

Ledgering is a base for cryptocurrency

1. Blockchain, a record, with with high-cryptographic security. properties:
 - ▶ Costly to produce, numerical complexity, 2^{256} code.
 - ▶ Holds a history of transactions.
 - ▶ Scalability for applications (economy of scale)
 - ▶ Transaction processing speed increases.
 - ▶ Variety of technologies to implement blockchain.
 - ▶ Quantum computing is in the way.

Directions of applications:

2. Limited only by imagination of business and existence of demand:
 - ▶ industrial production and tracing of products,
 - ▶ government registers
 - ▶ fiat government money without cash circulation,
 - ▶ public emission and usage.

Important features of blockchain

- ▶ Proof of work: additional electricity consumption, the big increase.
- ▶ Proof of stake: prove that you have a true cryptocurrency record. Other participants can check a statement, as a register of blockchains is distributed, available to everybody.
- ▶ Delegated proof of work: voting substitutes verification (costly), with a later punishment for falsification.
- ▶ Proof of authority: centralized generation of all blocks.

Allow_not_prohibit

Currently very diversity government regulations to cryptocurrency, many nuances. Not complete list.

Allow or light regulate: Croatia, Slovenia, Slovakia, Czech Republic, Hungary, Poland, Roumania, Venezuela-gov, Dubai, Japan, Iceland, Lithuania, Russia, Switzerland, Zimbabwe, Estonia, Singapoure, Netherland, Union Kingdom, Bosnia and Herzegovina, Greece, Italy, Malta, Portugal, Spain, Turkey, Belgium, France, Ireland, Luxembourg, USA, Denmark, New Sweden, S Korea, Argentina, Israel, Finland, Canada, UK, Australia, Germany,

Prohibit or abandon: Kuweit, Dania, Indonesia, China, Vietnam, Thailand, Kirgistan, Bolivia, Bangladesh, Ecuador

Uncertain: coordinated policy for EMU, France, UK, Italy,

No adverse actions for cryptomarkets: S.Korea, Ukraine,

Cases: Technology development 2

- ▶ IBM and major intl banking partners report first live pilot transactions from their Blockchain trade finance platform Batavia.
- ▶ Ethereum-based smart contracts give the ability to utilize the blockchain and cryptoeconomic principles across countless industries and implementations. However, we currently dont have a decentralized and authoritative oracle to determine and verify location.
- ▶ Blockchain provides the ability to conduct transparent operations and multiple copies of them in such a way that the user always has information about each step of his partners. In connection with these, there are questions about the speed of operations, payment for operations, security, efficiency, scalability, etc. The QuarkChain project will help to answer us with exciting questions.



Nearest future changes: the 4-th industrial revolution

- ▶ Document processing: blockchains.
- ▶ Data processing: big data analysis.
- ▶ Production: robots.

For the successful operation of enterprises, government and other organizations necessary optimize, modernize, and improve their efficiency and reduce costs. We are close to the automation revolution, but so far it is not yet well developed around the world. However, many people are worried about what they will do when robotics dominate? How many jobs will be left for humans to do? Will governments need to levy robot taxes to provide displaced workers with a universal basic income?

Electrum-LTC is Electrum's community maintenance port, Litecoin's Bitcoin wallet. It is not the official product of Electrum Technologies GmbH, and it is not supported.

Unitimes: What does NuCypher Token NKMS do?

Electrum is a world-renowned Bitcoin light wallet with a long history of multi-signature support and a very broad user base, many of which like to use Electrum as a cold wallet or multi-signature wallet for Bitcoin or even USDT (Omni). Based on this usage scenario, Electrum is used less frequently on the user's computer. The current version of Electrum is 3.3.8, and previous versions of 3.3.4 are known to have "message defects" that allow an attacker to send an "update prompt" through a malicious ElectrumX server. This "update tip" is very confusing to the user, and if you follow the prompt to download the so-called new version of Electrum, you may be tricked. According to user feedback, because of this attack, stolen bitcoins are in the four digits or more. This captured currency theft attack is not stealing the private key (electrum's private key is generally stored with two-factor encryption), but replaces the transfer destination address when the user initiates the transfer. Her

e we remind users that when transferring money, special attention needs to be paid to whether the destination address has been replaced, which is a very popular method of currency theft recently. It is also recommended that users use hardware wallets such as Ledger, and if you pair it with Electrum, although the private key does not have any security issues, you should also be alert to the replacement of the destination address.

Bitcoin Wallet client Electrum may add support for the Lightning network.

Lesson 1: Third-party Electrum servers can link your two transactions together. This can be avoided by running your own Electrum server, supported by your own full node.

Analysis . . . Bitcoin wallet Electrum "update phishing" currency theft continues.

The world-renowned Bitcoin wallet Electrum "update phishing" currency theft continues.

What digital currencies does Samsung Digital Currency Wallet support and what applications have you chosen?

The Korean media gave us a detailed explanation of the Blockchain application of the Galaxy S10.

What is the meaning of democratization? What does it have to do with Google Cloud?

Fibonacci retreat, doesn't that sound complicated? What does it do and how d

oes it work?

Bitcoin Wallet Electrum will support the Lightning network in the next release, and its Lightning nodes have been merged into electrum's main branch, according to Cointegraph. Electrum also confirmed that the wallet will be written in-house development Python.

In addition, small partners who have used Electrum wallets should be aware that with Thecret phrase generated by Electrum, we can recover bitcoin keys on any browser using the Bitcoin Wallet web tool. And Electrum is so secure that there is no evidence that the distributed attack prevention system designed by Dark Wallet will be due to Electrum.

Electrum client. A veteran security research expert told Hard Fork that if a user installs the problem version of Electrum.

Shunto touch melon, open the github of the electrum, we find the following code in the electrum/electrum/ecc.py.

the part, what specific support does SCRY provide to developers? What DAPP can

What does Polkadot's governance look like, and what does DOT do in it?

What, who cares, and how does it matter to national regulators? What do you suggest?

Firewall-friendly: Electrum does not require a specific port in the firewall. It simply polls the server for updates.



How money enters into economy

ICO - Initial crypto-Currency Offerings

1. Why people accept cryptocurrency and use it?
2. Studying fiat money requires studying default, what eliminates a gap between micro and macro (in the sense of Martin Shubik).
3. Studying default requires institutional arrangements between a borrower and a creditor.

One can apply standard tools of economic analysis.

The novelty in comparison to traditional macro: transaction access costs to production of means of traders became technologically simpler (block-chain technology) for public.

Cases: information services

- ▶ The Wall Street Journal released findings from its analysis of almost 1500 initial coin offerings (ICOs) May 17, concluding 18.6% of them raised red flags.
- ▶ Many ICO rating sites, a lot ...
- ▶ Information aggregators are appearing.
- ▶ Many Telegram channels on Cryptocurrencies, blockchain.
- ▶ Development of labor market for this field.