CryptoCurious

Crypto for Business

Guest Lecturer: Hannah Rosenberg

Velas Commerce

Hannah Rosenberg

Hannah Rosenberg is a cryptocurrency and e-commerce web developer, educator and economist. With a passion for monetary theory and alternative currencies, and a degree in economics from the University of Illinois at Chicago, she became an early cryptocurrency adopter and enthusiast in 2012, going on to found Velas Commerce in 2014. As an educator, Hannah developed the Blockchain Institute's curriculum and has taught blockchain courses at UIC’s College of Business Administration.

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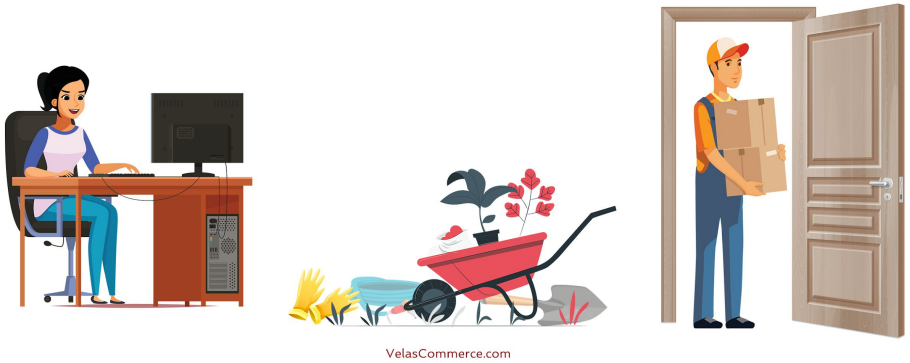
I. Why Crypto for Your Business?

Introduction

We'll be following two fictional businesses

Alice's Garden Supply Business



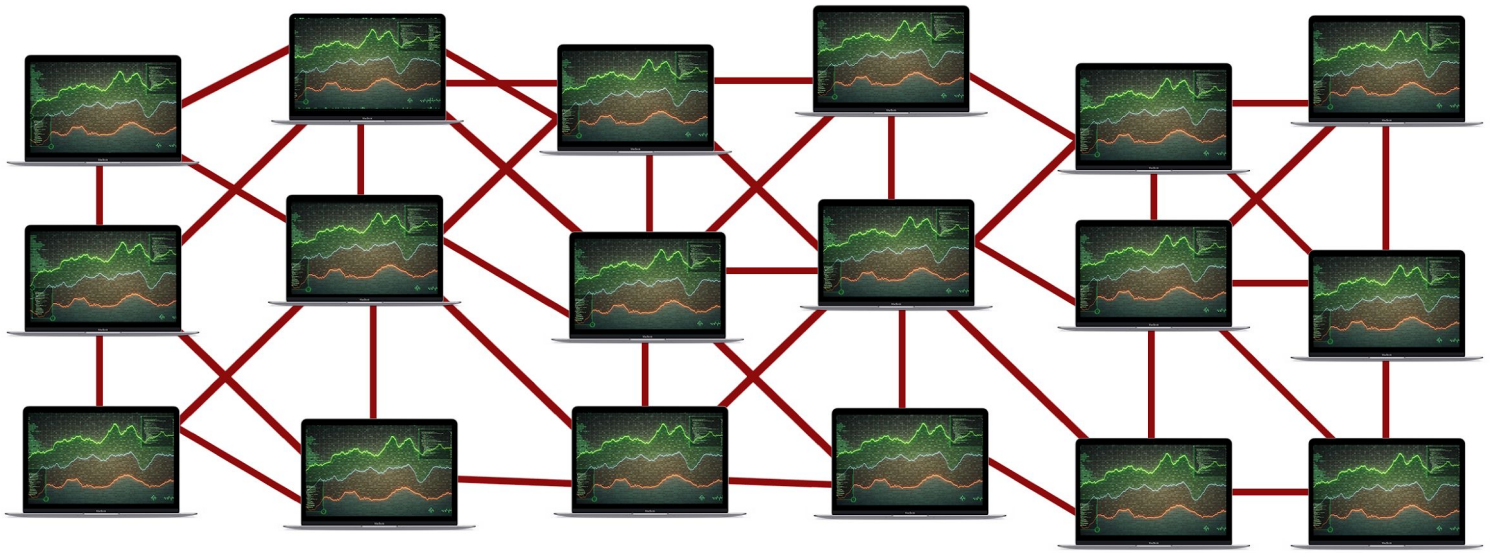
Bob's Food and Liquor Corner Store

A note on the use of "Bitcoin" versus "crypto":

In this course we mainly discuss Bitcoin, and sometimes we'll use the word crypto as well. There are many different types of crypto, however Bitcoin was the first and remains the most well known. There are many other useful and valuable cryptos: Ethereum, Monero, etc. We'll stick to Bitcoin in this course.

Why Crypto is Different

- Crypto is…
  - Permissionless
  - Decentralized and Neutral
  - Global
  - Limited Supply
- Using it is...
  - Fast
  - Secure
  - In your Control
  - Low fees
  - Privacy



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How Can a Business Use Crypto?

- Buying goods/services
- Selling goods/services
- How Alices wants to use Crypto
  - Buying from international supplies
- How Bob wants to use Crypto
  - Diversify away from turmoil in his national currency
- Investing
- This is a guide to practical use right now

Both Alice and Bob start by purchasing crypto…

Alice Using Crypto

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Bob Using Crypto

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II. Obtaining and Storing Crypto

Obtaining and Storing Crypto

The best way to get Bitcoin is to start accepting it at your business, covered in the next section!

- Things to keep in mind
  - Privacy
  - Speed
  - Cost
  - Control/Security
- We'll cover the benefits and pitfalls of different options
- Alice cares about speed and cost
- Bob cares about privacy and security

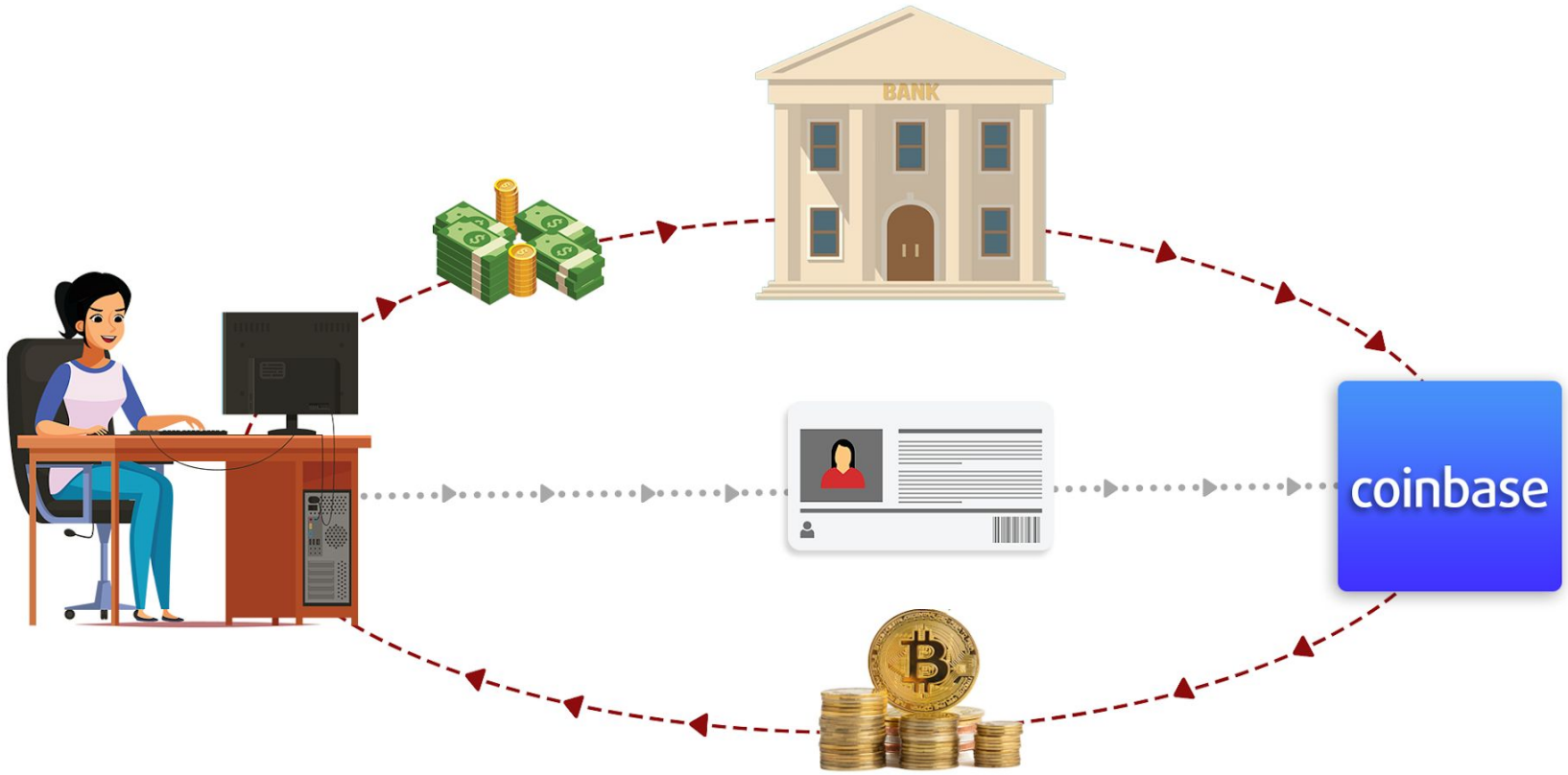
What is a crypto exchange?

A Bitcoin exchange is a digital marketplace where traders can buy and sell bitcoins using different fiat currencies or altcoins. A bitcoin currency exchange is an online platform that acts as an intermediary between buyers and sellers of the cryptocurrency.

bisq coinbase BINANCE

Source: https://www.investopedia.com/terms/b/bitcoin-exchange.asp

Alice buys bitcoin using an exchange



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Not your keys…
Not your bitcoin!

Local and Online Markets

Peer-to-peer options versus centralized exchanges:

HodlHodl https://hodlhodl.com/

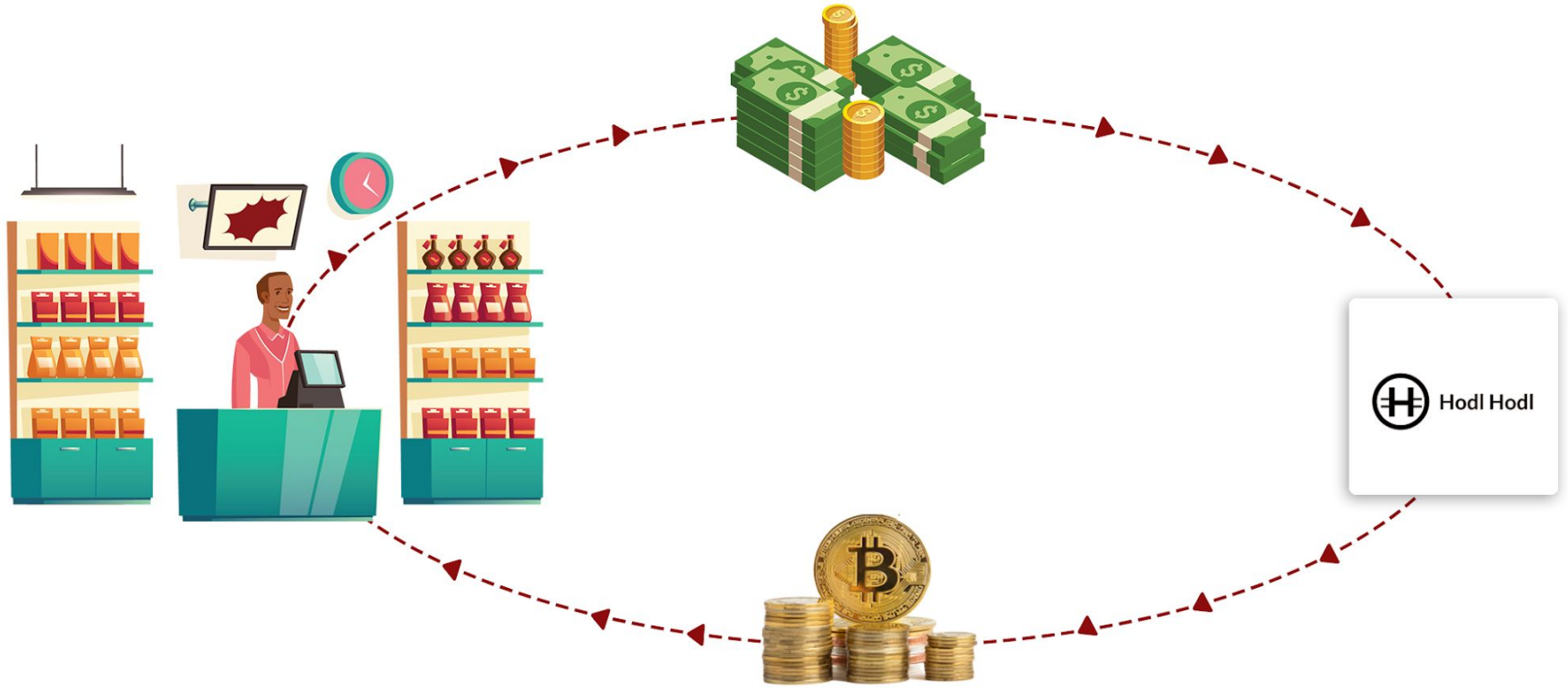
Localbitcoins https://localbitcoins.com/

Bisq https://bisq.network/

What they offer:

- Higher prices
- More privacy
- Security for in person transactions
- Online peer-to-peer exchanges
- Dangers

Bob buys on HodlHodl



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Where Do You Put Your Crypto?

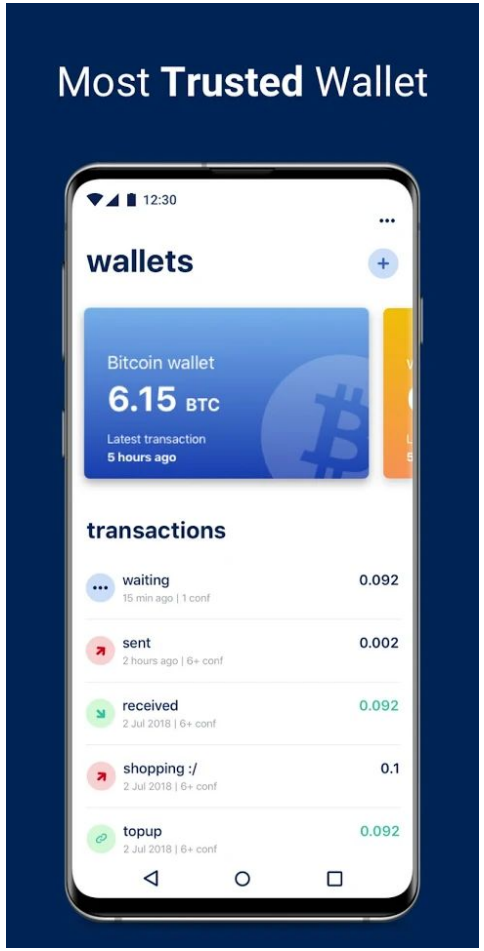
- Crypto lives on the shared ledger, keys control it
- Keys! That's what you need to know!
- For business use, generally we'll use:
  - Mobile Wallets
  - Hardware Wallets
  - Cold Storage

Private Public

Bob will use a mobile wallet for his hot wallet

Mobile wallets

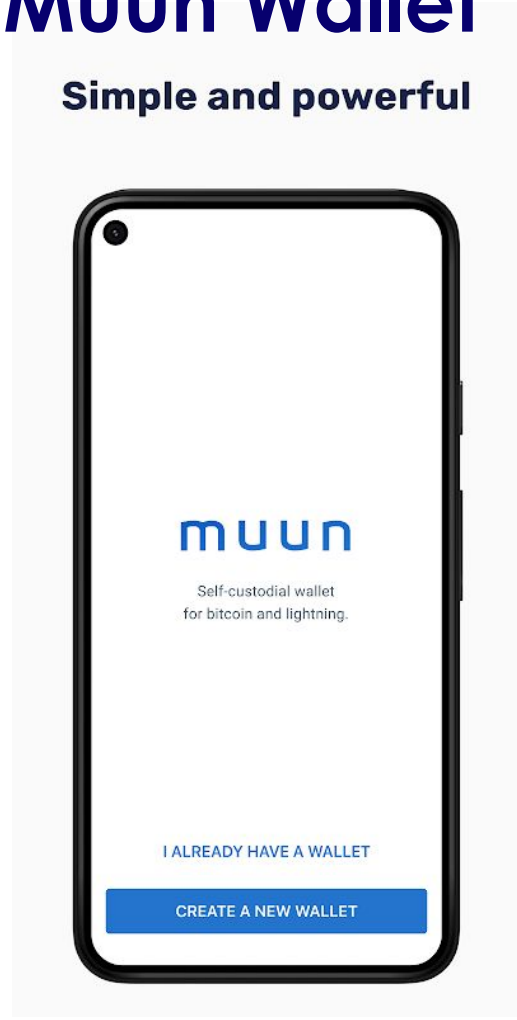
Blue Wallet



https://muun.com/

https://bluewallet.io/

Muun Wallet



Hardware Wallets

Alice uses a hardware wallet to connect her website and to store her private seeds

Cold Storage

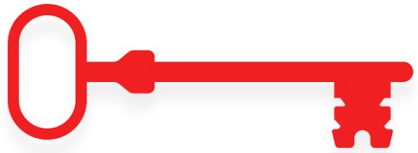
- Private Keys and Public Keys
- Seeds
- Backing up a seed
  - Maybe a password
  - Store securely
- Keep it simple

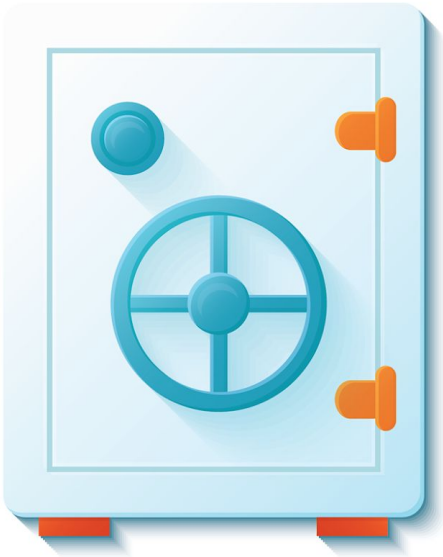
Bob chooses Crypto Key Stack for his cold storage.

Alice chooses Billfodl

Billfodl

Multi-Sig Wallets





Both Alice and Bob need to consider multi-sig

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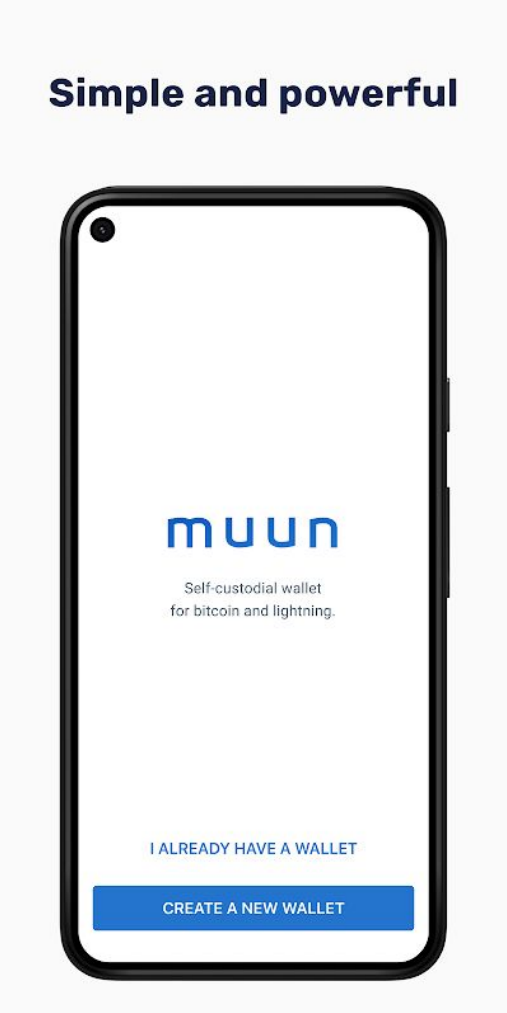
III. Accepting Crypto at Your Business

Ways to accept crypto at your business

Options range from simple to hi-tech and everywhere in between:

Using a mobile wallet



Bob's choice is to simply setup and use a mobile wallet

Let's demo a setup and transaction using Muun and the Lightning Network

Crypto Payment Processors

Over time Bob's may find that using his mobile wallet is really limiting.

Alice is going to need something more sophisticated from the start.

ATHENA BITCOIN

bitpay

flexa

opennode

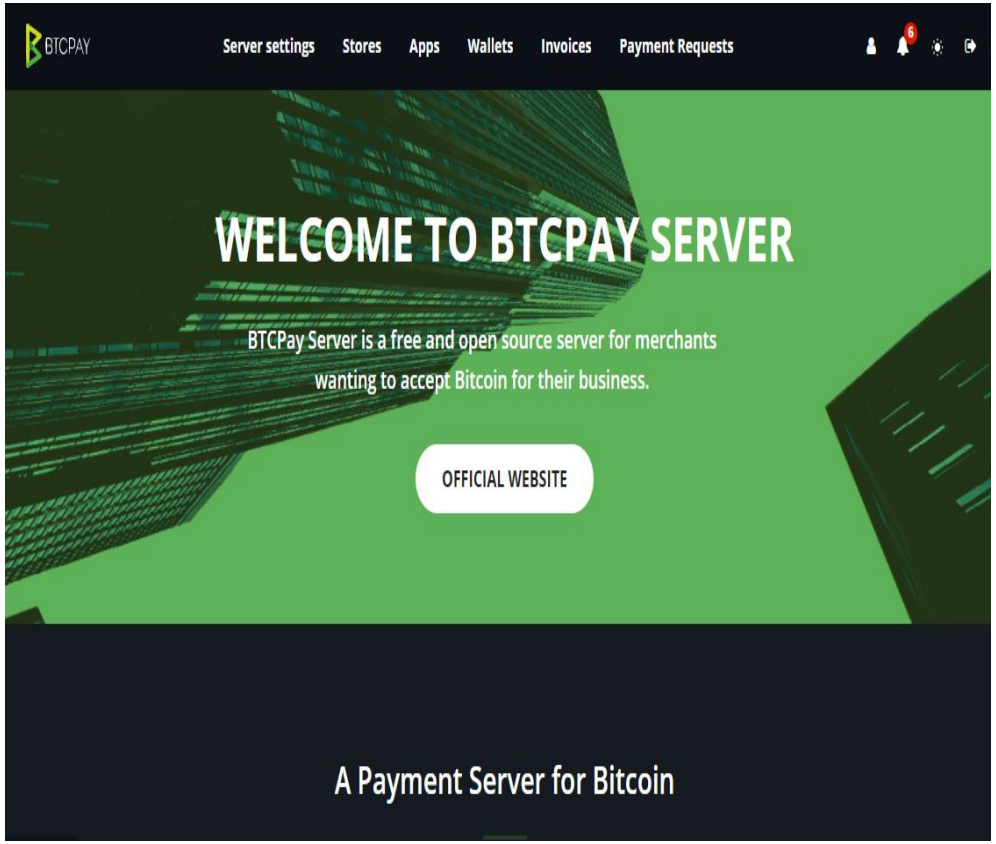
BTCPAY

What does a payment processor do?

- Convert crypto into fiat (i.e. dollars)
- Protect businesses from volatility
- Provide website integrations
- Track invoices, payments
- Save businesses time in accounting
- Improve privacy and security

Which processor(s) is a good fit for your business depends on your goals

Connecting a Crypto Payment Processor



Alice connects her garden supply website to BTCPay Server

Let's demo a setup and transaction using BTCPay Server

Let’s try out an example website

Demo BTCPay Server at
https://dgcmagazine.io/test-store/

Demo BitPay at
https://www.prblockchain.org/en/membership

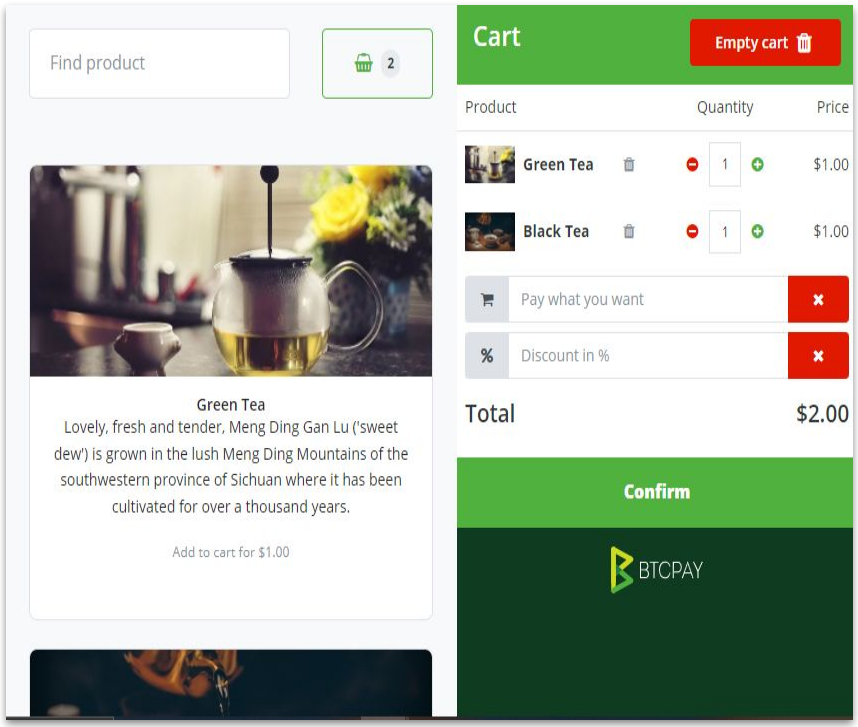
Point of Sale Systems

Point of sale systems enable crypto payments for in-person retail

Point of Sale Systems

Let's demo this BTCPay powered Web POS

These can be used by any device that can access the web



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IV. The Lightning Network

Crypto Payment Limitations

Crypto for day-to-day payments has some really important drawbacks

- Transactions are expensive
- Transactions are slow (Bitcoin requires at least 10 minutes to confirm new blocks)
- Network capacity is extremely limited

Bitcoin processes 7 transactions per second whereas Visa processes around 1,700 transactions per second on average.

Source: phemex.com

The Lightning Network

The Lightning Network enables faster and cheaper payments than any existing traditional tech.

- Opens the doors to crypto payments in volume to out-compete traditional credit cards
- Enables lots of new tech that is only beginning to be realized
- For any business with payment volume: bars, restaurants, newsstands, groceries, liquor stores. This is the future of payments.
- Lightning support should be an important consideration when selecting payment processors and POS systems

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IV. Taxes, Legalities and Scams

Taxes, Legalities and Scams

- Crypto payments can make taxes difficult. They need to be carefully tracked and, depending on the price difference when exchanging for dollars, can be subject to additional taxes. Do your own research and look to an accounting expert.

- Crypto payments are legal in the US and the majority of Latin America, but there are important exceptions. Do your own research and seek legal advice if in doubt.

Two rules to avoid scams

Never give your private keys to anyone.

If it sounds too good to be true, it's too good to be true.

Questions?