

"The Wallet is Everything"

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Pillar Gray Paper

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June 24, 2017

Version 1.1: July 8, 2017

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DEDICATION

This project owes its existence to the many people who have been supportive of the concepts in the book *Pull*, to the incredible team of volunteers at 20|30, and to Justin Poirier, who reminded us to let our passion guide us.

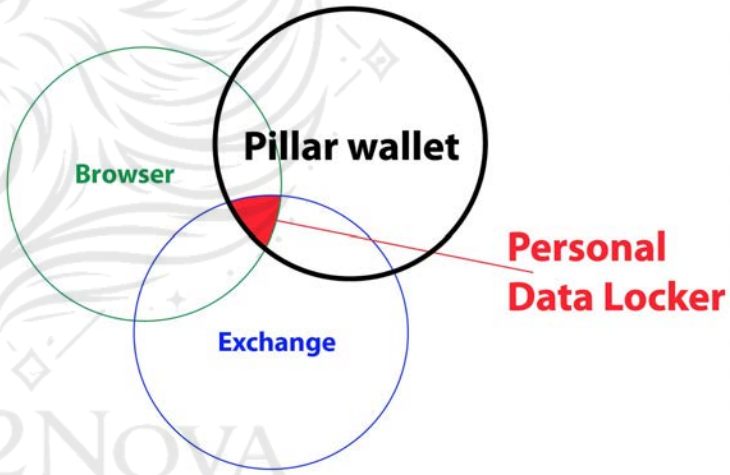
Please note that this document is written in the third person because so many people contributed to it. Thanks to all the contributors and reviewers.

SUMMARY

Twenty Thirty, a blockchain innovation company headquartered in Zug, Switzerland, is ready to embark on one of the most ambitious decentralized projects to-date: the personal data locker. Here is the key to everything you're about to read:

Wallets, browsers, and exchanges will soon merge to create the dashboard for our digital lives.

Pillar is a platform powered by its own native token that will finally fulfill the promise of the personal data locker. Eventually, we believe this wallet will power most devices, including phones, tablets, wearables, cars, buildings, and more. This paper describes our project to build an open-source, multi-chain wallet that will provide a new digital platform for consumers, companies, and governments.



See the teaser video. We plan to realize the project in three phases:

Phase 1: Build the Pillar multichain wallet and get it integrated into many systems. We want thousands of software companies to adopt our open-source wallet.

Phase 2: Build integrations (exchange, browser, e-commerce, escrow, messaging, etc.) that make it easy to build solutions.

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Phase 3: Begin to provide the service offerings that separate our wallet from other wallets and creates the personal data locker, leading to a personal assistant. Continue to offer both account-based and atomic versions (explained below). Continue to build out more features as the ecosystem grows. Help our OEM customers transition from accounts to atomic ownership.

At 20|30, we're very open. We are not only asking our supporters for money, we're also asking them to join us on our journey. We are a grassroots community of people working to create this future. This document ends with a call to meet us after the crowdsale and be part of our future.

1. PROBLEM

The world economy is built on institutions that hold clients' assets centrally: banks, telecoms, insurance companies, brokers, drug companies, governments, and more. Every year, hackers steal more than $400 billion and about 1 trillion records from data centers. Most CIOs believe we are losing the war on cybercrime, even as we rely on them for more important data like DNA, prescriptions, life logs, travel & driving history, criminal records, algo-trading, credit scores, shopping, browsing, reputation, etc.

Our data is getting more and more concentrated in the hands of a few large institutions. The buyers of big data love getting as much as they can from a single vendor, so they can predict and monetize our behavior. Companies like Facebook, Microsoft, ATT, LinkedIn, Experian, and Visa all exist to monetize their users' data.

The European Commission's *Fire Study of Next Generation Internet* recently concluded that ...

> *1. Internet should ensure citizens' sovereignty over their own data and protect privacy;*
>
> *2. Internet should ensure diversity, pluralism and a right to choose; and*
>
> *3. Internet should avoid the concentration of data in a few proprietary platforms.*
>
> *4. Personal Data Spaces was seen as a very important technology area for all the above top ranked values.*

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This is the problem the Pillar project will address. We want to give people a better, safer digital experience. We have two main objectives:

> **Replace accounts with atomic ownership.** We all have dozens of accounts. With accounts, you log in and all your valuable data is trapped inside the app or the service. This presents huge concentration risk. It's easier to get a divorce than to change banks or stock brokers. By switching from accounts to wallets, each person owns his/her own assets and can switch between vendors freely.
>
> **Replace apps with services.** Apps on our phones are miniature desktop apps. Many of us have dozens of logins for apps that don't talk to each other. We believe that the personal data locker will replace iOS and Android to become the operating system for all your devices.

These two changes will radically transform the way we use data. Do consumers care? Not as much as they should. But they are starting to, and governments are helping. As the EU and other jurisdictions adopt strict data privacy and portability standards, the current paradigm will have to change.

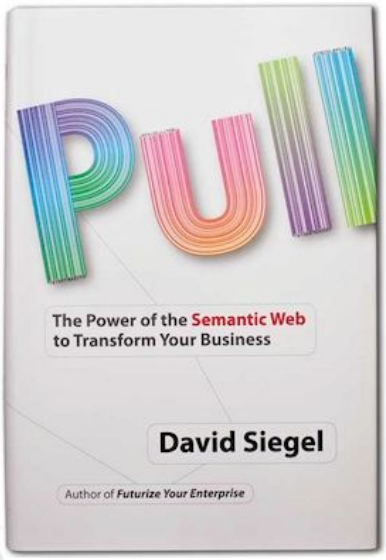
The decentralization movement and technologies like blockchain will lead to a fundamental paradigm shift, putting people in control of their digital lives.

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2. SOLUTION: THE PERSONAL DATA LOCKER

David Siegel created the concept of the personal data locker in early 2000 and published a book about it in 2010. There is an associated vision video, which you can see here:



Personal Data Locker Vision

Today, we have the technology to make the personal data locker a reality: blockchains. In this world, you hold your assets in your own secure wallet, making it difficult and unprofitable to attack.

The Pillar wallet is our solution. It will be a consumer product that looks very much like today's digital wallets, but it is just the very beginning of the personal data locker. We will transform the wallet experience from something you use occasionally to trade currencies to something you use most of the time as you go about your day.

We believe that browsers and wallets will converge, and that combination just happens to describe the personal data locker. The Pillar wallet will let you manage everything you own, everything you have, everything you want, everything you consume, and everything you do online.

Key Terms

Atomic ownership of private keys means that personal data, currencies, and assets are not held or controlled by any third party. Only you have the keys to this data. If you lose your keys, your data or value is lost (there are several ways to help consumers manage their keys safely).

Accounts involve logging in and creating an account with a company you must trust to back up and safeguard your data, including credit-card info, passwords, etc.. If your account is compromised, you lose your data, identity, or value.

The ecosystem as described in David's book is just starting. Many groups will build pieces that incrementally fit together. Having seen many such projects come and go over the years, we are well aware what it takes to succeed. But first …

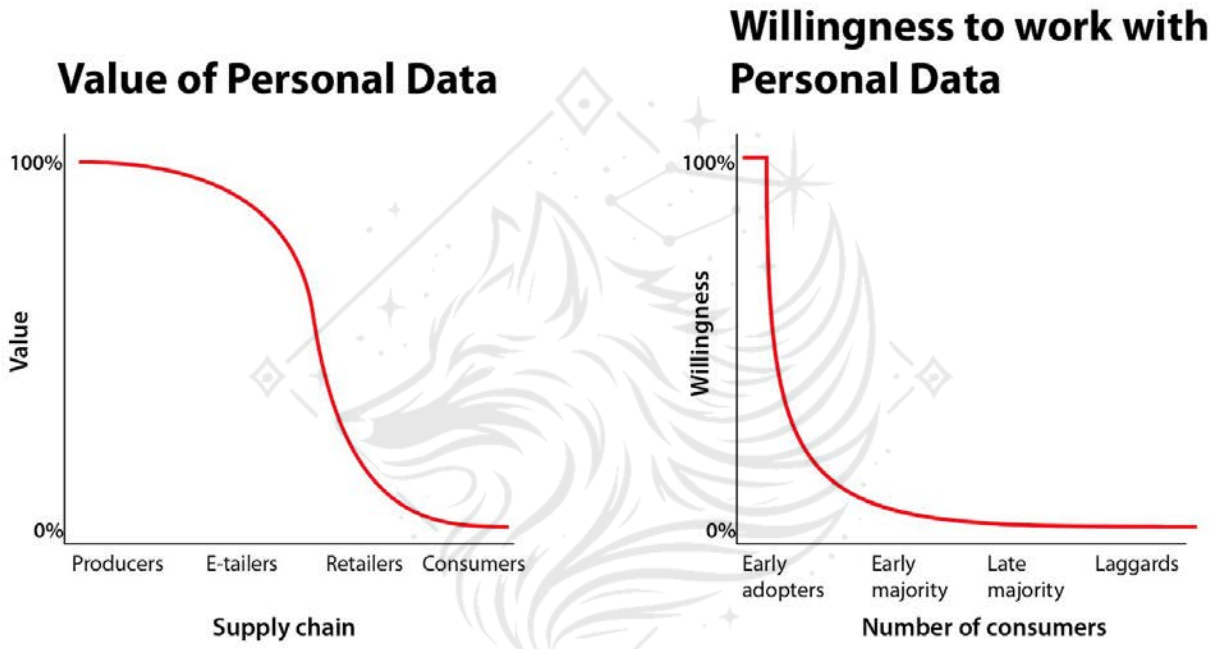
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3. UNDERSTANDING CONSUMER RESISTANCE

We have been in the personal-data space for many years. Our biggest challenge isn't technical, it's consumer behavior.

3.1 Two Immutable Laws

The following two graphs show why very little progress has been made over the past twenty years:



As contributors to the World Economic Forum report, *Personal Data: The Emergence of a New Asset Class*, and part of the identity community for many years, we believe these are immutable laws that will not bend or change for anyone. Our biggest barrier is that most people don't perceive any problem.

3.2 Solutions, not Tools

But that is not the right way to look at it. We have been trying to give consumers tools, when we should be giving them solutions. Now that we understand how to work with blockchains, cryptocurrencies, and tokens, we can start to give consumers a much better experience. A few g ood indicators:

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The Lykke wallet and exchange is an easy-to-use mobile app that looks like a familiar trading app but keeps all customer assets on the phone itself.

The Brave browser is an open-source browser, that will make it easy to spend or tip for content as you browse, eliminating middlemen.

The Token App is a mobile browser with global payments built in.

Sovrin is a blockchain-based, permissioned identity system with a growing group of developers.

Civic is a secure identity platform that will soon use its own tokens.

U-Port is an identity and reputation system you create yourself.

The Internet of People is an open-source stack for managing identity and reputation.

Identity and reputation have been sticking points in the adoption of the personal data locker. Blockchain technology is changing that. There are many upcoming systems for preserving privacy and increasing scalability. We don't plan to choose sides - we will incorporate anything that gets traction.

We know consumers don't want to work with their own data, but that doesn't mean they don't want to own it. They do want to own it, but they don't want the hassle of managing it. They want a software system that does it for them:

- When they visit the doctor, they want the paperwork to take care of itself.
- When they drive their car (or their car drives them), they want the data to go to their personal data locker, not to the manufacturer's web site for another siloed log-in.
- When they have an airplane ticket and their plans change, they want their locker to extend their hotel reservation, sell their ticket and buy a new one.
- People want their investment portfolio to manage itself according to their wishes, not deal with accounts, sales people, and limited selection.
- When looking for a new job, they want jobs to come to them, rather than having to send applications.
- The weather forecast can automatically tell their home or building to prepare for a storm, without them having to do anything manually.

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- People want their reputation, (KYC package), attestations, and history to go with them whenever they want to use a new service.
- If it's easy, people want systems that give out only as much information as necessary to complete a transaction, not more. So you can order things online and the stores don't even know your address, and you can say where the package should go, even if you're on the road.

If the system lets them own their own data and their software does the work for them, people will stop trusting big institutions to do it, because *that* will be more of a hassle. It's all about the hassle factor.

It *has* to be hassle-free. We need to bring a combination of blockchain, AI, chatbots, and smart interfaces to create an easy-to-use solution.

3.3 Market

With the personal data locker, we are going after a much larger market than the "native crypto market" - people who want to use smart contracts for everything. Our markets are technology early adopters and cryptocurrency early majority.

	Early Adopters	Early Majority
Geeks	Crypto-nerds, digital nomads, anarchists, willing to try smart contracts.	This group is willing to manage their own data and try smart contracts. Not more than 3 percent of the general population, but very important for us.
18-25 yr olds	Open source advocates, highly connected people who have privacy concerns, don't like Facebook, LinkedIn, Microsoft, Uber, Snapchat, etc.	Young people who are concerned about their digital footprint and reputation, who want easy tools that help them get out of the data trap. They are getting comfortable with cryptocurrencies
Millenials	Same as above, plus concerned about children's digital footprints. Already have cryptocurrencies.	Young singles and parents who are technologically fluent, concerned about their data being used by large corporations. Willing to try new things. Don't know anything about tokens or cryptocurrencies.

We will start with early adopters and work our way toward the much larger early-majority segments later. Customer acquisition will be a mix of retail, partner, and OEM strategies. With the open-source Pillar wallet as a foundation, and with further data-protection and consumer-protection

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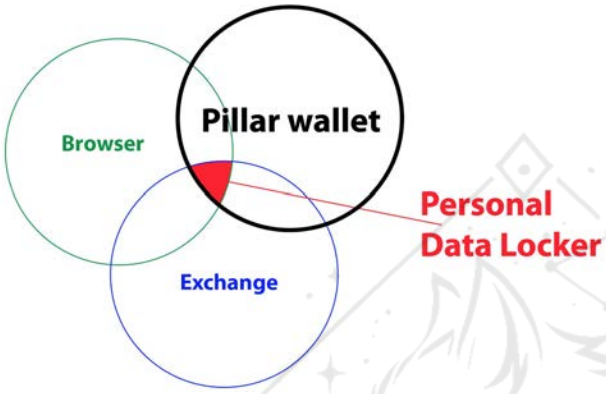
legislation a certainty, we plan to flip the old paradigm of control/push to a new world of response/pull.

In aiming this product at advanced consumers, we aren’t forgetting the corporate and white-label (OEM) markets. We will provide our wallet through many software companies, banks, wealth-management firms, and more. It will be easy to integrate with their existing systems.

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4. THE PILLAR WALLET

In case you haven't seen or used a wallet, you can watch David's video tour of the Lykke wallet to see one in action. In essence, a wallet is software that holds the private keys to your assets sitting on a blockchain. You transact by "signing" orders. The Pillar wallet will hold keys and let you transact with many blockchains, and it will eventually be the control panel you use to interact with the digital world.



Using a wallet, there is no account. You hold the private keys to your cryptocurrency (bitcoin, ether, etc.) and you use cryptocurrencies or digital tokens to "pay as you go," for the service using micropayments. The service may never know who you are. This is what the Brave browser will do. This is how people will pay for many services in the future. You can think of tokens as tradable API keys.

4.1 What is the Pillar Wallet?

There are many cryptocurrency wallets already. The Pillar wallet will be …

- Multi-chain: able to see hundreds of kinds of tokens and coins.
- Open source.
- Not tied to any one browser.
- Not tied to any one exchange - you can choose your exchange.
- Easy for software companies to incorporate into their systems.
- Both on desktop and mobile.
- Stand-alone and OEM.

The wallet comes in two basic versions:

- **An account-based wallet** that lets the user see his/her coins and tokens. This would be similar to what CoinBase recently provided to Fidelity. We wouldn't offer this wallet directly but through OEM companies who want this wallet for compatibility with their account-based systems.

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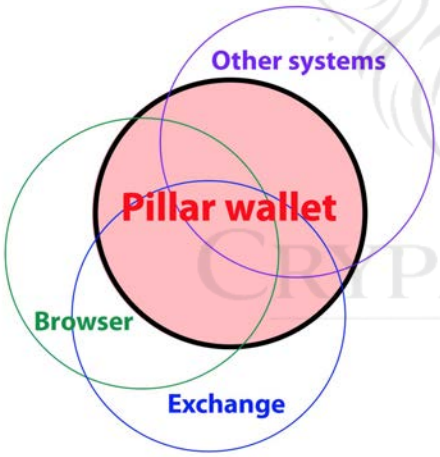
- **An atomic version** that gives the user full control of her assets. This is similar to the Lykke wallet today but independent of any exchange.

The Pillar wallet is not an exchange. Token, which has a built-in exchange, is an excellent example of how wallets, exchanges, and browsers are converging. The Jaxx wallet, which has already integrated many blockchains, and the Lykke wallet, have many assets, but they won't focus on our personal-assistant functionality.

We expect to partner with several exchanges. In fact, we want Pillar users to put their buy/sell orders into our API and let exchanges compete for their business. This solves the liquidity problem: any order can now be filled from any exchange that participates in the network. The Pillar token is a meta-token, and the Pillar exchange is a meta-exchange.

The Pillar wallet isn't a browser - a browser is based on search and push, like the web is today. Even Siri mostly brings you search results in a browser. We believe browsing will eventually become asking and requesting, and the information will come to you.

As the Pillar ecosystem emerges, these functions will converge, and we'll provide these services to many other platforms …



The internet of smart contracts is an internet of offers. Our wallet will find and interact with smart contracts. We will help industries reformat their data so our wallet can see it (the pillar token provides the incentive).

We believe the wallet will be the center of your world. Everything will tie into the wallet, and we'll use fewer and fewer apps. Eventually, we'll stop calling it a wallet and call it the Pillar personal data locker.

4.2 Integrations

In the next phase, we will create and/or partner with other companies to provide ...

Multi-exchange support is important, because many of the use cases for the system require an exchange. We plan to partner with one or more

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exchanges that will plug into our open-source system. As our network grows, we will create more competition and tighter spreads.

Smart contract aware is a new frontier of findability in the web of value. It's possible today to invoke a smart contract and send it ether, but finding the smart contracts in the first place is getting to be more and more of a challenge. This "searching the web of value" will take some work, but we are inspired by the Userfeeds and ether ontology projects.

A fiat exchange that interfaces to the banking system requires licenses. We will look for partners who want to provide these exchange services to our platform.

Portfolio and wealth management will integrate your coin- and token-based holdings, give you investing and risk-management tools, investment advice, and secure your assets while making sure you have the petty cash to spend as you like.

Shopping services that work with ecommerce sites accepting cryptocurrencies, will be integrated.

Identity services will be provided by several different standards. We plan to integrate all of them, so people can easily plug into the system and bring their identity with them. People will likely use more than one identity system, so they can have different personas in the personal data locker.

Messaging and social sharing are already being done by several groups, most of them are open source. We will integrate one or more of these.

Job matching - we expect to offer a revolutionary new job and freelance matching engine.

Search - find offers on the web of value and bring them back.

People search - find others and connect your various social graphs.

Calendars and scheduling services that interact with today's most popular calendars. Ties into various professional schedulers.

Smart contract control center shows all your obligations, escrow, assets, and is tied to your calendar, balance sheet, and other parts to give you a complete smart-contract management system.

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All our wallets and extensions will be open-source. Many apps will be free or open-source, and many apps will have subscription or pay-as-you-go models. In all cases, you own and control your own assets - no one else has access to them. Open source is the only way to do this - our token (described later) provides the business model to make the Pillar ecosystem come to life.

4.3 Personal Data Locker Services

Once the basic extensions are in place, we can start creating vertical solutions. Here is a sample of the services we expect, many of which are described in *Pull*:

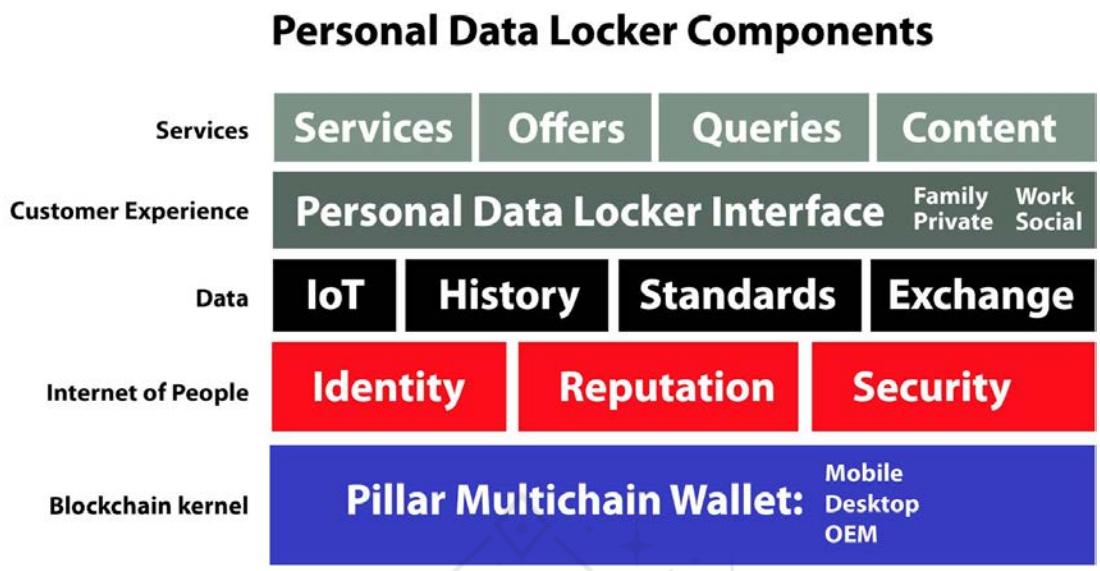
- Peer-to-Peer lending
- Wealth management
- Asset management
- Classified ads, auctions, and barter exchange
- Peer-to-peer currency exchange
- Finding contract work
- Finding employment
- Finding an apartment to buy or rent
- Digital birth certificate ecosystem for products
- Etc.

These aren't what you may be thinking. On your phone or desktop today, these are separate apps. They barely talk with each other. The personal data locker is a world of pull, where you say what you're looking for, and the offers and information come to you. You can have long-standing requests that match when the appropriate find is made, or short-term requests that immediately result in a number of offers to choose from. We will focus on bringing in content and offers. We don't think of it as a browser, we think of it as a personal data locker as described in *Pull*. Everything is on your terms - no apps, no web sites, no ads (unless you want ads).

4.4 Stack

As the wallet grows into the personal data locker, it will have more and more layers of standards, services, and features. For example, you may have different personas that you can use in different modes and maintain privacy. You may integrate many features with other members of your family or work. Our stack isn't completely fleshed out yet, but here is a general idea ...

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4.5 White-Label Wallets

We don't have an exchange. We don't have a browser. Therefore, we can provide our wallet to many companies' software systems, either to add cryptocurrencies to their current capabilities, or to help them transition to atomic ownership of assets. We will provide a white-label wallet any company can put their own logo on or integrate into their own system. We will focus on the extra services you get with our wallet that you don't get with other wallets. We hope this will entice many software companies to use our wallet and get their clients using Pillar tokens.

4.6 Transition to Atomic Ownership

For a long time, we will support both account-based and atomic-based wallets. The look and feel should be almost the same. As more and more people are comfortable transitioning to the atomic wallet, the customer experience will be easy. Rather than logging into a centralized service, you'll establish your password and make sure it's backed up or shared with people you trust. From there on, your assets will be fully under your control.

We expect atomic ownership will be attractive to our OEM and white-label customers, both because it will be better for customers and because regulators will push them along this path.

The wallet is the new operating system - a few people have figured this out already, but it's still early days in the race. The wallet is everything - in ten years our wallets will become digital assistants, powered by voice, gesture, data, and artificial intelligence. The wallet is the new platform that will power phones, cars, glasses, tablets, interactive displays, and more. Wear your

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wallet on your finger or wrist and get instant access to everything. This space is going to innovate quickly, and we plan to be part of it. The Pillar wallet may be just the right thing at the right time.

4.7 Private Key and Password Management

If you own your own data, you are responsible for safeguarding it. There are many ways we will help consumers do this. There are also plenty of hardware solutions. Eventually, we'll use rings, watches, bracelets, even chip implants to verify who we are. We plan to give consumers many options.

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5. THE PILLAR TOKEN

The native utility token for this system, the pillar, will be necessary for the system to function and will be independent of any cryptocurrency. It will be an ERC20 token on the Ethereum blockchain. It will be a unit of value within our system.

5.1 What does the Pillar Token Do?

While the wallet and platform are open-source and free, users will pay for the various services with pillar tokens (PLRs) as they use them. The token will power the entire ecosystem, giving an instant business model to many projects that can tie in. This is the beauty of a token: you may need a service exactly once and you won't need to sign up for it, you'll just pay in pillars and you're done.

Many services will be free. For example, most exchanges don't charge a fee, they take their fees from the money you're exchanging. Many more will be ad-driven, and you'll be in charge of the ads you see. Importantly, you'll be able to "monetize yourself" by asking for offers and providing yourself as a lead to marketers.

Here's an example: you go see your doctor, she does some tests and gives you a prescription for some pills. All the data from that visit, and the prescription, will be copied to your wallet. Your data can even go to a study being done - with your permission, and even though you're anonymous in the study, if they want to send you a message, you'll have a choice of receiving it.

Another example: You book a hotel room and rent a car. These are now smart contracts. They require deposits and some kind of insurance token. The Pillar wallet handles all these details for you, managing all your smart-contract obligations, deposits, refunds, etc.

Looking for a new bike? Just specify what you want, using our product taxonomy or chatbot, and all the bikes that fit that description come to you for sorting and viewing. The data will come from each source, rather than from aggregators. You don't see web sites, you see offers.

More and more services will accept pillars. The average person may pay $20-$40 per year in such services, and in return be in total control of her assets and ad exposure. The money goes directly to service providers - we don't take a cut.

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We will likely integrate the Brave browser, so you can use the browser's built-in token to pay for content as you consume it. We may integrate other browsers.

We expect to integrate one or more exchanges. It should be easy to pay for what you want, using whatever currency you like. We plan to make it so you can pay in pillars for everything. We will partner with several exchanges, so you can plug in the one you want or use the exchange that's right for each transaction. Long-term, we plan to create an exchange marketplace, where exchanges bid for your transaction in real time.

We don't have a set scheme for fees. We believe market forces will keep fees low. Fees will be flexible, possibly like bitcoin's auction system. Since there will be competition, you will always see the best market rate for services and low fees.

5.2 The Pillar Token is a Meta-Token

Brave has a native token for seeing customized ads and monetizing your browsing experience. Augur has a token for betting. Akasha has one for messaging. Civic has a token for identity. All these tokens will be native in our system one level below the Pillar token. Users may only ever use Pillar tokens, and the system handles all the various tokens needed to do what they want. Or they may see and use the various utility tokens directly.

So there are five possible levels people may see:

- Fiat currencies only - they will see no tokens at all, even though there are many tokens at work. It will look and feel more like an account.
- Just whatever cryptocurrency they happen to like, or a mix.
- A combination of fiat currency, cryptocurrencies, and pillars.
- A combination of fiat, pillars, and the native tokens for each service.
- Possibly no fiat currency at all - only tokens and cryptocurrencies.

In a reverse way, the pillar token could be used to feed payments in from around the web. A vendor or individual may offer something for sale (consulting time, fidget spinners, hotel rooms), and buyers can buy in any currency they like, but the vendor can be paid in pillars (or any other cryptocurrency). So pillars are the basic fungible unit of value between all these systems.

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5.3 Marketing & Partnerships

Ask anyone who has created a successful platform — it's every bit as much about communication and education as it is about building a quality service. There are hundreds of wallets on the market. We believe the Pillar token will be the viral component. The more companies integrate their services and use our token, the more it becomes a standard, and the more people will want it. We plan to dedicate serious resources to education, marketing, and communications. We want the open-source Pillar wallet to be ubiquitous.

We will have a partnership program to help developers and others integrate our wallet into their software.

5.4 Governance

Token governance is more complex than many people realize. The personal data locker will become part of hundreds of millions of people's lives, and the Pillar token will be making things work. As there are a fixed number of tokens after the ICO, market forces will determine prices and behavior. However, anyone with a large supply of pillars will be able to move markets and influence policy. Therefore, we plan to take stewardship of this token very seriously and watch for any potential issues that need attention. This is a new area of commerce. Most open-source projects have governing bodies, but they don't have to think about tokens. We hope to show the way forward in token governance and teach other groups what we have learned.

The biggest risk is forking. As we have seen with the Ethereum project, a hard fork is a very serious event in the life of a system. Regarding splits, our goal is to create a self-healing system and have a governance council that will take all stakeholders into account when making decisions.

There are small things we can do to manage the token's fiscal and monetary policies. We could be market makers, we can purchase tokens, and we can burn or ice tokens. We will be very transparent about our plans and include all stakeholders in our discussions.

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6. EXECUTION PLAN

This section describes the methodology, not the specific solutions. At a fundamental level, the Pillar system represents the convergence of the semantic web and the web of value. The combination is far more powerful than the two separately. Eventually, we will add AI to make the customer experience easy and intuitive.

6.1 Team Building

We don't believe in resumes or interviews. We have a community approach to building the necessary team for all our projects. You may not see the usual experts on our team - though we have many. Our approach is to invite people to work with us and see who is aligned with our purpose. Much of the team building for this project will take place at our summer event in August.

In general, we prefer creative generalists who can go with the flow than specialists who can only see a narrow problem and narrow solution. We will hire mostly generalists and hire specialists as consultants.

Want to be part of it? Come to Slovakia in August and you probably will be.

6.2 Architecture

We don't have a set architecture for our wallet. We plan to keep building and modifying, throw away code as it gets out of date, and stay market-focused in delivering small units that work. We first have to build the world's best open-source multi-chain wallet as the "trunk" then keep adding as we have partners and use cases that drive adoption.

6.3 Foundation: Collaboration

We plan to work with several projects we know well and have code we can start with. We plan to meet and collaborate with everyone in our space. A few notable projects:

- Open Mustard Seed, from MIT
- MIT's Connection Science Group
- Personal Data Ecosystem consortium
- Web of Trust
- Cicada Project
- ID2020, the UN identity initiative
- Uport by ConsenSys
- PermID by Thompson Reuters
- Civic ID, which has a token sale in June
- Akasha

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- Iota Token for the Internet of Things
- Ceptr
- W3C Verifiable Claims
- Solid
- Nimiq

There are others. We are coming from the wallet side. We will have many options to choose from as we build a community of contributors and partners for the Pillar project.

6.4 Data Conversion

To transition from apps and web sites, the right data and content must flow in and out of the personal data locker. This is a huge job - the more you understand it, the more you see how big the project is. Fortunately, as David mentions in his book, we can use existing vocabularies, taxonomies, and APIs to bring data in and understand it. The state of the art in AI and big data have reached a point where it is commercially feasible to work with unformatted data and reformat it to suit our purposes - this can be seen by the fact that Google can now tell you whether a store or restaurant is open just after you type in its name. We are just now at a point where the personal data locker can make sense of much of the data online.

We will take it one use case at a time and incentivize many partners, who will want to be paid in pillars. David's book and his recent essay on smart data describe many of the details.

6.5 Digital Birth Certificates

A chapter in *Pull* describes the digital birth certificate - a digital identifier for every individual person, animal, and item on earth. This is not a new concept. There are plenty of systems already identifying individual items (as opposed to a class of items) and their condition and location.

The Internet of Things is bringing to life the concepts outlined in David's book. Everything will have a unique identifier, and that identifier will point to its description, and that description will have a place on some blockchain to create the economy of things. We will start integrating these new systems and continue to support the standardization of data in this area.

6.6 Data Security

All the current development around blockchain-based data involves atomic ownership. This is a very active area of research and development. The Pillar

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wallet will become the hub for people to aggregate and use their own data. Data storage options include:

- Decentralized storage
- On blockchain
- On the user's device
- In datacenters

All these options already have methods for hashing, storing, managing, and retrieving data. Increased requirements for data privacy and protection will accelerate adoption of the personal data locker. The personal data locker is just the right solution at the right time.

A key concept is the principle of *least privilege*: giving out just the information necessary to consummate a transaction. Today, consumers give out far too much information, leading to the problems we have outlined above. Your personal data locker will help you manage this process. In many cases, we can use proxies that prevent vendors from capturing so much personal data, including physical addresses. This is a new ecosystem of trusted and trustless partners and data providers. It's already growing. The personal data locker will give it much needed momentum.

7. FINANCIALS

While most white papers are very light on financial projections, we want to explain our thinking.

7.1 Use of Proceeds

We are well aware of the difficulties of large-scale software development and the failure of most projects to communicate and document clearly what has been produced. We will need to evangelize and promote our wallet, get as many customers to use it as possible, and explain the value of the token to people many times. This project will have its own P&L, which will be available on the project's web site and updated monthly. The team will be based in London to start. This is an agile business. We can't know or plan how things will work out. We will have to launch and learn. For that reason, many parameters of this ecosystem are left intentionally unspecified.

7.2 The Planning Fallacy

It would be great if we could script each month of the next five years and connect the dots to success. Every new venture is a lottery ticket, a chance to build a network that may or may not materialize. Most won't. Too many

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project plans suffer from overprecision. We keep Eric Schmidt, chairman of Alphabet's words in mind:

"One of the biggest reasons for our success, though, is that the plan we delivered to the board that day in 2003 wasn't much of a plan at all. There were no financial projections or discussions of revenue streams. There was no market research on what users, advertisers, or partners wanted or how they fit into nicely defined market segments. There was no concept of market research or discussion of which advertisers we would target first. […] We left that out for the simple reason we didn't know how we were going to do it."

That said, it's worth the exercise to get started. Here is our proposed budget for five years, realizing that we will learn as we go.

7.3 Budget

Any budget or forecast is a work of fiction. Given the magnitude of the project, we believe these numbers are realistic and conservative. We are here to change the world. If we are doing OEM deals, we could double these numbers:

Pillar project expenses	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Central services						
Headcount	9	9	10	10	10	
Expense	780,000	858,000	1,027,800	1,130,580	1,243,638	
Rent, software, legal, etc.	190,000	213,000	237,800	259,580	283,538	
Product						
Headcount	12	15	20	30	35	
Expense	1,488,000	1,876,800	2,064,480	2,270,928	2,498,021	
Marketing						
Headcount	3	4	5	5	5	
People	240,000	456,000	573,600	630,960	694,056	
Events and contractors	660,003	1,272,004	1,591,205	1,812,325	2,047,557	
Governance	120,000	132,000	265,200	291,720	320,892	
Total headcount	24	28	35	45	50	
Total expenses	**3,478,003**	**4,807,804**	**5,760,085**	**6,396,093**	**7,087,702**	**27,529,687**

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7.4 Beyond Budgeting

What we know from start-up data is that running out of cash is one of the number one causes of failure (for the other three causes, see David's talk on entrepreneurship). All companies should do rolling, agile forecasts and budgets, as described in the amazing book, *Future Ready*, by Steve Morlidge and Steve Player.

With that in mind, we believe that to create the world's most powerful, most successful wallet takes a combination of spirit, persistence, skill, cash, and luck. We will have to spend smart and work hard to promote and evangelize the Pillar system. We can't be too specific on how the next several years will play out.

We will use rolling forecasts as a tool and teach other start-ups how to apply Beyond Budgeting principles to their projects.

7.5 Money Management

We expect to raise enough money for five years. We plan to diversify our holdings. We will purchase our own index tokens, to help diversify. We also plan to participate in the pre-sale of projects that will fit into the Pillar system. This will be a small portion of our holdings, but it should help create an ecosystem around the personal data locker.

7.6 Transparency

We will put all financials and progress on our web site and update it once a month. We will post a financial report once a quarter. Our Slack is open - feel free to come ask questions.

8. ABOUT 20|30

Twenty Thirty AG is a corporation based in Zug, Switzerland, founded in January 2017. It is David Siegel's 22nd company. We don't believe in boards of directors (been there, done that). We don't believe in community voting unless it's done very carefully (voting is easily skewed). We believe in getting actively involved, discussing, making agile, rolling decisions as we go. We have a strong bias for open-source and running code. We expect to run internship programs, give grants, do pro-bono projects, create educational materials, sponsor or run events, work with city and national governments, and partner with other companies and institutions to spread the principles and tools of decentralization around the world. The Pillar project is our flagship project. We're here to change the world.

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8.1 Culture

No matter how much money we raise, we will always adhere to our guiding principles (laid out in an essay called *The Culture Deck*):

- HOW matters.
- Stay lean - no fat salaries, no fancy offices, set up a dorm for people to sleep in when they come work with us.
- Work in the same room as much as possible.
- Take care of each other, build a family culture. Employees first, customers second.
- We don't look at resumes and we don't interview. We work with volunteers until they are ready to transition to part-time, and then full-time employment. Culture fit is more important than skill. We can teach skills. We want friendly, eager people who are willing to do what it takes.
- No HR, no management, no board, no traditional business beliefs. Measure everything, try new things, learn what works.
- Continuous delivery in one-week cycles. Keep the code working.
- Continuous improvement - make things better every day.
- Use Kanban - make Kanban your religion. Create joy at work.
- Invite everyone to join us. Our community is our foundation.
- Give to the crypto community. We plan to give research grants, do free events, publish, and more.
- Communicate, communicate, communicate. Don't underestimate what it takes to get people to learn and try something new.

20|30 has no management structure and no hierarchy. Our model is that of a hive, with people doing what they love to do and swarming to solve problems. Join us.

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8.2 Founders

David Siegel, founder (Switzerland). David built a web-design and strategy agency in San Francisco in the 1990s and sold it to KPMG. He has been at the forefront of technology and venture investing for 30 years. He has written five books about technology and business. In 2016, he was a candidate to be the dean of Stanford business school. He is an expert on blockchain, future technologies, angel investing, and startups. You can see his work at dsiegel.com.

Vitor Py, founder (Brazil). Vitor is a senior software developer, has led cross functional teams in areas as diverse as aerospace, energy, and law enforcement. Former founder of SIM, a Brazilian computational materials

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science startup. Vitor is our chief architect and will lead the development of the Pillar wallet. This is his fifth company.

Tomer Sofinzon, founder (Israel). Tomer is a serial entrepreneur living in Tel Aviv. He is an entrepreneur and business development executive. He founded ClearCi, a company focused on delivering Enterprise Intelligence solutions. He has worked in venture capital with a focus on strategic partnerships. This is his 8th company.

Yogesh Gaikwad, founder (India). Yogesh is a young Indian entrepreneur with a technology marketing background who started India's first growth hacking company and is contributing to tech startups around the world.

8.3 Advisors

The following people have committed to support the Pillar project with their time, energy, and network. We are thankful to all the people who have offered to help us.

Martin Callinan (UK) has over 20 years' experience in the software industry. He assists organisations leveraging the benefits of open-source software while managing the business risks of intellectual property, licensing, copyrights, security vulnerability management, and operational risk. He is a member of the leadership of OpenUK Industry Association for Open Source Software, Open Source Software SIG lead for TechUK's CTO Council and a Partner in Global Cyber Consultants.

James Drake (USA) has over twenty-five years of experience working with emerging technologies from web-based multimedia applications and information systems management, to digital publishing, marketing, and distribution systems. As CEO of Embermine, James has spent the better part of the last year and a half creating a system of smart contracts to enable people to work together to solve problems.

Euros Evans (UK) launched the first real-estate website in the world in the spring of 1993. He saw the same potential with Ethereum in January 2015. He now runs the N.O.M.A.N. blockchain meetup in London and the Etch project.

Jonny Fry (UK) has extensive knowledge of the asset management industry, having set up a fund-management business for private clients and institutions. This business was then floated on the London Stock Exchange. He has been CEO/board member of a variety of regulated and unregulated companies in the U.K. and overseas, in a number of different industries. He

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has experience working with the press and managing corporate and reputational risk for a number of organisations.

Gustavo Guimarães enjoys finding solutions for real-world problems through the use of technology in industries education, publishing, entertainment and the arts. He was awarded the German Chancellor Fellow of the Alexander von Humboldt Foundation for researching technology impact on people's learning worldwide. He is building solutions using blockchain and smart contracts.

Jack Weixi Luo (Canada) M.D. candidate - Jack is an entrepreneur, data scientist and cryptocurrencies trader. With over 7 years of experience in trading, he made his first $300k at age 14, and was an early Bitcoin adopter back in 2011. Having never done his undergraduate degree, Jack is one of the youngest medical students in Canada. He is passionate about the applications of blockchain in healthcare. Jack currently advises for various startups, including 20|30.

Kirt McMaster (USA) - is a tier-1 venture-backed Silicon Valley CEO in Palo Alto, California. He has personally raised over $200MM and is the Executive Chairman and founder of CYNGN (formerly Cyanogen), an autonomous vehicle startup. McMaster was a founder of Boost Mobile, now wholly owned by Sprint. McMaster has had 5 acquisitions of companies he has helped build including 3 IPOs. A Product guy whose greatest thrill is building strong teams.

Anish Mohammed (UK) has been working in the security and cryptography area for the past 15 years, as a researcher and as a consultant. He has spent half his career researching cryptographic algorithms and protocols. He has also worked as a strategy consultant for Accenture and Capgemini. Most recently he has been involved in the Blockchain ecosystem as one of the founding members of UKDCA . He is also on the advisory board for Adjoint, Arteia, Privacy Shell, Ripple Labs and Chain of Things. These days he is more focused on projects that involve security vs scalability vs consensus of Blockchain and using smart contracts for AI safety.

Gary Nuttall (UK) has over twenty-five years experience including retail, pharmaceuticals, NHS, commodities trading, and commercial insurance. He is a mentor in the Startupbootcamp insurance programme, founding partner in RiskForge (an insurance accelerator/incubator initiative), and an advisor to Blocksure, a UK InsurTech startup. He chairs the TechUK Insurance working group and is a partner in Team Blockchain.

Efi Pylarinou (Switzerland) Ph.D. in Finance, with 20+yrs experience. She is included in the *2016 Women in Fintech* powerlist by Innovate Finance. She

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is the co-founder of Daily Fintech, a global insight driven platform and of the Fintech Genome, a P2P knowledge platform for Fintech conversations. Her Fintech domain focus is on Digital Wealth Management & Capital Markets. She works with us on Marketing and partnerships.

Max Pokam (FR), Ph.D. in Computer Sciences - Distributed Systems, a seasoned IT/Telecom/Security professional with leading role experience in technical architecture, service delivery, sales and marketing.

Thomas Power (UK) sits on seven Boards, including the advisory board of Humaniq. He is part of Team Blockchain, an advisory service in London. He has published 7 books and spoken at 1000 conferences in 56 countries. This explains his 130,000 Twitter followers since March 2007.

Joyce Searls (USA) is a serial entrepreneur with a background in the fashion, restaurant and real estate development fields. She is a board member of Customer Commons, a not-for-profit whose mission is to restore the balance of power, respect, and trust between individuals and organizations that serve them. She has multiple management and board roles, including Linux Journal, Project VRM, and The Sovrin Foundation.

Sasha Serafimovski (UK) has been an equities analyst, an entrepreneur, investor, and mentor to a number of startups in Israel, Denmark, and the UK. He will be helping Twenty Thirty on finance and business development.

Joel Smalley (UK) is an experienced financial engineer and architect of several businesses and products in fintech and capital markets. Founder of Superfintech, a group of companies spanning regulated financial service (Supercapital) and novel technologies, including a fully automated, programmable multi-currency banking platform.

Jurgen Stroo (Netherlands) is a senior Linux and infrastructure engineer with 20 years experience in the field of open source, Linux, Enterprise infrastructures. He is ambitious, energetic, and enthusiastic about the Pillar project. He is interested in containers, programming frameworks, and coding collaboration.

Richard Titus (USA) was named one of the Wired 100 in 2010, he is a serial entrepreneur whose startups include Razorfish, Schematic & Videoplaza. His most recent startup, Prompt.ly, was co-founded in 2013 and sold in 2016 to Breezeworks. Richard recently led customer experience for Samsung

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Electronics Visual display division globally and has run media companies for BBC and DMGT in the UK.

Phil Windley is an Enterprise Architect in the Office of the CIO at Brigham Young University (BYU). A passionate tech educator, he is the chair of the Sovrin Foundation, the co-founder and organizer of the Internet Identity Workshop, writes the popular Technometria blog, and is the author of the books The Live Web (2011) and Digital Identity (2005). Phil has served as CIO for the State of Utah. He holds a Ph.D. in Computer Science from University of California, Davis.

Kaliya "Identity Woman" Young (USA) is an expert in the field of user-centric identity. In December she will have a Masters of Science in Identity Management and Security from the University of Texas at Austin. In 2012 she was named a Young Global Leader by the World Economic Forum. She founded the Personal Data Ecosystem Consortium in 2010. Currently she consults widely on Self-Sovereign Identity and Personal Data.

Dylan Smith (Australia) is a seed investor in 20|30 and founder of Rubix, a leading emerging technologies consulting organisation providing innovative technology solutions for large corporate and Government clients. Rubix was named in the top 25 IoT companies to watch 2016 by APAC CIO Outlook magazine. Prior to Rubix, Dylan was a founding member of two successful technology companies, both of which listed on the Australian Stock Exchange.

8.4 Customer Council

We welcome people from any companies to help guide the development of our product stack. The Pillar wallet and personal data locker are every bit as important to businesses as they are to consumers. We are actively looking for council members.

8.5 Partners

We look forward to working with the following groups (and many more) as our platform develops:

- Fermat.org
- Embermine
- B2BPay
- Superfintech
- Famous Publicity
- Team Blockchain
- Synchrasytech

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- Rubix Consulting

8.6 Open Source Steering Committee

We plan to involve many people and groups in this project. We will set up a steering committee for the software and the token. Initial members include David Siegel, Vitor Py, Phil Windley, Rui Vale, Martin Callinan

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9. CROWDSALE

The Pillar crowdsale will take place over 60 hours, from 8am GMT on Saturday, July 15 to 8pm GMT on Monday, July 17. During this time, the price will be fixed in ether. In fact, the actual time of the sale will be measured in blocks, not minutes, and our web site will keep an updated count of blocks with an estimated time until the sale ends - it should be between 59 and 61 hours. We will put the price on the web site on July 14, so people can plan their allocations.

Each token will be an ERC20 token on the Ethereum blockchain — we will use a smart contract and return tokens to the buyer's ether address. In the case of not meeting our minimum, we will return ether instead.

Refer to the Terms and Conditions document for final details. This is a summary ...

9.1 Token Allocation

A total of 800 million tokens will be issued. This is how it breaks down in dollars during planning - the actual price in ether is subject to change (blue means an input):

8 July 2017: We had to reallocate 42 million tokens from the sale to the presale as a result of overwhelming demand. Figures below are current:

Pillar token allocation	Category	Percent	Tokens	Dollars
Total	Valuation	100%	800,000,000	$80,000,000
			One token =	$0.10
For sale	**Presale**	**6.00%**	**48,000,000**	**$4,800,000**
For sale	**Sale**	**66.00%**	**528,000,000**	**$52,800,000**
Allocated	Marketing	3.00%	24,000,000	$2,400,000
Allocated	Later funding	15.00%	120,000,000	$12,000,000
Allocated	20|30	10.00%	80,000,000	$8,000,000
Check	Total	100.00%	800,000,000	$80,000,000

Here are details of the above chart:

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The presale will take place using a smart contract and an ether address that will be sent with instructions by email and may or may not be on a web page. The presale is limited to 48 million tokens. Several of the people working on the project will be purchasing at this time. Price per token has not yet been set.

The token sale will offer 528,000,000 tokens to the public. They will be sold using a smart contract until all 528 million have been sold, or 60 hours, whichever comes first. The price will be set in ether. Buyers will receive ERC20 tokens at the conclusion of the sale.

All unsold tokens from both the presale and the sale will immediately go on ice for ten years using a smart contract. They can't be touched during that time. We expect they will be transferred to a nonprofit that will govern the tokens before then, but until that time they will remain property of 20|30. After ten years, they may be sold, re-iced, or burned according to our token-management directives, which will evolve along with the system.

The minimum raise for presale and sale combined will be around $8 million, set ahead of the sale and priced in ether (approximately 80 million tokens).

The target is roughly $30 million at the sale-time ether price.

The cap will be 560 million tokens.

The marketing effort will receive 24 million tokens, or 3 percent. This is to pay all the people and companies who have worked so hard to create and manage the token sale. 1 percent of these tokens will be tradable immediately — they are bounty and contest rewards. The other two percent will be locked up for 9 months after the sale ends.

We reserve the right to use some or all of **the 15 percent of tokens reserved for later funding** as follows:

1. **To provide liquidity** on one or more exchanges. Tokens not being used for liquidity will be "off the market."
2. **To give to people** who will develop services for our system.
3. **To offer them as prizes** in contests to help expand the system with innovative services.
4. **For future offerings.** Assuming a strong initial sale, we don't plan another offering for at least three years. If we reach our cap, we will freeze all these tokens for three years.

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5. **We may burn or ice tokens** if we feel that it contributes positively to the ecosystem.

The ten percent of tokens reserved for Twenty Thirty will be dedicated to funding projects that will be built on top of the Pillar system. We will give them to developers to develop parts that will work with the system. We'll use them to fund our own projects. They will be an asset of the corporation. These tokens will go on ice for three years.

9.2 Token Sale

The sale will take place over 60 hours, beginning on July 15 at 08:00 GMT. Tokens will be priced immediately before the sale in ether. The sale will take place at that fixed price over 60 hours (measured in blocks on the Ethereum blockchain) or until all 560 million are sold. There will be no discounts. At the end, all unsold public tokens will be put on ice for ten years, as described above.

9.3 Token Trading

We expect to list our tokens on an exchange as soon as possible after the close of the crowdsale. We will put this information on our web site as soon as it is available.

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10. SUMMER EVENT

Pillar is a big project. We're in it for the long run. We are very serious about involving everyone who is interested in working with us. We don't care about your education or resume or interview skills. We invite you to come work with us.

We have no intention of squandering the money we acquire in our crowdfunding event. We treat every ether as if it were our own. After the crowdfunding, we plan to have a grass-roots unconference at AquaCity in Poprad, Slovakia, to socialize, learn, teach, plan, and hire. Anyone who comes to Poprad in early August is probably a person we want to hire. Every morning, we will have blockchain learning and Pillar planning sessions. We will have tracks for central services, product, and marketing. If you are reading this, you are welcome to join us.

The event will take place from 29 July to 6 August. Direct flights from London are available. We have reserved 19 rooms, but they are going fast and people are finding roommates. Rooms are very limited for the resort, but there are hotel rooms not far away. We'll be working in the mornings and trying not to work in the afternoons. It's a family event - bring your kids. Big party on Friday the 4th. To reserve your room, contact Tomer@2030.io. Don't wait for our ICO - rooms are going fast. Contact Tomer now to get one.

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11. LONDON OFFICE

In September 2017, we plan to open London’s first open blockchain innovation center. It won’t be fancy, but it will be a community center where people can collaborate to build the Pillar wallet. We also plan to rent a few small flats that will become our dorm, where people can stay while they work with us for weeks or months.

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