We've developed a platform for performance, programmability, and decentralization extensions for Rollups. It is powering the upcoming Unichain.

Today, we are announcing Rollup-Boost, a verifiable block building platform for rollups, enabled by Trusted Execution Environments (TEE) technology. Rollup-Boost was co-designed with Uniswap Labs and OP Labs, and its first deployment powers the upcoming Unichain, enabling fast confirmation times, strong user guarantees, and MEV internalization for the next generation of Defi apps.

Rollup-Boost introduces the idea of Rollup Extensions, which are modular components for upgrading rollups across performance, programmability, and decentralization. We are launching Rollup-Boost with two initial extensions:

- 250ms "Flashblocks

" that provide fast confirmation times, native revert protection for users, and increased gas throughput.

- Verifiable priority ordering

within each Flashblock, giving greater guarantees to users and allowing applications to internalize their MEV.

In its final form, this extension model combined with the unique properties of TEEs will allow rollups to harmonize two previously opposing forces: user experience and [geographic decentralization](). TEEs are a novel form of technology that allows for horizontal scaling of distributed applications across the trust boundaries of their operators, and introduces new trade-off points on what is sometimes referred to as the "[MEV trilemma]()".

In its first release, Rollup-Boost is a [lightweight sidecar]() designed to upgrade existing sequencers. We believe this is the first step to enabling TEE-centric programmable privacy solutions that will be critical for rollup decentralization in the presence of MEV. We plan to iterate Rollup-Boost to support this decentralized endgame.

We welcome the open source community to join us, to achieve these goals together.

[writings.flashbots.net – 10 Oct 24]()

[Introducing Rollup-Boost - Launching on Unichain | Flashbots Writings]()

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