OP Stack

Optimistic Scaling Solutions: OP Stack

[OP Stack](#) is a standardized, shared, and open-source development framework, combined with Gelato RaaS, it enables developers to deploy their own Optimistic Layer 2 chains, specific to end-users needs on Ethereum. By utilizing optimistic rollups, developers can take advantage of near-zero computational overhead, fast throughput, low transaction costs, and improved EVM compatibility. This powerful combination prioritizes key business operations and user interaction, ensuring optimal performance through adaptable L2 chains.

Optimism Bedrock is the current iteration of the OP Stack. The Bedrock release provides the tools for launching a production-quality Optimistic Rollup blockchain.

OP Stack Features

Lower Fees

90% lower than Ethereum's gas fees, Bedrock achieves this reduction by optimizing data compression to cut costs and eliminate gas expenses for EVM execution.

Fast Transactions

With a 2-second block time compared to Ethereum's average of 12 seconds, Optimism ensures significantly faster transaction confirmations.

Enhanced Proof Modularity

Bedrock's design allows rollups to use various proof systems, like fault or validity proofs, providing flexibility for technologies like Cannon to verify correct execution.

Ethereum Equivalence

Bedrock aims for high compatibility with Ethereum, offering developers a familiar experience by allowing the running of smart contracts and dApps designed for Ethereum without modification and utilizing existing Ethereum tooling and infrastructure.

Improved Node Performance

Execution of multiple transactions in a single rollup block and removal of technical debt from previous versions improve node software performance.

The Superchain

The Superchain is a future development by Optimism, envisioned as a network of Layer 2 chains (OP Chains) built on the OP Stack. These OP Chains will share security, a communication layer, and a technology stack, but will be standardized and interchangeable, differing from traditional multi-chain designs. It's a concept and in-progress project aimed at merging Optimism Mainnet and other chains into a unified network, enhancing scalability and decentralized computing.

Independent Data Availability

Gelato provides support for Optimium, a dedicated data availability layer for OP Stack that offers robust off-chain data access. It enables the launch of high-throughput and very low-cost, optimistic-powered Layer 2 chains on the Ethereum network.

For OP Stack, Gelato RaaS Supports:

-[Celestia modular data availability network](#)

Get more information about[OP Stack here](#) , or[Schedule call](#) to set up your custom Op Stack Gelato L2 testnet.