
ZenithCard/Token Platform Whitepaper v1.0.0.2

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ZenithCard Ethereum-based application allows you to:

- Manage your investment at a tap of a button - Deposit and withdraw fiat currencies at the ATM with the Debit Card supported by MasterCard - Hold and spend up to 50 registered ERC 20 tokens with our secure wallet,
- Trade / Exchange at our online market platform - Trade our token against other Fiat/ Crypto currencies on major exchanges including Binance and Kucoin

A ZenithCard Summary

The Debit Card

ZenithCard is a debit card usable at payment terminals around the world, including ATMs. ZenithCard customers can fund their own card with allowances from Bitcoins and ERC20 compatible contract wallets. At launch, ZenithCard will allow users to fund their card with BTC, ETH, ZENT and up to 50 other tokens that will be selected by community vote immediately after crowd sale

The ZENT Token

A fixed number will be created for the private sale, presale, public sale, and no more will be created thereafter. The ZENT Token provides a ZENT holder with the right to use the ZenithCard for transaction using ZENT without having to pay additional licensing fees (transaction fees charged by third party card issuers and payment system providers remain applicable). Payments made with ZenithCard using tokens other than ZENT is, however- in addition half of the transaction fee charged by the card issuing partner – subject to the payment of a license fee as remuneration for the use of the software protocol developed as part of the ZenithCard project. The ZENT Asset Contract, accrues this 0.5% licensing fee on debit card transactions using tokens other than ZENT. Fees from card swipes will be assessed in the token being used to fund the swipe. These fees will be sent directly to the ZENT Asset Contract. Over time, this contract will - in a fully automated way and without any management required- accrue tokens in proportion to the tokens used by ZenithCard customers around the world.

ZENT Token Creation

One billion pre-mined tokens will be issued, For the ICO, our aim is to gather from contributing participants the equivalent of 28 million USD in Ethereum through sales. The ICO will be terminated once the hardcap target has been achieved. This will be affected by the price fluctuation of Bitcoin and Ethereum.

- **350 million (35% of the ZENT tokens)** will be available during crowdsale. The ZENT token will also support the ZENT ecosystem – as per our proposal - since it will be used for transactions within it further boosting its value.
- **150 million (15% of the ZENT tokens)** will be sold at the Private Presale which will be run for selected investors which will be approved by ZENT, following their submission for the Whitelist. They will be receiving their pledge tokens, at the start of the ICO. And their token disbursed as soon as the hardcap is reached.
- **50 million (5% of the ZENT tokens)** Advisors & Partners (18 months vesting/2 months cliff)
- **20 million (2% of the ZENT tokens)** Bounty
- **80 million (8% of the ZENT tokens)** Future Partners (18 months vesting/2 months cliff)
- **100 million (10% of the ZENT tokens)** Founders (18 months vesting/2 months cliff)
- **250 million (25% of the ZENT tokens)** kept in reserve

With 1 ETH equivalent of 10,000 ZENT

Minimum Purchase Accepted during the ICO Crowdsale: **0.2 ETH**. Further to the above no more tokens will be created.

Unsold Tokens

All unsold tokens will be burned at the end of the ICO. Additionally, the percentage burned will also be matched across other allocations mentioned above, to avoid inflation.

Total tokens available for ICO: 600 000 000

Token Distribution Dates for Pre-Sale and Public ICO: Will be announced on our official website.

Funds Allocation

The proceeds from the funds will finance development, partnership programs, float (both fiat and token), operations, regulatory and most importantly, marketing and customer acquisition. Most of these costs are somewhat fixed.

Because of this, any money we receive from pre-sales over our minimum will largely go to marketing and customer acquisition. This creates a value multiplier for the project: as we have more money we will be able to spend a higher percentage on customer acquisition and boost spending commensurately.

We believe issuing ZenithCard in China will be critical to building the transactional volume for the card so we are being registered on major Chinese exchanges . Entering the Chinese market from exchanges will launch us to the fore fronts of tokens volume hence a push in price; the more successful our ZENT token creation , the more quickly we will be able to capture this market.

Partnership Programs ○ **Exchange/Trading Partnership;** we have secured trading positions on **Huobipro (P2P cryptocurrency exchange)**, and **Binance**. Current talks are going on with **Cryptopia** and **Shapeshift**. Listing will take place 4 weeks after Token sale. Trading can take place immediately.

- **ERC 20 Token;** We will be in partnership with about 50 other tokens registered on our platform which you can trade, withdraw, spend or convert directly from the app and debit card.
- **Fiat Deposit and Withdrawal Partnership;** Current talks are ongoing with Visa and MasterCard to use their platform for ATM withdrawals. We are about to move forward with a positive partnership with MasterCard on this.

The Future

Our mobile app will allow customers a number of features that they cannot easily access with other digital currency and token wallet apps. Read more in Section 4.1.

Also ZENT will be registered on the following exchanges which will boost its usage in the premium market.

- Huobipro
- Binance
- Cryptopia
- Shapeshift

We aim over time to bring about a world which makes access to tokens far easier than it is today, far more intuitive, with far less friction

B Motivation

7 years after the creation of Bitcoin, one of the greatest experiments to date, we have witnessed the emergence of a new industry. Ethereum has added a Turing-complete layer into the mix, and broadened the horizon of what is possible by an order of magnitude. This in turn has facilitated the creation of a new synergistic ecosystem, one that promises to overturn the status-quo.

Over the years numerous attempts have been made to bring cryptocurrency to the masses yet adoption is still slow and cumbersome. These companies and projects have failed to identify and address the main issues present in making mass adoption of digital assets possible. The core issues remain:

1. **Security**, storing assets is cumbersome and inevitably people choose to store their assets under a third party's control, like an exchange. This defeats one of the greatest properties of cryptocurrency, and exposes them to risks that have consistently proven to be catastrophic. **A system is needed that can securely store assets without compromise on usability.**
2. **Usability**, numerous steps are often involved in seeing real use of one's digital assets. A user needs wallets, exchanges and accounts on various services. They are required to withdraw, deposit, do KYC and even become amateur traders. **A system is needed that eliminates these steps, and offers a seamless plug-andplay experience for the uninitiated that can be integrated across platforms.**
3. **Volatility**, forcing people to use a volatile asset like Bitcoin is a no-go. The people have spoken, and it deters more than it attracts leaving only a risk-taking fringe. **A stable, more diverse asset class is needed.**

Through the game-changing power of Ethereum we now have the tools at hand to create a distributed banking replacement for the post-bank era that promises to solve these problems and in the process outperform traditional banking counterparts in flexibility, efficiency and transparency.

The all new ZenithCard platform proposed in this document strategically targets and solves these issues and will position itself at the heart of the effort to facilitate the Ecosystem and dominate this next phase in financial history.

C Token Platform Detailed Overview

Smart Contract Wallet

Upon a user joining the platform they launch their own Smart Contract Wallet, or grant allowances to their existing wallets.

This Contract Wallet acts as the equivalent of a bank account that holds funds and enforces security parameters, but, crucially, it is controlled only by the user. Users run through a setup wizard and are prompted to customize settings to fit their preference, including:

- Setting daily limits to safeguard assets
- Setting up a base currency for example ETH (any fiat deposited into this will automatically convert upon load).

Typically digital currency security is a tradeoff between usability and functionality. Users must trade security of their funds for convenience when they decide whether to hold tokens themselves or leave them at an exchange. We think we can do better.

By shifting control of user assets back into their own hands and giving them easy to manage fine-grained control of their digital assets safeguarded by the security of smart contracts, users can have better security and substantially improved usability.

Zenith App

The ZenithCard App is the main way a user interacts with his Smart Contract Wallet and ZenithCard. The ZenithCard app operates the Smart Contract Wallet and gives customers a simple way to access their token portfolio and manage their debit card and security profiles.

Our roadmap for the App includes the following (**MVP/Alpha features in bold**)

Spending Options

- **Single (Single Asset spend)**
- Multi Asset (Splits Transaction between multiple assets)
- Portfolio Spending (Maintains a desired portfolio allocation)

Spending limits

- **Token denominated**
- Fiat denominated (calculated using an oracle)
- Percentage based
- Time based (Approve Transactions for a specified period of time)

Security functionality

- **Ability to temporarily freeze ZenithCard**
- **Limit Token Contract Wallet withdrawals**
- **“Stop-the-world” drain to a secure address**

Card loading functionality

- Credit/Debit Card fiat to token exchange

Other Items on The Roadmap

- Simple integrated token-to-token asset exchange functionality
- Automated token portfolio rebalancing

Charts and Dashboards

- Loading – history of how much, source
- Spending – how much (fiat & token) and where (Starbucks) – map (API) integration possible
- Blockchain transaction info (who to & how much)
- Platform earnings
- Asset income (Dividends accumulated from tokens)
- Estimated cost basis for acquired tokens

Top tier UI/UX

- **Accessible for non-Ethereum users (simple & intuitive)**
 - In-app KYC
- Financial Management tools
 - **Basic Graphs and Charts** – Budgeting tools
 - Payment categorization
- **Push notifications whenever a transaction is made**

Fees As we will be working with a payments network Partner, we also are subject to their fee schedule. Fees are set by the partner and are revenue-shared with ZenithCard. This is expected to be the main source of operating revenue for the company. A full fee schedule is available in the end user agreement on delivery of the card. We also charge a 0.5% licensing fee that accrues to ZENT holders. This fee is billed in the underlying token being sold and is smart contract enforced, 100% of these fees will be sent to the ZENT Asset Contract. ZENT holders have the possibility to burn ZENT and in return collect a prorata share of the ZENT Asset Contract, i.e. to ‘cash and burn’ rather than merely hold ZENT. ZENT tokens themselves are not subject to the licensing fee.

Credit Card/Debit Card Purchase

Sending tokens directly to the Zenith Contract Wallet works for people who are already familiar with Ethereum. However, as our objective is to allow non-Ethereum users to access the platform, we need other solutions. The first is a simple debit card or credit card purchase of tokens through our app. For certain assets with enough liquidity, we can provide a simple fiat to crypto exchange service. This is a relatively simple financial service to offer, however it may require regulatory approval and adequate fraud mitigation, and as such will be a feature not available in the MVP release, but most likely in a later release instead.

Agent Network Deposits

The vision for Zenith is to enable users to cancel their bank account, and to provide a solution to users without one. Loading your Zenith wallet using a credit/debit card is only sufficient for those who already are served by some level of banking.

To reach a larger audience, we will integrate with agent networks such as Western Union, Paypal and PayPoint, which allow for cash or check deposits with their agents. These agent deposits would remit to ZenithCard, which would convert to tokens and allows us to credit the user's Token Wallet, without the need for a credit/debit card.

D ZenithCard at a glance

Control

ZenithCard users are able to store and transfer tokenized assets securely, without introducing a third party. By retaining control, users never subject themselves to centralized risks, whilst benefiting from the efficiency and cost reduction that comes with eliminating a third party.

Community

The project will focus on initially providing a solution for the Ethereum community, with a smart contract powered debit card that can spend Bitcoins, Ether and other ERC20 compliant tokens and allows for various spending modes that support the lifestyles of those who wish to transact primarily in tokens.

General Public

Moving forward, the project will shift focus to the general public. By using our debit card as an introduction to this transformative technology, we aim to provide a familiar user interface (a plastic card and app) where users retain all the benefits of Ethereum without having to master them.

Cooperation

ZenithCard directly benefits from the powerful products currently being developed on Ethereum like assetbacked tokens, stable coins and other tokenized assets and strongly supplements their value proposition. By providing a way for these projects to become useful to people outside of the community through ZenithCard, they can expand their market dramatically.

ZenithCard makes every token better

Standard Wallet

ZenithCard is capable of working directly with the standard ERC20 contract wallets (Ethereum Foundation/Consensus/Parity). These token wallets are relatively secure, but not as widely used as hoped.

We believe the improved usability and focus on real-world transactional security needs will make the Zenith Contract Wallet a desirable first-class wallet solution for most token holders.

Gateway

ZenithCard allows for mass adoption of consumer-facing Ethereum platforms like Singular and FirstBlood that greatly benefit from the streamlining of the user experience. With ZenithCard integration users can seamlessly start reaping the benefits of Ethereum apps without needing to perform complicated actions.

Zenith Agnostic

The platform is **token agnostic** – users are given freedom to choose how to hold value and transact. With ZenithCard, regular users will have an expanding pool of assets at their fingertips within the ZenithCard App.

Innovative spending options

Users will be able to pay in multiple assets at the same time while keeping their portfolio balanced. This is a world first; customers will be able to keep all of their assets fully invested at all times, and not worry about manual reallocation when they wish to spend.

E Market

Our current roadmap focuses on several distinct markets and user-bases where ZenithCard is best positioned to excel. In general, we have the underlying Ethereum community, platform specific markets and general public banking replacement.

Ethereum Community

Providing a payment solution for the underlying Ethereum community is the most basic use-case for this market. However, it should not be underestimated. With a growing market cap among Ether and ERC20 tokens, there is an accompanying need for payment utility of assets on the network.

We expect to spearhead and capture the bulk of the payments market on Ethereum as ZenithCard offers solutions to systematic problems in the space and is native to Ethereum. We expect substantial transactional volume with ZenithCard and this will scale with the Ethereum/Token economy.

Platform Specific Markets

The most exciting use-cases for ZenithCard are within the many different markets that are being tapped into by other projects in the space. We are actively integrating ZenithCard with these native Ethereum platforms, giving ZENT holders direct access to diversified markets while providing connections to a major payment rail for the platform's underlying user-base.

We believe that this is where ZenithCard's true role in the ecosystem lies, with integration benefitting: ZenithCard, the integrated platform, and most importantly, the end users themselves. This also suggests strong growth prospects for ZENT; the success of integrated platforms translates directly across to ZENT holders.

ZenithCard makes every partnered project with a token far, far better. We believe there will be rapid uptake by token holders worldwide.

Ditching Banks Altogether

Sentiment and expectation towards what 'banking' is and what it should be, is rapidly changing. 94 % of consumers under 35 years old are active users of online banking, and another 27% would consider a branchless digital bank. 33% of millennials believe they won't need a bank in five years, and 33% are also open to switching banks in the next 90 days. A final 71% would rather go to the dentist than listen to what banks say. With a growing distrust and detachment between banks and consumers, it is fair to say that there is a tech savvy market open to innovation.

ZenithCard more than qualifies as a candidate for regular users looking to get rid of their bank altogether, offering not only a top-tier UI/UX experience, but also providing genuine innovation through Ethereum.

Low-cost immediate network transfer of assets, access to the token economy, complete control of ones assets and exposure to an ecosystem of innovators will more than appeal to current and forthcoming generations.

Chinese Market

We will be able to issue ZenithCards into the Chinese market at launch. We believe this is a massive opportunity. Tokens are popular in China already, and experience shows there will be rapid innovation in the Chinese market – some will filter to the West quickly, and some may not. Either way, ZENT holders will get access to this innovation at the same time Chinese customers get the benefits of the card. Also we will be listing on major Chinese exchanges hereby pushing up the volume of ZENT trading which of course increases the value exponentially.

Marketing/Product Strategy

Ethereum / Token Market

Our initial target market will be token holders of other projects and the Ethereum community in general. This is not a numerically large group, but it is extraordinarily wealthy, and strongly demands this product. Because ZenithCard makes every other token project better, it will grow rapidly whenever *any one* of the other token projects sees growth. We forecast massive growth in the token ecosystem over the next two years, and will be there to provide real value to each token issuer.

We will be granting the top 500 pre-purchasers of ZENT with a complementary special edition ZenithCard and access to the Beta/MVP.

Broader Market

Our strategy to capture the general public will start with social media, and likely extend to partnerships and traditional media. We'll be working closely with a dedicated marketing team to construct campaigns and strategies to attract a broader user to the platform.

Strategies that tap into network effects, for example, by recommending friends and family to the platform in exchange for a free card, will be key to growing the platform. ZenithCard's role within the Ethereum ecosystem offers sufficient innovation to capture interest from larger media outlets, which will complement our marketing effort.

We believe we will be able to capture significant ROI on Customer Lifetime Value vs. Acquisition cost in many markets, and plan to spend a significant portion of the token sale proceeds on growing this customer base, while remaining judicious and careful.

ZENT In Depth

ZENT is a special kind of Ethereum token. It is the base currency of the ZenithCard and provides advantageous usage rights and benefits to its holder with regard the ZenithCard : Whereas transactions in other tokens using the debit card pay a 1% smart contract enforced licensing fee, such licensing fee does not apply to transactions in ZENT.

BNB Purchase Example

A ZenithCard customer holds BNB (A Binance token) and prefers to conduct her affairs in Binance.

She has dinner at her local bistro, and the cost totals \$50. This \$50 equates to roughly 1.2 BNB. She swipes her ZenithCard.

ZenithCard's servers immediately withdraw 1.2BNB plus the Licensing fee from her Zenith Contract Wallet. The Licensing fee is 0.5%, so she pays in total 1.206BNB. 1.2BNB is exchanged by ZenithCard for USD. These USD will be swept into ZenithCard's debit card account as float for the next card swipe.

The remaining 0.006BNB is sent directly to the ZENT Asset Contract.

Since fees are paid in the token transacted in, the most popular tokens used for transacting will accumulate respective licensing fees to the ZENT Asset Contract.

Economic Consequences of The ZENT Model

The ZenithCard platform will over time grow to support tokens from most, if not all projects. This is likely to grow to a staggering number of unique tokens. If a specific token becomes valuable or popular its proportional use with ZenithCard will go up and as such will accrue to the Asset Contract.

Burning reduces the total pool of ZENT in circulation and proportionally increases the stake of future licensing fees to remaining ZENT holders. We expect ZENT burning to be rare, but to the extent it occurs, ZENT holders who do nothing will gain a proportional increase in the share of future fees.

ZENT Fee Reduction

As the base currency of ZenithCard, transactions using ZENT pay no licensing fee for the ZENT amount of the fee. If a user transacts purely in ZENT, he pays no licensing fee. If a transaction involves multiple currencies the fee for the portion paid in ZENT is voided.

Portfolio Spending Example

Let's go back to our first example where a user is paying for a \$50 meal at a restaurant. Let's say now she decides to pay for the meal half in BNB and the other half in ZENT. Essentially this would be two transactions: \$25 each in BNB and ZENT.

The licensing fee paid will only be on the \$25 BNB transaction, and would equate to half of the original fee of 0.006 BNB, in total 0.003BNB for the same transaction.

Technology Roadmap

We have spent the bulk of our time on product planning. There is too much to encapsulate in this whitepaper, but we encourage interested participants to engage with us over email support@zenithcard.io (ventures) or our slack channel

Contract Wallet

The Zenith Contract Wallet is a smart contract that governs a user's tokens and secures them within its code. The Zenith Contract Wallet's main function is to host to the users digital assets in a secure manner and allows for various functionality integrated directly into the system. It serves as the foundation for the rest of the platform's features.

Users will not need a contract wallet to try out the system, instead they can grant an allowance. However, the Zenith Contract Wallet will allow fine-grained security features, and we anticipate users will either migrate to the wallet, or "wrap" their preferred wallet with the Zenith Contract Wallet in general.

Contract Wallet Access

Access to the systems can be achieved by:

1. The **ZenithCard App** – Provides a refined and user friendly experience with a setup wizard, and simple ability to integrate with user's existing Zenith wallet.
2. **Blockchain Browser** – Third party Ethereum browser tools like Mist, Parity and MetaMask can give access to ZenithCard systems. ZenithCard smart contracts will be created with Web3 support in mind, and Web3 support will be considered for all frontend ZenithCard applications.

Allowance

ZenithCard has access to withdraw funds from the user's Zenith Contract Wallet and is constrained by these user set options. We plan an array of awesome features over time, and will start with basic security features in the MVP.

Options are *not* mutually exclusive; more than one could be active at any time.

- **Daily Fiat Limits** - Uses an oracle to calculate fiat amount and sets a cap based on that. Will initially use a ZenithCard-maintained oracle until reliable third party options become available in the community.

Example: \$2000 equivalent in tokens can be spent per day.

- **Daily Token Limits** - A fixed number of tokens per day are allowed to be withdrawn.

Example: 2 ETH per day.

- **Percentage Limits** - A fixed percentage of Tokens per given time period allowed to be withdrawn.

Example: 2% of each spendable tokens per day are allowed to be withdrawn.

- **Time based Limits** - Opening up withdrawals for a specified amount of time.

Example: 1h long allow up to large \$10k spends – this would be triggered by a button in the app marked something like "JUMBO".

Additional Security Features

There are a number of security scenarios we are workshopping now. Some will likely be supported in the final app.

1. **User set limits** A user could set daily contract withdrawal limits on their own side to prevent losses in the event a third party gains access to their private key and password. Alternatively the user could limit the specific addresses the contract could withdraw to.

This could be combined with an Emergency Contract Migration, as defined below, and would significantly mitigate the risk of catastrophic loss of tokens.

2. **Emergency Contract Migration** A user could preemptively allow ZenithCard to send all tokens to a prespecified 'safe' destination in case of emergency. Could be called by either party in case of an ongoing attack. This destination will be an alternative wallet set up from the creation of account by the user.

Example: A user with poor personal security has lost access to his Zenith Contract Wallet, but did grant ZenithCard the right to do an emergency sweep if something bad happens. Limits on his own side prevent a third party attacker from withdrawing more than \$100 per day.

One day the ZenithCard app gives him a push notification of a \$100 withdrawal he did not authorize. He contacts ZenithCard support to initiate an emergency contract migration to a predefined safe sweep address that he controls. ZenithCard remains functional throughout the process, and the user has minimized losses.

3. **Temporary Card freeze** – Pauses card use in the case of misplacement. Can be re-enabled at any time.

Card Spending Modes

With ZenithCard we are able to pioneer a number of flexible and unique ways to manage spending. The main spending modes planned are:

- **Single asset spending** - A single asset is selected to be made available to be spent with ZenithCard. Other assets can be added to the queue to give an order of priority.

Example: A \$100 swipe is payed for in ETH.

- **Multi asset spending** – A user can pay with multiple assets at a time. He can select up to 5 different assets, giving each a percentage and distributing the payment between them. This allows unprecedented control of personal portfolio allocation.

Example: A user has set up his ZenithCard to pay with 50% ETH, 30% REP and 20% BNB. When she pays for a \$500 utility bill, the equivalent of \$250 of ETH, \$150 of REP and \$100 of BNB are withdrawn simultaneously from his Zenith Contract Wallet.

- **Dynamic portfolio spending** - Spending is based on fiat weighting of assets. Users give target portfolio weightings and withdrawals are optimized to maintain the user given weightings.

Example: A user targets a portfolio value of 20% BNB and 80% ETH. Recently the value of BNB has gone up and now represents a larger percentage of the portfolio. This means a card swipe will now withdraw proportionally more DGX to bring the percentage closer to the set target.

- **Other spending modes** – tax efficient, illiquid proxy asset and other spending modes are being explored to aid users in specific scenarios.

Multi-User management

Wallet holders may attach specific allowances or other rules to multiple cards. These could have many features: from family budget management to expense account reimbursement rules. Watch-only accounts may be set up to monitor expenses.

ZenithCard App (iOS/Android)

The ZenithCard App (Android & iOS) is the primary interface customers will use to interact with the platform. The ZenithCard App is designed to give best-in-class functionality with a top-tier UI design.

8.8 Set-up Wizard

Upon first launch the users run through a setup wizard and are prompted to customize settings to fit their preference. The process includes the following steps:

1. A user downloads the app
2. User can create new contract/key or import key.
3. Puts in password and is prompted to make a backup of key.
4. Contract launches/loads (ZenithCard pays for gas)

5. Choose express or advanced setup wizard.
6. User chooses his base currency from a ranked/curated list
 - Likely a list of 'stable' currencies and other assets, like BNB or OMG.
 - The base token is what the Zenith Contract Wallet is loaded with if fiat is sent to fund the wallet.

Example: A user sets his base currency as ZENT. He sends money to ZenithCard through a bank transfer. ZenithCard credits his account in the transfer equivalent of ZENT.

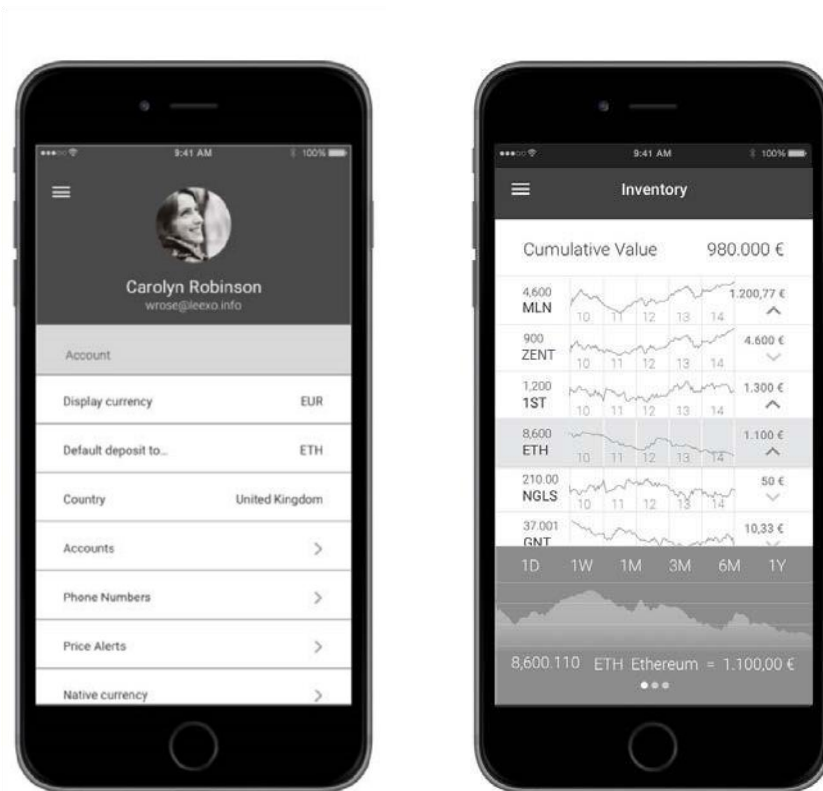
7. Finally, he puts in his name to complete his account and profile picture.

He now has a Zenith Contract Wallet, can send and receive from others and make use of various services like the token-to-token exchange. Once users get acquainted with the system they can **apply for the ZenithCard** itself. This launches a ZenithCard application setup wizard:

1. Pay for ZenithCard (if sufficient balance on Zenith Contract Wallet)
2. Next fill out a standard form with KYC/AML details that get forwarded to ZenithCard. All required KYC/AML can be done inside the app in the span of a few minutes.
3. ZenithCard gets delivered to their home address.

Wireframes, Usability Studies

We have over 80 page states and hundreds of transitions diagrammed and designed. These are a sample of our current thinking, and not final.



ZenithCard Transaction Walkthrough

With ZenithCard, balances are stored in the user's contract wallet, therefore we implement a unique model where cards are effectively "empty" up until the moment they are used, known as a **0- balance method**.

The process goes as follows:

1. A user attempts a transaction.
2. A spend request API call from payments network comes in. Lists type, amount, CardID etc.
3. Database lookup on CardID to see what Zenith Contract Wallet address is associated with it.
4. Load Ethereum state and read Zenith Contract Wallet for settings: available balance, spending modes, allowance etc.
5. Generate transaction specific payment profile. (100\$: 80%ETH 20 %BNB)
6. Evaluate an order book and calculate amount(s) to be used.
7. Perform sell
8. Initiate withdrawal from Zenith Contract Wallet
9. API call to load specific card with amount needed.
10. Confirm tx request.

11. User completes transaction and receives live push notification.

Server Specifications

Scale

The ZenithCard system will support at launch 1,000 transactions per minute with maximum lag of 1 second at load, and “Four Nines” reliability worldwide.

Performance

The backend servers for ZenithCard will be able to:

1. Accept a request from the debit network
2. Access a smart contract’s functions on the Ethereum Blockchain
3. Post a transaction on the Ethereum Blockchain
4. Respond to the debit network

All of these must be accomplished within 300ms in order to get a sub-one-second full latency from card swipe to approval. As Ethereum scales, this will become easier to do without risk. In the beginning, ZenithCard will take some risk from double spending as it functions at the necessary speeds.

Backups and Failover

1. The ZenithCard systems will be architected to achieve “four 9s” reliability: 4 minutes per month or less of downtime.
2. Backups: ZenithCard systems will be able to relaunch from a backup in under 1 minute.
3. Failover: The ZenithCard systems will be able to failover successfully between regional datacenters.

Release schedule:

We expect ZenithCard will take months to mature into our full vision. To get there, the team has committed to a 60-day major release cadence.

Our first release will be an MVP in limited release.

Minimum Viable Product – 60 days

This MVP is aimed at users with some basic technical knowledge of Ethereum and gives access to the core features: Zenith Contract Wallet, PoS/ATM payments debit card and payment support for tokens like ETH, DGX, REP, BNB, SNGLS and MKR. This phase will consist of a limited 5000 card run and will give priority access to early contributors.

We will release the MVP product and cards at a launch party exclusive to purchasers of ZENT in the ZENT Token Creation.

v1 Release - 120 days

The 1.0 release of the ZenithCard platform consists of delivering the technology detailed in this document – primarily the ZenithCard App, instant in-app token exchange, advanced security options and the initial asset management suite.

H Finances

As we plan out the ZenithCard future, we have put some time into projecting out business and ZENT values. These projections are necessarily flawed – we don't know what will happen. Despite the *highly* speculative nature of these projections, we are offering them to help those participating in the ZENT Token Creation to understand different levers and possible outcomes for the project.

Since January 2017, Ethereum and the Token market have grown at a value-weighted average of about 300,000% annually (or 6.7x per three months). We do not believe this growth rate will continue over the next two years. We have therefore taken a range of growth from 20% to 100% per *six month period* as our range for projections.

Rough ZENT Projections

Below are some rough projections of ZENT performance under different conditions semi-annually over four periods. We have made several assumptions described below and hypothetical context for the scenarios is given.

We expect a good start to user growth with our platform, and expect to capture a substantial portion of the Ethereum community and see success from launching in China. We also expect to see several successful Ethereum platforms and tokens drive users to ZenithCard.

We have based our average user spend on debit card reports that give an average spend of \$9,291 per year in the U.S.³ In general, there will be average higher user spend in earlier periods as adoption will primarily consist of the underlying Ethereum community who hold substantial wealth. Average user transaction spend declines as we expand to other markets.

Licensing fees are calculated simply as 0.5% of transaction volume and we have also taken into account growth in users transacting in ZENT.

Good

In a good scenario, we see quick adoption from the Ethereum community and expansion to other markets happens successfully. We enter the Chinese market 2 months after launch, and some Ethereum platforms and tokens see success outside of the community.

Year	0.5	1	1.5	2
ZenithCard Users	20,000	100,000	250,000	500,000
Average user spend	6,000	5,000	4,000	3,500
Transaction Volume	120,000,000	500,000,000	1,000,000,000	1,750,000,000
Transactions in ZENT	10%	15%	20%	25 %
Licensing fees accrued (USD)	1,080,000	4,250,000	8,000,000	13,125,000

³2015 Debit Issuer Study – Pulse Network

Better

In a better scenario, we have very good initial uptake from the underlying Ethereum community. We expand to China successfully before the end of the 3rd month with the help of marketing and customer acquisition campaigns. We see success as a remittance solution, and certain Ethereum platforms and tokens begin to see adoption by the general public, which also boosts our user-base.

Year	0.5	1	1.5	2
ZenithCard Users	35,000	150,000	300,000	600,000
Average user spend	6,000	6,000	4,000	4,000
Transaction Volume	\$210,000,000	\$900,000,000	\$1,200,000,000	\$2,400,000,000
Transactions in ZENT	10%	15%	20%	25 %
Licensing fees accrued (USD)	1,890,000	\$7,650,000	\$9,600,000	\$18,000,000

Great

In the “great” scenario, marketing and customer acquisition strategies see very strong uptake initially. We are able to expand to China quickly and secure several synergetic partnerships that help reach other markets. Integration with successful innovative Ethereum platforms and tokens help expand our user base even further. Customers spend less ZENT because value is rising so quickly. Customer acquisition strategies remain successful and adoption is fast.

Year	0.5	1	1.5	2
ZenithCard Users	50,000	250,000	500,000	750,000
Average user spend	6,000	6,000	4,000	4,000
Transaction Volume	300,000,000	1,500,000,000	2,000,000,000	\$3,000,000,000
Transactions in ZENT	10%	10%	10%	10 %
Licensing fees accrued (USD)	\$2,700,000	\$13,500,000	\$18,000,000	\$27,000,000

ZENT Token Creation Details

ZENT Token creation will commence March 31st 2018.

- Ether can be contributed and turned into ZENT • The creation will be capped upon receipt of \$25 mm.
- The ZENT Token Creation period will last 17 days.
- If the cap is reached before the end of 17 days, additional contributions will be accepted for 24 hours in case users missed a very short window for ZENT creation.
- No more ZENT will be created after this period.

ZENT Creation Ratios

Early contributors will create more ZENT than later ones, per ETH.

Cumulative Amount committed in USD	ZENT per ETH rate
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0-750,000	150
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750,000-1,500,000	140	1,500,000-2,250,000	130
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2,250,000-3,000,000	120
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3,000,000-3,750,000	110
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3,750,000-4,500,000	100
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(possible 24 hr period)	100
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Token Bonus

Contributors can contribute in certain tokens instead of ETH. Instructions and supported tokens will appear on our website before the ZENT Token Creation.

Tokens will have a per-token cap based on the trading volumes and value of the token.

Tokens that are partnered with ZenithCard will receive a 2.5%-5% bonus in ZENT; all details will appear on our site before the Token Creation.

Additional ZENT

Additional ZENT will be created for the Capital Reserve, Monolith Studio, advisors and early investors as follows.

Lighthouse Studio, and Advisors

10% of ZENT created during the creation event will be created for Lighthouse Studio, locked in a smart contract for 18 months. We wish to benefit only if the project is operationally successful.

Capital Reserve

25% of the ZENT supply (250 million tokens) will be credited to the reserve, **but not issued**. These ZENT will be available as an additional fundraising mechanism for the ZenithCard project, but may never be issued, depending on circumstances in the future.

Example: During the ZENT Token Creation event, we imagine exactly 1 billion ZENT are created in response to incoming payments.

After the Token Creation event ends, the following ZENT are created:

- 100,000,000 ZENT for Lighthouse Studio
- 150,000,000 ZENT for the Reserve

In total, 1,250,000,000 TKN are 'issued' and 250,000,000 TKN are held in reserve.

If at some point, \$1.25 billion worth of tokens are held in the Zenith Asset Contract, and no TKN have been burned. Each ZENT would receive \$1 worth of tokens if burned.

Funding Breakdown

Funds raised during the ZENT Token Creation Event will be used solely for the development and benefit of the Zenith platform. The level of funding received dictates the distribution of funds, however, our ZENT reserve structure allows us to reduce the variability in what can be achieved. Funding breakdown in a \$25 mm funding scenario is discussed below.

9.5 Core Development – 30 %

Core development will involve the building of the technology as described in this document. This includes: the ZenithCard App, smart contract systems, payments network integration, server-side code and exchange integration.

9.6 Operational – 25 %

This covers the necessary costs incurred for a functional platform. This includes: sufficient individual ERC20 token exchange balances, sufficient fiat counterpart balances covering 5 day transactional volume, separate payments network costs, staffing, management and other related expenses.

9.7 Marketing – 40 %

Marketing spend will be split into partnership spend and direct consumer marketing.

9.7.1 Partnerships and Ecosystem Integration – 15 %

Ecosystem integration is an important component of our long-term plan for ZenithCard. This long term plan involves integrating projects and platforms with ZenithCard, and exploring synergies that return success for both parties.

9.8 Direct Sales and Marketing – 25 % +

Sales and Marketing will drive this business, and the value of ZENT. We intend to put as much money and time into these as we possibly can in order to maximize the value of ZenithCard and ZENT and dominate this post-bank era. Extra money contributed during ZENT Token Creation will be largely allocated here as well.

9.9 Legal and Compliance – 5 %

There are legal costs that go along with setting up an international financial services operation. Certain services planned for the ZenithCard platform, such as a 'fiat to token' exchange, may require proper regulatory approval and licenses in some jurisdictions. Although these licenses are not typically difficult to acquire, they incur costs: bonding, capital and operational.