BITCOIN MINING IN 2024

How it all started and where it's going

IN 2009, SATOSHI NAKAMOTO PROPOSES BITCOIN.

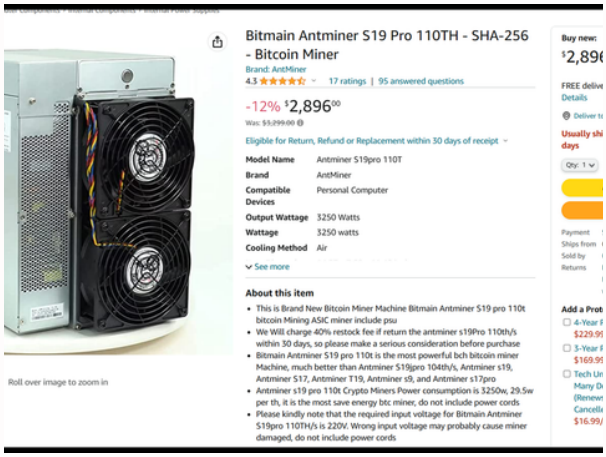
BITCOIN MINING BEGINS

With the newly introduced peer-to-peer electronic cash system, people began mining the currency in order to create the Bitcoin and validate transactions. Mining is when a computer, running a copy of the Bitcoin Blockchain, solves the complicated mathmetical problem to add a block of transactions to the Bitcoin Blockchain. The miner that solves the puzzle first is is rewarded in BItcoin.

THE MINING PROCESS

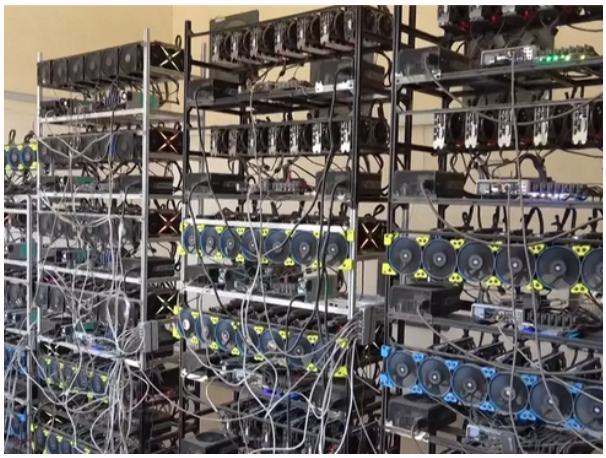
In the beginning, a simple computer CPU was able to process the puzzles and receive about 50 Bitcoins as a reward. This stayed the same until about 2010 when the market became much more competitive with the rise of Bitcoin's value and popularity. The processing power needed to solve problems as quickly as possible needed to be re-developed to be more robust to receive the most rewards first.
The GPU was introduced in 2010, then the FPGA in 2011, followed by what's used today: the Application Specific Integrated Circuits or ASIC for short. Mining pools also became popular to increase the mining power and chance to receive the most rewards.
The transactions also need to have Proof of Work before being placed back on the blockchain as valid and true, so having the fastest system was integral to processing the problems to get the unique hash before anyone else.

Bitcoin Mining Rigs



A Mining ASIC Pre-Built Computer

A setup with 6 GPUs



A large setup with multiple machines running

MINING POOLS

Anyone wanting to jump into the mining pool could use a website like this one to get setup and going: https://www.nicehash.com/asic-mining

How they work

A mining pool operator sets up a service for hashers, aka miners, to connect to. The operator then sends the block to the miners for them to work on the hash and show “proof of work”. Once complete, the hasher sends it back to the mining pool where the operator sends the block to the Bitcoin network. Rewards are then given out in pieces based on how much the hasher contributed.
This centralized system does put control in the operator’s hands but thus far, no real issues have impacted the Bitcoin network or mining pools.

Payouts

There are a few ways for payouts to be done and many formulas have been created to keep the payment system fair as well as unable to gamify.
Two of the more popular ways to be paid are:
PPS (Pay per Share) = instant payout to miners based on contribution
DGM (Double Geometric Method) = enables the operator to absorb some of the risk.
Payouts are received by the operator in short rounds and then those funds are paid to the miners in long rounds.

ENVIRONMENTAL IMPACT

Bitcoin mining takes electricity, quite a bit of it actually. There have been concerns about the energy consumption of mining and the impact it has.

Bitcoin mining consumes about 90 terawatt-hours of electricity per year, which is about the same amount annual consumption as the state of Washington.

Compared to world usage, it's at 0.4%. With more and more mining pools and farms showing up as well as popularity on the rise, the energy consumption is only going to go up.

Some states welcome Bitcoin pools and mining, such as Texas. In Texas, energy supply and demand is taken into consideration. As regular customers use less, mining takes over, and vice versa. Any "excess" electricity mining operations don't use is given back to the grid and the company receives a credit. The use of the solar and wind energy available also makes this more sustainable.

HANDLING THE TRANSACTIONS

Since 7 transactions per second are the limit on Bitcoin, a new method of enabling more transactions was created. The Lightning Network is a second layer network protocol which sits on the blockchain. The only times the transactions are recorded are when the initial transaction opens a channel and then when the channels are closed. Not only does this speed up the number of transactions but the amount of fees are greatly reduced, which means micro-transactions of Bitcoin can occur.

MINING WON'T LAST FOREVER

There are a limited number of Bitcoins available to mine and the system re-configures itself to maintain the timeline of depletion in 2140. This means Bitcoins are only able to be mined about every 10 minutes and the amount received as a reward is halved every 4 years. The current rate of return for mining is 6.25 Bitcoin per block added; a far cry from the early days of receiving 50 Bitcoin per problem.

WHAT'S NEXT

As we have passed the 15-year anniversary of Bitcoin being created, the future of Bitcoin is unknown with regulations increasing to monitor and regulate it due to criminal activity increasing. Whether Bitcoin will remain truly decentralized is yet to be seen as the government is stepping in to protect innocent persons and investors.

Bitcoin Mining Scams

Mining and receiving the rewards is still very popular now. With any opportunity come scams unfortunately. There are websites which promise high returns for low work commitments via cloud mining but really, they're there to take the victim's personal information and funds. These are the most common types of scams to look for.

High Investment Returns

Promise of crazy high returns means a scam. The usual return on mining is 10%-20% annually, anything higher is unrealistic.

Anonymous Teams

Scam sites won't show who their team is which means zero accountability. If no information can be found on who the management is, it's a red flag.

Time-Limited Offers

Creating a fake sense of urgency with bonus offers if they sign up now is a scam. Legit mining sights don't do this.

Buzzwords & Grammar

Tech buzzwords and poor grammar will be all over the website, trying to lure eager miners.

Requests Sensitive Information

Legit websites will not ask for your banking or card information just to access your earnings.

Unsubstantial Claims

They will make crazy claims to make themselves seem legitimate but without the data or evidence to back it up, this is a red flag.

Not Enough Technical Details

The specifics of the mining operation should be listed out on a site. This includes their hardware, hash rate, mining pool, etc. A scam site will keep these details as vague or non-existent as possible.

How the Scam Works

1. They create an enticing website with all the “verbiage”, branding, and links to fake social media accounts.
2. Creating buzz online to entice victims, even sometimes using Youtube.
3. Leads are generated from visitors to the site. This allows the scammers to connect and keep them enticed.
4. Some sites will offer a trial for a few days for the user to see for themselves how it works.
5. Once there is trust, the scammer will ask for the investment with the promise of high returns.

7. Victims are then manipulated to keep investing using tactics such as Gambler's Fallacy and Scarcity.
8. The scammers will then ask for personal ID information in order for them to receive funds or for security.
9. With all the work done, now the scammers will steal money from the victims' bank accounts and delay them from withdrawing funds for their mining work. At this point, the scammers will drain all the funds they can and run away. Onto the next scam.

What to Look Out For

Some ways to determine if a mining website is a scam are:

- Researching the domain using a database to see the details of who owns it and when it was created. Some of the websites could be recycled for scams and that will show up as well.
- Verify the company information. Look up and find as many details as possible on the company.
- Reviews and ratings are another good way to determine if the site is legit or not. Using a third-party review site will have comments to let users know if a website has been flagged as a scam.
- Grammer, spelling, and technical language will be clear and concise if it's a legitimate mining site.

WANT TO TRACK DOWN CRYPTO SCAMS?

Using a powerful tool can help track down the wallet address trail to catch the scammers.

TO LEARN MORE ABOUT CRYPTOCURRENCY AND ENJOY A 30-DAY FREE TRIAL USING OUR TRACKER, VISIT WWW.CRYPTOTRACKPRO.US