

Abstract :

## I SPENT 72 HRS RESEARCHING GELATO RAAS SO YOU DON'T HAVE TO

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Rollups-as-a-Service (RaaS) is an emerging service in Web3 that provides developers with tools and services to easily deploy their own L2 chains, designed to unlock dedicated transaction lines to address Ethereum's congestion problem and ultimately deliver a more tailored user experience. By utilizing RaaS, deploying a new blockchain could become as straightforward as creating new web pages or scaling applications.

A notable example is Gelato RaaS platform, that enables developers to create production-grade L2s with native Account Abstraction to create scalable & user-friendly Ethereum applications; with processing capacity comparable to that of Visa, and in par UX with favorite Web2 Apps.

Let's take a closer look at what it's all about ↓

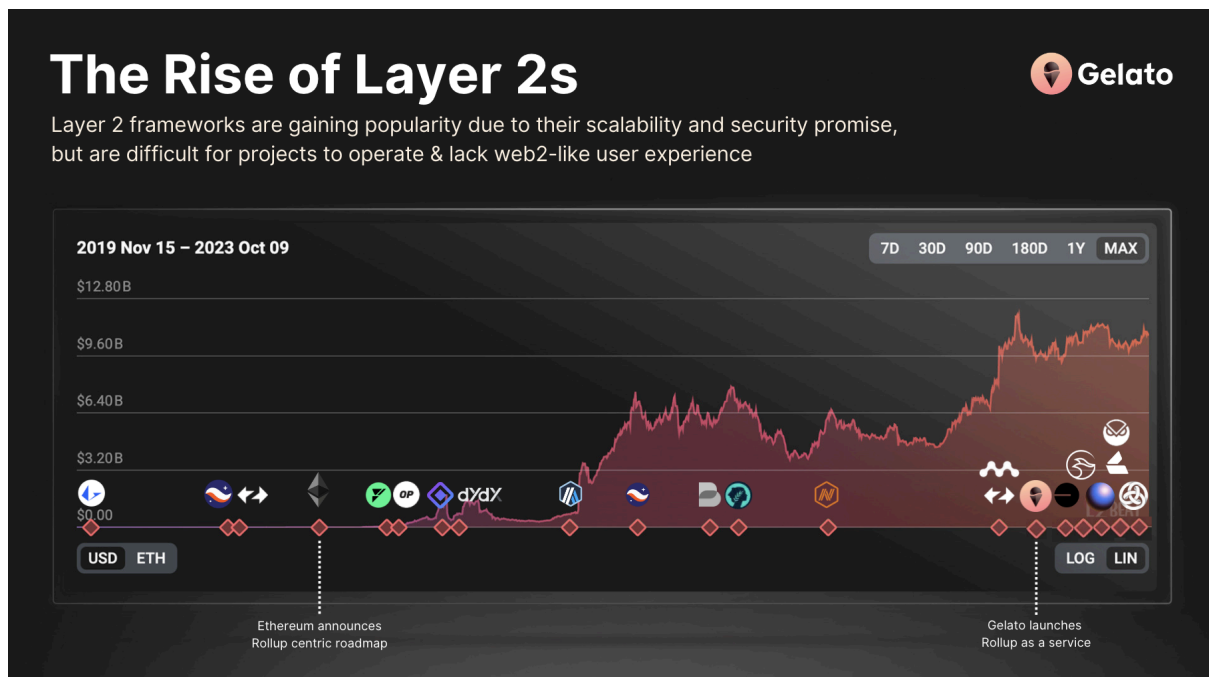
### 2) What's a Rollup?

As you're no doubt aware, the @Ethereum paved the way for blockchains and onboarded millions of users. Whilst without doubt Ethereum effect was positive, the networks UX did not catch up with the hype. In last bull market we've all experienced increased network congestion & gas price spikes.

Today we are witnessing a shift from monolithic & expensive blockchains to modular & horizontally scalable L2s, developed to desaturate the main Ether network and facilitate the flow of information.

Today, there are 2 types of Rollup:

- Optimistic Rollup Frameworks like @Optimism @Arbitrum
- Zero Knowledge (ZK) Rollup Frameworks @Polygon @zkSync



### 3) Why Should Developers Launch Their Own Rollup ?

There are a number of reasons why Web3 developers should consider launching their own Layer 2 (L2) rollup, but here are the most important ones:

- Improve scalability & performance: dedicated transaction line & de-risk gas spikes
- Provide web2 like UX tailored to users
- Capture value: Earn transaction fee's, bridge fee's and MEV revenue

#### 4) Gelato RaaS:

Gelato is Web3's Cloud Platform helping developers to deploy their own L2 chains. Gelato launched their service this quarter with a ZK-powered Rollup Framework, utilizing @Polygon CDK Kit, announcing @Astar zkEVM as the first chain implementation partner.

Gelato Roadmap outlines expansion to additional frameworks like Optimistic Stacks provided by @Optimism and @Arbitrum providing a robust end-to-end stack for developers to effortlessly define their own virtual execution environments.

The diagram illustrates the Gelato Rollup as a Service architecture, presented as a multi-layered stack of services. The layers are:

- USABILITY:** Includes components like Off/On Ramp, Scalable RPCs, Wallets, Indevs, Bridge Plugins & UI, Test Faucets, KYC, and 3rd party middleware services.
- Native Gelato Services:** Includes Automation, Off-Chain Data, VRF, and Account Abstraction.
- Layer 2 Frameworks:** Includes Optimistic & ZK and Validiums & Plasma.
- SCALABILITY:** Includes DA Networks, DA Committees, and Data Availability Solutions.

The Gelato logo is in the top right corner. The text "Gelato's Augmented Rollup as a Service Platform" is written vertically on the left side of the stack. The title "Introducing Gelato Rollup as a Service" is prominently displayed on the left.

**Introducing Gelato Rollup as a Service**

Gelato RaaS combines our web3 middleware services with Layer2 frameworks (e.g. OP Stack, Polygon zkEVM) into a single hosted solution that solves security, scalability, and user experience

Key features the position Gelato as a go-to RaaS provider:

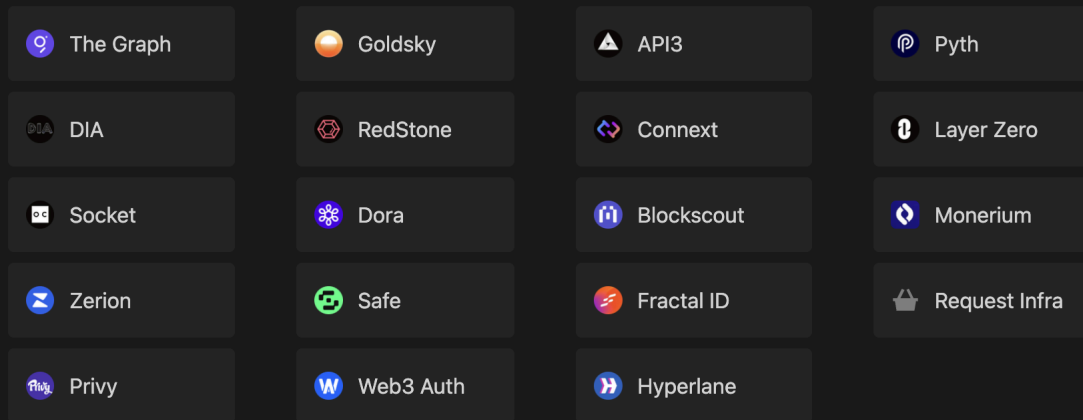
Gelato RaaS simplifies the process of deploying L2 solutions, making it as easy as a single click. Users can design a virtual execution environment and launch their L2 without managing any infrastructure, with the benefice of Ethereum security.

- Native Account Abstraction for Familiar Web2 UX
- Visa-like Scalability with up to 2500 tx/ sec (TPS) & \$0.01 / tx
- All Infra you need: Out-of-the-box Web3 services.

Making blockchain accessible to data-intensive platforms like Instagram or enterprises like Starbucks or Lufthansa looking to deploy to million of users for the first time.

# 19+ Integrations

Gelato RaaS is a turnkey solution with out-of-box infrastructure to power your custom L2



## 5) Astar zkEVM :

Astar zkEVM (a new project from the @AstarNetwork) is the first project built using the Gelato RaaS platform, which also makes Gelato the first RaaS provider to launch a public testnet utilizing @PolygonLabs open-source framework.

- EVM Smart Contract Compatibility
- Native Bridging to bridge testnet ETH
- A block explorer to view block production

With +9 infra launch partners to enable mission-critical functionality & web-2-like UX

- Native Account Abstraction on genesis block
- Full interoperability for seamless interactions
- Block explorers to monitor data
- Nft Marketplace to connect with end-users
- Oracles to build the future of DeFi
- Indexers to for data access

## 6) What are the other RaaS options?

RaaS is hyped to be the best business model since the inception of web3, so no surprise there is handful of contenders in ABC order;

**AltLayer:** Extensive Tech stack covering both OP / ZK Stacks however looks like they are prioritizing their own ALT Layer EVM / Wasm.

**Caldera:** No zk-rollups, only optimistic Rollups, utilizing OP Stack and Arbitrum Orbit, no Validium offer to unlock scalability and affordable frameworks for games, social applications and enterprises.

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**Eclipse:** Eclipse is building Ethereum Layer 2 using the Solana Virtual Machine using optimistic Rollups as an execution layer.

To compare with Gelato, with 4+ years of based track record providing mission-critical blockchain infrastructure to biggest web3 protocols like MakerDAO, PancakeSwap, LayerZero and many more with deployed services across 16+ chains, knowing the ins-and-outs of frameworks - Gelato is truly a battle tested choice with a clear focus on Web-2-like UX and scalability - both critical barriers to tackle on a mission to on-board the next wave of users to web3.

If there is one team that knows how to build blockchains - it's Gelato!

## 7) Glossary to clarify all the unknowns

**Data Availability (DA):**

A guarantee that the necessary data to reconstruct blockchain state changes (like those in a rollup) is accessible to all participants.

**DAC (Data Availability Committee):**

Group of trusted entities responsible for ensuring off-chain data is accessible to users

**EVM Network:**

Computing environment that executes smart contracts on Ethereum Blockchain

**Modular Blockchains:**

Modular blockchains separate functions like transaction execution, consensus, and settlement across separate layers for enhanced scalability without compromising Decentralization and security

**Monolithic Blockchains:**

Blockchains like Ethereum that handle the execution, consensus, settlement, and Data Availability under one roof.

**Rollups:**

A Layer 2 solution aggregating multiple transactions into a single transaction on layer 1 to optimize blockchain scalability.

**Optimistic Rollup:**

A rollup that assumes transaction validity but permits challenges to detect and correct fraudulent entries.

**Zk-Rollup:**

A rollup using zero-knowledge proofs to attest to the validity of transactions at execution time.

**8)**

The hypothesis from @Hilmarxo the gelato co-founder sets the ambition for Gelato high;  
“In 2 years from now we will have 10.000 blockchains that feel like a single one”

What is your bet on future of blockchains? Will we see 10-thousands of blockchains built on modular stacks?