

AltLayer's POAP NFTs Collection Mint

AltLayer hosted a freemint event of a POAP-style NFT collection On July 28, 2022 , AltLayer hosted its very first mint event of AltLayer OG Badge NFTs on a mint-dedicated flash layer. This marked the beginning of an era of application-dedicated disposable execution layers.

The OG Badge mint event was a two-step process and required users to first get whitelisted. Whitelisting didn't require any KYC and was simple enough to attract a large number of users. And in the second step, whitelisted users could participate in a free mint event for 300 NFTs on a first-come-first-served basis.

Design Decisions to Put the Flash Layer to a Real-World Test

The entire mint setup was designed to attract a large number of users and create a burst in demand. There was no KYC; minting was completely free; users didn't even need to buy any gas token; and lastly the event was first-come-first-served to drive concentrated traffic. The network was configured so that a higher gas would not give priority to a transaction. This was done to entirely eliminate gas wars from the equation typical of NFT drops to drastically improve the UX. In other words, this turned the event into a true first-come-first-served event unlike the usual richest-served-first. A total of 20k users had registered for the event, out of which 12,742 addresses were whitelisted. The demand was so high that the event lasted only for about 18 seconds. Unlike other FCFS events, the minters witnessed a flawless user experience devoid of any gas war.

The flash layer recorded a TPS of 50 at the peak of the event with a latency of about 2 seconds.

There was no gas war

As there were no gas auctions, there were no negative externalities. Negative externalities to other network users is a common phenomenon on general purpose chains like Ethereum, where an ongoing gas war for a mint event negatively impacts the users of other applications. The chart below shows the distribution of minted NFTs over time. 84% of the NFTs were minted in the last four blocks, which indicates that the 2 sec block time was quite short for most users and therefore they could not manage to mint NFTs in the first few blocks and as a result most of the minted NFTs concentrated in the last few blocks.

Settlement of NFTs on Ethereum

Once the NFTs were minted on the flash layer, the system settled them on the Ethereum mainnet. Recall that flash layers are disposable by design and settle the dApp state on a base chain like Ethereum when they retire. Settlement of 400 NFTs on the Ethereum network took about 2 mins. Settlement of assets required sending transactions to the Ethereum network, however the system settles this on behalf of all the users at the protocol-level which means that users did not need to send any transaction themselves. Settlement on Ethereum incurred a small cost of 0.25 ETH (about USD 350) for the entire batch of 400 NFTs. The settlement happened over 5 transactions across 2 blocks with no gas spike on Ethereum. In summary, users did not have to pay for the NFTs, they also did not have to pay for the gas on the flash layer themselves. The only real cost involved in the process was the settlement cost on Ethereum which was almost negligible compared to the gas spent by users for minting directly on Ethereum for most NFT events. The settled NFTs are now available on Ethereum-based marketplaces such as [OpenSea](#) . [Show Me](#), [Tell Me Not](#) -[Previous FlashGPT Demo](#)[Next](#)- [Showcase](#) [Dark Forest](#) [Community Round](#) Last modified 1yr ago On this page Design Decisions to Put the Flash Layer to a Real-World Test There was no gas war Settlement of NFTs on Ethereum