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OP Stack

Optimistic Scaling Solutions: OP Stack

The OP Stack is an open-source development framework that, combined with Gelato RaaS, enables developers to deploy their own Optimistic Layer 2 chains on Ethereum. Using optimistic rollups, developers can benefit from low computational overhead, fast throughput, low transaction costs, and improved EVM compatibility.

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

Achieves 90% lower fees than Ethereum by optimizing data compression and eliminating gas expenses for EVM execution.

Fast Transactions

Provides a 2-second block time compared to Ethereum's 12-second average, ensuring faster transaction confirmations.

Enhanced Proof Modularity

Allows rollups to use various proof systems, like fault or validity proofs, providing flexibility for technologies like Cannon to verify correct execution.

Custom Gas Token

Supports the use of alternative ERC-20 tokens for gas fees, integrating with different app ecosystems.

Ethereum Equivalence

Offers high compatibility with Ethereum, allowing smart contracts and dApps designed for Ethereum to run without modification and utilizing existing Ethereum tools.

Improved Node Performance

Executes multiple transactions in a single rollup block and removes technical debt from previous versions, improving node software performance.

The Superchain

The Superchain is the next major scalability improvement for the OP Stack, following Bedrock. It envisions a network of chains (OP Chains) that share resources like bridging, decentralized governance, upgrades, and communication layers, all built on the OP Stack. By merging OP Mainnet and other chains into a single, unified network, the Superchain aims to bring scalable and decentralized compute to the world. This unified network will enable efficient resource sharing and significantly enhance scalability. To achieve this vision, the OP Stack will undergo several changes to support the new structure. For more detailed information, refer to the [OP Stack Explainer](#).

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

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