Web3 Modular Data Access

What is Lava?

Lava is the first modular data access layer for blockchains. It introducesspecs : a modular primitive that lets contributors permissionlessly add support for new chains and data services to the base protocol. RPC is the first service supported by the protocol but we are soon bringing further choice by integrating with indexing and API partners, such as Subsquid.

Data consumers send requests to Lava's network of data providers (node operators), who join Lava to meet demand for data. Lava creates dynamic, scalable markets around any blockchain data service. The protocol also creates crypto-economic guarantees around the quality of service, across speed, uptime and data accuracy.

By leveraging modular architecture and a peer-to-peer network of node operators, Lava creates a unified platform for accessing the multi-chain world.

How Does It Work?

Developers and data consumers: With Lava, data consumers get easy, fast and reliable access to 30+ chains. The protocol incentivizes providers to offer performant service and algorithmically pairs consumers with the best node available.

Data providers (RPC node runners, indexers, etc): Providers join Lava to reach more developers and to monetize their existing infrastructure. We also have 250+ providers on the Lava testnet, including large providers such as Blockdaemon. Lava also runs programs called Incentivized Public RPC. On these programs, chains such as Evmos, Axelar, NEAR and more pay node operators to serve quality RPC.

Why Lava? ❣

Lava provides Multi-Chain RPC that just works:

1. Quality of Service -
2. Consumers monitor and rate providers based on response time, availability and freshness. When asking for rewards, providers are required to attach their QoS score and are rewarded accordingly.
3. Data Reliability -
4. Providers are subject to fraud and fault detection checks, whereby the network uses statistical inference and verifiably random selections to compare the responses of multiple providers. If a conflict is detected, the network uses an honest majority of providers to attain who was wrong, penalizing the offender.
5. Privacy & Anonymity -
6. Relays are randomly distributed between a changing list of top providers, so consumers are less likely to get service from the same provider for a significant period of time. Consumer-provider communications happen directly and identities are not linked to Lava Wallets.
7. Scalability -
8. Every aspect of Lava is being built with scalability in mind. A single-step reward system, aggregation, direct provider-dApp communication and staking incentives are designed to increase efficiency by sparing unnecessary stress from the network.
9. Decentralized Access -
10. We encourage users to access our network in a fully decentralized way. All relays on our network are conducted peer-to-peer (P2P).
11. Open Source -
12. Lava is commmitted to open source and modularity. Developers can investigate the code for the chain and any specs implemented. Edit this page Previous Introduction Next Explorers