

## Overview / Motivation

*Why do this? What impact will this proposal have when completed?*

Motivated by a burning desire to be free and increase freedom for all, we are building a free and simple-to-use tool that enables people to pay at real-life brick-and-mortar stores with transparent or shielded Zcash.

We at Anypay already created the most private and user-friendly crypto point of sale in the world. No cost. No ID required. No uploading documents. Zero to crypto in 60 seconds flat. Hundreds of active accounts. Bitcoin, Dash, Litecoin, and Bitcoin Cash supported.

But there is a problem -- No Zcash support (yet).

According to [paywithz.cash](http://paywithz.cash), a website that tracks places where you can spend the world's best money (ZEC), only four merchants out of the hundreds using Anypay take Zcash. And they use their personal wallets on their mobile phones. And it only works for transparent addresses. And they can only do it if the owner is present for the sale. Many more merchants would like to take it, but they either do not know how, or they do not know it even exists.

If this proposal were to be funded, all of the merchants using Anypay would automatically have Zcash activated! And all future merchants going forward. That means people can pay with transparent and shielded Zcash without any extra effort by the business. The Zcash would automatically be converted to a coin they accept (like bitcoin), or the business could add their own t- and z- addresses and take the coin directly if they wish.

Most merchants have never heard of Zcash. They have all heard of Bitcoin. Imagine a free app designed for merchants, that allows them to receive Bitcoin when their customers pay with Zcash. That unlocks a whole new level of financial privacy for everyone. Every business in your town could take your Zcash. That is the goal. It starts with this proposal.

## Technical approach

*How it works, risks, unknowns, external dependencies, and how we cope with them.*

Here is how it works: You walk into your favorite restaurant, cafe, vape shop, theatre, gym, or concert venue, take out your phone, and pay for your meal, drinks, pipes, shows, and memberships -- all with shielded Zcash. You walk down main street and on every window there's a fresh new sticker next to Visa and MasterCard: "Zcash Preferred Here."

Transparent Zcash on Anypay is already working in one location: Free State Bitcoin Shoppe in Portsmouth, New Hampshire. It is in experimental stages and not yet ready for public release. But we know it works. Cashiers tap in a dollar amount, a QR code appears with a t-address and the amount to pay encoded, and bam -- the screen turns bright green and a "cha-ching" sound plays while the word PAID flashes on screen. Done. The money arrives instantly in the owner's wallet, and the customer walks away smiling with merch in hand.

For the business, the process is simple. If they already use Anypay, there is nothing extra to do. Just select Zcash during checkout. If they do not yet use Anypay, all they need to do is get the app from the website or app store, (optionally) create a login and password, and add payout addresses for the coins they want to receive. That is it. Their cashier can instantly accept a variety of cryptocurrencies including Zcash without any specialized knowledge or training, and without ever risking access to the owner's funds.

Here is an interesting external dependency: finicky app stores. You may have noticed I said they can get the app from our website or in the app store. The Apple App Store famously blocked several popular crypto wallets for including lesser-known coins. What if they do that to Anypay? They very well may -- and with no warning! That is why, as a backup, Anypay exists as a web app that can run on any device with a web browser. No need for an app store (although the goal is to be available there as well). If the app ever disappears from the app stores, users can simply use the web app and even save an icon to the home screen so it functions just like the app. Easy.

Here is another interesting risk: What if users lose access to their wallets? Well, Anypay is a payment processor, not a wallet. So if they lose their wallet, then their money is gone. We never hold funds. However, they can change the payout address at any time by logging into the admin dashboard, so if they do lose their wallet and need to send to a new address, that is easy. If they forget their password for that, they can reset it (provided they used a real email address when signing up). As we all know, the trade-off for privacy is personal responsibility. We can only do so much to protect users from themselves before ruining privacy for power-users. And let's face it: power-users who love privacy will lead the way forward, so we focus on making the best experience for them first before making it easy for grandma.

## **Team background and qualifications**

*Pertinent background of the professional team.*

Our expert team of developers have decades of experience building professional-grade applications, and lead developer and CEO Steven Zeiler spent years as an engineer at Ripple. Adam Cmiel spent years in Silicon Valley at Lyft. He now develops the iOS native app for Anypay. Grant Jones worked as an engineer with Google full-time. 2 months ago, he left to join Anypay as our lead (BTC) Lightning developer full-time. Derrick J. Freeman has nearly a decade of experience in communications, specifically around cryptocurrency media production. We now lend all of our efforts to building the world's greatest tool for bringing cryptocurrencies to retail stores, guided by principles of privacy, decentralization, and community.

An early demo of Zcash in use at the Free State Bitcoin Shoppe:

<http://freestatebitcoin.com/2017/10/02/shielded-zcash-transaction-at-nh-retail-store/>

Recent demo of Anypay in use on CNN International:

<https://www.youtube.com/watch?v=KI7rKJgadhA>

## **Evaluation plan**

*What will our proposal look like when successful? How will others know?*

When fully complete, Anypay will have a Zcash symbol in the top right-hand corner, and upon pressing it, anyone can generate an invoice that displays a green PAID screen when the requested transparent or shielded Zcash is received. Anyone with an internet connection and the ability to send Zcash can verify that this is complete by generating a Zcash invoice, paying it, and acknowledging receipt of payment in the address they specified. If no Zcash address is

provided, they will see the payment converted to Bitcoin and deposited into the BTC address they provided.

Quantitative reports of Anypay's cryptocurrency transaction volume and the types of merchants using it and hard data on the amount of value (both in USD and BTC) passing through the platform, updated in real-time, is publicly available here:

<https://admin.anypay.global/charts>

There is no way of knowing all of the businesses using Anypay, but many are known. Among them include about ten dine-in restaurants, a yoga studio, a handful of coffee shops, several souvenir shops, a tattoo parlor, a brewery, a flower shop, several smoke/vape shops, a handful of sunglass & eyeglass stores (including optometry), a live theatre, a concert venue, a ballet studio, a hair salon, a ladies intimates apparel store, and a high-end vintage up-cycled clothing shop.

The [Free State Bitcoin Shoppe](#) showcases dozens of businesses using Anypay in its small town of Portsmouth, New Hampshire with the [World Famous Bitcoin Tour](#).

## Security considerations

*What are the implications of this project to the privacy, integrity, availability and decentralization of Zcash? Does it create, or mitigate, potential attacks?*

If good money is supposed to be private, why is uber-trackable Bitcoin having all the fun? Why is the coin that the Feds are watching spreading like wildfire and the coin that actually acts like cash is nowhere? It is not your fault. No one has built the tools that merchants need to accept it.

Fear not. Zcash can be as fast and easy to use as a credit card without compromising security. Not clunky and awkward but fun and cool. Yes, you will probably have to teach the person at the register how it works the first few times. But once you do, it will make the other cryptocurrencies look foolish by comparison.

100% of the world's Zcash-accepting brick and mortar retail stores already use Anypay to accept other cryptocurrencies. It is easy, secure, simple, beautiful, and fast. And it works with their existing hardware. No new devices, no complicated paperwork, no ID verification, no fees assessed to the merchant. Finally you have a free tool that will not only make your favorite store take your Zcash, it will make them LOVE you. Because in time, they will figure out that you are giving them a greater gift than they could have imagined: private, untraceable money right in their pocket.

Hundreds of merchants across America are already using Anypay to take private payments of cryptocurrencies. I have personally activated dozens of them. We at Anypay build relationships with these business owners and follow up regularly, asking about their everyday use and making improvements to build the best experience. They want something that will track how much the dollar value was when they took payment, and how much it is worth now. They want it to be stupid-simple to use so that even the dullest employee can figure it out without much instruction. They want to know instantly if the customer paid, and they want to know that their money is secure. We have done all that and more, and now we want to add Zcash to Anypay's list of supported coins.

Zero user education is needed to use it securely. This tool increases the availability and decentralization of Zcash in the world by spreading it around to merchants and inspiring crypto users to switch to a more private currency.

## **Schedule**

*What is the timeline for Zcash integration into Anypay?*

Expected timeline for implementation is Summer 2018, over the next 2-3 months. Before Sapling in September. The experience would of course become even better after Sapling. We are very excited for that.

Milestones:

- July 2018 - Transparent payments supported for merchants who provide address
- August 2018 - Shielded payments supported for merchants who provide address
- September 2018 - Auto-conversion to BTC supported for all merchants

## **Budget and justification**

*How much will development cost, and what is the cost breakdown?*

What would you expect to pay for first-class shielded transaction support for the world's most popular multi-coin crypto point-of-sale system? You might expect development this complex would easily cost 1,000 Zcash. And you would be right. The best developers are already working on exciting and high-paying products in the business world, and they demand fair reward to be pulled away to focus elsewhere. A single engineer could cost 500 Zcash easily to contribute to a project of this magnitude.

We expected to ask for five times as much. But -- being heavily invested in Zcash ourselves, and because of our deep philosophical commitment to enhancing freedom for all people through financial privacy technology, we are willing to take an insane pay cut to develop this feature for the extremely modest sum of 100 Zcash. That is because we expect that by integrating shielded Zcash transactions into a rapidly growing merchant POS system, we will have a direct impact on the valuation of the coin. Making coins spendable is what we do, and the bottom line is that we want Zcash to replace credit cards. To do it, we need to know we are not alone. We need to know this matters to you. We humbly ask for your endorsement in the world's most recognizable form: your financial commitment. Let's do this.

100 Zcash Breakdown (All services paid for in crypto, zero is paid in dollars): (~\$20,000 USD)

- Developer compensation: 90 ZEC (~\$18,000 USD)
- Servers: 5 ZEC (~\$1,000 USD)
- Services: 5 ZEC (~\$1,000 USD)

## **Direct Contact**

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