How Bridges Improve L2 Composability.

Bridges 2.0

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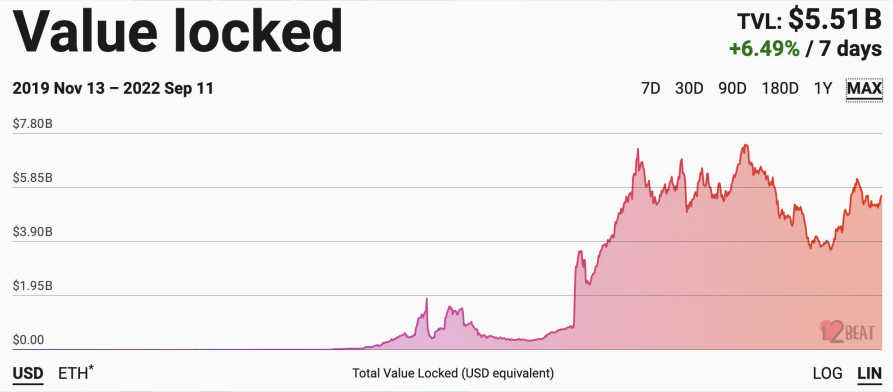
Overview: L2 Growth



- **20+** rollups on top of Ethereum
- All rollups TVL = **6B** (⅛ of Mainnet TVL)
- Arbitrum = **100+** dApps
- Optimism = **60+** dApps

sources: https://l2beat.com/ , https://defillama.com/

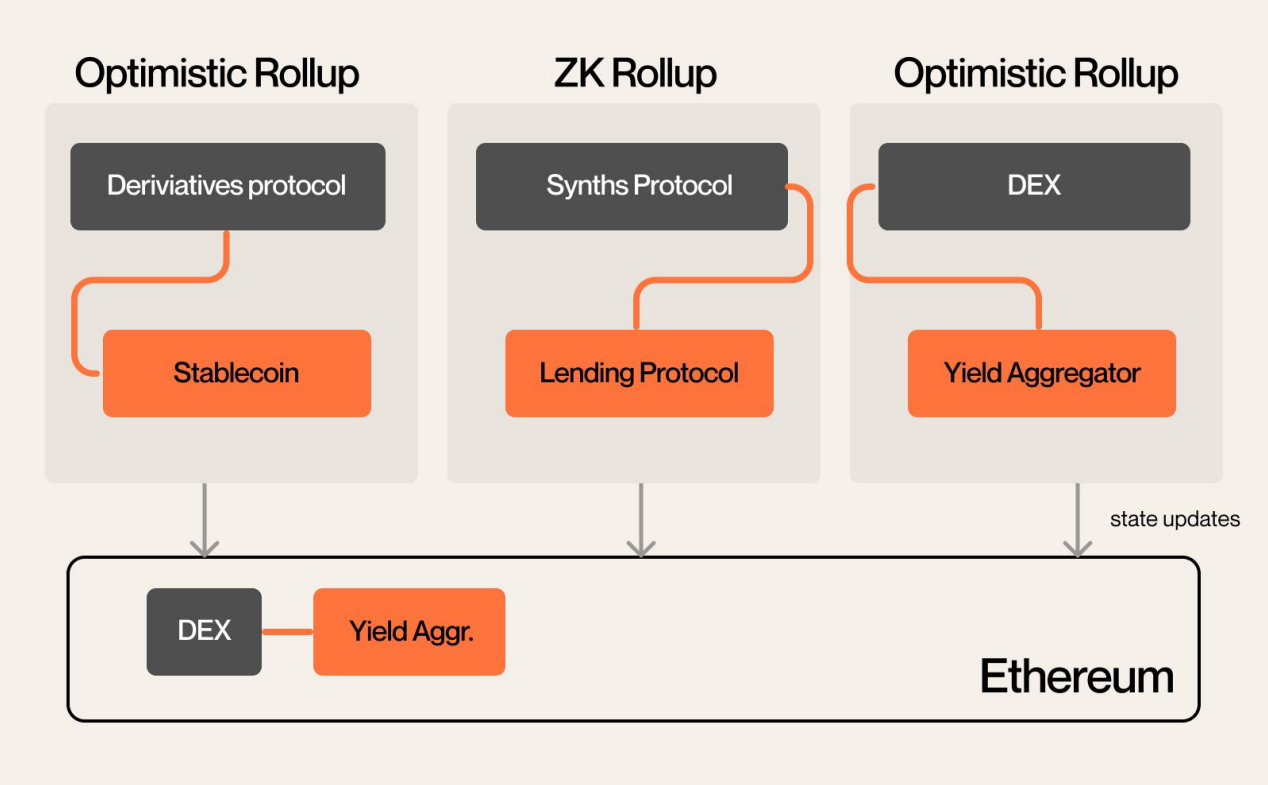
Low fees and **high transaction** throughput OVER composability.

The Side Effects

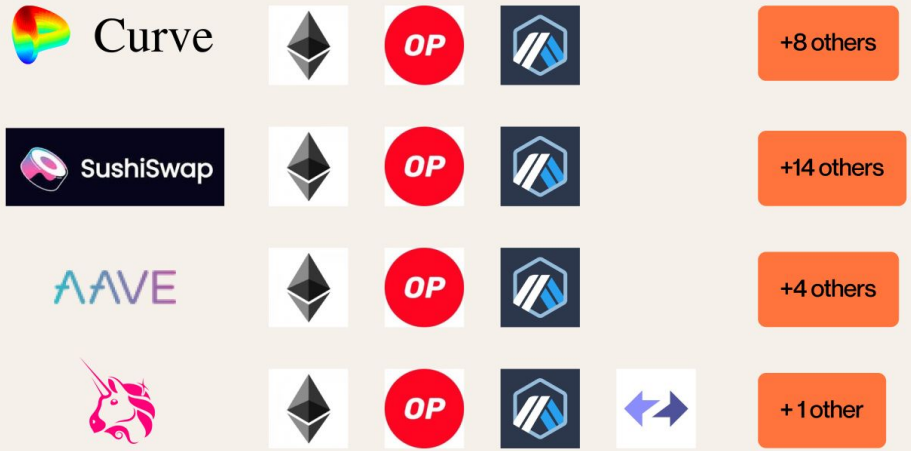
- dApp silos across rollups
- Fragmented liquidity
- End-user UX is not optimal

"Money legos"

What Is Composability?



A Thriving dApp Ecosystem on L2, but fragmented



- DEXs
- Lending
- Yield Aggregators
- Derivatives (Perpetuals and Options)
- CDP
- NFT Marketplaces
- Synthetics
- Stablecoins
- Insurance

A Use Case Example in Action

Scenario: A user wants to move their liquidity position from Curve on Arbitrum to Curve on Optimism.

- **13 user transactions** are needed.
- Wait **7 days** to exit Arbitrum.
- **Exit and enter fees** paid on Mainnet.

The Role of Bridges — So Far…

- **10+ bridges** for “rollup hopping” or quick ERC20 withdrawals from Optimistic Rollups
- Improved interoperability **but not composability** and UX

- **13 user transactions** are needed.
- ~~Wait **7 days** to exit Arbitrum.~~
- ~~**Exit and enter fees** paid on Mainnet.~~

From Bridges → Interoperability Protocols

- Focus away from ERC20 transfers.
- **Infrastructure** for protocols on L1/L2 to interact with other L1/L2 protocols **via messages**.

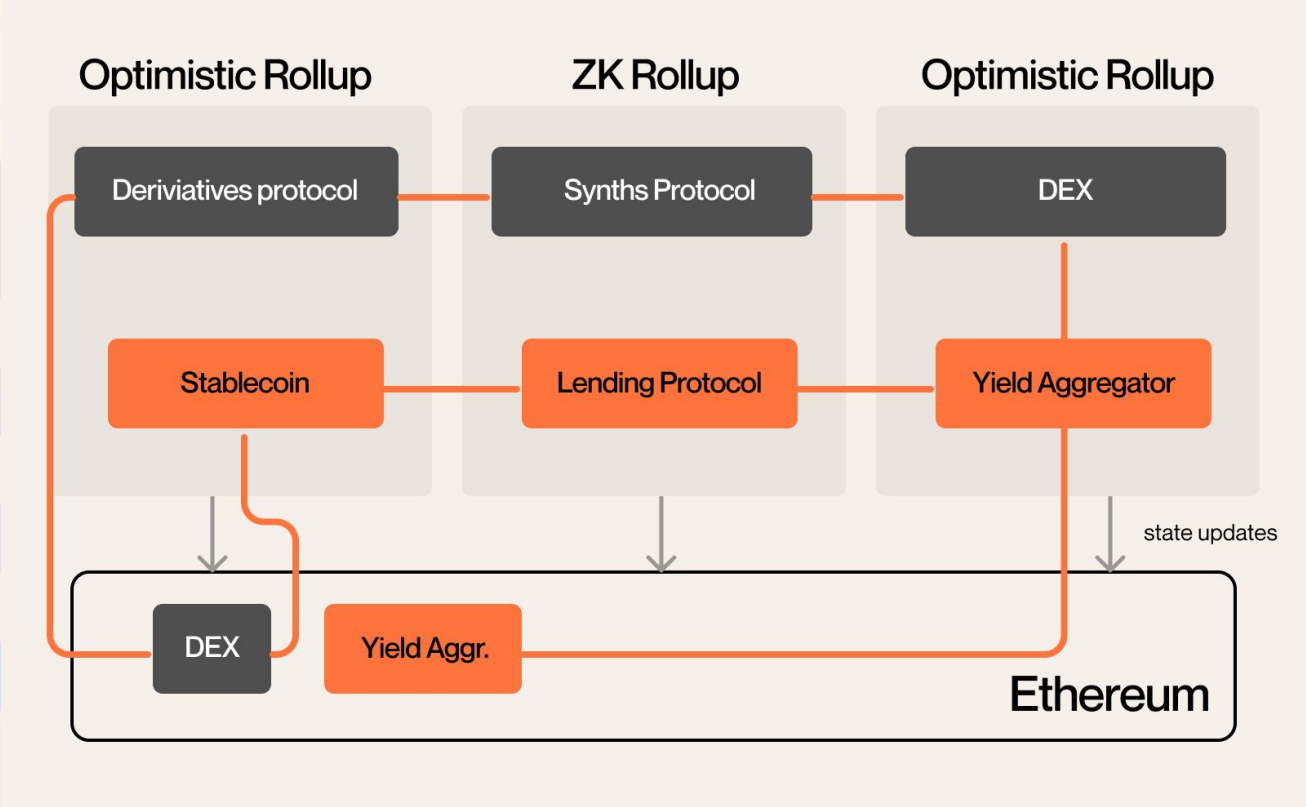
Security:

- Ultimately the messaging infrastructure should **rely on Mainnet security** (like L2s).
- ERC20 transfers can be built on top -> L2 assets with the same security guarantees as L1 assets.

Focus on Message Passing from L2 → L2/L1

“Cross rollup money legos”

The End-Game

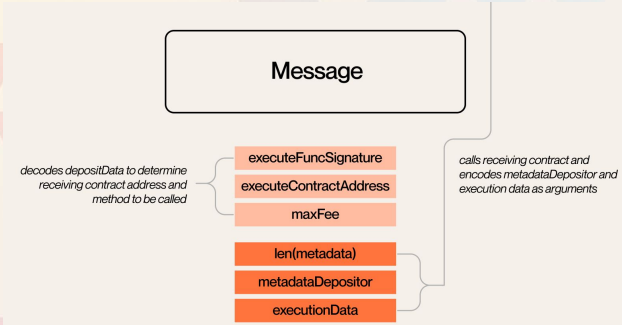


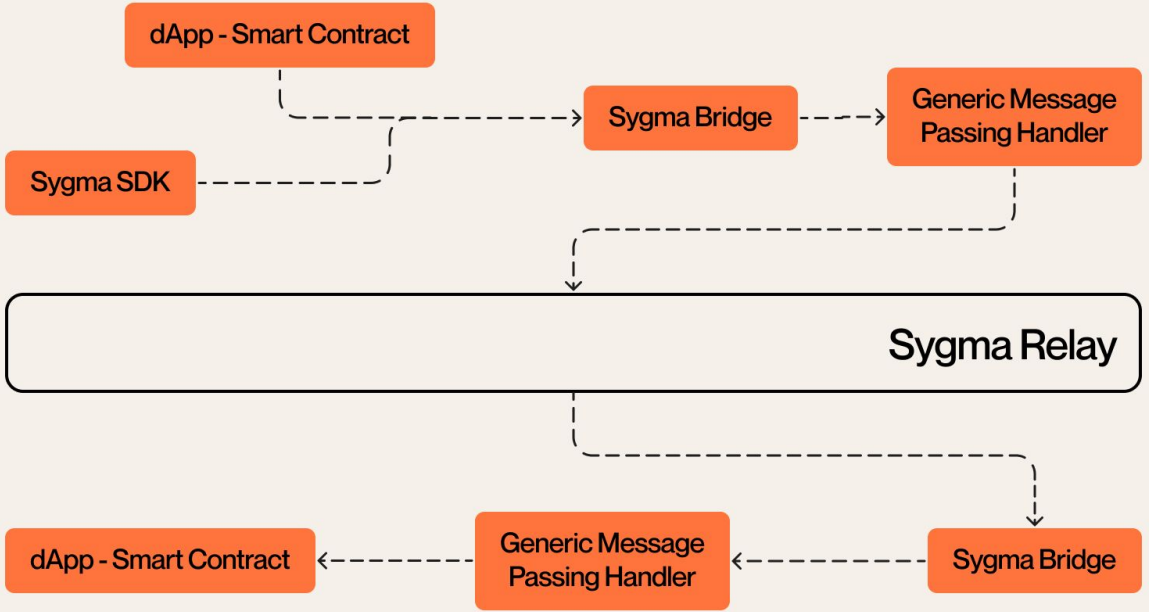
Benefits of Cross-Rollup Composability

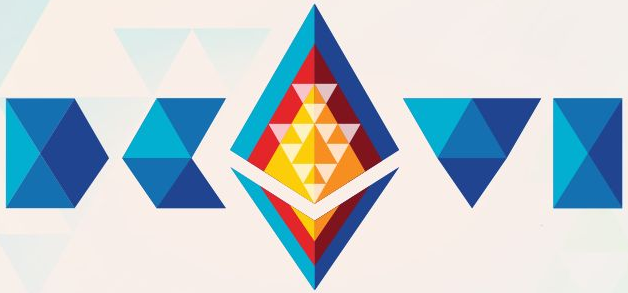
Imagine if you **didn't have to manually bridge for cross-rollup:**

- Token swaps and liquidity provision
- Governance
- Borrowing on an L2 with collateral from another L2
- Lending your NFT or borrowing against it

Cross-Rollup Composability Layer







Thank you!

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