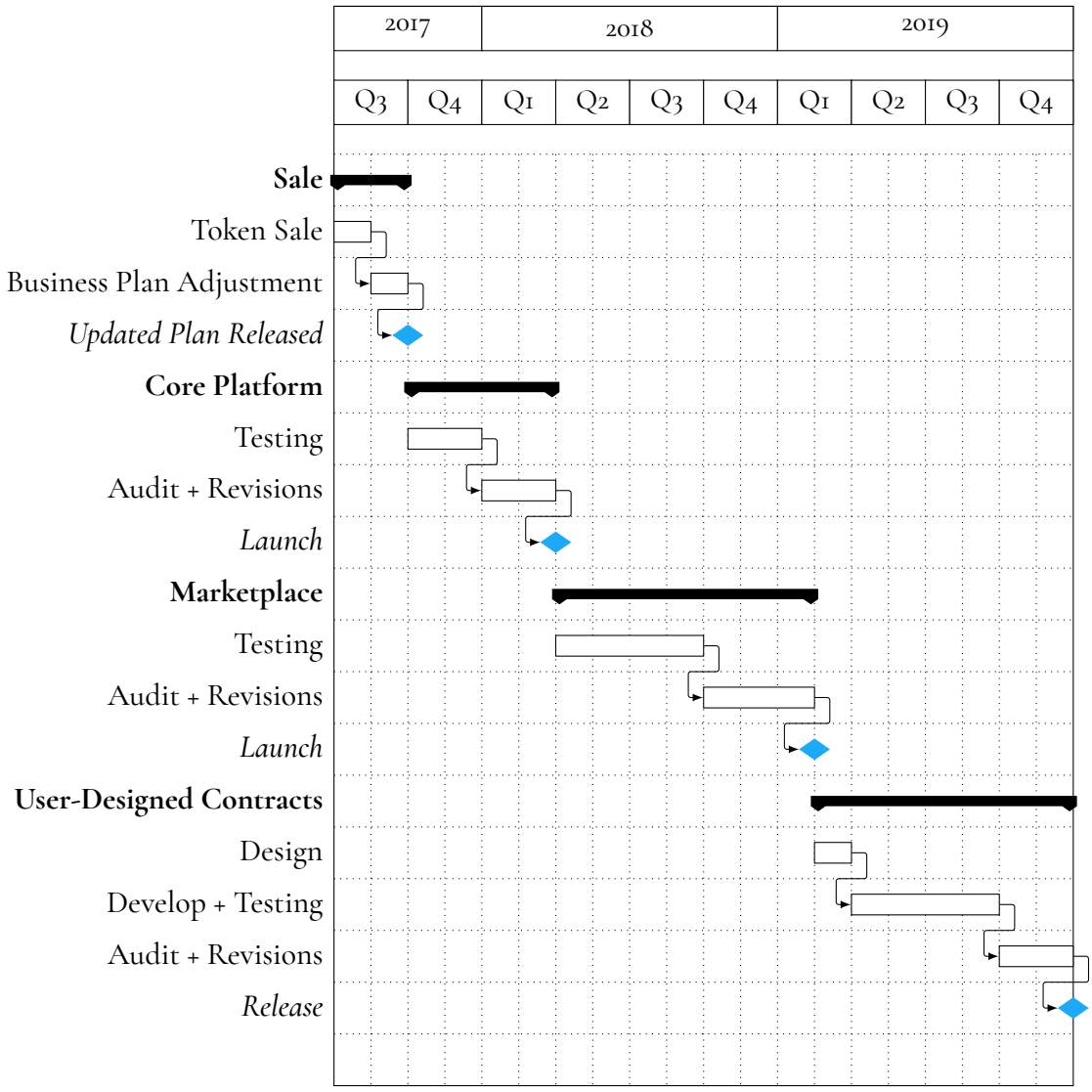

Figure 8.1: The feature release schedule for the BlockCAT platform.

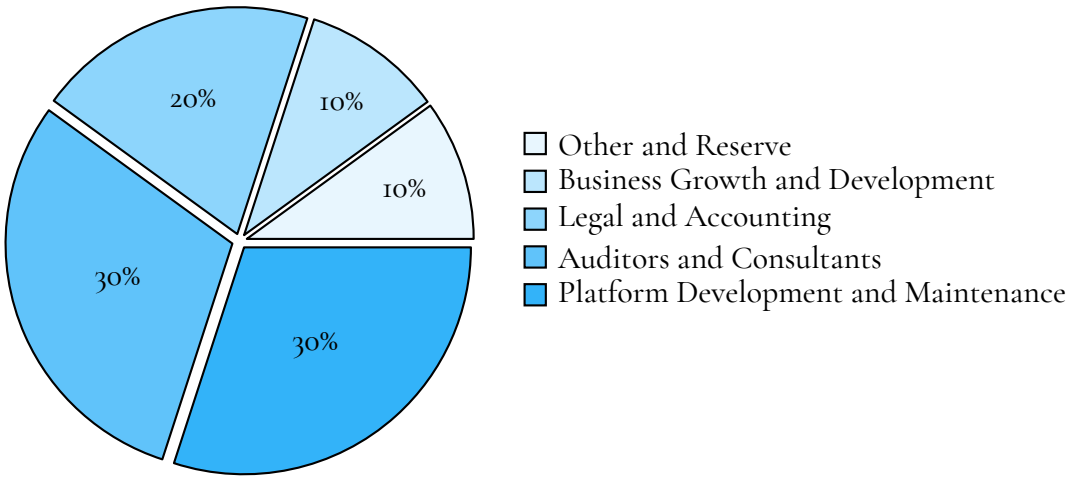

Figure 8.2: The expected expenditures in percent of total costs for the BlockCAT platform

8.1 Key Activities

Disclaimer: The projected financial expenditure plan and release timeline are only estimates and serve to illustrate the general future plan of BlockCAT. We reserve the right to make adjustments as reasonable based on available resources and other constraints.

Our projected cost breakdown is shown in Figure 8.2. We briefly summarize core activities and specific expenditures below.

8.1.1 Platform Development, Testing, and Maintenance

Further development and continued maintenance of the core BlockCAT platform is the primary cost that BlockCAT will expense in the near future. This allocation of resources will be put towards the compensation of the core BlockCAT team, and any future personnel who are signed onto the BlockCAT team, as necessary. This will primarily consist of Software Engineers, Platform and Infrastructure Engineers, Customer Service and Support Specialists, and Product Strategists.

8.1.2 Auditing

To minimize risks to BlockCAT users, we have reached out to multiple trusted security and software verification firms which specialize in smart contract auditing. These auditors will be responsible for verifying our smart contracts before deployment, in addition to the rigorous set of internal testing performed by the BlockCAT team. Given the sensitive nature of BlockCAT's platform, we believe that it is better to err on the side of caution and will devote all of the necessary resources to ensuring a safe and secure platform for all BlockCAT users.

8.1.3 Business Growth and Development

We will be marketing our platform to ensure healthy growth. This is not only important for ensuring that BlockCAT remains the best platform for deploying smart contracts, but also

for marketplace participants, as their ability to earn CAT will depend entirely on the size of the user base.

We intend to acquire new users via targeted marketing, first focusing on targeting early adopters and businesses already building on blockchain technology. We will quickly extend our efforts towards additional channels to bring new users to both the BlockCAT platform and Ethereum in general. We intend to appeal both personal uses as well as businesses.

That said, we view business growth in a holistic manner. We believe in demonstrating value first, as well as attracting attention through collaboration. As noted in our roadmap, we intend to organize at least one hackathon to jump start the contract marketplace. For this event, we intend to create voter tokens and to have participants choose winners. These winners will receive free auditing and early availability of their developed smart contracts on the marketplace.

We will also form partnerships with other blockchain innovators to create mutual value for our users. We will focus our business development efforts on those technologies with identifiable synergies and compatibilities with BlockCAT. We put open and honest relationships first, and seek to mutually encourage innovation and growth.

8.1.4 Legal

Our platform will require users have a clear understanding of the rights and responsibilities of all parties involved in using BlockCAT. Once our token sale has concluded, we will invest the necessary time and capital in developing user agreements for smart contract deployers and marketplace sellers. Future legal costs are also accounted for here.

8.2 Future Goals

Bugs and unforeseen flaws are an inevitable risk with any programming code, regardless of how thoroughly they have been vetted and reviewed. BlockCAT will strive to provide its users with the maximum amount of assurance possible by implementing enhanced security measures in any contract where appropriate. The ability to stop a rogue contract in a structured, pre-determined way will prevent high-value losses and ensure a safe platform for everyone, without resorting to or relying on controversial hard-forks.

We also recognize that the technology landscape is quickly evolving, and that our platform infrastructure must remain agile and adapt to changing conditions. As new technology and solutions such as decentralized hosting and storage stabilize and gain adoption, we intend to move more and more of the BlockCAT platform to these services. This will ensure that our platform remains the preferred solution for smart contract deployment.

Legal Considerations

The CAT Token is a functional utility token to be used only as the exchanged medium for the BlockCAT Platform and Marketplace. These tokens will give access to the BlockCAT mainnet demo app as soon as the minimum cap is achieved. CAT are not for speculative investment. No promises regarding value or future performance are made regarding CAT. No promises regarding any particular value of CAT are made. No other rights associated with holding CAT are given. Proceeds of the token sale may be spent as the company sees appropriate, which may change as deemed necessary in the maturation and advancement of BlockCAT.

Our team is investing heavily in the safety and security of the services BlockCAT provides, as detailed previously. However, we cannot protect against all possible sources of error, especially those in parts of the technology stack we cannot control. Therefore all risks assumed by using the BlockCAT platform in any capacity, including but not limited to deploying smart contracts, buying or selling smart contracts using BlockCAT's marketplace, and collecting CAT through the marketplace are solely assumed by the user. CAT tokens are meant to be held and used by those well-versed in cryptographic tokens, only for the purpose of accessing the services offered on the BlockCAT platform.

BlockCAT and its team must abide within the laws set forth in its operational country(ies). We intend to provide our services in as decentralized a fashion as reasonably feasible, but our legal entity must act according to the rules and bounds encoded in applicable laws. This includes but is not necessarily limited to laws governing financial operations, employment, fee charging, and sales.

References

[1] http://www.creditcards.com/credit-card-news/market-share-statistics.php (cited on page 5).

[2] https://www.statista.com/statistics/277841/paypals-total-payment-volume/ (cited on page 5).

[3] http://entethalliance.org/ (cited on page 6).

[4] https://en.wikipedia.org/wiki/The_DAO_(organization) (cited on page 6).

[5] https://twitter.com/Deloitte/status/866398442951778304 (cited on page 6).

[6] https://www.ethnews.com/microsoft-demo-day-features-triple-play-of-ethereum-based-products (cited on page 8).

[7] https://augur.net/ (cited on page 9).

[8] https://gnosis.pm/ (cited on page 9).

[9] https://www.kickstarter.com/ (cited on page 9).

[10] https://www.indiegogo.com/ (cited on page 9).

[11] https://blog.medium.com/what-are-bloom-filters-1ec2a50c68ff (cited on page 11).

[12] https://www.reddit.com/r/ethereum/comments/6c1jui/delegatecall_forwarders_how_to_save_5098_on/ (cited on page 13).