

**CONSENSUAL NOT
POLITICAL**

10 SEPTEMBER 2017

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POLITICAL**

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**“I CAN’T MINE,
IT’S TOO
CENTRALIZED.”**

JUST LET THAT SINK IN.

- Libbitcoin Developer (4 years)
- Investor/Advisor (10 years)
- Microsoft Architect (3 years)
- Entrepreneur (18 years)
- Traveler (65 countries)
- USN Fighter Pilot (10 years)
- Martial Artist (25 years)
- Anarcho-Capitalist (25 years)
- Computer Scientist (36 years)

ERIC VOSKUIL

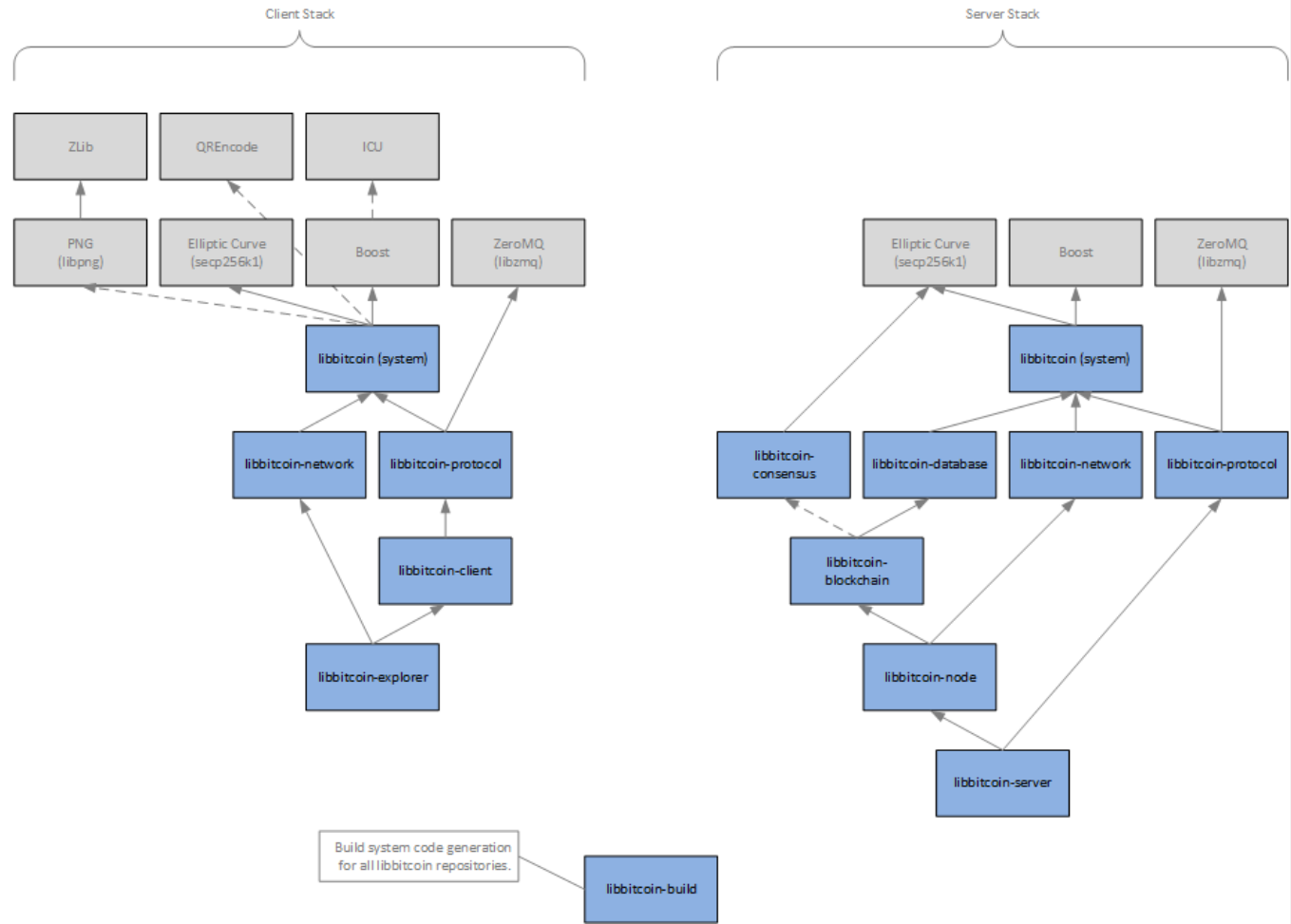
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Libbitcoin Version 3



LIBBITCOIN

Cross Platform C++ Developer Toolkit

libbitcoin (system)

libbitcoin-blockchain

libbitcoin-build

libbitcoin-client

libbitcoin-consensus

libbitcoin-database

libbitcoin-explorer

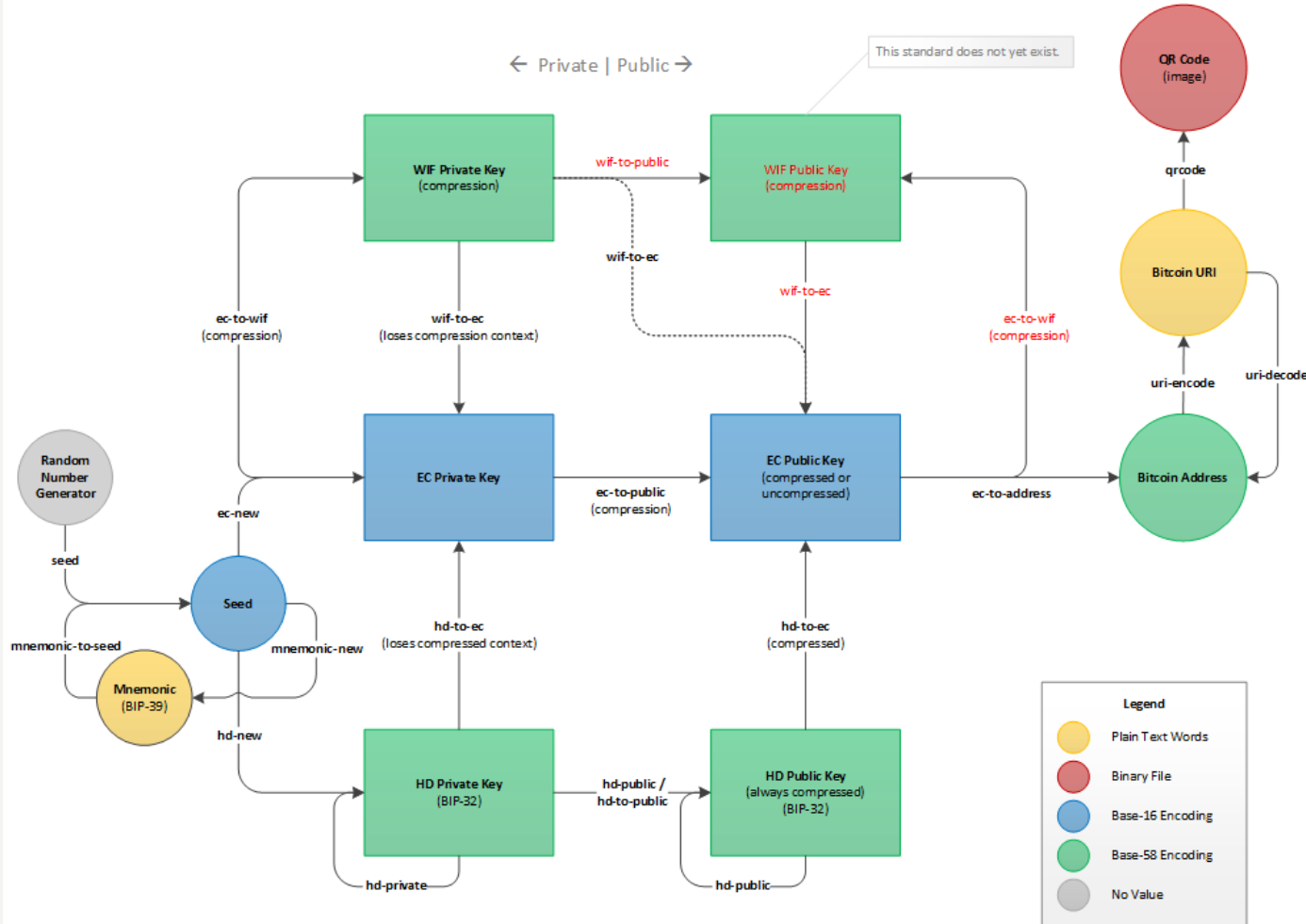
libbitcoin-network

libbitcoin-node

libbitcoin-protocol

libbitcoin-server

Bitcoin Explorer - Wallet Commands



BITCOIN EXPLORER

Command Line Tool

Wallet (17)

Key Encryption (9)

Stealth (5)

Messaging (2)

Transaction (9)

Online (16)

Encoding (13)

Hash (6)

Math (8)

```
$ bs
```

```
04:15:32.222545 INFO [server] ===== startup 03/08/17 20:15:32 =====
04:15:32.224009 WARNING [server] ===== startup 03/08/17 20:15:32 =====
04:15:32.224009 ERROR [server] ===== startup 03/08/17 20:15:32 =====
04:15:32.239812 FATAL [server] ===== startup 03/08/17 20:15:32 =====
04:15:32.255410 INFO [server] Using config file: "bs.cfg"
04:15:32.255410 INFO [server] Please wait while the server is starting...
04:15:32.321948 INFO [network] Starting manual session.
04:15:32.323923 INFO [server] Seeding is complete.
04:15:32.339683 INFO [node] Node start height is (430806).
04:15:32.339683 INFO [network] Starting inbound session on port (8333).
04:15:32.339683 INFO [network] Starting outbound session.
04:15:32.386530 INFO [server] Bound secure query service to tcp://*:9081
04:15:32.440000 INFO [server] Bound public query service to tcp://*:9091
04:15:32.486873 INFO [server] Bound secure heartbeat service to tcp://*:9082
04:15:32.486873 INFO [server] Bound public heartbeat service to tcp://*:9092
04:15:32.521662 INFO [server] Bound secure block service to tcp://*:9083
04:15:32.540320 INFO [server] Bound public block service to tcp://*:9093
04:15:32.555944 INFO [server] Bound secure transaction service to tcp://*:9084
04:15:32.571570 INFO [server] Bound public transaction service to tcp://*:9094
04:15:32.571570 INFO [server] Server is started.
04:15:33.523913 INFO [blockchain] Block [430807] 2570 txs 4673 ins 0 wms 456 vms 98 vl
04:15:34.519618 INFO [blockchain] Block [430808] 2177 txs 4018 ins 0 wms 344 vms 86 vl
04:15:35.572365 INFO [blockchain] Block [430809] 1665 txs 5119 ins 0 wms 394 vms 77 vl
04:15:36.494041 INFO [blockchain] Block [430810] 1824 txs 4728 ins 0 wms 375 vms 79 vl
04:15:37.673376 INFO [blockchain] Block [430811] 2829 txs 4404 ins 0 wms 388 vms 88 vl
04:15:38.792796 INFO [blockchain] Block [430812] 952 txs 4594 ins 0 wms 314 vms 68 vl
```

BITCOIN SERVER

Full Node and Query Server



~~BREAKING~~
BROKEN
BITCOIN

KNOW YOUR ENEMY AND KNOW YOURSELF



RISK SHARING PRINCIPLE

PEOPLE SECURE BITCOIN.



RISK SHARING PRINCIPLE

PEOPLE SECURE BITCOIN.



AXIOM OF RESISTANCE

BITCOIN CAN FEND OFF THE STATE.





HEARN ERROR

“STATES CANNOT BAN POPULAR THINGS.”

UNDER EXECUTIVE ORDER OF THE PRESIDENT

Issued April 5, 1933

all persons are required to deliver
ON OR BEFORE MAY 1, 1933
all **GOLD COIN, GOLD BULLION, AND GOLD CERTIFICATES** now owned by them to a Federal Reserve Bank, branch or agency, or to any member bank of the Federal Reserve System.

Executive Order

FORBIDDING THE HOARDING OF GOLD COIN, GOLD BULLION AND GOLD CERTIFICATES

By virtue of the authority vested in me by Section 501 of the Act of October 3, 1917, as amended by Section 2 of the Act of March 3, 1933, entitled "An Act to provide gold in the Federal Reserve System and for other purposes," in which amendatory Act Congress declared that a serious emergency exists, I, Franklin D. Roosevelt, Treasurer of the United States of America, do declare that and national emergency still continues to exist and pursuant to said section do hereby prohibit the hoarding of gold coin, gold bullion, and gold certificates within the continental United States by individuals, partnerships, associations and corporations and hereby prescribe the following regulations for carrying out the purposes of this order:

Section 1. For the purposes of this regulation, the term "hoarding" means the withdrawal and withholding of gold coin, gold bullion or gold certificates from the recognized and customary channels of trade. The term "person" means any individual, partnership, association or corporation.

Section 2. All persons are hereby required to deliver on or before May 1, 1933, to a Federal Reserve Bank or a branch or agency thereof or any member bank of the Federal Reserve System all gold coin, gold bullion and gold certificates now owned by them or coming into their ownership on or before April 28, 1933, except the following:

- (a) Such amount of gold as may be required for legitimate and necessary use in ordinary professions or in within a reasonable time, including gold prior to refining and stocks of gold or reasonable amounts for the usual trade requirements of persons mining and refining such gold.
- (b) Gold coin and gold certificates in an amount not exceeding in the aggregate \$100.00 belonging to any one person, and gold coins having a recognized special value to collectors of rare and unusual coins.
- (c) Gold coin and bullion earmarked or held in trust for a recognized foreign government or foreign central bank or the Bank for International Settlements.
- (d) Gold coin and bullion intended for other proper transactions (not involving hoarding), including gold coin and bullion imported for re-export or held pending action on application for export license.

Section 3. Until otherwise ordered any person incurring the expense of any gold coin, gold bullion, or gold certificates after April 28, 1933, shall, within three days after receipt thereof, deliver the same in the manner prescribed in Section 2, unless such gold coin, gold bullion or gold certificates are held for any of the purposes specified in paragraphs (a), (b), (c) or (d) of Section 2 or are such gold coin or gold bullion or gold certificates as are specified in paragraph (d) of Section 2 and the person holding it, will respect to such gold coin or bullion, a receipt or approval for income pending action thereon.

Section 4. Upon receipt of gold coin, gold bullion or gold certificates delivered to it in accordance with Sections 2 or 3, the Federal Reserve Bank of deposit bank will pay therefor an equivalent amount of any other form of coin or currency issued or issued under the laws of the United States.

Section 5. Member banks shall deliver all gold coin, gold bullion and gold certificates owned or received by them (under laws, as exempted under the provisions of Section 2) to the Federal Reserve Bank of their respective districts and receive credit as aforesaid therefor.

Section 6. The Secretary of the Treasury, out of the sum made available to the President by Section 501 of the Act of March 3, 1933, will in all proper cases pay the reasonable costs of transportation of gold coin, gold bullion or gold certificates delivered to a Federal Reserve Bank or Federal Reserve Bank in accordance with Sections 2, 3, or 4 hereof, including the cost of insurance, protection, and such other incidental costs as may be necessary upon production of satisfactory evidence of such costs. Member banks for the purpose may be reimbursed from Federal Reserve Banks.

Section 7. In cases where the delivery of gold coin, gold bullion or gold certificates by the owners thereof within the time set forth above will prevent extraordinary hardship or injustice, the Secretary of the Treasury, upon the application of the Secretary of the Treasury and Gold coin, a Federal Reserve Bank. Each application must state the date to which the extension is desired, the amount and location of the gold coin, gold bullion and gold certificates in respect of which such application is made and the facts showing reasons to be considered in such application.

Section 8. The Secretary of the Treasury is hereby authorized and directed to issue such further regulations as he may deem necessary to carry out the purposes of this order and to issue licenses thereunder through such officers or agencies as he may designate, including license permitting such officers or agencies to issue such licenses under the Federal Reserve System, in return for an equivalent amount of gold coin, currency or credit, to deliver, remark or hold in trust gold coin and bullion to or for persons showing the need for the same for any of the purposes specified in paragraphs (a), (b), (c) and (d) of Section 2 of these regulations.

Section 9. Whoever willfully violates any provision of this Executive Order or of these regulations or of any rule, regulation or license issued hereunder may be fined not more than \$10,000, or, if a natural person, may be imprisoned for not more than ten years, or both; and any officer, director, or agent of any corporation, who knowingly participates in any such violation may be punished by a fine not exceeding \$10,000, or both.

The order and these regulations may be modified or revoked at any time.

FRANKLIN D. ROOSEVELT
April 5, 1933.

For Further Information Consult Your Local Bank

GOLD CERTIFICATES may be identified by the words "GOLD CERTIFICATE" appearing thereon. The serial number and the Treasury seal on the face of a **GOLD CERTIFICATE** are printed in **YELLOW**. Be careful not to confuse **GOLD CERTIFICATES** with other issues which are redeemable in gold but which are **not GOLD CERTIFICATES**. Federal Reserve Notes and United States Notes are "redeemable in gold" but are **not "GOLD CERTIFICATES"** and are **not** required to be surrendered.

Special attention is directed to the exceptions allowed under Section 2 of the Executive Order

CRIMINAL PENALTIES FOR VIOLATION OF EXECUTIVE ORDER
\$10,000 fine or 10 years imprisonment, or both, as provided in Section 9 of the order

W. C. Clegg
Secretary of the Treasury.

EXECUTIVE ORDER 6102

"Executive Order 6102 required all persons to deliver on or before May 1, 1933, all but a small amount of gold coin, gold bullion, and gold certificates owned by them to the Federal Reserve, in exchange for \$20.67 per troy ounce... thereafter raised to \$35.00... The resulting profit [seigniorage]... funded the Exchange Stabilization Fund... This price remained in effect until August 15, 1971 [when it went to infinity]... parties could again include so-called gold clauses in contracts formed after 1977."

- Wikipedia

IT WAS NEVER REALLY ABOUT THE FORKS AT ALL.



THREAT MODEL

Perception



Reality





BALANCE OF POWER FALLACY

“MINING IS HOSTILE TO MERCHANTS.”



IMPOTENT MINING FALLACY

“MINING HAS NO POWER.”



IMPOTENT MINING FALLACY

“MINING HAS NO POWER.”



PROOF OF WORK FALLACY

“IN CASE OF ATTACK, SHOOT SELF.”

PROOF OF WORK FALLACY

- Buyers can always obsolete specialized equipment by abandoning its product (not unique).
- There is no reason that existing miners would exit, it is common for businesses to rebuild.
- New miners will likely make the same decisions, as they are in the same business.
- Larger miners are disproportionately more profitable and therefore better capitalized.
- Smaller miners operate closer to the margin and will fail as larger miners retool.
- Experienced miners have an inherent advantage, and therefore greater access to capital.
- If the state is attacking, its co-opted miners will continue at a declining energy cost.
- Future miners must insure against a similar event, increasing the cost of hash power.
- The economy ends up with higher fees, the same problem miners and greater centralization.
- It's not a “nuclear option” it's a suicide attack.



**INDIVIDUALS
MUST MINE.**

OR OBVIOUSLY IT WILL BE CENTRALIZED.

SUMMARY

PERCEPTION

- Miners and merchants are adversarial.
- Mining is controlled by the economy.
- Miners cannot afford to attack.
- Bitcoin is defenseless against the state.
- States cannot ban popular things.
- A PoW change mitigates pooling.
- Authoritarian tx ordering is sufficient.
- **Crypto secures Bitcoin.**

REALITY

- Miners and merchants are *trading partners*.
- Miner and economic powers are *orthogonal*.
- Miners are *not the threat*.
- Bitcoin *must* defend against the state.
- States *prefer* to ban popular things.
- A PoW change *exacerbates* pooling.
- Resistance to authority is *Bitcoin's innovation*.
- **People secure Bitcoin.**

QUESTIONS