



**Mobile platform bringing
blockchain to the masses**

WHITEPAPER

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A hundred years ago,

If somebody had asked Alexander Graham Bell, "What are you going to be able to do with a telephone?" he would not have been able to tell them the ways the telephone would affect the world. He didn't know that people would use the telephone to call up and find out what movies were playing that night or to order some groceries or call a relative on the other side of the globe.

But remember that first the public telegraph was inaugurated, in 1844. It was an amazing breakthrough in communications. You could actually send messages from New York to San Francisco in an afternoon. People talked about putting a telegraph on every desk in America to improve productivity. But it wouldn't have worked. It required that people learn this whole sequence of strange incantations, Morse code, dots and dashes, to use the telegraph. It took about 40 hours to learn. The majority of people would never learn how to use it. So, fortunately, in the 1870s, Bell filed the patents for the telephone. It performed basically the same function as the telegraph, but people already knew how to use it.

... They're not going to learn slash q-z any more than they're going to learn Morse code. That is what Macintosh is all about. It's the first "telephone" of our industry.

STEVE JOBS, PLAYBOY INTERVIEW, FEBRUARY 1985

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1. Summary

Today, it's very cumbersome to start using cryptocurrencies and decentralized services. Zippie OS aims to make cryptocurrencies and blockchain-based services easy to use for anyone with their smartphones.

In the first phase, Zippie aims to turn our smartphones into everyday hardware wallets. Our vision for Zippie OS is for people to be able to easily use and manage their crypto assets while in full control of their own private keys, identity and data.

In the second phase, Zippie aims to provide access to core blockchain-based services such as peer-to-peer messaging and storage in an easy and intuitive way. Together we can offer a smooth integrated user experience, just like iOS and Android do today, but utilizing decentralized mechanisms valuing privacy, transparency and collaboration.

On Zippie OS, the user controls their identity and data. The vision for Zippie OS is that the user's private key will be split into several pieces, making everyday transactions both easy and safe. Moreover, the intention is that Zippie OS will be fully isolated from the phone's operating system such as Android. Android will not have access to the user's data.

Zippie aims to launch an early version of the OS for selected community members in April 2018. Later on, the intention is that people around the world will be able to use Zippie OS powered smartphones through device vendor and distributor partnerships.

ZIPT will be the utility token of Zippie OS. The intention for Zippie OS is that users, apps and device vendors will get access to certain key features the OS by holding ZIPT tokens. Moreover, users, developers and other contributors will be able to earn ZIPT tokens for actively using or improving the Zippie OS and ecosystem. Contributors will then be able to spend ZIPT tokens in a variety of ways besides access, for example for peer-to-peer transfers.

The Zippie core team consists of founders and former executives of the Finnish mobile companies Jolla and Nokia. At Jolla, the team developed and launched several

mobile devices and Sailfish OS, the only commercialized and independent alternative to Android today.

Important Notice

This whitepaper and any other documents published in association with this whitepaper relate to the intended development and use of the Zippie OS. They are information purposes only and may be subject to change.

· This whitepaper describes a developing project

This whitepaper contains forward-looking statements that are based on the beliefs of Zippie BVI Limited, as well as certain assumptions made by and information available to Zippie BVI Limited.

The Zippie OS as envisaged in this whitepaper is under development and is being constantly updated, including but not limited to key governance and technical features. The ZIPT token involves and relates to the development and use of experimental platforms (software) and technologies that may not come to fruition or achieve the objectives specified in this whitepaper.

If and when the Zippie OS is completed, it may differ significantly from the network set out in this whitepaper. No representation or warranty is given as to the achievement or reasonableness of any plans, future projections or prospects and nothing in this document is or should be relied upon as a promise or representation as to the future.

· No offer of regulated products

The ZIPT tokens are not intended to represent a security or any other regulated product in any jurisdiction.

This document does not constitute an offer or solicitation of securities or any other regulated product, nor a promotion, invitation or solicitation for investment purposes. The terms of the purchase are not intended to be a financial service offering document or a prospectus of any sort.

The ZIPT tokens do not represent equity, shares, units, royalties or rights to capital, profit, returns or income in the platform or software or in Zippie BVI Limited or any other company or intellectual property associated with the platform or any other public or private enterprise, corporation, foundation or other entity in any jurisdiction.

- **This whitepaper is not advice**

This whitepaper does not constitute advice to purchase any ZIPT tokens. It must not be relied upon in connection with any contract or purchasing decision.

- **Risk warning**

The purchase of ZIPT tokens and participation in the Zippie OS carries with it significant risks.

Prior to purchasing ZIPT tokens, you should carefully assess and take into account the risks, including those listed on www.zippie.org in any other documentation.

- **Views of Zippie BVI Limited only**

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- **You must obtain all necessary professional advice**

You must consult a lawyer, accountant and/or tax professional, as well as any other professional advisors, as necessary prior to determining whether to purchase ZIPT tokens or otherwise participate in the Zippie OS.

Glossary

Zippie OS: Decentralized application runtime environment which aims to bring blockchain powered mobile experiences to the masses in an easy and secure way.

Decentralized application runtime environment: Runtime used by decentralized applications and some system services on mobile devices, independent from devices' original operating system.

Decentralized mobile web: The next generation of internet where core services like digital identity are decentralized, and where individuals with mobile devices can engage in value and ownership exchange directly with each other without middlemen.

ZIPT token: Ethereum ERC20 utility token which grants access to the Zippie OS, and which is intended to be the means by which rewards are granted to Zippie ecosystem contributors.

Token: An intangible asset stored on a blockchain which entitles a token holder to a bundle of rights (and possibly liabilities) set out in smart contracts and other relevant documentation.

Zippie ecosystem: Products, services and their developers and providers, end users, and other participants who create, use and promote ZIPT token powered experiences.

Zippie project: General term for the project described in this whitepaper.

Zippie BVI Ltd: The company which initially leads the Zippie project and steers the development of Zippie OS.

2. Introduction: blockchain needs easy and trusted user experiences

New technologies scale into mainstream only with simple and good user experiences. Apple and its products are a great example: first, it took personal computers to the mainstream by replacing DOS commands with a graphical interface and a mouse. Then Apple disrupted mobile by replacing a tiny screen and buttons with a large touch screen and a vivid ecosystem of useful and easy to use apps.

We believe that blockchain and crypto-assets are the next big disruptor after internet and mobile. Where mobile internet provided equal access to information for a significant number of people in the world, blockchain and tokens will help facilitate equal access to value movement for those connected to the internet.

However, the current user experience of Ethereum and other blockchain-based systems and applications leave a lot to be desired, especially on mobile:

- The handling of private keys is far from user friendly
- The financial exposure to hacking naturally increases as usage expands, unless appropriate controls can be implemented
- Most phones are Google Android devices which base a significant proportion of their business model on the monetization of user data, leaving users uncertain on how their data is being used
- User interfaces are often complex and can be confusing for the average person

The Zippie project's goal is to enable the average person to have access to the decentralized web's services as easily as they access the mobile internet with an iPhone or Android device today; just take the device out of the box or install an app and start using it, instead of having to print and hide a private key, or worrying if one's sensitive data can be leaked. Zippie aims to enable the mass adoption of Ethereum and other blockchains by:

1. Developing an open mobile OS which supports blockchain apps and tokens natively and fairly, and handles our private keys, transactions and data in a safe and easy to use way
2. Building a strong app ecosystem

3. Distributing the Zippie solution through Android and Sailfish OS device vendor and other partnerships
4. Empowering a global community of developers, users and partners with the ZIPT token.

3. Zippie OS supports decentralized mobile services seamlessly and securely

The vision of Zippie OS is to be a full-stack mobile runtime environment for decentralized protocols and dapps. Zippie OS is intended to be fully separated from operating systems such as Android and to run side by side on the same hardware, or as a web-based solution.

Zippie aims to enable a trustable, beautiful out-of-box experience that just works and makes it easy for the masses to start using blockchain based services, while controlling their private data. Dapp developers benefit by getting a new distribution channel to reach users, and the whole decentralized ecosystem benefits from increased adoption.



IMAGE 1. Zippie OS enables core blockchain services to be integrated to smartphones, out-of-the-box.

Value proposition

Zippie's solution aims to bring numerous benefits for users, developers and the decentralized ecosystem.

Everyday mobile users

Ease of use

The Zippie OS is envisaged to be easy and convenient to use, including allowing users to:

- easily undertake cryptocurrency transactions, potentially also including transactions to and from fiat, subject to legal and regulatory considerations
- be worry-free about private key handling and storage; and
- enjoy seamless, integrated software-hardware dapp experiences.

Data control

It is intended that users will have control over their data when using Zippie OS. This means that users will be able to:

- trust that their device does not collect private data when using Zippie OS; and
- choose which data to share and with whom.

Earning

Zippie intends to allow users the choice of undertaking earning activities in connection with their use of the Zippie OS. This includes:

- getting paid in tokens if the user choose to share private data such as their location; and
- the ability to monetize storage, computing, knowledge, and other assets through their own activities via Zippie OS.

Dapp developers

Distribution

- Zippie OS is intended to create a new distribution channel for developers to reach users; Zippie OS users will have direct access to the services integrated into it.

Easy integration

- The vision for Zippie OS is that developers will be able to easily integrate their services to Zippie and utilize its value-adding services through Zippie platform APIs.

Mobile device manufacturers, vendors & operators

Value-adding services

- Zippie OS is intended to operate so that manufacturers, vendors and operators will be able to easily enhance their existing consumer offering with seamless wallet, exchange and other blockchain experiences while remaining in control of their own operating system.

Easy integration

- It is intended that manufacturers, vendors and operators will be able to easily integrate their services to Zippie and utilize its value-adding services through Zippie platform APIs.

Ethereum & decentralized ecosystem

Adoption

The creation of the Zippie OS is envisaged to:

- drive blockchain adoption around the world; and
- make the decentralized world approachable and easy to use for the average person.

Collaboration

- Zippie OS will encourage collaboration among various protocols and dapp projects to provide seamless mobile experiences.

Architecture & key features

Zippie OS is based on several open source technologies and is planned to work in multiple hardware configurations, initially on its own in any modern web browser to ease adoption and soon after side by side with Android and Sailfish OS.

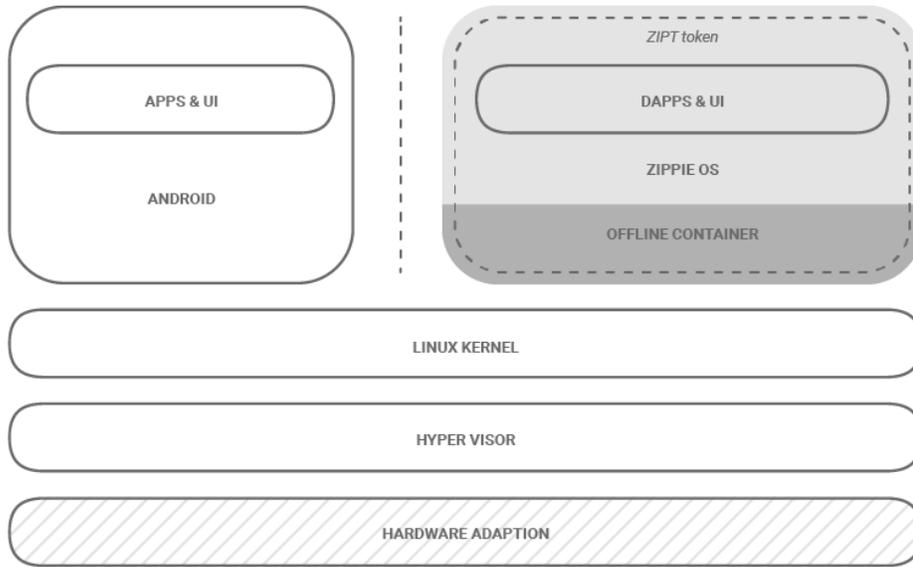


IMAGE 2. Zippie OS is fully separated from Android, running on the same hardware side by side.

Secure containers

Zippie OS is intended to provide a secure, open source environment for hosting blockchain services and dapps in separated containers, that can be also accessed through the Android UX through an internal network on the device, where untrustable Android applications would not be able to reach private information such as encryption or signing cryptographic keys or encrypted data.

Decentralized private key & identity management

Cumbersome use and storage of one's private keys and identity management are some of the key hurdles in the current cryptocurrency experience. Zippie aims to solve this challenge by utilizing Shamir's secret sharing to private key management.

The users' main cryptographic identity (mnemonic) is never fully stored on the device, but is split up through Shamir's secret sharing and stored partially on device and selected online service provided by Zippie or another service of the user's own choosing. This second piece of the split secret is encrypted with a key only available on the device.

Upon device boot-up, the pieces are put together and decrypted with a device-specific key, ideally hosted in the devices' security chip. If the device is lost or stolen, the user

will be able to ban the device from accessing the second piece of the split secret through another of their devices or other methods set up by user.

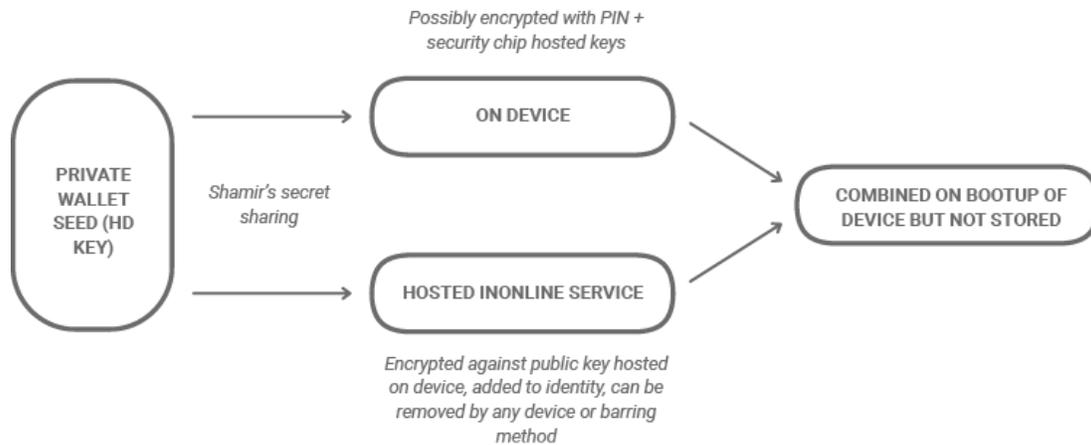


IMAGE 3. Splitting user's cryptographic identity with Shamir's secret sharing.

The key management software is also intended to provide methods for enabling passphrase-accessed mnemonic derived keys akin to the feature of Visa PayPass where only fund transfers above a certain amount would require a PIN, so a frictionless experience is achieved for smaller transactions. The Zippie project is also looking at several other options to reduce friction of using private keys, for example writable NFC tags provided in the box for easy but secure cryptographic identity recovery in case of device loss.

See more in our blog post [How to turn our smartphones into everyday hardware wallets:](https://medium.com/zippie/how-to-turn-our-smartphones-into-everyday-hardware-wallets-ac0e1b0a105b)

<https://medium.com/zippie/how-to-turn-our-smartphones-into-everyday-hardware-wallets-ac0e1b0a105b>

Secure display overlays

Enabling further trust, it is intended that services hosted on Zippie OS will provide secure display overlays on the phone that the Android OS side cannot intercept, such as for PIN entry or viewing encrypted information.

Restricted internet access & VPN

It is intended that the Zippie OS will not allow internet access by default for blockchain services and dapps unless specifically allowed and will provide the ability for VPN-only internet connectivity.

Signed platform images & encrypted storage

The phone bootloader is intended to be able to be setup to only boot hypervisor and Zippie OS images that have been cryptographically signed by the user themselves, increasing user trust. Zippie OS is planned to come with a built-in IPFS client, an Ethereum light client, secure encryption key storage and signing UX. The storage area of Zippie is fully encrypted.

Integration of core blockchain services

Zippie plans to build an API to enable easy integration of different blockchain services and applications. Zippie will jointly, with core blockchain services projects, develop a multitoken solution, so that different tokens are easy to use for the user in connection of each service. For example, if the user has only ETH tokens in their wallet and makes an action in the Status dapp which requires use of its native SNT token, the user can simply make the action and Zippie OS will automatically convert some of the user's ETH into SNT tokens. This is important, as without such integration, the user experience will be like having a dinner and needing to pay for the fork, knife, plate and glass separately.

Importantly, any token convertibility function will be subject to applicable law. Not all tokens will be supported, nor will this feature necessarily be available in all jurisdictions. The reference here to Status and SNT is purely indicative and will be considered further as part of the project roll-out phase.

Downloadable software

Our vision is for Zippie OS to be possible to download and install, without the hypervisor and chipset security bits, for supported existing devices that satisfy the requirements needed for the platform, such as an open bootloader and kernel source code availability, effectively creating a secure container with Zippie OS inside that the existing Android system on the phone cannot access.

First day with Zippie

What could the first day with Zippie OS be like?

John is new to cryptocurrency and he wants to get into the expanding community. He has heard that getting into crypto can be complex, as it is difficult to know which wallet can be used safely, and managing private keys by printing them and keeping them safe and hidden at home concerns him. John has also heard from his friends that many people in the crypto community have been hacked, and he is unsure if the transactions he does with his Android phone can be tracked and if this can lead to hacking of his wallet. He also does not know what kind of different blockchain services there are, and which could be useful for him. He finds it confusing that to use each service, he needs to buy a different token.

John heard from his friend Rachel that there is a secure, easy to use solution available called Zippie. To get Zippie, John just needs to download Zippie from the project's website and install it to his Sony Xperia Android smartphone.

After John has downloaded and installed Zippie OS, the device boots up and Zippie asks John to take a selfie and to choose where to store pieces of this private key to create his digital identity. John decides to store one part into his phone, and one part into a trusted decentralized storage service.

Now John has a digital identity that he can leverage with dapps that require it. The ID can also start building a reputation score based on John's community and financial activity, if John so prefers. A good score, may, for example, help John to receive work from other Zippie users and projects. Moreover, when John wants to make a transaction, he just identifies himself with a biometric identification and his device pulls both parts of John's private key and triggers the transaction.

Next, John opens his wallet. He is happy to see that there are already 300 ZIPT tokens deposited on his account as a welcome gift from Zippie. He has heard that he can earn tokens in the blockchain space in various ways, for example, by mining cryptocurrencies or by renting his device's processing power or storage. John also starts renting his device's unused storage, and sharing his mobile data package through a hotspot in case someone in the neighbourhood needs internet access; a nice way to earn some tokens and help others.

John continues exploring Zippie by opening its dapp store. He browses through various blockchain based services, with the most interesting ones curated to the main page by the community. John opens a career portal. Although John is not actively looking for a new job,

he is interested to see if there are small gigs which he could do in a few hours of his spare time. John notices that someone is asking a technical opinion on a software package he knows well, with ZIPT tokens reward. John decides to write the analysis after the reputation score connected to John's ID gives him a chance to offer his services in this area. John gets the gig, delivers it in a few hours, customer accepts the work, and the ZIPT tokens are released to John.

John also notices that he can earn ZIPT tokens by recommending the people he knows. He immediately recognised one of his friends using Zippie and gives her a recommendation. John gets a reward of ZIPT tokens.

What a nice first day for John in the crypto world!

4. R&D roadmap and community program

Community Program

Zippie will develop the early version of Zippie OS for Android and later to Sailfish OS powered Sony Xperia device. The goal is to empower dapp developers to integrate their services into Zippie OS through a dedicated developer device, and for pioneer users to get early access and give feedback. Soon after, the community program will be extended to increased number of early adopters who can test the web-based Zippie OS solution with their current smartphones.

For Sailfish OS support, Zippie has partnered with Jolla, a Finnish developer of the open and independent Sailfish OS. More information about the collaboration of Sony and Jolla: <https://blog.jolla.com/sailfishx/>

R&D roadmap

The Zippie project works to reach three milestones to bring Zippie OS to developers and early adopters.

Milestone 1: Zippie OS for Sony Xperia (expected Q2 2018)

In the first phase, we plan to implement a simple wallet with decentralized key storage.

The first phase has the following key deliverables:

- Vault key storage supporting per-dapp private storage separate from Android OS
- Cryptographic identity recovery through NFC tag + saving through setup
- Device provisioning and device access revocation through other devices
- Signing UX
- Working API for dapps to integrate with Zippie OS, compatible with web3.js
- First release Zippie OS for Sony Xperia device

Milestone 2: Integration of core services (expected Q3 2018)

In the second phase, we plan to integrate selected core blockchain services into the Zippie OS:

- Mobile usecase friendly distributed file storage integration (IPFS)
- Data mirroring token integration and API (Filecoin or likes)
- KYC collection, integration and whitelisting of a subset of identity keys, usable across all dapps on device in collaboration with a partner
- Cryptographic identity and contacts database integration
- Android Zippie platform integration, including app launcher integration of installed dapps
- Non-Google Chrome browser integration for dapps
- Mobile security chip integration for per-device key storage and secure display overlays

Milestone 3: Zippie OS for several devices (expected Q4 2018)

In the third phase, we plan to launch Zippie OS for several Android devices:

- ODM integratable Zippie platform solution
- Deterministic source code builds of Zippie OS
- Containerisation of existing Android system capability - Zippie OS as host system on device
- Device rental capability through partner integration
- Integration with mobile security chip and allowing end-users to pick keys for Zippie OS image signature verification
- Prototypes of Zippie OS for other devices (smartwatches, tablets, TV)
- Ability to extend cryptographic identity usage across non-Zippie devices such as browsers on laptops

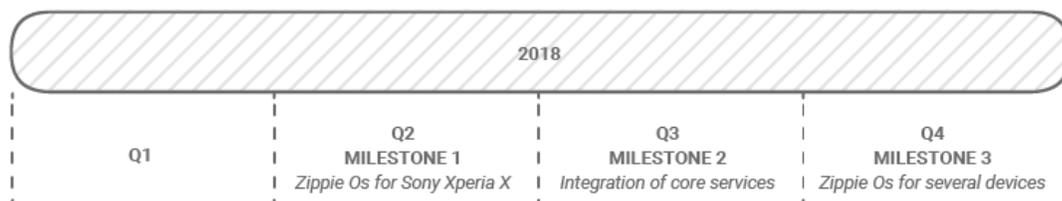


IMAGE 4. Zippie project R&D expected roadmap for 2018.

How we got here

We launched and seed funded the Zippie project in mid-2016, initially developing Ethereum based identity management and secure, smart contract powered transactions for mobile with the intention of making blockchain accessible to everyone.

Since then, we have identified numerous challenges and opportunities in the decentralized space which we believe we can contribute to, from creating a new user-controlled mobile ecosystem to frictionless use of Ethereum and smarter way of funding promising projects.

In 2015, before the creation of the company, we initially began exploring the possibilities of blockchain and dapps on mobile devices under the working title 'The Human Web' (<https://github.com/thehumanweb/notes/wiki/InfoPackage>) and began designing how a mobile experience would look, that would out of the box empower people worldwide to be able to leverage the abilities that these technologies offer.

This brought us on a journey through different challenges, concept designs and experiments where we quite early on had prototypes that used IPFS and Ethereum clients on mobile and remote nodes for querying the blockchain to save on bandwidth and processing. We then began exploring how these ideas could reach a wider audience, including investigating how we would introduce such a mobile experience in sub-Saharan Africa.

Through our activities in Africa, we developed our thoughts surrounding Frictionless Ethereum - the reduction of the difficulties an ordinary user will have trying to begin using dapps or token in order to create a frictionless experience.

These thoughts led us to the Zippie OS concept as presented in this whitepaper and provided the seed for additional use cases of the mobile experiences in these markets, such as easy smart contract controlled escrow in P2P trade. Moreover, during spring and summer 2017, we created a new kind of milestone-based investment model to invest into ecosystem projects securely.

These concept explorations and experiments are now coming together through combining our history in mobile OS development, experience in getting devices into the hands of our customers with the changed perspective on the future of apps and

OS architecture that blockchain provides. An out of box experience for the possibilities that blockchain gives us that everybody can be empowered by.

5. Building the application ecosystem

Building an ecosystem is both critical for the competitiveness of the Zippie OS and for the utility of the ZIPT token. Zippie will build its platform's application ecosystem in three ways:

1. Partnering with large ongoing blockchain projects
2. Investing into ecosystem projects
3. Rewarding application developers with ZIPT tokens

Partnering with large ongoing blockchain projects

Zippie is looking to partner with several large ongoing blockchain projects which will provide the core services for Zippie OS users. Initially, Zippie plans to partner with projects developing:

- Digital identity
- File sharing & storage
- Decentralized app store
- Search
- Data monetization and sharing
- Computing
- Messaging
- Finance & insurance
- Token exchange

By working together with the core blockchain projects, we believe we can build an easy to use, integrated service ecosystem.

Investing into ecosystem projects

Zippie plans to use portion of the funds raised in its token sales to invest into projects which we see as critical for the Zippie ecosystem to thrive. We plan to encourage any such projects to support ZIPT tokens in their solutions. Zippie makes the investments

using safe milestone based investment model, where projects will get funds in tranches based on reaching pre-agreed milestones.

Rewarding application developers with ZIPT tokens

Zippie intends to support young ecosystem projects by rewarding them with ZIPT tokens for applications developed for the ecosystem. For many nascent projects, early seed funding might be extremely difficult to get even if they have excellent ideas. At the same time, the projects are at too early stage to make an ICO/token sale or receive VC funding.

6. Getting decentralized world to the hands of users

Developing the core OS, funding and integrating core services into it, and building a strong developer community is the first part of Zippie project’s journey. The second part is to get the Zippie experience to the hands of users around the world.

Zippie’s go-to-market strategy has three phases:

1. Commercialize
2. Scale with device partners
3. Scale with web-based solution

	COMMERCIALIZE	SCALE WITH DEVICE PARTNERS	SCALE WITH WEB-BASED SOLUTION
TIMELINE	2018 - 2019	2019 - 2021	2021-2023
TARGET CUSTOMERS	Cryptocurrency users	Smartphone users in emerging markets	Smartphone users globally
SIZE OF MARKET	10-50 million users	2 billion users	4 billion users
TARGET NUMBER OF ZIPPIE USERS	1-5 million users	30 million users	100+ million users
DEVICE PARTNERS	1-2 partners	5-6 partners	Most devices in the market
SUPPORTED OPERATING SYSTEM	Android Sailfish OS	Android Sailfish OS	Android, iOS, Sailfish OS

TABLE 1. Three phases of Zippie’s go-to-market strategy.

Phase 1: Commercialize

At first stage, Zippie will target the growing market of cryptocurrency users by solving the key problem of the industry – cumbersome management of private keys. The current size of this market is approximately 10 million users, and with the current

base of growth, it can reach 50-100 million users in the next five years. The early adopter cryptocurrency user market will help Zippie to commercialise its solution. It aims to scale into first 1-5 million users.

Phase 2: Scale with device vendor partners

Smartphone users in the emerging markets are often faster to adapt new concepts than developed markets. Emerging markets are not mature yet, and even small rewards can make a difference, particularly when they are reasonably sizeable compared to current income levels.

Zippie has multiple existing device vendor partnerships around the world in China, India, South America and Africa. Zippie can bring its solution to market through these partnerships as a pre-installed solution in their devices. At this phase, regional approach is optimal, as Zippie still needs to build and prove its reward solution model to regional sponsors.

In total, these device vendor partners sell currently more than 30 million smartphones annually. Zippie could realistically target to be in 1/3 of these devices, and reach a base of 10 million users.

Phase 3: Scale as web-based solution

At this stage, it is our vision that the Zippie application ecosystem will become competitive with several blockchain based new and value adding apps, to enable more users to benefit from the Zippie OS solution internationally.

7. ZIPT: the utility token for blockchain OS

The traditional business model in mobile operating systems is based on user data monetization. The operating system and various apps collect every action the user does, and monetize this data by selling it to commercial partners. Such a model sacrifices the privacy of the users and puts them at risk for hackers to get sensitive information.

Further, the traditional model eventually creates an oligopolistic ecosystem where few dominant ecosystem players capture most of the revenue while most users, developers and other contributors struggle to capture value regardless of how much they have contributed to the ecosystem.

Tokens provide an opportunity to change this. As stated by the PROPS project: "Crypto-economic business models offer financial utility and network ownership for all network participants and create strong incentives for early adopters to participate even before a critical mass of users is achieved. This is a new, promising path to overcoming the "chicken and egg problem where, in the old model, networks tend to provide value to participants only upon reaching a critical mass of users."
(<https://www.propsproject.com/static/PROPS%20Whitepaper.pdf>)

Token powered mobile operating system can change the OS business model completely. The model can be designed to distribute rewards to contributors according to the value they create in the ecosystem. The more you contribute, the more rewards you get.

ZIPT is an Ethereum ERC20 token which has three main utilities in Zippie OS:

1. Access to selected features of platform by holding
2. Reward for contributing
3. Access to value-adding services

The objective of the ZIPT token model is to build a Zippie ecosystem, and at the same time build a well-functional token economic model where the token has clear and genuine use cases while the participants have an incentive to hold the token.

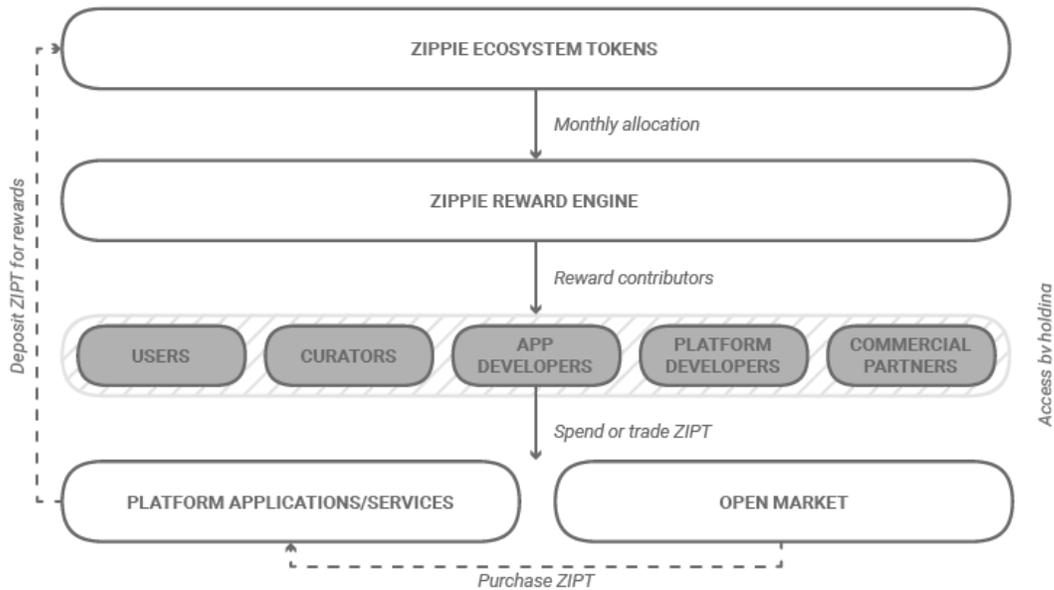


IMAGE 5. ZIPT token flow: rewards are assigned based on individual contributions.

Access to OS features by holding

Each user, application developer and commercial licensee (such as a mobile device manufacturer) needs to hold a certain amount of ZIPT tokens in order to access certain key services around Zippie OS. This can be also seen as a license to use the services.

A traditional license model requires the user to pay a license fee from the usage of a product, which can create significant barriers for scaling the product. In open source software economics, such license fees would easily lead into forking of the software. However, token economic models offer a possibility for the licensor to provide license rights to the users against holding the utility token of the software. Holding will not have similar negative impacts on scalability of the ecosystem or risks of forking as holding is not seen as a cost, but an allocation of capital which can be sold on open market at any moment.

As the OS matures, Zippie will introduce holding levels for each ecosystem participant group. For example, the levels could be (subject to further consideration and change over time):

Users	1 ZIPT token
App developers	1,000 ZIPT tokens
Commercial licensees	100,000 ZIPT tokens

Zippie intends to support the first platform users by allocating ZIPT tokens to their wallets when they join the platform, to get the OS off the ground and minimize the friction of onboarding. Zippie will also support the first wave of app developers and commercial licensees by allocating ZIPT tokens for them from its ecosystem token pool.

Zippie will introduce multiple additional programs which will incentivise users and other ecosystem participants to hold their tokens. The more they hold, the better benefits and rights they will receive in Zippie OS.

Reward for contributing

Zippie is an open platform for all kinds of decentralized and token based applications, some of them using their own token, some ZIPT or ETH or similar, and some not using token at all.

Instead of giving revenue share to the OS (Android and iOS take 30% of apps' revenue), each application developer shares part of its success by rewarding app and OS users directly with ZIPT tokens, according to their individual contribution.

Such a reward model has two key benefits:

- Application developers don't just have to pay a share of their revenue, but their ZIPT token purchase goes to rewarding the ones who have used their applications
- Users get a clear incentive to use and contribute to the applications and ecosystem

The following provides an example of an app using their own token, and purchasing ZIPT tokens for each purchase of their own token:

A decentralized insurance provider with its own token (INSU token) integrates its app to Zippie OS. Through a referral program on Zippie OS, the app gets 10,000 new users who purchase INSU tokens worth 100 ETH. To compensate the Zippie ecosystem for increased demand for INSU tokens, the insurance provider purchases ZIPT tokens worth 10 ETH (example). The provider then deposits these ZIPT tokens to the Zippie reward pool, which is allocated to ecosystem contributors by the Zippie reward engine based on their contributions.

Zippie has reserved 40% of total ZIPT tokens to be used for rewarding users and other contributors. The majority of these tokens will be allocated through the Zippie reward engine to contributors (developers, curators) and users based on their contribution, to kick-start the ecosystem. Later on, the reward pool is enhanced by app developers who purchase user reward tokens from the open market.

Zippie reward engine

The Zippie reward engine collects the contributions of both platform applications and Zippie ecosystem tokens and calculates token allocation for each contributor. Zippie will develop a reward algorithm which will calculate fair and correct allocations of ZIPT tokens to each contributor, based on their contributions. Until then, Zippie ecosystem rewards are defined by the Zippie project.

Users will be rewarded for their activity in the platform such as promoting apps, inviting friends as new users, and curating applications. Platform developers will be rewarded for bug fixes and code contributions. App developers will be rewarded for their individual contributions to the application development. Part of the rewards will go to Zippie project to be further invested into the Zippie ecosystem development.

Access to value-adding services & features

ZIPT token holders have multiple use cases for the token in Zippie OS. Some initial example use cases are described below, Many additional use cases will emerge over time when the ecosystem evolves, in each case subject to legal and regulatory considerations

- **Access by holding.** As described above, users, app developers and commercial licensors hold ZIPT to access the services surrounding the OS.
- **User status.** The more ZIPT tokens a user holds, the higher status the user will be granted on the Zippie OS. A higher status can give additional rights, open up additional services provided by the application ecosystem, or grant access to services such as the Zippie token sale club.
- **Influence and curation.** The more ZIPT tokens a user holds, the more influence and curation power the user will have on voting software features and applications on the platform.
- **Donation.** Users can donate ZIPT tokens to promising application development projects.
- **Discounts.** Users can get additional discounts with ZIPT tokens from the Zippie platform applications.
- **Lending.** Users can lend to each other the accumulated tokens and receive benefits from the lending.
- **Compensation.** ZIP tokens can be used to compensate the OS contributors.
- **In-app tokens.** Some applications which don't have their own tokens can use ZIP token as their in-app reward token.

Allocation & supply

The total number of ZIPT tokens is limited to 1 billion.

Allocation:

- **25% token sales**
- **40% ecosystem:** users, developers & partners (released over several years)
- **20% Team & advisors** (vested and gradually released over two years)
- **15% Company** (vested and gradually released over two years)

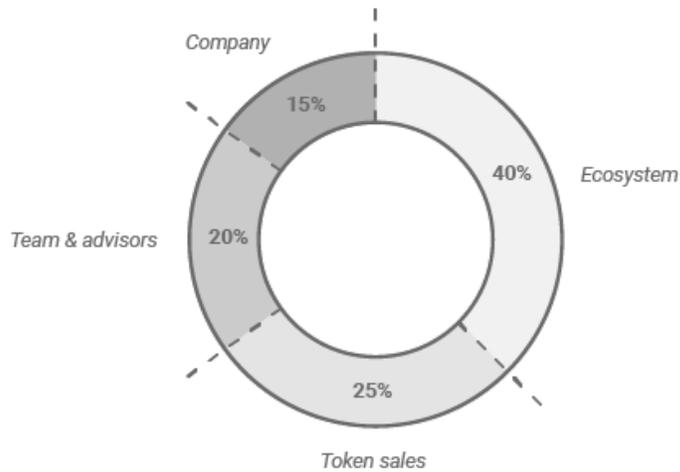


IMAGE 6. ZIPT token allocation.

Token sales allocation includes token sale bonuses. If bonuses are not claimed by the receivers (for example, if receiver sells their ZIPT tokens and is not eligible for a hold bonus), the bonuses will be returned to the token sales pool.

Supply & vesting over time

The smart contract releases ZIPT tokens to designated uses and pools over several years' time after the ZIPT token launch. Current release plan is stated in table 2 and image 7. Note that the release plan and schedule might change as we develop the optimal supply and vesting plan together with our community and advisors, before the ZIPT token is released.

	0	1	2	3	4
TOKEN SALES	250,000,000	250,000,000	250,000,000	250,000,000	250,000,000
ECOSYSTEM: DEVELOPERS, COMMUNITY & PARTNERS	0	134,000,000	199,000,000	249,000,000	289,000,000
TEAM & ADVISORS	0	60,500,000	200,000,000	200,000,000	200,000,000
COMPANY	0	75,000,000	150,000,000	150,000,000	150,000,000
TOTAL	250,000,000	519,500,000	799,000,000	849,000,000	899,000,000

TABLE 2. ZIPT token supply over the first four years.

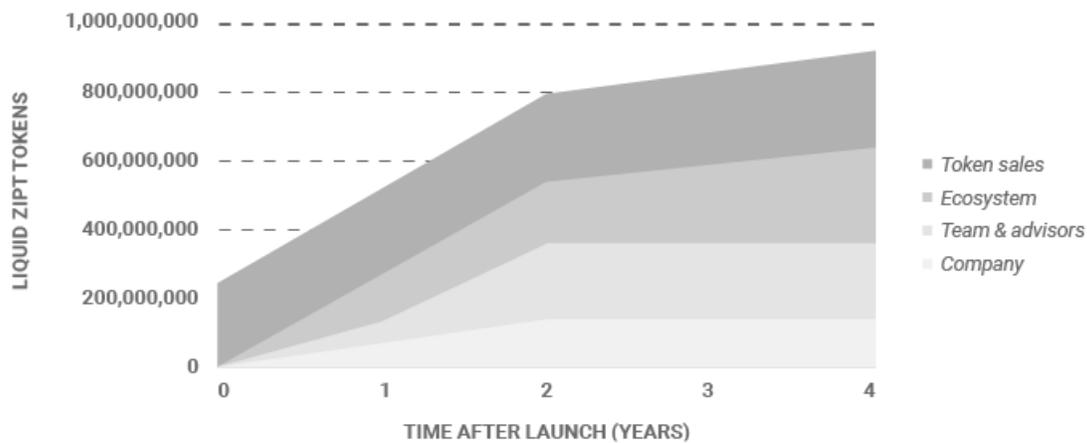


IMAGE 7. ZIPT token supply over the first four years.

Governance

To successfully build an ecosystem, it is essential to reserve a large part of tokens to be used for ecosystem development activities. On the other hand, the usage of such tokens need to be governed based on a clearly defined policy, without power struggles and personal interests having an opportunity to change the policy.

To have transparent and predictable supply for ZIPT token, the team and company tokens are controlled by ZIPT token issuance smart contract. The contract is based on OpenZeppelin standard tokens and will be audited and available for viewing before

the Zippie platform is launched and ZIPT token released. Soon after, the plan is to have similar setup in place to release the ecosystem tokens over time.

Besides these predefined allocation terms, we are currently considering different options to utilize ZIPT token in the governance of the Zippie project and seeking the ideal incentive model and coordination mechanism. For example, it would seem wise to design a governance system which incentivises the participants who are benefiting from the network the most to hold tokens.

Token sales

The details of ZIPT token sales such as availability, schedule, pricing, vesting and terms and conditions are published in a separate token sale documentation. ZIPT tokens will not be available to all persons in all jurisdictions.

Token specification

ZIPT token (ticker: ZIPT) will be implemented as ERC20 token on Ethereum. A smart contract is intended to maintain token balances and ensure that payments are handled in a trustless and secure way. To further aid the transaction scalability of ZIPT token, we have opted to keep the implementation of the token as simple as possible by essentially staying as close to pure token functionality (transfers, balances) as possible, to be able to leverage Ethereum community wide efforts in scalability of ERC20 tokens transfer. This will make it easier to conduct transfers of ZIPT tokens using solutions such as Plasma or Raiden state channels and keep our options open in case of other, better technologies emerging.

8. Team & advisors

The core Zippie team consists of founders and former executives of Finnish mobile company Jolla.



Dr. Antti Saarnio, CEO & Founder

Co-founder and Chairman of Jolla, developer of open mobile operating system Sailfish OS. 15+ years experience on emerging markets and investment management from KPMG, Accenture, East Partners. Dr.Tech. in Strategic Investments.



Carsten Munk, CTO & Co-founder

Founder of Mer mobile open source community project. Pioneering work on Linux/Android stacks for Nokia and later for Jolla as CTO. Team's leading blockchain expert. M.Sc. in Computer Science.



Pasi Rusila, COO & Co-founder

Former head of products and business development at Jolla. Have built and launched several consumer products and partnerships with Fortune 500 companies. M.Sc. in Industrial Management.



Tom Swindell, Principal Software Engineer

10+ years extensive software work for mobile companies such as Nokia and Jolla. Expertise include Telephony, VoIP, middleware, hardware Adaptations, C, C++, and Solidity/Ethereum.



Jason Lam, CFO

Former CFO of two Hong Kong stock-listed companies, one of which is the first distributor of Nokia phones in China. BBA in Business Administration.



Vincent Cheung, Chief of Hardware

Former head of Motorola worldwide CDMA & ODM quality, COO of E28 pioneering Linux mobile company. MBA & Stanford Certified Project Manager.



Annika Hiltunen, Legal & Business Development

Entrepreneur with 7+ years experience of developing and protecting brands in the Asian markets. LL.M. in Law & Common Law.



Marc Dillon, Ambassador

Head of software at Zen Robotics. Previously Co-founder and COO of Jolla, 10+ years in various software positions at Nokia.



Teemu Päivinen, Advisor

Currently Spacegrade and Zeppelin Solutions, Founder & Chairman of Oddshot.tv. Entrepreneur and investor focused on blockchain and governance.



Matthew Graham, Advisor

Founder and CEO at Sino Global Capital. Bridging technology with China investors and partners with years of investment management experience.

Part-timers

In addition to the core team, Zippie project currently involves a handful of part-time members contributing to the project in the fields of software R&D, IT infrastructure, UX and UI design, marketing, and business development.

Additional material

Zippie blog

How to turn our smartphones into everyday hardware wallets

<https://medium.com/zippie/how-to-turn-our-smartphones-into-everyday-hardware-wallets-ac0e1b0a105b>

How Blockchain will disrupt the smartphone industry

<https://medium.com/zippie/how-blockchain-will-disrupt-the-smartphone-industry-bf49e1ce9cba>

Belief pools—no public offering of tokens needed

<https://medium.com/zippie/belief-pools-no-public-offering-of-tokens-needed-8317354342f6>

Smart contracts could hold property with Instant Blockchain Token Trusts

<https://medium.com/zippie/smart-contracts-could-hold-property-with-instant-blockchain-token-trusts-fe57ab6e4b28>

Is frictionless Ethereum (and dApp) usage possible?

<https://medium.com/zippie/is-frictionless-ethereum-dapp-usage-possible-a9cd5b01b835>

Startup funding can be disrupted with tokens

<https://medium.com/zippie/startup-funding-can-be-disrupted-with-tokens-62acbce99bd0>