

How much does it cost to make a 51% attack? The attack on some small altcoin coins is surprisingly cheap

For small crypto currencies like Ethereum Classic or Bytecoin, just hiring the computational power from NiceHash is enough to make a 51% attack. Specifically, Bytecoin only takes about 557 USD / hour to make a 51% attack only.

Reddit members conducted research to learn about the cost to make a 51% attack on today's popular cryptocurrency. The results of the study are published on the crypto51.app website, many people are surprised, including Charlie Lee, founder of Litecoin. Charlie Lee re-shared this result on his Twitter page.

1. What is '51% attack'? Can Bitcoin completely collapse by a 51% attack?

The researchers calculated the Hash Rate power needed to perform a 51% attack, then based on hiring the hash power from the NiceHash pre-coding service to figure out the cost needed to perform. this attack within 1 hour.

PoW 51% Attack Cost

This is a collection of coins and the theoretical cost of a 51% attack on each network.

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Name	Symbol	Market Cap	Algorithm	Hash Rate	1h Attack Cost	NiceHash-able
Bitcoin	BTC	\$121.55 B	SHA-256	32,798 PH/s	\$553,982	2%
Ethereum	ETH	\$51.96 B	Ethash	213 TH/s	\$360,114	3%
Bitcoin Cash	BCH	\$15.27 B	SHA-256	4,268 PH/s	\$72,093	12%
Litecoin	LTC	\$6.35 B	Scrypt	313 TH/s	\$64,954	6%
Monero	XMR	\$2.39 B	CryptoNightV7	402 MH/s	\$21,151	13%
Dash	DASH	\$2.35 B	X11	2 PH/s	\$15,439	27%
Ethereum Classic	ETC	\$1.47 B	Ethash	6 TH/s	\$10,643	89%
Bytecoin	BCN	\$944.33 M	CryptoNight	158 MH/s	\$557	225%
Zcash	ZEC	\$928.92 M	Equihash	576 MH/s	\$65,984	19%
Bitcoin Gold	BTG	\$694.32 M	Equihash	34 MH/s	\$3,858	329%
Bitcoin Private	BTCP	\$446.90 M	Equihash	7 MH/s	\$778	1,632%
Dogecoin	DOGE	\$366.81 M	Scrypt	197 TH/s	\$40,908	10%
MonaCoin	MONA	\$199.41 M	Lyra2REv2	2 TH/s	\$2,889	464%
Electroneum	ETN	\$151.89 M	CryptoNight	2 GH/s	\$7,383	17%
ZenCash	ZEN	\$111.52 M	Equihash	86 MH/s	\$9,880	128%
Vertcoin	VTC	\$71.30 M	Lyra2REv2	982 GH/s	\$1,326	1,012%
GameCredits	GAME	\$64.57 M	Scrypt	2 TH/s	\$515	813%
Ubiq	UBQ	\$55.49 M	Ethash	278 GH/s	\$470	2,019%
ZClassic	ZCL	\$43.55 M	Equihash	36 MH/s	\$4,070	312%
Litecoin Cash	LCC	\$42.71 M	SHA-256	30 PH/s	\$515	1,719%
Einsteinium	EMC2	\$38.41 M	Scrypt	371 GH/s	\$77	5,438%

Cost of performing attacks 51%.

The results show that it will take US \$ 554,000 an hour to make a 51% attack on Bitcoin but NiceHash only provides about 2% of the hash power of the entire blockchain Bitcoin network.

That's why making a 51% attack on encrypted currencies like Bitcoin or Ethereum is impossible.

As for smaller crypto currencies like Ethereum Classic or Bytecoin, just hiring the computational power from NiceHash is enough to make a 51% attack. Specifically Bytecoin only takes about 557 USD / hour to make a 51% attack and NiceHash can provide 225% of the hash power of this entire blockchain network.



Husam Abboud, a researcher from FECAP University, Brazil, has determined that: the cost of implementing a 51% attack on Ethereum Classic (ETC) is currently only about 55-85 million USD but there is can bring potential profit of 1 billion USD.

We can see that it is quite easy to make 51% attacks on small altcoin based on PoW (Proof of Work). For some altcoin, it is possible to hire 100% of the power of HashHash service from NiceHash without taking into account the hardware costs.

This worries Charlie Lee that the number of 51% attacks on altcoin is likely to appear more and more. Bad guys can use the 51% attack to commit fraudulent transactions, or withdraw money on trading floors before making a reversal.

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