

Halving of Bitcoin

Bitcoin halving occurs, when after every 210,000 blocks created, the amount of bitcoin rewarded to miners as block reward is reduced to half its value. Since on an average about 1 new block is created every 10 minutes, it takes about 4 years for 210,000 to be created, subsequently making bitcoin to get halved.

History

When released in 2009, bitcoin reward was 50 BTC. Then after subsequent halvings after 4 years, finally the last bitcoin halving occurred in May 2020, and the reward became 6.25 BTC. It is predicted that by the next month of the current year 2024, bitcoins shall again be halved, becoming 3.125 BTC.

Why is Bitcoin Halving done?

There should be a maximum of 21 million bitcoins in circulation. To ensure this to happen, bitcoins are halved every 210,000 blocks. The reason for choosing 210,000 can be determined if we perform simple mathematical calculation by adding the amount of value going to miners at reward rates 50 BTC, 25 BTC, 12.5 BTC, and so on, and make the infinite GP sum equal to 21 million.

There are also reasons why 21 million bitcoin is the maximum limit. One is that it maintains its scarcity and value in the long run, since it cannot be indefinitely produced. This gives it the status of precious item like gold, etc, one reason why bitcoins are often referred to as 'digital gold'. Another reason is we can keep easy track of the bitcoins being issued, since no one can randomly add some amount to the pool as there is a maximum limit. Also, it helps in the decentralized aspect since no organization is additionally required to create new bitcoins.

Effects of Bitcoin halving

It reduces the amount of minable bitcoin with each halving. The miners are paid less for the same efforts. But the interesting thing is, since bitcoin does not have a fixed conversion rate with the actual real life currency like dollars, etc, smaller amount of bitcoin now may be worth more in real money than larger amount of bitcoin back then. Thus, while some miner may quit because of the low pay, the longevity of bitcoin mining added to this fact about conversion rates may inspire the others to continue to do their work forever.

Bitcoin halving also maintains the transparency of the way it works. The way its denomination keeps going down but it still sticks to a pre fixed maximum makes it trustworthy.

However, the chances that the value of a bitcoin doubles when block reward gets halved is quite improbable. Thus it is actually likely that mining farms would find it unproductive to continue after many times of halvings, since mining bitcoins need a lot of computational effort brought by significant resources like CPUs, men, etc.

Conclusion

Thus, bitcoin halving is a significant step to maintain the fixed total of 21 millions. It may adversely affect the miners, but it also gains the trust of the users, and establishes the continuity of bitcoin in the long run.