




Linzhi ASICs

Previous messages

11 January 2019

-  **mAhOf** 11:32
In reply to [this message](#)
yes the point is that
-  **Sonia Chen** 11:32
the higher ones are much cheaper, the metal layers
the bottom masks of a gpu can cost as much as 5 mio USD 11:32
the top metal masks maybe only 100k USD 11:32
you see where this is going? 11:33
the important thing for Nvidia and its partners is that the 11:33
algorithm stays on their chip. that's goal #1
they can make a variant of the chip that has xx% higher 11:33
performance very easily
by reusing all lower (small, expensive) masks, and only changing 11:34
the cheap top-level metal masks
this is not happening now, not worth it. but if coins pickup and 11:34
we are talking about bigger numbers again, you can be certain Nvidia
and partners will do it
thanks to Peter's questions, we have 2 misconceptions about 11:37
ProgPOW now: less waste, more equal pricing between miners. maybe
we find more over time, eventually need to write them up into a proper
doc
who knows what stories were told... 😊 11:37

Maxwell Foley invited Maxwell Foley

-  **Kristy-Leigh Minehan** 12:27
In reply to [this message](#)
Everyone buys from NVIDIA directly. Genesis Mining did.
When you are a big consumer you go direct. 12:27
Same with AMD. 12:27
AMD sells directly too. 12:27
Same with ASICs. You go direct. 12:28

Linzhi ASICs

SC	Sonia Chen	12:31
	massive lie	
	you think people believe you this?	12:31
M	mAhOf	12:33
	there should be certain discounts if you buy big quantities	
KM	Kristy-Leigh Minehan	12:34
	In reply to this message	
	No one buys more chips than the OEM's.	
	No one.	12:34
	It's astronomical the amount of chips that go into OEMs.	12:34
PS	Peter Salanki	12:35
	What Kristy is saying that the OEM (Zotac) pays the same price as another direct customer (potential huge miner) would	
SC	Sonia Chen	12:36
	maybe we can agree that different people pay dramatically different prices	
	that seemed to be new to Hudson the other day	12:37
PS	Peter Salanki	12:37
	They pay different prices, dunno about dramatically	
	But if we assume that the OEM price is the lowest price, you can	12:38
	assume that the OEM wants a margin on his piece so there is definitely a difference between buying 1 card from Zotac and buying a million cards directly from NVIDIA	
	Like with anything else you buy.	12:38
KM	Kristy-Leigh Minehan	12:39
	In reply to this message	
	Sonia, all you do is continually state 'that's wrong' or 'that's a lie' without providing any evidence. You use your lack of experience in English as an excuse, you throw accusations and abuse at me, or others who want to contest your point, you butter up people that may support your agenda instead of just discussing things on a technical level. You talk about how you will do some 'thinking' on how to do this 'technical writeup', but the reality is that someone who knows what they are talking about can talk, in real-time. David Vorick, Def, Else, and Tromp can do this. I expect the same from you.	

You would have no problem with ProgPoW if it was targeting ZCash, and you wouldn't be doing this constant attack and accusation. But

Linzi ASICs

On the notion of people paying prices and sourcing/buying GPUs:

Genesis Mining was the largest consumer of GPU hardware. They're now using it for a GPU-accelerated rendering platform. I am very familiar with purchasing, at scale. AMD does sell direct to many customers – all sorts of sizes, great and small. NVIDIA sells direct to a few, but all of this HAS to run through an OEM in the end result. Buying chips (also, it's never loose chips, it's always memory + chip) doesn't work.

On both sides.

12:39

SC

Sonia Chen

12:39

how much do you think is the price difference between small buyer, let's say 100 gpus, and large buyer, let's say 1 mio gpus?

KM

Kristy-Leigh Minehan

12:42

Now, you can throw out 'that's a lie' all you want, but the reality is that I have verifiable industry experience in sourcing, purchasing, supply management and production on both GPU and ASICs, and now FPGAs.

The pricing changes and is in flux constantly with the market conditions. Chip pricing is set as a standard that has to be communicated to shareholders. Publicly traded companies don't get the luxury of playing 'favouritism'. But let's start talking about special treatment:

What do you think AWS buys hardware at?

12:43

The world's largest consumer of FPGAs and GPUs, and servers, and things like PureStorage, and networking equipment.

12:43

This is the economies of scale. And that is a result of consumerism, and it's not something you can change. You're pointing at ProgPoW as a root cause for consumerism, but, no, that exists with ASICs, too.

12:43

If I put 50M on the table, I can get a sweet deal from ASIC manufacturers. If I am a large farm, I can get exclusive access to hardware before it is released. Same as if I am Microsoft or AWS.

12:44

SC

Sonia Chen

12:44

@OhGodAGirl how do you like the idea of an independent design verification of our chip?

KM

Kristy-Leigh Minehan

12:44

I already stated my thoughts. I think it needs to come from a person outside of cryptocurrency, and they need to evaluate the algorithm, the code, and then do a synth design on Cadence.

Linshi ASICs

KM

Kristy-Leigh Minehan

12:46

Because how you positioned it, Sonia, is 'it'll be someone we talk to and then we'll just explain the ideas in our head and then keep doing that until they agree that we're right'

But the reality is that buys you time, as well.

12:46

The reason you position this is to buy time for ETH to move to PoS fully, so you can complete tapeout of your current gen and sell it to ETH consumers.

12:47

This is a business strategy, and respected. But I'll call you out on it, fully. You stated your product release was going to be in April, for Lavasnow.

SC

Sonia Chen

12:49

sorry, not sure "I'll call you out on it, fully" – this means you accept the idea?

I will try to start to put this together

12:50

the intention is not to buy time at all

12:50

is to find the truth

12:50

KM

Kristy-Leigh Minehan

12:50

And business strategy – as I am very familiar with in this space – will lead to the following few things in the next few weeks: it will lead to more and more FUD, about why I should be discredited, ignoring ProgPoW's technical verification. It will then lead to more and more 'appealing' to buy time. It will then lead to more 'here is why ASICs are beneficial for the network!', and rather than research-based, technical, logical discussion, it will resort to a 'business defense' mechanism.

SC

Sonia Chen

12:50

nice

we will proceed with the verification idea, I will try to get the details together over the weekend

12:52

KM

Kristy-Leigh Minehan

12:57

Here is the reality: you can say all you wish that my business is banking on ProgPoW, but the reality is that the only people who can talk about my business are people involved in it, day-to-day.

You can discredit me all you want, but I have eight years of industry experience built up that I can point to. I can point to my failings and shortcomings, my learning experiences, and I can share that data in a transparent manner (besides some stuff that is covered under NDA, usually related to pricing).

Linzhi ASICs

Ethereum's goals were always around ASIC resistance. It was designed to be GPU-tuned, and I had a long discussion last year with the team that happened to be a part of the original proof of work design, as well as someone who knew the original Ethash creator well. He understood GPUs quite well, but he didn't work with them 24/7 – he was research and cryptographic focused. The goal, from the start, has been against mining-ASICs.

The miners in the community have sought this. It is part of the original yellow paper. And it is part of the original vision for Ethereum, with a gentle rolling transition into proof of stake where hardware eventually tapers off.

ProgPoW is designed to ensure that the hardware in the remaining ecosystem is protected, it is not designed to facilitate new sales or new lines of business. From a strategy standpoint, it will ensure that this hardware can hash out it's remaining life (570/470's are around 3–4 years old now, if I recall) and taper off into a natural EOL progression, rather than being dumped into the ecosystem.



Sonia Chen

12:59

if there wasn't so much more to it, it'd be a nice story.



Deleted Account

15:35

<https://medium.com/ethereumprogpow/my-political-decision-to-hardfork-ethereum-for-progpow-implementation-and-here-is-why-19e5b66bb985>

Ahahaha happy weekend everyone!

15:35



Jon Phillips

15:43

@pyskell is there any discovery on who did the ETC attack?

Also where do ETC devs chat?

15:43



Bezos 2.0 MLM Masternode

15:45

In reply to [this message](#)

No, the point is that an opportunity for such a conflict of interest should not exist to begin with



Yaz Khoury

18:20

@kidproto none yet

here's an invite to ETC discord if you want

18:20

<https://discord.gg/2tYpus>

etc devs also hang there

18:20



Jon Phillips

18:36

Thanks @yazanator

Linzhi ASICs

ETC in the days prior to the attack.

how much hashrate was necessary to pull off the attack?

21:16

Matt invited Matt



Sonia Chen

23:19

for the ETC attack – we have smart contracts. Is it possible to have a defense contract that detects the attack, and increases block rewards temporarily from a defense fund? it sounds a little crazy and maybe rewards the attacker, but somehow I think it would attract hashrate and that should be good. just an idea...

@taek42 would you be interested in doing the Linzhi ProgPOW
asic design verification?

23:20