

Request Non-Emergency Security Council Action

Abstract

The transaction fee paid by users is composed of two parts, L2 fees and L1 fees, which together include the execution cost for running the transaction on Arbitrum alongside the cost of posting data to Ethereum (to learn more about this, read the [deep dive on the subject](#)).

Historically, the rollup fee market has been dominated by the L1 cost component. With the [Dencun upgrade](#) soon being enabled on Ethereum, the current pricing structure may no longer be optimal. The ArbOS Version 20 “Atlas” upgrade is a step towards better consuming the new data availability affordances offered by Ethereum, but will also potentially require further adjustment once EIP-4844 has been deployed and tested.

There was an oversight during the ArbOS Version 20 “Atlas” upgrade where two configuration should be updated for users when the Dencun upgrade occurs:

- L1 surplus fee. Reduce the surplus fee per byte from 2 gwei to 0.
- L2 base fee. Reduce the minimum from 0.1 gwei to 0.01 gwei.

In both cases, the configuration changes will match what is currently implemented in Arbitrum Nova. As evidenced by the recent surge of transactions in Arbitrum Nova, the network can handle the increased transaction throughput while offering lower fees for users in general under that configuration.

Impact on the ArbitrumDAO’s revenue

The L2 base fee change will impact the revenue received by the ArbitrumDAO. The potential impact based on the past 30 days of activity was calculated, which if the changes had been implemented (ignoring potential changes in demand based on lower fees), would have resulted in overall profit going from 816.13 ETH → 79.89 ETH

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](<https://global.discourse-cdn.com/standard17/uploads/arbitrum1/original/2X/b/b4906566128f29af064067c3d7a685436b246cb4.png>)

While the fee reduction will result in lower revenue for the ArbitrumDAO in the short term, it will ensure that the Arbitrum One network continues to offer competitive costs to its users and in turn it can lead to an increase in transaction traffic.

Since the parameter change affects the revenue generated, it is important to carry out a temperature check for the ArbitrumDAO to discuss and ultimately vote on the change. If it is approved by the ArbitrumDAO, then the Security Council will be requested to initiate a non-emergency action to execute the configuration change. The goal is to ensure the fees are changed as soon as possible in line with the Decun upgrade.

Implementation details

The following configured values will be changed in the ArbOwner smart contract that can be viewed in [Contract Address 0x000000000000000000000000000000000000006b](#) | [Arbiscan](#).

The following governance action smart contracts will be used to initiate the action:

- [ArbOneSetAtlasL1PricingRewardAction](#) | [Address 0x36D0170D92F66e8949eB276C3AC4FEA64f83704d](#) | [Arbiscan](#)
- [ArbOneSetAtlasMinBaseFeeAction](#) | [Address 0x849E360a247132F961c9CBE95Ba39106c72e1268](#) | [Arbiscan](#)

The security council will separate the two parameter change actions to enable the ArbitrumDAO to decide whether to accept one, both, or neither. The ability to decide will be reflected on Snapshot using a ranked voting with the following options:

- Set L1 surplus fee and L2 minimum base fee.
- Set only L1 surplus fee.
- Set only L2 minimum base fee.
- Set neither option and cancel security council action.

Timeline

The ArbOS v20 “Atlas” upgrade is due to be activated on the 14th of March, and the following schedule will be pursued to address the configuration issues in a timely manner:

- 5th March - Temperature Vote on Snapshot
- 5th March - Initiate non-emergency security council action

- 18th March - Activate configuration change to reduce fees

A non-emergency security council action is viewed as ideal as it exists primarily to approve and implement routine software upgrades, routine maintenance and other parameter adjustments in a non-emergency setting.

Temperature check:

<https://snapshot.org/#/arbitrumfoundation.eth/proposal/0x13bcccfeeb736c732bdd08032841d6a07614d17dcee2d29a435e7b0114361a0a>

Security council transaction:

[Arbitrum Transaction Hash \(Txhash\) Details | Arbiscan](#)

Taking this route will mean that Arbitrum One network will have higher than anticipated fees for 5 days.

The following governance calls will also enable the community to discuss the technical changes:

- 6th March - Wednesday at 6pm EST
- 7th March - Thursday at 9am EST

Both calls will be added to the governance call and more calls can be arranged if necessary.