

Centauri: the first IBC CosmoDot connection

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Interchain Ecosystem Blog

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Cosmonauts, meet Polkadot: a network that, much like our own beloved ecosystem, strives to support a multi-chain, user-driven, and flourishing DeFi industry.

Composable Finance is incredibly pleased to offer the first opportunity for Cosmos appchains and Polkadot networks to connect via IBC, thanks to our recently launched Centauri connection. With native Polkadot assets now available in the interchain and vice versa, new opportunities are available across both networks, to all participants' mutual benefit.

The Shared History and Objectives of Cosmos and Polkadot

[Polkadot](#) is a blockchain ecosystem founded upon the principles of interoperability, scalability, innovation, efficiency, security, and user governance. Polkadot is a system of many chains, focused around its core [Relay Chain](#), which provides [shared security](#) to the other chains in the system. These other connected chains are referred to as [parachains](#), and receive security resources and blockspace commitments from the Relay Chain. This enables parachains to become highly specialized and interconnected in a manner that preserves secure communications. Applications themselves are then able to live between spaces. Notably, the Polkadot ecosystem also encompasses [Kusama](#), which is Polkadot's canary network. Together, these ecosystems are termed "DotSama".

In many ways, Polkadot parallels the [Cosmos](#) ecosystem. Both ecosystems focus on interoperability and self-determination, providing tools for developers to build custom chains to solve their specific needs (Polkadot's Parachains and Cosmos appchains), all of which are connected through common interoperability.

During a [recent twitter space](#) that our team held on Polkadot joining the interchain, a number of founders and thought leaders joined together and voiced these similarities. Robert Habermeier, Co-Founder of Polkadot, stated that "...many people in this space are working towards fairly convergent approaches... I think these ecosystems have really grown up alongside each other." Cosmos Youtuber and thought leader Cryptocito agreed that he "...always felt that there's a lot of synergies..." between these two networks. The same sentiment was further echoed by Sunny Aggarwal, Co-Founder of [Osmosis](#), who stated, "I think Cosmos and Polkadot definitely had very similar end goal architectures. At this point, it feels like everyone has converged on a similar end goal architecture. But, I think that Cosmos and Polkadot were really the first to be banging the drums about it, about this multi-chain world."

Now, with the introduction of our Centauri connection, these two kindred ecosystems can meet and synergize for the first time. This brings about an entirely new level of interoperability to these networks that so greatly respect the importance of interoperability.

The Problem

Despite the shared history and objectives of Cosmos and Polkadot, like most blockchain networks these two ecosystems remained largely disconnected until just recently. A siloed DeFi landscape limits the potential user base and hinders the growth of DeFi as a whole, stunting the potential for mass adoption. Further, a disjointed DeFi space means that users often face difficulties in navigating between and managing their assets across multiple ecosystems. Users also often miss out on cross-chain opportunities, or find it difficult to identify the best opportunities between a number of chains.

While some cross-chain bridges and exchanges have been created to address these limitations, these are largely cost- and time-inefficient. Moreover, most of these connections are trusted, and not trustless, which is a massive security risk for user's assets as can be seen from the numerous hacks and exploits over the past few years. A trusted bridge is a connection between blockchain networks that relies on a third party to facilitate asset transfers between these networks. This third party is tasked with upholding bridge security and reliability. Users must therefore trust this entity to properly handle their transactions. In contrast, a trustless bridge connects two blockchain networks without a third party. Trustless bridges use cryptographic techniques to ensure the security and reliability of the connection. Resultantly, users can transfer assets between the two networks without needing to trust a third party, instead only needing to trust in code, which is made publicly available to and auditable by all. However, existing trustless bridging solutions are generally not extensible across ecosystems or often sacrifice speed or UX in the bridging process. For more information on the advantages of trustless connections and the current limitations of trusted bridges, check out [our blog on this topic](#).

The Solution

The launch of Centauri marks the first trust-minimized connection between DotSama and the interchain. Centauri accomplishes this connection by leveraging the [Inter-Blockchain Communication \(IBC\) Protocol](#), which many interchain users will know as the interoperability protocol facilitating cross-chain connectivity, linking appchains like the Cosmos Hub and other Cosmos SDK Chains. Centauri expands the IBC outside of the Cosmos appchains for the first time. Specifically, we have recently launched Centauri's connection between the Cosmos and Polkadot, facilitated by both the IBC and our Kusama parachain, [Picasso](#):

Centauri's connection between Polkadot and Cosmos appchains is currently live on mainnet. Our first official connection is between our own Picasso parachain and Osmosis, which Cosmonauts will recognize as the leading decentralized exchange (DEX) in the interchain as well as the appchain that brought IBC to market.

As a part of facilitating this Cosmos <> Polkadot ("CosmoDot") connection, Composable completed a [StreamSwap event for \\$PICA](#), the DotSama token native to Picasso. In this event, 100 million \$PICA were streamed to swap for axlUSDC over a period of 4 hours on June 30th. During this stream, users were able to acquire PICA tokens by depositing axlUSDC. Now, the first IBC-enabled cross-ecosystem pool ([\\$PICA/\\$OSMO](#)) is live on Osmosis.

Benefits & Use Cases

A great deal of new benefits and use cases are unlocked from the IBC connection between Cosmos and Polkadot; as a result of this connection, all 46+ IBC-enabled appchains can interact with ~80 DotSama parachains in a trust-minimized, non-custodial manner.

Liquidity can now flow bidirectionally between both chains, with new assets becoming available on each. This includes Cosmos Hub's ATOM token becoming newly available on DotSama, and Polkadot's DOT and Kusama's KSM becoming available in the interchain. Other interchain- and DotSama-native assets (such as those native to specific Cosmos SDK chains and DotSama parachains) will now become available across all of these other connected chains. On July 3, 2023, [Subscan data showed](#) that there were 130K daily active users on the collective Polkadot network including the relay and the parachains on Subscan. This is more than that of Solana, indicating the significant user base (and, as thereby indicated, the significant appeal) of Polkadot. This means that a significant number of new users (and accompanying transactional volume and liquidity) from Polkadot will be made available to appchains in the interchain, and vice versa.

A number of novel cross-chain opportunities are unlocked with this flow of assets along CosmoDot. Just a few of these include:

1. Cross-ecosystem DEX pairings with native tokens on Osmosis
2. Composable's [Pablo DEX](#) has already implemented

\$KSM / \$OSMO

\$DOT / \$OSMO

- The Pablo DEX further plans to add:

\$PICA / \$OSMO

\$PICA / \$ATOM

\$DOT / \$ATOM

\$KSM / \$ATOM

- Osmosis plans to add:

\$OSMO / \$PICA

\$OSMO / \$KSM

\$ATOM / \$PICA

\$OSMO / \$DOT

2

. Cross-ecosystem liquid staking tokens via

[Stride

](<https://stride.zone/>)

1. Connected instances of protocols via Picasso
2. Cross-chain lending and borrowing
3. Easier and more efficient cross-chain token swaps
4. Cross-chain liquidity provisioning
5. Cross-chain yield aggregation

In addition to this unprecedented level of cross-chain financial opportunity, introducing native DotSama assets to the interchain is a major upgrade to the security of assets. Moreover, this connection between Cosmos appchains and DotSama represents a significant step forward in the overall mass appeal and expansion of the blockchain industry, as this makes the space more unified and easily navigable. As [AMB Crypto stated in their coverage of Centauri](#) “DeFi is now more prepared for enterprise adoption which is an important step toward mass adoption.”

Notably, this connection also delivers benefits owing to its trust-minimized nature. This is accomplished by leveraging the robustness of the IBC’s non-custodial framework, which operates without dependencies on trusted third-party solutions between DotSama and Cosmos appchains. As a result, not only is Composable’s Centauri an important connection between the two ecosystems, but it is also optimized for security and user protection.

Getting Started

While we will be launching pools on Osmosis shortly, interchain users can get started on Polkadot by following [our guide](#) on how to create a [Talisman](#) wallet. To summarize, Talisman is an easy way of interacting with the DotSama ecosystem by providing a parachain interoperable wallet while also connecting Substrate with EVM. Steps for connection are:

1. Click [this link](#) to download the browser extension for Talisman
2. Click on “New wallet” in the window that appears when the download is complete
3. Follow the prompts to import an existing Metamask wallet, or create a new wallet
4. On the following pages, set a password and to authorize the collection of anonymous usage information and the sending of anonymized error reports
5. Once a password has been set, click “Continue” then choose whether or not to send anonymized usage and error information to Talisman by selecting either “No Thanks” or “I agree”
6. The next page will be the dashboard/portfolio; follow the prompts here to back up the wallet’s seed phrase
7. Connect to Picasso:
8. Click “Wallets” in the top right corner
9. Click “Polkadot”
10. Select a wallet (the Talisman account created in the prior steps, or a Polkadot.js wallet can be added)
11. On the next page, click and connect the wallet created earlier
12. Click “confirm account”

Once these steps are complete, a user can operate on Picasso with the accounts and wallets they have connected. In particular, users will now be able to leverage the connection between DotSama and Cosmos appchains on Picasso. This

includes participating in the \$KSM / \$OSMO and \$DOT / \$OSMO pairs on the [Pablo DEX](#), which mark just the first of many opportunities for DotSama synergy.

More About Composable, Picasso, & Centauri

Composable Finance is dedicated to improving the accessibility, quality, transparency, efficiency, and security of decentralized finance. We accomplish this by pioneering innovative Web3 user experiences in a trustless, non-custodial, and decentralized manner. Composable's technology stack enables and combines key services across different DeFi ecosystems and protocols. Our ultimate vision is to enable "any money, anywhere": the use of any assets on any network. Composable aims to do this by expanding the reach of the IBC everywhere.

[Picasso](#) is Composable's layer 1 blockchain acting as an infrastructure layer to pioneer interoperable DeFi solutions, with a native token [\\$PICA](#) available on the [Pablo DEX](#). Picasso is equipped with a robust set of novel DeFi primitives that are built as modular pallets. These pallets are designed to attract liquidity from the broader DeFi landscape whilst promoting interoperability between various ecosystems.

[Centauri](#) is an extension of the IBC protocol that facilitates trust-minimized cross-ecosystem communication among various blockchains; it already connects Polkadot, Kusama, and Cosmos, with plans for expansion to Ethereum, NEAR, and other ecosystems. Centauri expands the existing IBC beyond Cosmos appchains for the first time. Similar to any IBC connection between two chains, Centauri supports asset transfers (including fungible and non-fungible tokens), generic message passing, cross-chain contract calls, cross-chain fee payments, interchain collateralization, and more in a trust-minimized manner.

Picasso also provides an ideal building ground for developers. We offer:

An ongoing grants program

Developer tooling

Guides & documentation

For more information about Composable and how it is architecting the unified DeFi landscape of the future, refer to these useful links:

Social Media

- [Discord](#)
- [Telegram](#)
- [Composable Twitter](#)
- [Picasso Twitter](#)
- [Youtube](#)

Websites

- [Composable](#)
- [Picasso](#)
- [\\$PICA Coinmarketcap](#)
- [\\$PICA Coingecko](#)
- [Immunefi Bug Bounties](#)

Apps

- [Picasso](#)
- [Pablo DEX](#)

Documentation

- [Composable](#)
- [Picasso](#)
- [Pablo](#)

- [Centauri](#)
- [XCVM](#)
- [Legal Disclaimer\(s\)](#)

? User Guides ?

- [Guides](#)