HelpEx

LIVE

WEBINAR

Overview of Blockchain

by

Prathamesh Joshi

A Game

Why Blockchain

Underying Technology

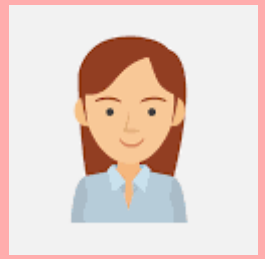
Myths & Reality

Opportunity & Startups

Q & A

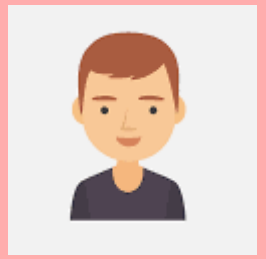
Summary

Game of ~~Thrones~~ **Trust**

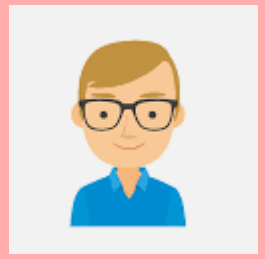


Dhairya

After Every round **Looser** will pay **Winner** a fix Amount



Abhilash



SK

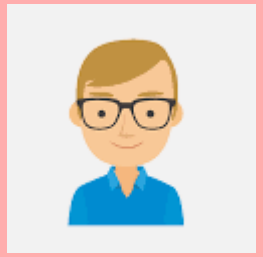
Guri

Game of Thrones **Trust**

Dhairya

D	A	S	G

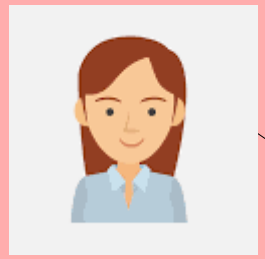
Abhilash



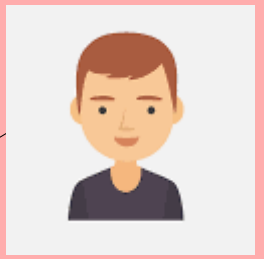
SK

Guri

Game of ~~Thrones~~ **Trust**

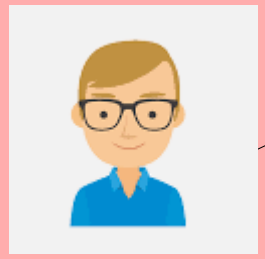


Dhairya



Abhilash

Trust



SK

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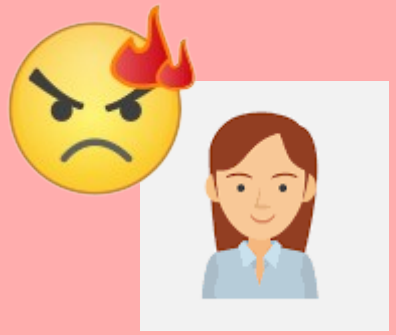
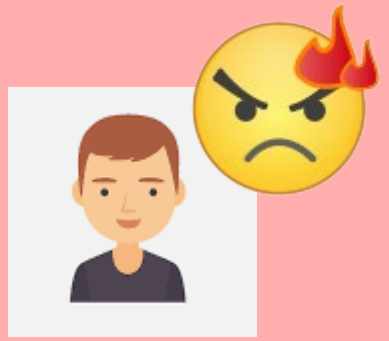
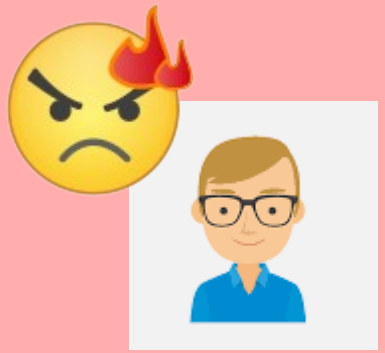
Game of ~~Thrones~~ **Trust**



Dhairya



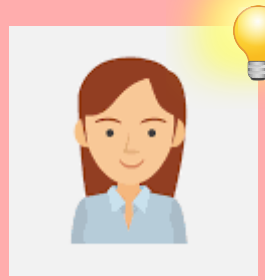
Abhilash



SK

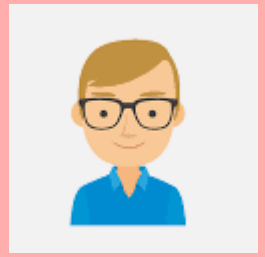
Guri

Game of ~~Thrones~~ **Trust**



Dhairya

Abhilash

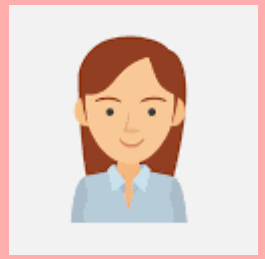


SK

Guri

Everyone will keep an **individual record** of Game.

Game of ~~Thrones~~ **Trust**



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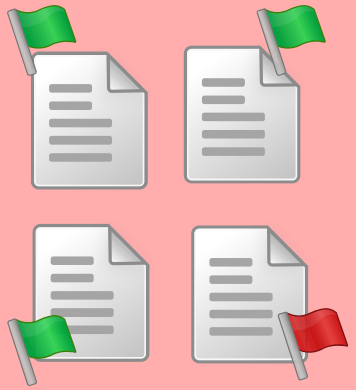
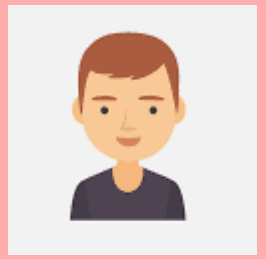
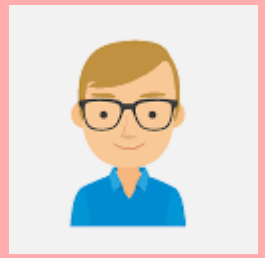


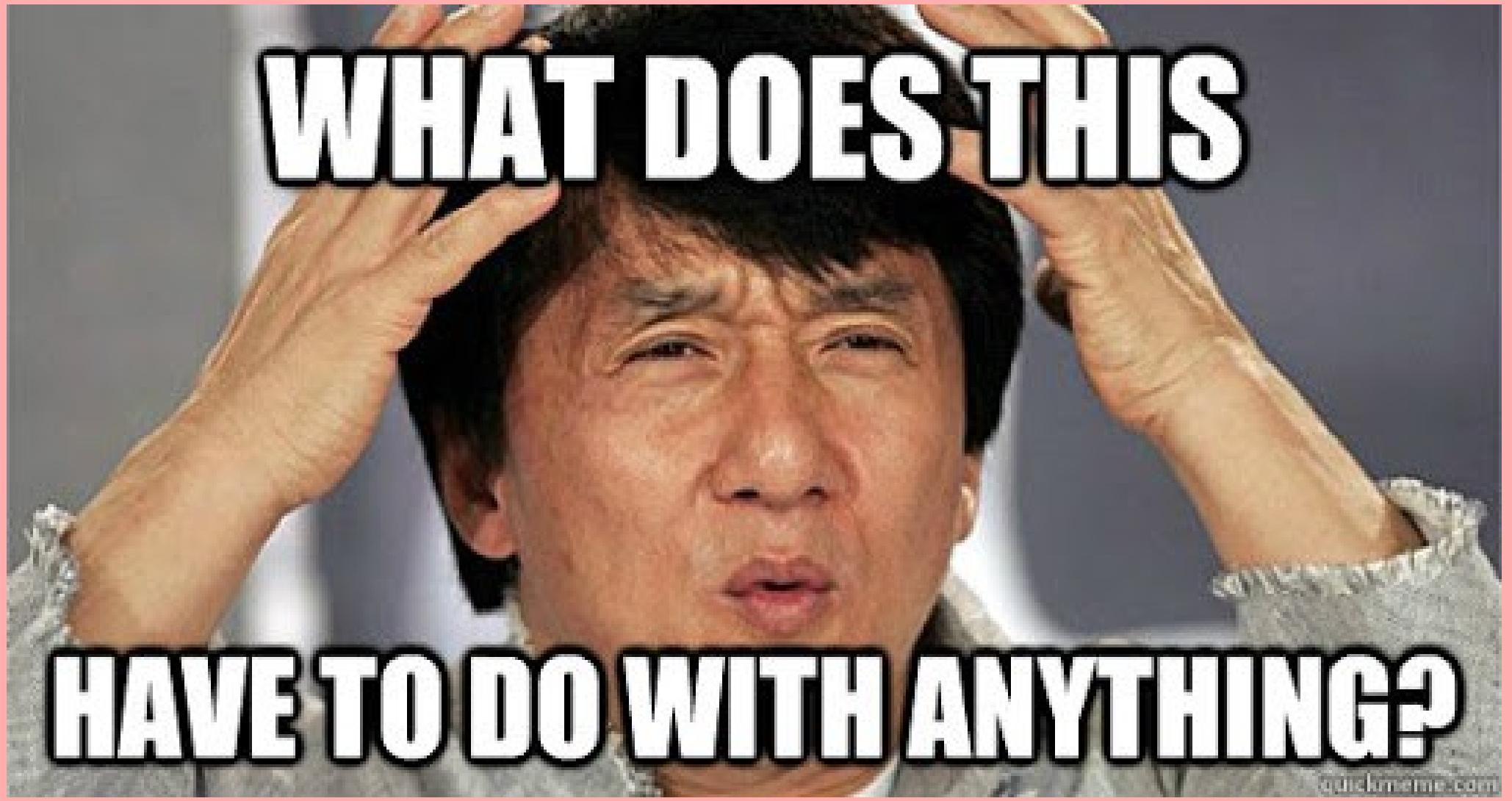


Abhilash



SK

Guri


WHAT DOES THIS
HAVE TO DO WITH ANYTHING?
quickmeme.com

Similarities with Blockchain

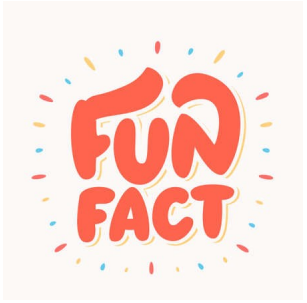
Allows to record value

Decentralized

Distributed

Trustless System

May 22 is known as Bitcoin Pizza Day.



Author | Topic: Pizza for bitcoins? (Read 327851 times)

laszlo
Full Member

Activity: 199

Trust: **0**: -0 / +0(0)
Ignore

Pizza for bitcoins?
May 18, 2010, 12:35:20 AM

quote #1

I'll pay 10,000 bitcoins for a couple of pizzas.. like maybe 2 large ones so I have some left over for the next day. I like having left over pizza to nibble on later. You can make the pizza yourself and bring it to my house or order it for me from a delivery place, but what I'm aiming for is getting food delivered in exchange for bitcoins where I don't have to order or prepare it myself, kind of like ordering a 'breakfast platter' at a hotel or something, they just bring you something to eat and you're happy!

I like things like onions, peppers, sausage, mushrooms, tomatoes, pepperoni, etc.. just standard stuff no weird fish topping or anything like that. I also like regular cheese pizzas which may be cheaper to prepare or otherwise acquire.

If you're interested please let me know and we can work out a deal.

Thanks,
Laszlo

BC: 157fRrqAKrDyGHr1Bx3yDxeMv8Rh45aUet

Laszlo Hanyecz

laszlo
Full Member

Activity: 199
Merit: 409

Re: Pizza for bitcoins?
May 22, 2010, 07:17:26 PM
Merited by xtraelv (1), Toxic2040 (1)

I just want to report that I successfully traded 10,000 bitcoins for pizza.

Pictures: http://heliacal.net/~solar/bitcoin/pizza/

Thanks jercos!

BC: 157fRrqAKrDyGHr1Bx3yDxeMv8Rh45aUet

Jeremy Sturdivant

https://bitcointalk.org/index.php?topic=137.msg1195#msg1195

Why Should I care about Blockchain ?

Need of Blockchain

Transfer Assets without MiddleMan

Transparent

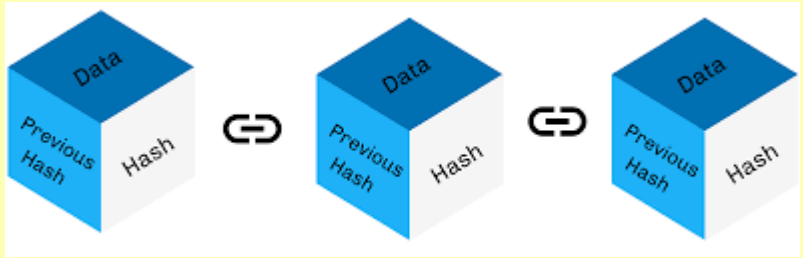
Immutable

Inexpensive & Efficient to Use

Traceability

Let's Play the Game with Blockchain

Underlying Technology



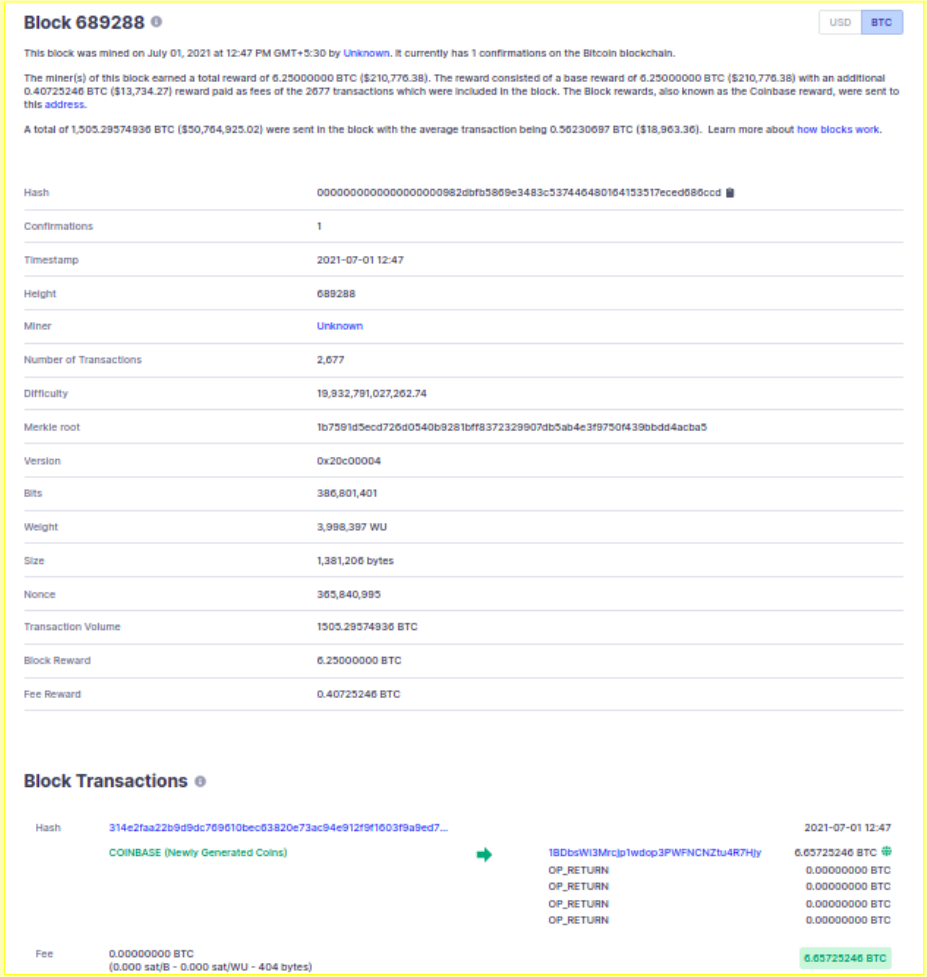
Pages ⟷ **Blocks**

Sentences ⟷ **Transactions/ Values/ Records**

Page Number ⟷ **Block Hash**

How a Block Really looks Like ?

Underlying Technology



Block 689288

USD BTC

This block was mined on July 01, 2021 at 12:47 PM GMT+5:30 by Unknown. It currently has 1 confirmations on the Bitcoin blockchain.

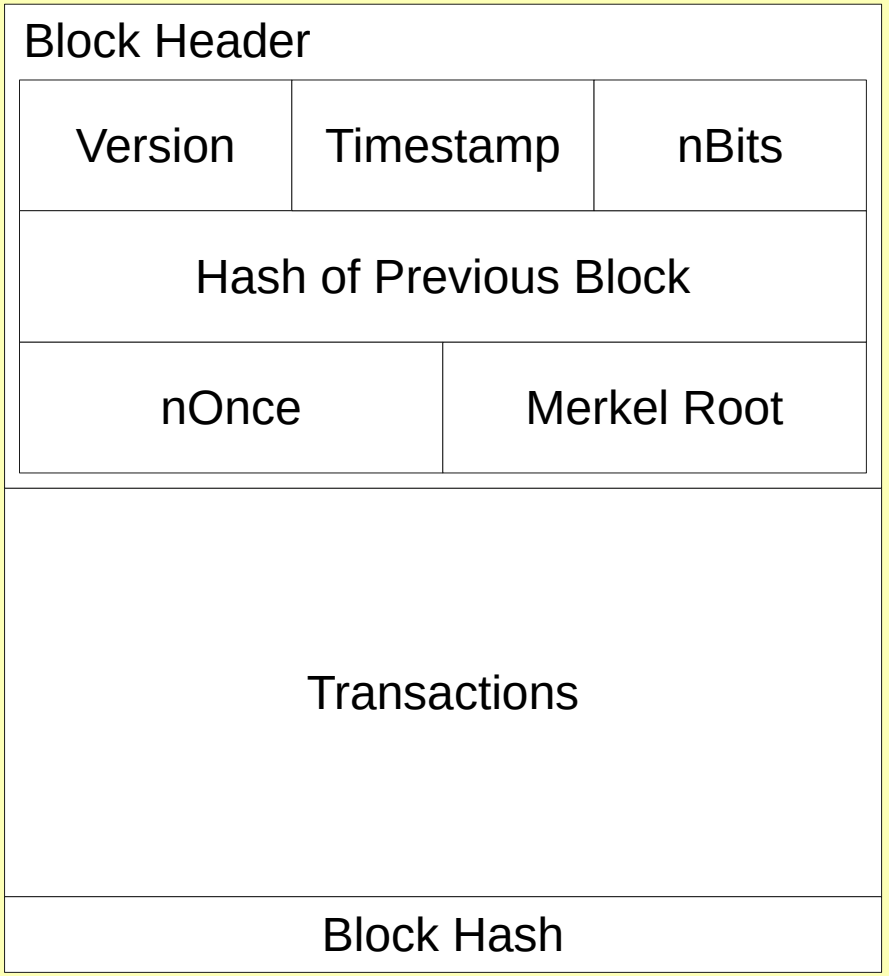
The miner(s) of this block earned a total reward of 6.25000000 BTC ($210,776.38). The reward consisted of a base reward of 6.25000000 BTC ($210,776.38) with an additional 0.40725246 BTC ($13,734.27) reward paid as fees of the 2677 transactions which were included in the block. The Block rewards, also known as the Coinbase reward, were sent to this address.

A total of 1,505.29574936 BTC ($50,764,925.02) were sent in the block with the average transaction being 0.56230697 BTC ($18,963.36). Learn more about how blocks work.

Hash	00000000000000000000982dbfb5869e3483c537446480164153517eced686ccd
Confirmations	1
Timestamp	2021-07-01 12:47
Height	689288
Miner	Unknown
Number of Transactions	2,677
Difficulty	19,932,791,027,262.74
Merkle root	1b7591d5ecd726d0540b9281bff8372329907db5ab4e3f9750f439bbdd4acba5
Version	0x20c00004
Bits	386,801,401
Weight	3,998,397 WU
Size	1,381,206 bytes
Nonce	365,840,995
Transaction Volume	1505.29574936 BTC
Block Reward	6.25000000 BTC
Fee Reward	0.40725246 BTC

Block Transactions

Hash	314e2faa22b9d9dc769610bec63820e73ac94e912f9f1603f9a9ed7...		2021-07-01 12:47
	COINBASE (Newly Generated Coins)	1BDbsWi3MrcJp1wdop3PWFNCNZtu4R7Hjy	6.65725246 BTC
		OP_RETURN	0.00000000 BTC
		OP_RETURN	0.00000000 BTC
		OP_RETURN	0.00000000 BTC
		OP_RETURN	0.00000000 BTC
Fee	0.00000000 BTC (0.000 sat/B - 0.000 sat/WU - 404 bytes)		6.65725246 BTC



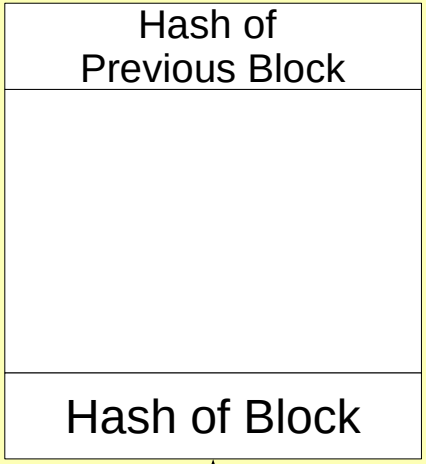
How to find the Page Number ?

Underlying Technology

SHA 256

If input is changed slightly, the output changes significantly.

0000000000000000000982dbfb58
69e3483c53744648016415351 7ec
ed686ccd



How can I earn Rewards ?

Who create new Bitcoins ?

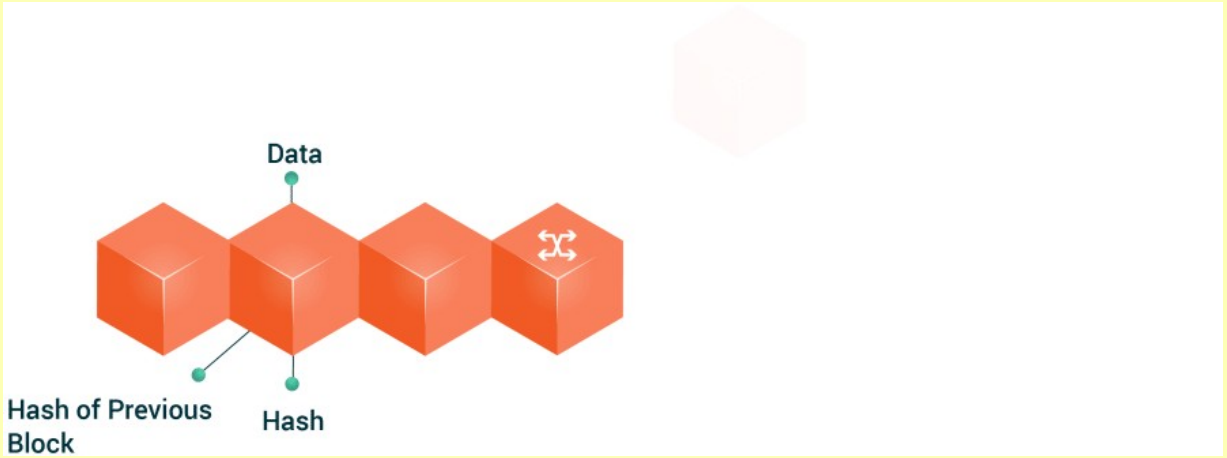
Underlying Technology

Collection of Transactions

Verification of Transaction

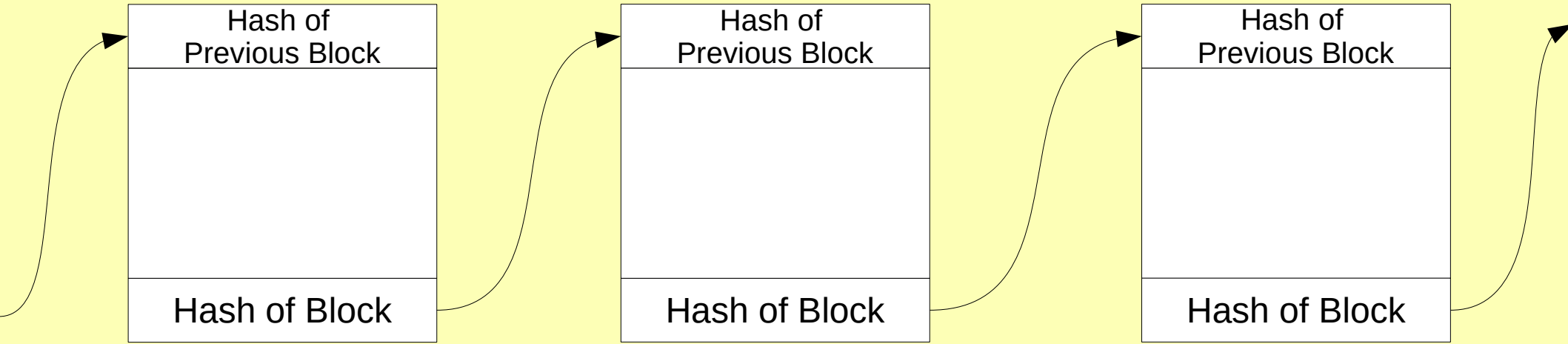
Finding Hash of Block

Broadcast the Block



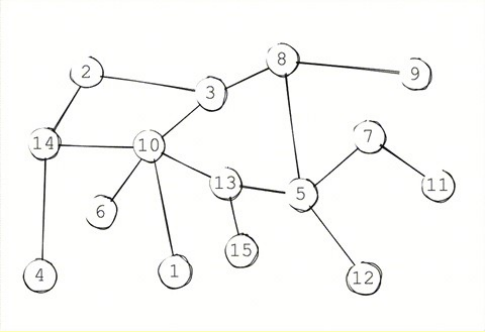
Bitcoin Mining
Or
Mining a Block

Blockchain


Hash of
Previous Block
Hash of Block
Hash of
Previous Block
Hash of Block
Hash of
Previous Block
Hash of Block

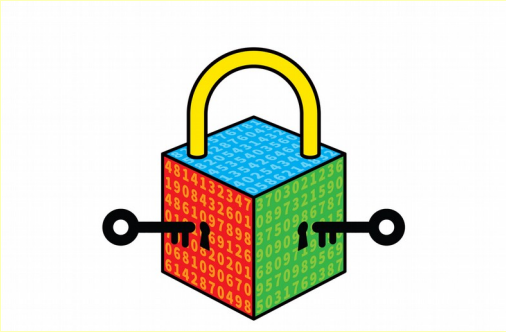
Underlying Technology

P2P Networking



- Connectivity
- Availability
- Scalability
- Fault Tolerence

Cryptography



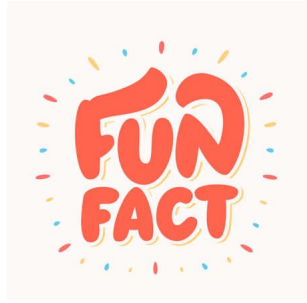
User Authentication
- ECC

Block Mining
- SHA 256

Game Theory

- Who will mine the next Block.
- How much time will be required to mine a Block

On 15 August 2010, Due to a **bug in the code of Bitcoin's Blockchain** someone managed to make a transaction that created **184 Billion bitcoins.**
(184,467,440,737.09551616 bitcoins to be specific.)



Author | Topic: Strange block 74638 (Read 43926 times)

jgarzik
Legendary

Activity: 1596
Merit: 1015

Strange block 74638
August 15, 2010, 06:08:49 PM
Merited by LoyceV (4), DdmrDdmr (2), vapourminer (1), Financisto (1)

#1

The "value out" in this block #74638 is quite strange:

Code:


```
{
    "hash" : "0000000000790ab3f22ec756ad43b6ab569abf0bddeb97c67a6f7b1470a7ec1c",
    "ver" : 1,
    "prev_block" : "000000000606865e679308edf079991764d88e8122ca9250aef5386962b6e84",
    "mrkl_root" : "618eba14419e13c8d08d38c346da7cd1c7c66fd8831421056ae56d8d80b6ec5e",
    "time" : 1281891957,
    "bits" : 469794830,
    "nonce" : 28192719,
    "n_tx" : 2,
    "tx" : [
        {
            "hash" : "012cd8f8910355da9dd214627a31acfeb61ac66e13560255bfd87d3e9c50e1ca",
            "ver" : 1,
            "vin_sz" : 1,
            "vout_sz" : 1,
            "lock_time" : 0,
            "in" : [
                {
                    "prev_out" : {
```


92233720368.54277039 BTC? Is that UINT64_MAX, I wonder?

Myths & Reality

Blockchain is secure & it can’t be hacked.

Bitcoin.com Get Started Wallet News Company Exchange

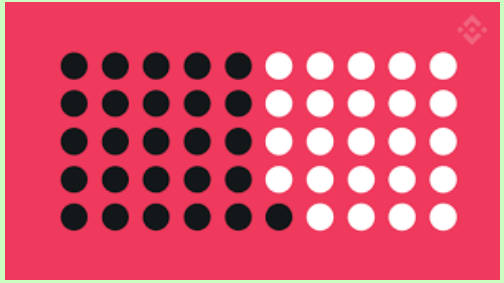
25,000 BTC Gone in an Instant

Blockchain records attest to the veracity of allinvain's claim, with the majority of the stolen coins extracted in 50 BTC increments, showing that they had been minted as coinbase rewards. The 25K BTC stolen was worth $480,000 at the time, a small fortune for a miner, even by 2011's standards. Today, that haul of coins would be worth $94 million. Monitoring the movement of the stolen coins in the wake of the hack proved difficult because the only block explorer available at the time kept crashing.

Outputs

	USD (Historical)	USD (Now)	BTC
1JgiwRcrM4PuZ4Qek9dshDPMPmaMkKkKSv	0.19 USD	37.91 USD	0.010 000 00 BTC
1KPTdMb6p7H3YCwsyFqrEmKGmsHqe1Q3jg	480,250.00 USD	94,774,000.00 USD	25,000.000 000 00 BTC

The transaction that saw 25,000 BTC stolen in June 2011.



Bitfly @etherchain_org · 30 Aug 2020

Today another large 51% attack occurred on the #ETC network which caused a reorganization of over 7000 blocks which corresponds to approximately 2 days of mining. All lost blocks will be removed from the immature balance and we will check all payouts for dropped txs.

52 248 315

Forbes

Jan 28, 2020, 03:48pm EST | 1,626 views

Bitcoin Rival Suffers Devastating Attack

Billy Bambrough Senior Contributor
Crypto & Blockchain
I write about how bitcoin, crypto and blockchain can change the world.

Follow

Listen to this article now -02:06

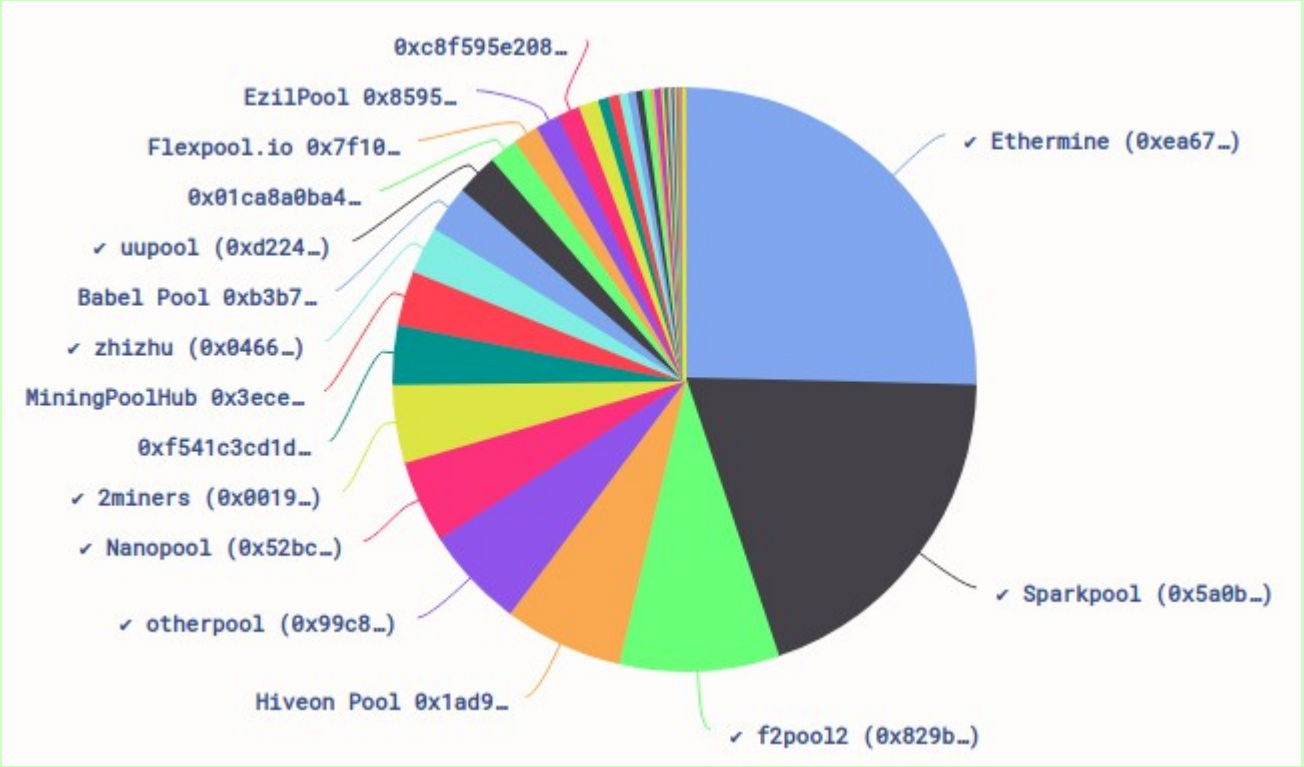
Powered by Trinity Audio

Bitcoin gold, a relatively minor cryptocurrency that split off from the original bitcoin blockchain in late 2017, has suffered a so-called 51% attack resulting in over $72,000 worth of bitcoin gold tokens being double spent.

A 51% attack can occur when malicious cryptocurrency miners take control of tokens' blockchain and is the second time it's now happened to bitcoin gold which saw $18 million worth of bitcoin gold stolen in May 2018.

Myths & Reality

Blockchain is Decentralised.



Is Cryptocurrency the only Application of Blockchain ?

Opportunities & Startups

Search Engine

Video Streaming Platforms

Social Networking Websites

Cloud Storage Platforms

Messaging Applications

Games

Is there anything else ?

50+ BLOCKCHAIN
REAL WORLD USES CASES

GOVERNMENT
Essentia develops world's first blockchain solution to manage international logistics hub together with Traffic Labs and the Finnish Government

essentia.one

IDENTIFICATION
Voter registration is being facilitated via a blockchain project in Switzerland spearheaded by **Uport**.

uport

MOBILE PAYMENTS
The blockchain ledger that **Ripple** uses has been latched onto by a group of Japanese banks, who will be using it for quick mobile payments.

ripple

INSURANCE
A smart contract-based blockchain is being used by Insurer **American International Group Inc** as a means of saving costs and increasing transparency.

AIG

ENDANGERED SPECIES PROTECTION
The protection of endangered species is being facilitated via a blockchain project that records the activities of these rare animals.

CARBON OFFSETS
IBM is using the Hyperledger Fabric blockchain in China to monitor carbon offset trading.

IBM HYPERLEDGER

ENTERPRISE
Ethereum's blockchain can be accessed as a cloud-based service courtesy of **Microsoft Azure.**

Microsoft Azure

BORDER CONTROL
Essentia has devised a border control system that would use blockchain to store passenger data in the Netherlands.

essentia.one

SUPPLY CHAINS
IBM and **Walmart** have partnered in China to create a blockchain project that will monitor food safety.

IBM Walmart

HEALTHCARE
A number of healthcare systems that store data on the blockchain have been pioneered including **MedRec.**

MEDREC

SHIPPING
Shipping is a natural fit for blockchain, and **Maersk** have been trialling a blockchainbased project within the maritime logistics industry.

MÆRSK

REAL ESTATE
Blockchain is now being used to complete real estate deals, the first of which was conducted in Kiev by **Propy**.

PROPY

ENERGY
Essentia is developing a test project that will help energy suppliers track the distribution of their resources in real time, whilst maintaining data confidentiality.

essentia.one

LAND REGISTRY
Land registry titles are now being stored on the blockchain in Georgia in a project developed by the **National Agency of Public Registry**.

NATIONAL AGENCY of PUBLIC REGISTRY

COMPUTATION
Digital Currency Group are helping Amazon Web Services examine ways in which the distributed ledger technology can help improve database security.

DIGITAL CURRENCY GROUP

ADVERTISING
New York Interactive Advertising Exchange has been experimen- ting with blockchain as a means of providing an ads marketplace for publishers.

NYIAX

BORDER CONTROL
Essentia is developing a blockchain project for border control that will allow customs agents to record passenger data from an array of inputs and safely store it.

essentia.one

JOURNALISM
Decentralized journalism, as enabled by blockchain technology, has the potential to prevent censorship and increase transparency, as **Civil** has shown.

CIVIL

WASTE MANAGEMENT
Waltonchain is using **RFID** technology to store waste management data on the blockchain in China.

ENERGY
Food importation is another industry where blockchain is proving its worth, with **Louis Dreyfus Co** trialling a soybean importation operation using this technology.

LDC.

DIAMONDS
The **De Beers Group** is using blockchain to track the importation and sale of diamonds.

DE BEERS GROUP OF COMPANIES

FINE ART
By storing **certificates** of authenticity on the blockchain, it's possible to dramatically reduce art forgeries, as one blockchain project is proving.

NATIONAL SECURITY
For the past two years, the **US Department of Homeland Security** has been using blockchain to record and safely store data captured from its security cameras.

TOURISM
In a bid to boost its tourism economy, **Hawaii** is examining ways in which blockchain-based cryptocurrencies can be adopted throughout the US state.

TAXATION
In China, a tax-based initiative is using blockchain to store tax records and electronic invoices led by **Miaocai Network**.

ENERGY
Chile's National Energy Commission has started using blockchain technology as a way of certifying data pertaining to the country's energy usage as it seeks to update its electrical infrastructure.

CNE COMISIÓN NACIONAL DE ENERGÍA

RAILWAYS
Russian rail operator **Novotrans** is storing inventory data on a blockchain pertaining to repair requests and rolling stock

НОВОТРАНС

ENTERPRISE
Google is building its own blockchain which will be integrated into its cloud-based services, enabling businesses to store data on it, and to request their own white label version developed by **Alphabet Inc**

Google Alphabet

MUSIC
Arbit is a blockchain-based project led by former Guns N Roses drummer Matt Sorum seeking a fairer way to reward musicians for their creative efforts.

arbit

FISHING
Blockchain technology has been used to provide a transparent record of where fish was caught, as a means of ensuring it was legally landed.

THE INTERNET OF BLOCKCHAIN FOUNDATION

MATTEO GIANPIETRO ZAGO

What Great Minds Think about Blockchain ?

Q&A

What ?

Allows to record value, Decentralized, Distributed, Cryptographically Secured, Immutable

Why ?

Eliminates MiddleMan, Secured, Transparent, Efficient, Inexpensive

Where ?

Almost Everywhere

This is the *END* of Today's **Webinar on**

& *BEGINING* of your Journey in the **World of** **Blockchain**

Thank
You !!!