



bitcoin

Bitcoin 101

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Agenda

- Introduction
- What is bitcoin?
- Misconceptions
- How would I use Bitcoin?
- How do I get Bitcoin?
- How do I use Bitcoin?
- Nuts and bolts
- Security
- Security & Risks
- Questions?



Introduction

- Marco Peereboom
 - CTO
 - 20+ years of industry experience
- Conformal Systems, LLC
 - Fanatical privacy advocates with a crypto problem
 - Coinvoice
 - Cyphertite
 - Alternative bitcoin full node implementation



COINVOICE



What is Bitcoin?

- What is Bitcoin?



- Bitcoin is a global decentralized digital currency

- What does that even mean?

- Decentralized - Not controlled by a single entity such as a central bank, the king, federal reserve etc
 - Digital currency - Internet cash



Misconceptions

- Isn't it illegal?
 - Bitcoin is **NOT** illegal and there is a growing body of jurisprudence to prove it
- But bad people use it for bad things!
 - Yes they do and have since the dawn of money
- Inflationary/Deflationary
 - But it isn't backed by anything!! Neither is fiat currency.
- Security
 - Bitcoins are only as secure as your process
- Anonymous
 - Despite popular belief bitcoin is **NOT** anonymous



Why would I use Bitcoin?

- Tap into an increasingly large economy
 - ~\$6B market cap (at \$500/btc)
- Operate world wide without bank accounts
 - Always open, unlike banks
- No charge backs
- Lower fees than traditional banking
- More resilient against identity theft and fraud



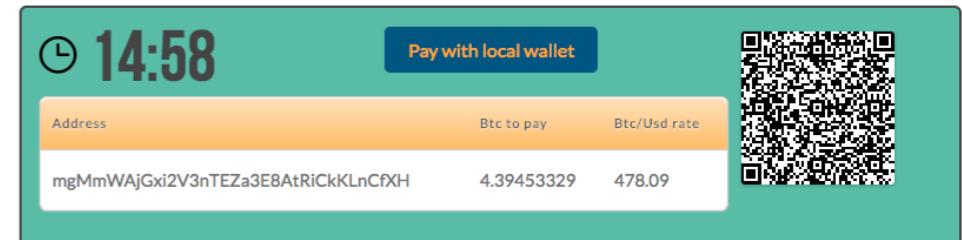
How do I get Bitcoin?

- Purchase them from a bitcoin exchange
- Earn them through competitive mining
- Accept them as payment for goods or services
- Withdraw from a bitcoin ATM
- Use a bitcoin payment processor



How do I use Bitcoin?

- Digital wallet
 - Bitcoins are stored in digital wallets
- Spending
 - Send payments globally with minimal fees



How do I use Bitcoin?

- Use bitcoin to buy real stuff



- overstock.com

- Virgin Atlantic



- Tiger Direct

The logo for TigerDirect.com, featuring the company name in blue lowercase letters with a registered trademark symbol.

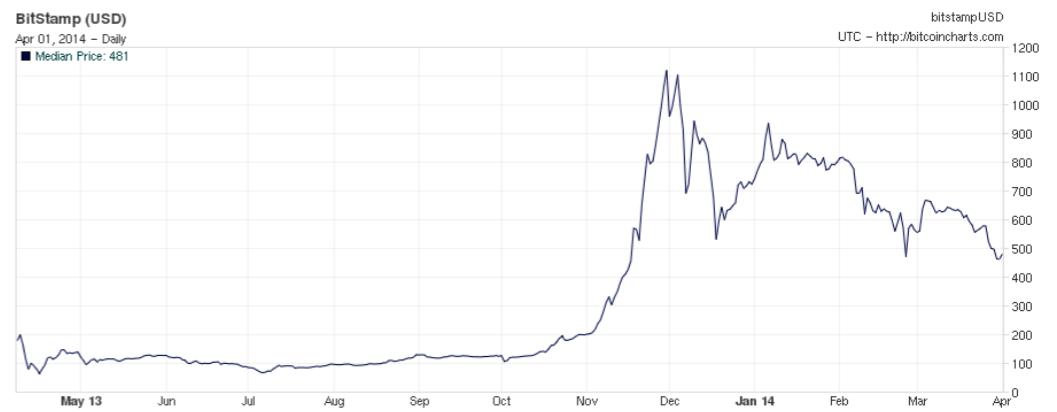
- WordPress



- Donate to charity



- Capital Area Food Bank of Texas



- Investment

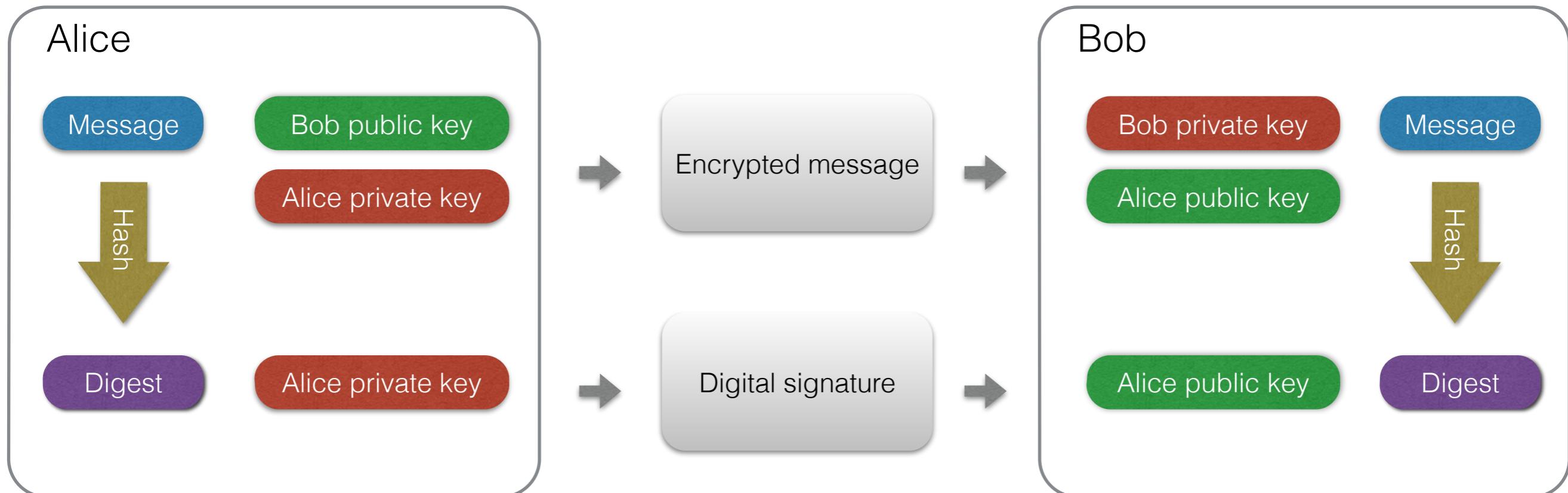
- Stuff them under your digital mattress

Nuts and bolts

- Making a payment
 - Obtain an address (email, published on net etc)
 - Send BTC
- Receiving a payment
 - Give people an address
- Simple! or is it?



Alice and Bob



Crypto Currency

- Letter of intent
 - I, Alice, want to pay Bob 1 bitcoin
 - Digitally sign letter of intent
- Prevent double spend by adding a serial number to each coin
- Use public ledger
 - The network is the bank
- Proof of work
 - Minting bitcoin and obtain fees
 - Incentivizes organizations to maintain network



Security

- Many horror stories about theft, mismanagement and bankruptcy etc

- What you can do?

- Encrypt everything
- Cold Storage
- Multisig
- Backups backups backups!!
- Do think about end of life planning



Risks

- Volatility
- Transactions need to settle
- Amateur hour
- Easy to lose
- Government interference
- Bitcoin is still experimental



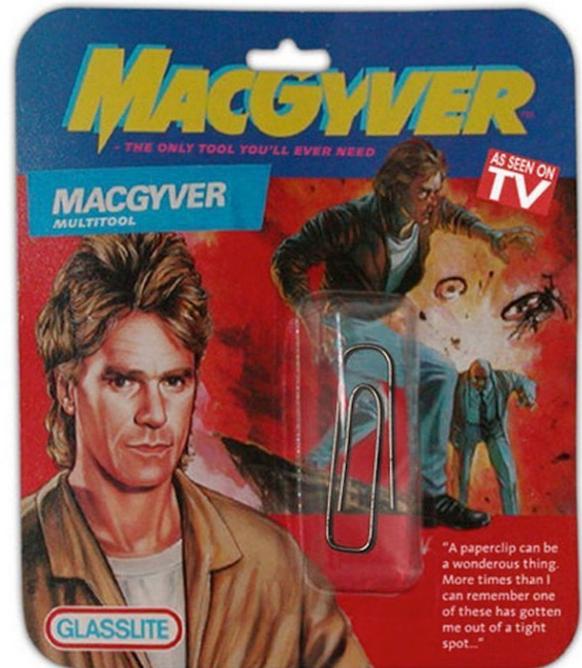
Interested but afraid?

- Fear not, there is a growing list of options

- Merchant solutions
- Payment gateways
- Consultancy

- Picking a trusted partner is important

- Security and privacy concerns
- Transparent process



How to use Coinvoice?

- **Sign up**

- The sign up process only takes a few minutes to complete and requires basic information about your business. We review all account applications and typically approve or deny accounts within 2 business days.

[SIGN UP](#)

- **Create an invoice**

- After your account is approved you will be able to add Bitcoin addresses, banking information and customer addresses to your Coinvoice account. Once you have added this information, you can create invoices and send them to your customers.



- **Get paid**

- Receive your invoice payouts in either BTC or USD: we can handle both options. Coinvoice pays out BTC in 1-5 business days from the date your customer pays their invoice and locks in the BTC/USD rate once funds clear at our bank account.



Merchant tools

- API

- JSON API to pragmatically enter invoices into Coinvoice backend
- PHP reference implementation that is used by several plugins

The screenshot shows the Coinvoice sign-up process. At the top left is a 'Sandbox' button. The top right has links for 'ABOUT', 'FAQ', 'CONTACT', 'SIGN UP' (which is highlighted in orange), and 'LOGIN'. The main area is titled 'LOGIN INFORMATION'. It contains fields for 'Username', 'Password', 'Confirm password', 'Email', 'Confirm email', 'Referral code' (set to 'VNRWXO'), and a checkbox for 'I agree to the Terms and Conditions'. A note '(*) Required Fields' is at the bottom. A 'Next' button is at the bottom right.

- Plugins

- Relatively simple to add to new carts/e-commerce solutions

The screenshot shows a payment page. At the top left is a 'Sandbox' button. The top right has links for 'ABOUT', 'FAQ', 'CONTACT', and 'LOGOUT'. Below that is a navigation bar with 'Overview', 'My invoices', 'My addresses', 'My accounts', 'Manage API', and 'My settings'. A blue button says 'Return to merchant site'. The main content area says 'Please follow the directions below to ensure proper BTC payment! After your timer elapses you must reload this page to be given a new price in BTC.' It shows a timer at '14:43' and a button 'Pay with your local wallet'. Below that is a table with 'BTC Address' (mkva6888yVavACSBZAM9ANKSX5Cc5Vda9A), 'BTC to Pay' (0.02813333), and 'Exchange Rate' (675.00). To the right is a QR code.

- Sandbox mode for test and development

Questions?

- More information: bitcoin.org
- Visit a local meet up such as Bitcoin Austin

