Anatomy of a Fraud on the Bitcoin (Bitcoin Cash) Network

This paper describes a scheme of fraud executed via a complex system of collusion by a tight network of individuals and organizations that conspired to take control of a decentralized and distributed cryptographically encrypted ledger known as "Bitcoin Cash". This was designed to occur during the scheduled November 15, 2018 network upgrade of the Bitcoin Cash network and this action began the process of centralizing and controlling the network over time by these parties. In addition to the significant economic losses incurred by other stakeholders as a result of this overt market manipulation, the long term implication for world economies and particularly the US economy is significant. Through this market manipulation which is moving towards centralizing what is intended to be a decentralized transactional system, the democratic and neutral principles of the network can be corrupted.

Background

The original vision of "Satoshi Nakamoto" white paper as published in October 31, 2008¹ was a simple one; to create a purely peer-to-peer version of electronic cash that would allow online payments from one party to another without going through a financial institution, and the white paper created the term "Bitcoin" to represent this digital "cash" or more generally referred to as "digital currency".

At a high level, the integrity of the system relies on a network of decentralized public ledgers which confirms and maintains the records of digital transactions on a "blockchain" in a highly cryptographic environment. Whereas centralized ledgers are highly vulnerable to tampering and fraud, trust within a blockchain transactional network is established through the use of these decentralized ledgers which are identical and continuously updated and compared, meaning that one would have to tamper with the majority of ledgers simultaneously and in exactly the same way and all within the cryptographic environment².

Bitcoin Cash's (a forked derivative of Bitcoin) strength as a digital currency lies in it being a trust less, decentralize public ledger (the blockchain). To accomplish this, mechanisms for reaching a global decentralized consensus on the valid blockchain are required. Two of those mechanisms are Proof-of-Work which applies on a block by block basis, and that the "main chain" at any time is whichever valid chain of blocks has the most cumulative Proof-of-Work associated with it, normally the longest chain.

The process of maintaining the public ledger is known as mining which uses a worldwide, and until recently, independent network of very fast computer servers record transactions on the blockchain. In order to complete legitimate transactions and eliminate fraudulent transactions in the creation of a new block on the blockchain, servers within the blockchain must solve complex problems (complex – but always feasible) through the process of Proof of Work. This proof of work process is designed to

¹ https://nakamotoinstitute.org/bitcoin/

² https://www.investopedia.com/news/how-bitcoin-works/

eliminate the insertion of fraudulent transactions in the blockchain. The servers that undertake mining are referred to as "miners" and miners receive a "reward" of cryptocurrency by solving the problem for a transaction. This means that miners essentially "compete" for rewards and by trying to be the first to solve the problem.

The difficulty of the problem to be solved is based on the traffic within the network and the number of miners within the network. The difficulty is adjusted on a regular basis to produce a new block on the blockchain within a prescribed period of time. This means that as more miners join a blockchain network, the difficulty goes up.

Since the block chain has a decentralized structure. Nodes across the world send each other "blocks" that they have mined. These blocks arrive at their destinations at different time in different orders. Each node will add the block to chain with greatest cumulative work, i.e. the longest chain. This behavior combined with the decentralized nature of the block chain results in multiple versions blockchain temporarily existing simultaneously. These chains converge to one chain as each node involved reach a consensus based on selecting the greatest-cumulative-work chain.

Since a given miner cannot be working on more than one problem at a time and since there is no way of knowing which miner will solve a given problem, "mining pools" have been established whereby a large number of miners operate collectively and share the reward within the pool. The reward per miner within a pool will be a direct function of the collective reward over a period of time divided by the number of miners. Since mining is very energy consuming and since electricity represents the largest operating cost (both in powering the miner and the cost of air conditioning to cool miners as applicable), in order to be profitable, miners must generate higher rewards over a period of time than the cost of electricity needed to mine in the same period of time. As such, as difficulty goes up, so does the cost of mining.

In order for a cryptocurrency network to remain secure, the entire process must remain distributed and decentralized and so ideally, no single individual, entity or pool should control more that 50% of computing power. To exceed this 50% figure means in theory, that the network is no longer decentralized and rely on this decentralized trust, but becomes an ever increasing centralized network and those using the network must rely on an increasing level, on trusting the centralized body. This ability to launch a so-called "51% attack" by controlling miners in theory allows such miners to reverse transactions, create a double spend on transactions and stopping new transactions from being confirmed on the network. 51% attacks have already been launched against smaller cryptocurrencies such as Bitcoin Gold and ZenCash which have cost investors millions of dollars³.

³ https://www.bloomberg.com/news/articles/2018-12-03/bitcoin-miner-consolidation-increases-risk-of-more-crypto-mayhem

Changes in Blockchain Functionality

Change to the blockchains functionality and "consensus rules" are arrived at by consensus. (see BIP-34 and BIP-9⁴). When a change is made by a developer and deployed, blocks are marked with a version number that signals the activation of a change. When a super majority (95%) of the last 1000 blocks the change is accept

This system of consensus works so long as no one person group has 51% of the hashing (mining) capacity on the blockchain network. 51% mining capacity allow one group to win the hashing race on block by block basis.

The state and integrity of the blockchain depend on a consensus being reached on the longest block chain and that block chain being accepted by all nodes on the network. While in theory the blockchain ledger becomes more and more immutable as time passes, a fork can arise at any depth on the chain and become the main chain if that is the consensus. This allows for correction of a 51% fork /double spend attack that has been sustained by hashing / mining power.

Therein lies the problem currently being faced.

⁴ BIP: 9 Version bits with timeout and delay Author(s): Pieter Wuille, Peter Todd, Greg Maxwell, Rusty Russell https://github.com/bitcoin/bips/blob/master/bip-0009.mediawiki BIP: 34 Block v2, Height in Coinbase Author(s): Gavin Andresen

The Circle of Collusion over the Bitcoin Cash Network

In order to understand the current situation, it is important to develop some background on each player involved in the centralization process, their role in the scheme and the relationship between players. At a high level, the scheme can be visualized as follows:

Circle of Collusion over Bitcoin Cash Network



Description of the Players

China

The US and China (Peoples Republic of China) are currently embroiled in a series of complex economic disputes related to trade between the two countries which has resulted in the imposition by each country of trade tariffs and countervailing tariffs which some have called a "trade war". While the US maintains its strength in the trade dispute due to its large market for China and control of the

transactional currency, the US dollar, it is clear that China sees much of the future economy based on digital currencies and the country does support the creation of a blockchain ecosystem⁵. China sees the future and the future is in a digital monetary system. Control of such a system could offset the power of a centralized currency such as the US dollar and could conceivably tip the scales of economic relationships in favor of China and the lack of hard currency would no longer be a disadvantage. As such, the country has a powerful incentive to create conditions now, while the system is still for the most part in its infancy, for a long term strategy to control the economy of the future through increasing control of the digital currency network beginning now.

Despite many reported crackdowns in cryptocurrency trading and mining activities, China remains a world leader in mining where electricity can be obtained at very subsidized rates. The level of subsidy is such that the price to miners is well below the cost to generate so that the power becomes "artificially cheap".

In addition some mining operations have been established near coal sources where such coal can be burned freely to generate the power for the operations due to lack of environmental regulations. The true crypto-crackdown seems to be more oriented toward trading and transactional activities which bypass government controls rather than the actual cryptocurrency mining.

These types of actions are considered "illegal subsidies" under World Trade Organization rules. Such tactics have been used by the Chinese government in other energy intensive industries such as aluminum where heavy power subsidies are believed to have allowed China to significantly increase its aluminum smelting activities resulting in lower world prices for aluminum⁶ (in 2017 the US launched a WTO complaint related to aluminum subsidies).

The China International Capital Corporation (CICC)

The CICC which is currently located in Beijing was founded in 1995 as the first Sino-foreign investment bank joint venture by the China Construction Bank, Morgan Stanley, China National Investment and Guaranty Co Ltd, GIC, and the Mingly Corporation⁷. In 2004, China Construction Bank transferred its equity interest to China Jianyin Investment, which later transferred that to China Central Huijin, a wholly owned subsidiary of **China Investment Corporation**. In 2010, Morgan Stanley sold its holdings to TPG, KKR, GIC and Great Eastern. CICC established its FICC division, and was one of the earliest investment banks to conduct fixed income business in China.

⁵ https://intpolicydigest.org/2018/02/23/the-future-of-cryptocurrency-in-china/

⁶ https://www.reuters.com/article/us-usa-china-trade-aluminum-idUSKBN14W1ZV

⁷ For a complete description, see https://en.wikipedia.org/wiki/China International Capital Corporation

The China Investment Corporation is a wealth fund owed by the Chinese government which manages its foreign currency reserves. The company ultimately reports to the State Council of the People's Republic of China and is known to be heavily influenced by the China Ministry of Finance⁸.

According to the CICC's 2017 annual report;

... CIC's overseas investments posting a record high of 17.59% net return denominated in USD. By the end of 2017, CIC's overseas investments had generated a net cumulative annualized return of 5.94%; CIC's total assets had surpassed \$941.4 billion which translated into a cumulative annualized growth rate of state-owned capital had reached 14.51%; CIC's cumulative profit turned over and tax paid had exceeded RMB 1 trillion, which contributed to China's fiscal strength and to supporting the country's economic and social development. In CIC's global investment portfolio, public equity, fixed income, alternative investments, and cash and others accounted for 43.6%, 15.9%, 39.3%, and 1.2% respectively.

CICC has the exclusive mandate for the Initial Public Offering of Bitmain Technologies Ltd. described below. On September 26, 2018 the Financial Times reported that this was an unusual situation noting that:

Unusually, Bitmain has handed the mandate for its IPO to a single bank, China International Capital Corp. Chinese companies usually boast a long line of sponsors and advisers when they list, heavily tilted towards the big global banks.¹⁰

Bitmain Technologies Ltd. (Bitmain)

Bitmain is currently a private company headquartered in Beijing and was founded in 2013 by Jihan Wu and Micree Zhan. Incorporated in Hong Kong and registered in the United States, Bitmain's controlling shareholder is Bitmain Technologies Holding Company, a trust registered in the Cayman Islands.

inv.cn/wps/portal/media en/press releases en/ar2017releaseen/!ut/p/a1/rZNNU4MwEIb iheOkCUJELxhq9CO6G jHkXLppDQFFAKGaO2 N-3owe86Y07Jzru77-

4zQTnKUC75U11yXXeSN7t37i iMMEJpnAeu5MxRFchnU1p4kIMRjA3ggvwwR3NYAppdAYRg9P0kkxxTPFh-aM4SmhwDgCUYZiMT5JxEKYAE -3 FuUo7yQutcVmhdVLbldy6ejvlOaNxZUXSsWQlrQilXN97deiWFYKNEIPohhH-IKgxu8hoTcleyLeoXm1COigCC0V2QNNqXct5eF79l4vfL8ENiSFP7rCPDNieCgEX5Z4l7w05b2gh88zl3J4FsXjKLZH6eeHkAWq3SUlqYs15XBsu5Q9sYBZZ84oOwjB1Oivnt4yCODuJNaPGuU Rdj479ets6maB1wGGUBCannEt8j2At3nSO5JMyYV2ItlFDOozLfodK6H44tsGCz2Thl15WNcApuwVcZVTcYw--

EqG9vblpGtvb9NQPiNSXTbEua8gXs5vlP/dl5/d5/L2dBISEvZ0FBIS9nQSEh/

⁸ See https://en.wikipedia.org/wiki/China Investment Corporation, https://www.investopedia.com/terms/c/china-inv-corp.asp

⁹ http://www.china-

¹⁰ https://www.ft.com/cont<u>ent/a013c048-c1f6-11e8-8d55-54197280d3f7</u>

Bitmain is the largest designer of what is referred to as "ASIC" or Application Specific Integrated Circuit chips for mining operations. The Bitmain ASIC chip powers the Antminer series of mining servers which are the dominant servers operating on a number of cryptocurrency networks such as Bitcoin and Bitcoin derivatives and are also manufactured by Bitmain.

Estimates of Bitmain's market share for ASIC servers ranges from 67-80% and it is estimated that Bitmain controls well in excess of 60% of the world's cryptocurrency mining computer (hashing) power.

Bitmain also operates Antpool and BTC.com, two of the largest Bitcoin and Bitcoin Cash mining pools in the world¹³ ¹⁴. As of December 2, 2018 (based on a 7 day average) these 2 pools collectively controlled 31% of Bitcoin mining and 40% of Bitcoin Cash ABC ¹⁵.

While Bitcoin is significant in Bitmain's general strategy, the company has made no secret that it believes that Bitcoin Cash (BCH) is very much its future. In 2017 and prior to the fork which created BCH, the company announced that it was throwing its weight behind BCH due to differences over Bitcoin scaling¹⁶. In essence, Bitmain believed that BCH would become the primary international digital currency for blockchain transactions and in June of 2018 it was estimated that the company held some one million BCH.

In the November 15, 2018 with the network upgrade led by a group of people lead by Roger Keith Ver and Sterlin Kent Lujan and operating as "Bitcoin ABC" (which led to the creation of Bitcoin ABC (ABC) and Bitcoin SV (SV)), Bitmain and its pools backed ABC, ultimately backed the ABC version and redirected a significant amount of its hashing power to ABC pools in order to support ABC as the dominant change triggering charges of "renting" hash power by the ABC pools to artificially push the ABC fork during the upgrade and it appears that this was planned in advance with Bitmain organizing deployment (or actually redeployment) of up to 90,000 Bitmain Antminer S9 servers in early November¹⁸ - a move that can be viewed as an effort to centralize and control ABC for reasons that will become apparent later in this document.

The process of redirection or "artificial hashing" can be seen clearly in the following graph.

¹¹ https://techcrunch.com/2018/08/10/crypto-mining-giant-bitmain-on-target-for-10b-revenue-this-year/

¹² https://www.cnbc.com/2018/02/23/secretive-chinese-bitcoin-mining-company-may-have-made-as-muchmoney-as-nvidia-last-year.html
https://cointelegraph.com/tags/bitmain

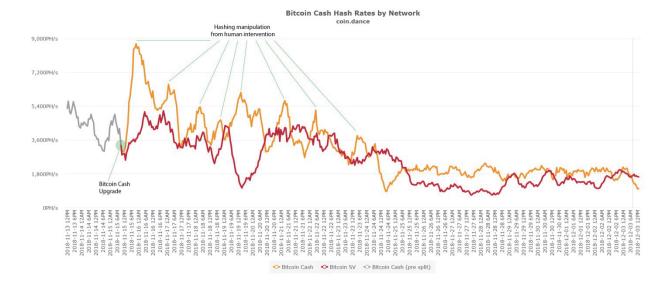
¹⁴ https://en.wikipedia.org/wiki/Bitmain

¹⁵ Real time and historical daily and average pool size can be obtained at https://coin.dance/blocks

¹⁶ https://www.ccn.com/bitmain-is-hodling-nearly-600-million-in-bitcoin-cash/

https://www.bitcoinabc.org/

https://cointelegraph.com/news/mining-giant-bitmain-hurries-to-deploy-90-000-s9-antminers-ahead-of-bitcoincash-hard-fork



The orange line represents hashing power of the Bitcoin ABC pool and the red line the hashing power of the Bitcoin SV pool. Immediately after the software upgrade, the ABC hashing power rises to a level that had not previously been seen indicating the intermittent deployment of "rented" hashing. This type of hashing peak is not a normal occurrence. The peaks continue several times in the subsequent days until there is a leveling off of ABC hashing to normal levels once ABC's dominance was established.

Bitcoin.com and Roger Ver

Bitcoin.com is a privately-owned company registered in St Kitts and Nevis with headquarters in Tokyo that provides Bitcoin and Bitcoin Cash services, such as purchasing and selling these cryptocurrencies, and choosing a wallet for both¹⁹. It operates the Bitcoin.com web site and the Bitcoin.com pool (currently 7.4% of Bitcoin Cash ABC) with hash power provided by Bitmain and also offers other services such as news, an online store and online gaming. The company was founded and remains owned by Roger Ver, an American-born citizen of St. Kitts and Nevis and currently living in Tokyo.

Ver is a self-described "Bitcoin Angel Investor"²⁰ and became interested in cryptocurrencies early in Bitcoin's history and has often been referred to as "Bitcoin Jesus"²¹. He invested in a number of Bitcoin projects and startups including the Kraken trading platform, Ripple and BitInstant – founded by exconvict Charlie Shrem²². Shrem was sentenced to 2 years in prison for his involvement of transferring some \$1 million in Bitcoin to the "Silk Road", a black market platform which was popular for money laundering and illegal drug transactions on the dark web (the site was shut down by the FBI in February

¹⁹ https://en.wikipedia.org/wiki/Bitcoin.com

https://rogerver.com/

https://www.investopedia.com/tech/who-roger-ver-bitcoin-jesus/

https://en.wikipedia.org/wiki/Charlie Shrem

2011²³). Ver was purportedly one of the developers of Silk Road and has tweeted support for the site and the concept.



Ver has also expressed support for a former Bitcoin.com employee, Gary Davis who faced charges in the US for helping to run the Silk Road web site ^{24 25} . Davis originally denied any involvement but in October 2018, plead guilty in a Manhattan court and will be sentenced in January 2019²⁶.

Ver is an anarchist²⁷, a libertarian and an advocate of "voluntarism", a belief of nonviolent strategies to achieve a free society²⁸ ²⁹. This stems partly from his experience with the US government and justice system. In 2002 Ver plead guilty to selling explosives on eBay and was sentenced to 10 months in prison³⁰. Ver believes that the prosecution was ultimately the due to his political beliefs and his economic and social beliefs including the notion that taxes are theft. In 2005 Ver moved to Japan and renounced his US citizenship.

Ver is a strong advocate of Bitcoin Cash and the original forking of Bitcoin into Bitcoin and Bitcoin Cash in 2017. His belief is that it is the most usable, widespread and easy to develop currency³¹ and the best defense over government controlled currencies. He has openly supported the development and implementation of the ABC version of Bitcoin Cash in the November 15, 2018 fork.

²³ https://en.wikipedia.org/wiki/Silk Road (marketplace)

https://news.bitcoin.com/dark-web-alleged-silk-road-conspirator-handed-to-us-authorities/

https://www.thetimes.co.uk/article/irishman-gary-davis-denies-helping-to-run-silk-road-dark-net-website-3fk93r7bl 26 https://www.zdnet.com/article/dark-web-admin-of-silk-road-marketplace-libertas-pleads-guilty/

http://dailyanarchist.com/2012/11/12/bitcoin-venture-capitalist-roger-vers-journey-to-anarchism/

http://voluntaryist.com/howibecame/rogerver.html#.XARGHOg3I9M

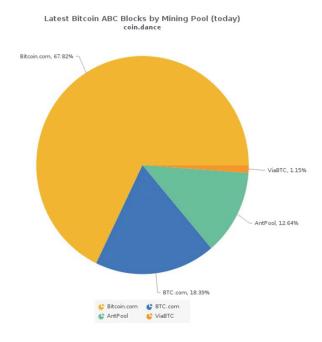
https://www.freesociety.com/

https://web.archive.org/web/20150213142114/http://www.justice.gov/criminal/cybercrime/pressreleases/2002/verPlea.htm

https://ambcrypto.com/bitcoin-cash-bch-proponent-roger-ver-compares-bitcoin-btcs-intrinsic-value-to-gold/

Supporting Bitcoin.com in the US is Sterlin Lujan, a native of Texas and Bitcoin.com's Communications Ambassador³² and also a self-described anarchist/libertarian. In his blog interview of February 13, 2018 Lujan describes how cryptocurrencies can be used to anonymously facilitate drug transactions³³.

The role of Bitcoin.com and the Bitoin.com pool in influencing the outcome of the November 15th network upgrade is quite significant. Immediately after the network upgrade, the Bitcoin.com pool became the dominant force on the ABC chain, controlling some 68% of its hashing power due to "artificial" hashing efforts from rented hashing after 24 hours as seen in the chart below.

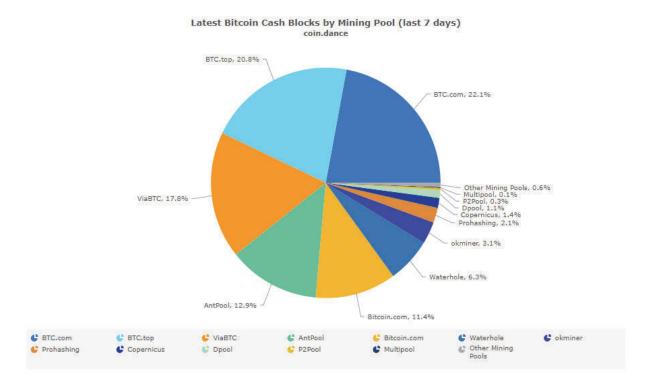


Distribution of ABC Hashing Power by Pool 24 Hours after Network Upgrade

As of December 4, 2018 however, the Bitcoin.com pool represented only 11.4% of ABC hashing power (a 7 day average as shown below) as the need for rented hashing decreased and as the redeployed hashing power was withdrawn over time.

³² https://www.crunchbase.com/person/sterlin-lujan#section-overview

https://podcast.bitcoin.com/e14-From-drug-deals-to-conference-circuits-with-Sterlin-Lujan



Distribution of ABC Hashing Power by Pool as of December 4 2018 (7 day average)

The Bitcoin ABC Software Node 0.18.X and the Bitcoin ABC Development Team

Bitcoin ABC software node is a full node implementation of the Bitcoin Cash protocol which created Bitcoin ABC (which is a fork, along with SV of Bitcoin Cash) has a stated goal to;

... help create sound money that is usable by everyone in the world. We believe this is a civilization-changing technology which will dramatically increase human freedom and prosperity. ³⁴

The primary developer was Amaury Sachet (also a self-described anarchist and the "Benevolent Dictator" of Bitcoin ABC³⁵) who worked along with Jason Cox and Shammah Chancellor in the ABC development team.

However Bitcoin ABC was more than a benign network upgrade. It introduced a number of changes in its protocol which have been troubling to the cryptocurrency community and seem designed to allow network centralization and control by certain parties which is diametrically opposed to the decentralized vision of the network.

³⁴ https://www.bitcoinabc.org/2018-08-24-bitcoin-abc-vision/

³⁵ https://www.linkedin.com/in/deadalnix/

One of the changes is a new piece of script (an "OP code") called OP_CHECKDATASIG (DSV). This extends Bitcoin Cash's features, most notably by enabling oracles (which allow for a class of smart contracts³⁶). However some in the industry believe that DSV has set the stage to allow ABC to become a full blown escrow agent after the next network upgrade in May 2019 which will have the capacity to promote and anonymously execute highly illegal transactions (drugs, arms, etc.).

ABC also modifies the system of checkpoints. The state and integrity of the blockchain depend on a consensus being reached on the longest block chain and that block chain being accepted by all nodes on the network. While in theory the blockchain ledger becomes more and more immutable as time passes, a fork can arise at any depth on the chain and become the main chain if that is the consensus. This allows for correction of a 51% fork /double spend attack that has been sustained by hashing / mining power.

The decision by Bitcoin ABC to "lock down" the block chain after an arbitrary number of blocks near the top the chain through a mechanism referred to as "checkpoints" or "Deep Reorg Prevention" will allow **anyone with 51% hashing power** to quickly cement control of the blockchain ledger and future changes to Bitcoin cash functionality as well as change to the consensus rules. Combining this change with the hashing power of Bitcoin ABC backers amounts to centralization. They will be able to override any consensus reached by the rest of the network, forcing other to conform or create an unwanted hard fork

While it has been argued that the current checkpoint system is similar to the original checkpoints added to the original bitcoin in 2010 by Satoshi Nakamoto, they are not. Older checkpoints were added to much older blocks, deep in the chain, where the Bitcoin ABC checkpoints apply to all blocks and arbitrary depth in the block chain (10 by default). Since it is now a setting it can be arbitrarily change to as little as one without any changes to the client. These changes were added to ABC version 0.18.5 after the hard fork. This was a significant and fundamental change that was made without consulting other bitcoin development groups and the community at large making it a centralized checkpoint, which destroys the core principal of decentralized consensus.

In the video posted on YouTube at https://www.youtube.com/watch?v=UjAHJY0QZhs, Andreas Brekken admits that at cartel of ABC developers and crypto exchanges **such as Kraken** agreed to implement centralized checkpoints.

We knew within 30 minutes we had it

Andreas Brekken

The video describes in some detail, the strategy used by the ABC development team to artificially dominate the network upgrade towards ABC:

³⁶ https://bitcoinmagazine.com/articles/when-fork-forks-what-you-need-know-bitcoin-cash-goes-war/

Step 1: Bring on 4 exahash

Step 2: Mining pools were configured not to accept deep reorgs

Step 3: Contact all exchanges have them run same patch

Step 4: Talk to all exchanges to have them add a patch with a checkpoint as soon as you are a couple blocks in

Key quotes:

"Has that happened at all the exchanges?" "Yes, of course."

"It is arguably centralized checkpointing, but it's already punched out and sent to all the exchanges so no re-orgs can happen"

"The battle was won within fuckin' 45 minutes."

"We have been talking to exchanges for weeks." [paraphrased]

"This has been planned for so long now."

"There will never be a deep reorg in exchanges."

"This has been planned for so long. We knew we were gonna win and we knew we were gonna checkpoint and we knew we were not gonna do deep reorgs."

"It's more than 4 exa" ... "That's before Jihan went on, but we knew that was gonna happen, too."

"We knew within 30 minutes we had it."

The Kraken Bitcoin Exchange

Kraken is a US-based cryptocurrency exchange established in 2011 by Jesse Powell with the support of Roger Ver, (his friend from high school) and which operates in the US, Canada, the EU and Japan^{37 38}. The exchange provides the mechanism to trade between Euros/US dollars/Canadian dollars/Japanese Yen and various cryptocurrencies such as Bitcoin, Bitcoin Cash and several other cryptocurrencies. It purports to be the largest Bitcoin exchange in Euro volume and liquidity. Kraken was one of the key exchanges that implemented the patch which favored ABC and the first exchange to declare ABC the "winner" of the network upgrade. Although on November 18, 2018 Kraken did announce that it would credit its clients with Bitcoin SV and would launch SV trading. However the Kraken website is highly discouraging of SV and lists a number of warnings³⁹;

WARNING: Bitcoin SV does NOT meet Kraken's usual listing requirements. It should be seen as an extremely high risk investment. There are many red flags that traders should be aware of:

- No known wallets supporting replay protection (be careful!)
- No support in major block explorers
- Miners apparently subsidized or operating at a loss
- Representatives threatening and openly hostile toward other chains
- Chain's survival may be mutually exclusive with other chains
- Supply is temporarily constrained because of limited wallet support

https://en.wikipedia.org/wiki/Kraken (bitcoin exchange)

³⁷ https://www.kraken.com/en-us

https://blog.kraken.com/post/1928/kraken-credits-clients-with-bitcoin-sv-bsv-and-launches-bsv-trading/

- Some large holders have indicated they'd be dumping everything ASAP
- Kraken has done only very minimal code review

By providing cryptocurrency liquidity with the US dollar, Kraken is one of the largest if not the largest gateways to the US dollar and hence the circle is complete.

Kraken and Mt. Gox

Mt. Gox was a Bitcoin exchange launched in Japan in July 2013. At its peak in 2013/2014 it was handling 70% of all Bitcoin transactions worldwide and the largest Bitcoin intermediary. In February 2014 the company announced that it was ceasing operations as 850,000 customer Bitcoins had gone mission and likely stolen (value at the time exceeded \$450 million). While approximately 200,000 coins were eventually found, investigations concluded that the coins were stolen directly from the Mt. Gox wallet over time⁴⁰.

In November 2014 Kraken was selected by the Mt. Gox trustee to assist Mt. Gox creditors in investigating the missing Bitcoin, filing claims and distributing remaining assets⁴¹. Both Jesse Powell and Roger Ver went to Tokyo to investigate the disappearance⁴².

⁴⁰ https://en.wikipedia.org/wiki/Mt. Gox

https://bitcoinmagazine.com/articles/kraken-accepting-mtgox-bankruptcy-claims-and-giving-free-trade-credit-1429693289/

⁴² https://cointelegraph.com/news/the-mt-gox-redemption-heading-toward-a-happy-ending