

Composable & Picasso's Year in Review: Launching PICA & IBC Outside of Cosmos

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As we look back at 2023, we find it marked as a pivotal year for Composable and Picasso, setting a robust foundation for future advancements. It was a year of significant product releases and strategic developments, all geared towards crafting an infrastructure capable of transforming our vision into reality.

This period was characterized not just by technological innovation, but also by the bridging of once-isolated communities, fostering unprecedented interactions and collaborations. Through careful planning and focused execution, we have navigated the complexities of cross-ecosystem interoperability to deliver solutions that are not just transformative but also accessible and practical for everyday users.

Picasso's PICA Revelation: Pablo's Influence

We kicked off 2023 with remarkable momentum, following the public launch of Picasso

on December 28th, 2022. This milestone was marked by the debut of the Pablo DEX

, which not only hosted the TGE of PICA

, Picasso's native token, but also established itself as an important component of Composable & Picasso's growing ecosystem.

Today, Pablo stands as a community-driven DEX, steered by PICA governance. It serves as the initial home of the PICA token, and hosts several cross-ecosystem liquidity pools. As we progressed through the year, there has been a moderated pace in the development of Pablo as we emphasized our strategic focus on our core expertise and vision. Further enhancements to Pablo are on the horizon for 2024, but our immediate goal remains on delivering further developments of trust-minimized connections by extending IBC as well as the launch of MANTIS.

Following the launch, we introduced and implemented some important security measures. We renewed our bug bounty program in collaboration with Immunefi to focus on identifying and addressing blockchain-related vulnerabilities across Picasso through pallets integrated into the runtime. Additionally, we increased the decentralization of Picasso by successfully onboarding 22 new collators on Picasso

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Beyond Cosmic Thresholds: IBC's Unveiling Beyond Cosmos

Q2 was a historic time for us at Composable and Picasso. We successfully implemented and deployed the first-ever instance of Inter-Blockchain Communication (IBC) outside of Cosmos.

This monumental achievement connected two distinct non-Tendermint and non-Cosmos SDK chains via IBC for the first time — the Composable parachain and Picasso. Realized after a year of dedicated development, this achievement enabled trust-minimized cross-chain communication between the Polkadot and Kusama ecosystems. The launch of trustless.zone (previously known as Centauri).

For Picasso users, this connection translated into seamless asset transfers between Polkadot and Picasso, driving in DOT liquidity and introducing new asset pairs on Pablo. Most notably, it facilitated the launch of the first KSM/DOT liquidity pool on a decentralized exchange. For the broader Polkadot and Kusama ecosystems, this accomplishment represents the inaugural bridge between the Polkadot and Kusama relay chains, a feat that has not previously been accomplished.

To enhance user experience, we developed Pallet Multihop, an innovative middleware for Polkadot and its parachains. This pallet facilitates token transfers via IBC and XCM, sending tokens through two trust-minimized transport layers in a single call. Its functionality empowers users on various parachains to interact seamlessly with IBC transfers without the need to

bridge through Composable or Picasso. For instance, this allows users to effortlessly send ATOM from the Cosmos Hub to Moonbeam or vice versa in one click.

Another notable achievement of Q2 was our development of an open-source version of CosmWasm for Substrate based-chains, aiming to simplify integration for developers across diverse ecosystems. This VM boasts two host implementations, offering the adaptability required for swift deployment on different blockchains, starting with Picasso.

Launching Composable's Cosmos Chain

A very important development for our efforts to extend IBC to all possible ecosystems was the launch of our own Cosmos chain. We recognized the challenges involved in establishing new IBC connections with individual Cosmos chains, as we were often hindered by lengthy waits for upgrades and unreleased modules. To address this, we launched the Composable Cosmos chain to serve as the IBC hub to streamline the process.

While direct connections to other Cosmos chains remain possible, leveraging the Composable Cosmos chain as an IBC hub offers instant cross-ecosystem communication, without the need for chain upgrades. Additionally, the Composable Cosmos chain is specifically optimized to remove additional challenges that arise when connecting to Ethereum via IBC, simplifying what has traditionally been a complex process.

Notably, as Picasso is the network powering cross-ecosystem IBC there are plans for the name of the 'Composable Cosmos' chain to change in Q1 2024. This decision will be guided by a governance vote and would see the chain being renamed to Picasso for clarity and alignment with the PICA and Picasso narrative.

Trust-minimized Unification: IBC Linking Cosmos and Polkadot

Soon after launching the first IBC connection outside of Cosmos, we reached another pivotal milestone by establishing the first-ever connection between Cosmos appchains and Polkadot networks through IBC.

This was a groundbreaking development that allowed native Polkadot assets to interoperate within The Interchain and vice versa, unlocking novel opportunities for users and protocols across both ecosystems.

Following this launch, we promptly established cross-ecosystem liquidity pools on Pablo, Osmosis, Astroport, and ShadeSwap. These integrations significantly enhance secure

interoperability and accessibility between these previously siloed ecosystems, offering users and developers a more diverse and dynamic decentralized market and building environment.

Since the launch of our IBC integration that connects Polkadot and Cosmos, we have observed strong engagement. The connection has facilitated over \$50 million in transfer volume

and more than 50,000 transactions across both testnet and mainnet

deployments. This activity underscores a robust adoption of cross-ecosystem functionality, highlighting the increasing demand for more secure interoperability within this fragmented landscape.

This development also signals a strong user inclination towards leveraging the synergies of different ecosystems via a secure and trust-minimized path. This reinforces our commitment to pioneering solutions that meet your needs for seamless, secure, cross-ecosystem interactions.

Composable Foundation

In the beginning of Q4, we announced the formal establishment of

[Composable as a Foundation (Stiftung) in Switzerland

](<https://www.composablefoundation.com/>).

The Composable Foundation serves as the underlying organizational structure to drive forward the Composable Protocol and Picasso Protocol.

This was a concrete step towards solidifying the vision of all of Composable's contributors and serving our community through a legally compliant structure. The Foundation plays a pivotal role in supporting ecosystem development, research, and ongoing advancements for both protocols, aligning with the collective vision of Composable's contributors and benefiting the broader community.

ETH IBC Testnet

In Q4 we officially launched the first Ethereum IBC implementation on the Goerli testnet.

This was a monumental achievement that we announced and celebrated during our Key Note at Cosmoverse'23. This development represents the final stage before the launch of the mainnet Ethereum IBC connection which will mark the beginning of an unprecedented era of collaboration and interoperability in DeFi.

Part of our vision has always been to forge a secure and fluid connection between all major blockchain ecosystems, leading to diverse liquidity pools, and cross-ecosystem pollination. Through our efforts to extend IBC, we are well on our way to achieving this vision, soon Ethereum, Solana, Polkadot, and Cosmos will all be connected trustlessly, powered by Picasso — the IBC hub.

Composable Research

In an effort to reinforce our core values of transparency, community engagement, and relentless innovation, we formally launched the [Composable Research](#) division and the [Composable Research Forum](#). This platform welcomes collaboration and feedback across ecosystems like Ethereum, Cosmos, Solana, Polkadot and more. With it, we aim to drive community-driven trends, set standards, and bring novel blockchain innovations to life from ideation to execution.

Our research team has already posted several forum posts across diverse research sections, including blockchain interoperability, cross-domain MEV, intent expression, partial block building, transaction inclusion algorithms (Searchers), state determination algorithms (Solvers), and scalability solutions. This structure facilitates in-depth discussions and collaboration within each domain, nurturing intellectual advancements in blockchain technology for mass adoption.

Composable Virtual Machine V0

2023 also marked the launch of the initial version (v0) of the

[Composable Virtual Machine (CVM)

](<https://docs.composable.finance/technology/cvm>),

which is now live on [trustless.zone](#). This version is the first iteration that demonstrates the tremendous potential of intent settlement abstraction. In its beta version, users can seamlessly transfer from Composable Cosmos to Osmosis, execute a swap, and spawn their funds back to Composable Cosmos — all within a single transaction.

The CVM is set to become the foundational language for intents within our MANTIS framework. We encourage you to delve into more insights and discover the array of possibilities the CVM will unlock. For a sneak peek and detailed exploration of what lies ahead with the CVM, feel free to check out our comprehensive guide [here](#).

OpenGov on Picasso

At Composable, our commitment to trustless, non-custodial DeFi infrastructure has always been a cornerstone of our philosophy. In November, we took a significant step forward in this journey by transitioning Picasso's governance to the OpenGov framework. This shift empowers PICA token holders, by placing the decision-making power regarding upgrades and changes to the core protocol directly in their hands. User participation is vital, as any PICA token holder can propose and vote on referenda, with the influence of the vote weighted by the number of tokens locked during the voting period.

We strongly encourage active discussion and collaboration within our community. Before formally submitting proposals, we invite users to initiate and engage in discussions on Picasso's dedicated [Polkasassembly governance forum](#). This approach ensures a robust dialogue and we highly recommend to give a minimum 5-day discussion period to gather community engagement and constructive feedback before taking the proposal on-chain. For more comprehensive information and to deepen your understanding of the OpenGov framework on Picasso, we welcome you to read further [here](#).

Expect a Q1 and the rest of 2024 to be packed with innovative launches

Introduction of Restaked Validation & Launch of LSDOT

In the month of January, Composable is set to introduce an important development in the realm of multi-chain security and interoperability: the exploration of Restaked Validation beginning with the [launch of of Liquid Staked DOT \(LSDOT\)](#). This

initiative is a strategic response to the challenges of siloed security across blockchains especially in reference to middleware. The launch of this initiative aims to enhance the security infrastructure within the Composable & Picasso ecosystem and extend its benefits to all other interconnected networks of the broader cross-ecosystem IBC hub. Protocol revenue for LSDOT will be distributed to PICA stakers on Composable's Cosmos chain.

The Mainnet Launch of the Ethereum IBC Connection

Ethereum, the ecosystem most of us, especially at Composable, call 'Home', will be trustlessly accessible for users and protocols from Cosmos, Polkadot, and even Solana in 2024. We will soon be launching the first mainnet Ethereum IBC implementation

, a significant leap for the Interchain and Picasso's IBC hub that promises trust-minimized asset transfers between all connected chains and ecosystems, setting the stage for seamless and secure chain-agnostic intent execution via MANTIS.

Furthermore, this initiative aims to expand and cross-pollinate user bases by integrating with key Ethereum protocols like Curve, Uniswap, Aave, Maker DAO, Frax, Yearn, Morpho Blue, and various liquid staking protocols. This integration is designed to drive adoption in cross-ecosystem financial products and services. For users, these developments mean anyone can leverage native assets from various ecosystems and tap into diverse liquidity pools, laying the groundwork for an unprecedented era of collaboration and interoperability across these ecosystems. This is not just a step forward for Composable; it's a giant leap for the broader DeFi industry, opening up new possibilities for users, developers, and protocols.

IBC & Restaking coming to Solana

2024 is going to be a year of trustless convergence. We are on the brink of achieving what was deemed technically impossible: implementing IBC on Solana

. In collaboration with the University of Lisbon, the Composable Research team devised a restaking mechanism for Solana

to enable the creation of state proofs for Solana to develop a light client and join Ethereum, Cosmos, Polkadot, and Kusama on Picasso's IBC hub.. While we initially devised and implemented this approach for Solana, this mechanism paves the way for future expansion to other networks while also enabling us to bring novel new mechanisms to the Solana ecosystem. We are especially excited to [bring Eigenlayer style restaking to the Solana ecosystem via Picasso](#)

Check out the first Demo of the Solana IBC connection

This development will allow Solana's vast user base and liquidity to flow into IBC-connected chains via Picasso (Composable Cosmos) in a trust-minimized manner, opening avenues for cross-ecosystem use cases and seamless navigation within the interchain DeFi landscape. This connection marks a pivotal step towards enhanced interoperability and innovation for what was once known as a monolithic chain, Solana, will soon be a modular chain.

Ahead of the Solana IBC connection launch, we're introducing a restaking vault, enabling users to stake assets that will be delegated to validators upon the launch. This move allows early participants not only to earn staking rewards but also to gain an edge in the upcoming team staking competition. During this competition, user teams will compete to earn boosted transfer revenues, fostering an engaging and rewarding experience for participants. Read more about this [here](#).

Let the MANTIS games begin

In 2024, we are gearing up for the launch of MANTIS — Multichain Agnostic Normalized Trust-minimized Intent Settlement

, an ecosystem-agnostic framework designed for intent settlement across chains. MANTIS streamlines cross-chain user intent settlements. Currently, live on mainnet testing, multiple solvers have been onboarded to execute user intents.

As MANTIS goes live on mainnet, the initial strategy involves engaging users through an interactive campaign. Through this "game" campaign, users can submit problems or intentions via a Frontend interface. This campaign aims to kickstart user engagement and foster early adoption of MANTIS, inviting participants to experience and interact with the platform's cross-domain intent settlement functionalities.

Thank you for a great year

As we close the chapter on 2023 and look forward to the future, it's clear that the journey for Composable and Picasso has been one of relentless innovation and purposeful strides towards redefining the blockchain landscape to make it more seamless and interconnected for end users. Our efforts this year have culminated in significant breakthroughs and the establishment of a solid foundation for exponential growth. From launching pioneering IBC connections to fostering cross-pollination of ecosystems through integrations, collaborations, and partnerships, we have not only achieved milestones but have also set new standards in the realm of DeFi interoperability.

Looking ahead, the path is lined with promising developments and groundbreaking initiatives. With each step, we remain committed to our vision of enabling seamless, secure, and interoperable solutions for all users. The journey thus far reaffirms our belief in the transformative power of blockchain technology and its potential to revolutionize how we interact, transact, and build towards financial freedom for all. As we embark on this continued journey, we invite our community, developers, and partners to join us in shaping a future where innovation, collaboration, and trust-minimized interactions are the norm. Together, let's forge ahead into an era of unparalleled possibilities.