



ETC
Cooperative

August 2020 Board Package

September 30th, 2020



etccooperative.org

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Overview

- › August was a challenging month, with three separate 51% attacks between July 31st and August 29th with millions of dollars double-spent.
- › As a consequence of the repeated attacks, many exchanges still have painfully high confirmation numbers (some as long as a 2-week wait).
- › Many mining pools also have similarly long payout delays, with the impact of those delays further compounded by the exchange delays. Miners need fiat to pay their electricity bills but are unable to liquidate their earnings in a timely manner.
- › Network hash rate dropped as low as 1.5 TH/s at various points in the month and so the cost to 51% attack ETC was going lower and lower through the month.
- › Most of the month was taken up with fire-fighting, with other planned work largely sidelined.

Protocol – 51% attacks

- › CoinDesk article on [31st July attack](#), reorg of ~3,600 blocks (~12 hours mining)
- › CoinDesk article on [6th August attack](#), reorg of ~4,200 blocks (~15 hours mining)
- › CoinDesk article on [29th August attack](#), reorg of ~7,000 blocks (~2 days mining)
- › ETC experienced a 51% attack on 31st July with double spends and a network split. Here is our [blog post](#) about this first attack with links to various articles from other parties. Bitquery [later identified \\$5.6M in double-spends](#) against the OKEx exchange.
- › On August 21st Coinbase published an [analysis of the first two attacks](#), identifying a \$3.2M double-spend in the second attack. We are unaware of any detailed analysis of the third attack.
- › On August 19th we co-published an “[ETC Network Security Plan](#)” put together by Afri and co-signed by Terry Culver and myself, enumerating various proposals.

Protocol – Return of Charles and IOHK

- › In early August, in response to the first two 51% attacks we saw Charles Hoskinson and IOHK return to the table. IOHK had ceased development on the Mantis client in December 2018 because there was no apparent path for sustainable funding.
- › Charles proposed the revival of the Mantis client, a proposal for a checkpointing solution and the introduction of a Treasury model. He released a series of videos during August and was very active on Discord.
- › [Bailout?](#), August 10th
- › [ECIPs and the Treasury Meeting](#), August 13th
- › [51 Percent Attacks and ETC](#), August 14th
- › [More on ETC's Treasury Idea](#), August 18th
- › [Process for Decision Making and Innovation in ETC](#), August 20th
- › [The Future of ETC](#), August 22nd

Protocol – Proposals created in August

- › Numerous proposals were brought to the table during August for possible protocol changes in reaction to the 51% attacks, some short-term, some long-term.
- › [ECIP-1092 - 51-percent attack solution PirlGuard by Callisto](#)
- › [ECIP-1093 - If GPU-friendly Ethash is Removed then Change the ETC Proof of Work Algorithm to CPU-friendly RandomX](#)
- › [ECIP-1094 - VeriBlock Proof-of-Proof 51%-Attack Prevention](#)
- › [ECIP-1095 - Change the ETC Proof of Work Algorithm to Sha-3-256](#)
- › [ECIP-1096 - 51% Attack protection system based on Bitcoin Merged Mining](#)
- › [ECIP-1097 - Checkpointing based 51% attack resistance](#)
- › [ECIP-1098 – Proto Treasury System](#)

Protocol – Existing proposals

There was also renewed support for these long-standing proposals:

- › [ECIP-1049 - Change the ETC Proof of Work Algorithm to Keccak256](#)
- › [ECIP-1043 - Fixed DAG limit restriction](#)

- › ETC Cooperative funded work by Whiteblock at the start of this year on ECIP-1049 so it was great to see increased interest and support for that proposal. It appears likely that change of hash algorithm will proceed now, though the timeline is still uncertain.

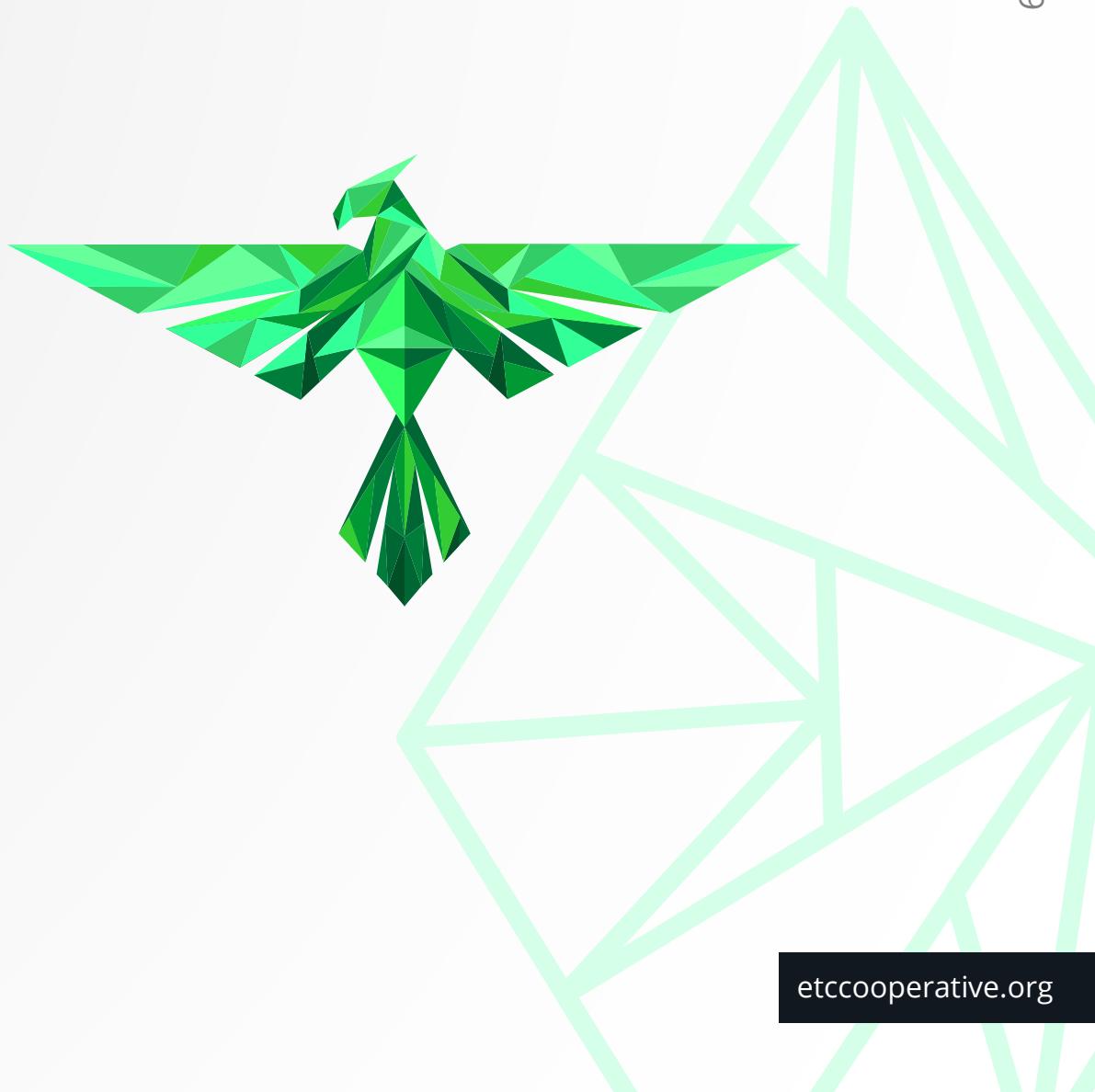
- › Changing the DAG size has also seen a lot of support and appears likely to proceed as a short-term “bandaid” solution.

Protocol – So what are we doing?

- › No consensus was reached during August on next steps for the protocol. The time was spent in explaining and discussing the various proposals.
- › There was a [community call about the IOHK Treasury proposal](#) on August 13th. It is becoming apparent that there is one group, being led by IOHK, who are in favor of a treasury model to provide long-term intrinsic funding for protocol work, and another group around ETC Labs who do not favor such a model and prefer the status quo. This could lead to a contentious fork. ETC Cooperative are in favor of a treasury and are generally aligned with IOHK.
- › ETC Cooperative have been deeply engaged in all discussions and continue to work towards consensus on both short-term and long-term solutions to our current challenges.

Infrastructure

- › No changes to report during August.
- › Existing systems (BlockScout, Ethercluster, full nodes, boot nodes) are in regular maintenance mode, using Besu exclusively.
- › No new projects are underway.



Comms and Marketing

- › Coordinating with ETC Labs and various 51% ECIP authors, creating their [Github presentation pages](#), and helping evaluate their solutions.
- › Recorded and posted all [Core Devs Calls](#) to ETC Coop's YouTube channel.
- › Ongoing community management: content creation, channel moderation, [social media management](#), engaging with users, liaising with stakeholders, specifically IOHK.





Grants

- › No grants were issued during August.
- › The likelihood is that we will need to spend all the money that we can spare on the protocol work to support these changes in Hyperledger Besu.



Finance



Finance

Expenditures in \$US

	August 2020 Actual	August 2020 Budget	Variance \$ August 2020 vs August 2020 Budget	August 2019 Actual	Variance \$ August 2020 vs August 2019
Overhead & Management	\$17,606	\$21,854	\$(4,248)	\$17,115	\$491
Development	\$15,214	\$10,000	\$5,214	\$10,000	\$5,214
Protocol	\$0	\$0	\$0	\$0	\$0
Comms & Marketing	\$2,083	\$0	\$2,083	\$2,153	\$(70)
Finance	\$2,938	\$15,325	\$(12,387)	\$11,320	\$(8,382)
Infrastructure	\$3,050	\$2,750	\$300	\$3,282	\$(232)
Partnerships	\$500	\$0	\$500	\$0	\$500
ETC Summit	\$0	\$0	\$0	\$0	\$0
Total Expenditures	\$41,391	\$49,929	\$(8,538)	\$43,871	\$(2,480)
Non-cash Items	\$0	\$0	\$0	\$0	\$0
Total Operating Expenses	\$41,391	\$49,929	\$(8,538)	\$43,871	\$(2,480)

- Overall, expenditures in August 2020 were slightly lower than both budget and August 2019. This is mostly due to the timing of tax services in 2020 vs 2019 (paid out in July 2019 vs August 2020. Comms & Marketing in 2020 is due to contract wages vs. 2019 when it was due to conferences/travel.
- July 2020 and onwards will see slightly higher Comms & Marketing costs, due to the addition of Kevin Lord, as a Communications manager.

Finance

Expenditures in \$US

	August YTD 2020 Actual	August YTD 2020 Budget	Variance \$ vs August 2020 Budget	August YTD 2019 Actual	Variance \$ August 2020 vs August 2019
Overhead & Management	\$140,725	\$168,583	\$(27,858)	\$144,876	\$(4,151)
Development	\$87,463	\$80,000	\$7,463	\$75,792	\$11,671
Protocol	\$38,850	\$61,600	\$(22,750)	\$62,500	\$(23,650)
Comms & Marketing	\$25,952	\$45,265	\$(19,313)	\$44,424	\$(18,472)
Finance	\$30,393	\$60,100	\$(29,707)	\$10,832	\$19,561
Infrastructure	\$33,044	\$36,080	\$(3,036)	\$0	\$33,044
Partnerships	\$6,042	\$0	\$6,042	\$0	\$6,042
ETC Summit	\$1,978	\$0	\$1,978	\$39,028	\$(37,050)
Total Expenditures	\$364,446	\$451,628	\$(87,182)	\$377,451	\$(13,005)
Non-cash Items	\$23,686	\$0	\$23,686	\$0	\$23,686
Total Operating Expenses	\$388,132	\$451,628	\$(63,496)	\$377,451	\$10,681

- Overall, expenditures were lower in August YTD 2020 vs budget and August YTD 2019.
- Significant variances with 2020 budget are due to lower Comms & Marketing costs, lower finance costs, and less technical work than originally budget.
- Significant variances with 2019 YTD are due to lower protocol costs, Comms & Marketing, and ETC Summit costs, which were partially offset higher infrastructure and finance costs. Overall, total 2020 YTD actuals and total 2019 YTD actuals (before non-cash items) are consistent.

Finance

Net (Loss)/Income in \$US			
	August 2020 Actual	August 2020 Budget	August 2019 Actual
Income	\$70,746	\$44,160	\$60,509
Operating Expenses	\$41,391	\$49,929	\$43,871
Net (Loss)/Income	\$29,355	\$(5,769)	\$16,639
Non-cash items	\$0	\$0	\$0
Adjusted Net Income	\$29,355	\$(5,769)	\$16,639

Net (Loss)/Income in \$US			
	August YTD 2020 Actual	August YTD 2020 Budget	August YTD 2019 Actual
Income	\$474,746	\$390,120	\$204,816
Operating Expenses	\$388,132	\$451,628	\$377,451
Net (Loss)/Income	\$86,614	\$(61,509)	\$(172,635)
Non-cash items	\$23,686	\$0	\$0
Adjusted Net Income	\$110,299	\$(61,509)	\$(172,635)

- Net Income for the period was significantly higher than budget and slightly higher than August 2019. YTD Net income is significantly higher than both budget and 2019. This can be partially attributed to the higher ETC price in 2020 (for both Budget & 2019), which is correlated to the ETC Fees received from Grayscale, as well as lower cash-costs (than budget).
- As at August 31, 2020, the ETC Coop held 8,163 ETC.

Finance

- In January 2020, the Coop sold 7,500 ETC for an amount of \$56,400 USD, to help fund operations. The cash balance in August 2020 was lower than July, due to timing of payments from Grayscale.
- Accounts payable and accrued liabilities consist of July staffing costs, which will be paid in August.

Financial Positions in US							
	31-Aug-20	31-Jul-20	30-Jun-20	31-Mar-20	31-Dec-19	31-Dec-18	31-Dec-17
Assets							
Cash & Cash Equivalents	\$193,763	\$246,958	\$233,278	\$195,538	\$146,318	\$530,268	\$0
ETC (at book value) ¹	\$78,115	\$78,115	\$78,115	\$78,115	\$154,363	\$154,363	\$0
Accounts Receivable Due from Grayscale	\$5,000	\$5,000	\$5,000	\$12,057	\$12,057	\$7,057	\$0
Prepaid Expenses & Deposits	\$120,027	\$49,280	\$46,849	\$34,890	\$18,808	(\$6,729)	\$371,505
Total Assets	\$397,154	\$380,103	\$363,992	\$322,100	\$333,796	\$684,960	\$371,505
Liabilities							
Accounts Payable & Accrued Liabilities	\$19,889	\$32,442	\$34,888	\$26,905	\$44,393	\$20,305	\$0
Due to Grayscale	\$0	\$0	\$0	\$0	(\$1,000)	\$3,022	\$131,864
Total Liabilities	\$19,889	\$32,442	\$34,888	\$26,905	\$43,393	\$23,328	\$131,864
Equity							
Retained Earnings	\$290,403	\$290,403	\$290,403	\$290,403	\$661,632	\$239,640	\$0
Net Income/(Loss) for the year	\$86,862	\$57,258	\$38,701	\$4,792	(\$371,229)	\$421,992	\$239,640
Total Equity	\$377,265	\$347,661	\$329,104	\$295,195	\$290,403	\$661,632	\$239,640
Total Liabilities & Equity	\$397,154	\$380,103	\$363,992	\$322,100	\$333,796	\$684,960	\$371,505
ETC at Market Value ¹	\$53,966	\$60,019	\$46,812	\$40,386	\$72,540	\$81,430	\$0
Liquid assets ²	247,728	306,976	280,090	235,924	218,858	611,698	0

¹Book value is the value when the ETC was originally purchased. Market value is the value at the end of the reporting period (prices from Yahoo finance)

²Liquid assets consists of Cash & Cash equivalents plus ETC at market value.



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