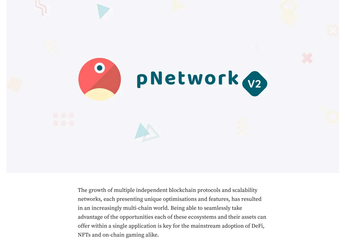
Introducing pNetwork v2

pNetwork Team · Follow
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The growth of multiple independent blockchain protocols and scalability networks, each presenting unique optimisations and features, has resulted in an increasingly multi-chain world. Being able to seamlessly take advantage of the opportunities each of these ecosystems and their assets can offer within a single application is key for the mainstream adoption of DeFi, NFTs and on-chain gaming alike.

pNetwork v1 was launched in March 2020 in its simplest form, a pTokens *bridge*, to enable the cross-chain movement of Bitcoin on Ethereum. From there, it has evolved into a DAO-governed, progressively decentralised network of nodes that power the movement of tokenized assets such as wrapped Bitcoin across a multitude of ecosystems.

Today, we are excited to present pNetwork v2. *An open-source protocol for cross-chain routing between blockchain ecosystems and scalability networks empowering cross-chain applications. It enables users and smart contracts on any blockchain platform to send and receive assets and data messages cross-chain, significantly improving and expanding the applicability of the previous version.*

pNetwork v2 aims to continue innovating in the field of cross-chain routing by pioneering cross-chain interoperability features for dApps. By enriching and expanding its previous set of features, v2 is an enabler for the project to focus on contributing to the growth of some of the biggest blockchain-powered trends.

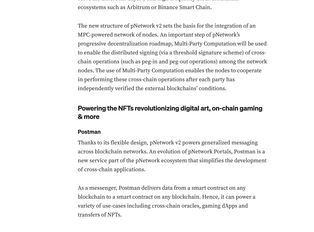
In the following post, we introduce the main features forming the pNetwork v2 cross-chain routing protocol and outline how it will serve as a powerful infrastructure tool for supporting the growth of the blockchain industry.

pNetwork v2: the cross-chain routing protocol

Infrastructure layer

pNetwork v2 will provide users a secure and efficient protocol for fast asset movement and generalised messaging across blockchain networks, while making the network more robust and mature. pNetwork v2 will underpin a variety of cross-chain services, such as pTokens bridges and the Postman messenger.

In pNetwork v2, a unified system allows developers to build cross-chain applications that seamlessly and securely transfer liquidity and data messages across ecosystems via the most efficient routes. The unified system enables for various connections between networks to be securely routed by pNetwork nodes. This results in more efficient cross-chain operations as the previous multitude of pTokens bridges is now evolved into a cross-chain routing protocol. That is, **communications from any blockchain to any blockchain**.



From a user perspective, pNetwork v2 will contribute to a seamless and cost-efficient transition of liquidity from one ecosystem to another, including direct transfers from one host blockchain to another. More on the **pTokens to pTokens bridge** feature is the dedicated section below.

Additionally, pNetwork v2 will introduce Postman — a generalized messaging system for transferring data across blockchain networks. More on the **Postman** feature in the dedicated section below.

While being operated by a network of nodes, pNetwork v2 implements additional safety precautions to minimise the risk during black swan events.

In recent months, multiple scalability solutions have proven themselves able to attract large amounts of capital within their ecosystems — therefore, creating more and more opportunities for users while increasing fragmentation. The improved structure of pNetwork v2 is designed to better serve the Ethereum Layer 2 and high-frequency block blockchain ecosystems such as Arbitrum or Binance Smart Chain.

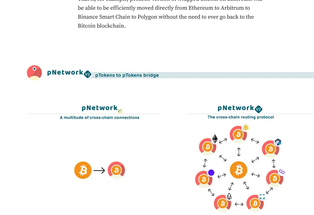
The new structure of pNetwork v2 sets the basis for the integration of an MPC-powered network of nodes. An important step of pNetwork's progressive decentralization roadmap, Multi-Party Computation will be used to enable the distributed signing (via a threshold signature scheme) of cross-chain operations (such as peg-in and peg-out operations) among the network nodes. The use of Multi-Party Computation enables the nodes to cooperate in performing these cross-chain operations after each party has independently verified the external blockchains' conditions.

Powering the NFTs revolutionizing digital art, on-chain gaming & more

Postman

Thanks to its flexible design, pNetwork v2 powers generalised messaging across blockchain networks. An evolution of pNetwork Portals, Postman is a new service part of the pNetwork ecosystem that simplifies the development of cross-chain applications.

As a messenger, Postman delivers data from a smart contract on any blockchain to a smart contract on any blockchain. Hence, it can power a variety of use-cases including cross-chain oracles, gaming dApps and transfers of NFTs.



Specifically on the NFT use-case, the introduction of Postman will significantly reduce complexity for smart contract developers and projects willing to move their Non-Fungible Tokens across blockchains.

Similarly, pNetwork v2's cross-chain routing protocol for generalised messaging via Postman will enable dApps to be natively built as cross-chain applications. Users will be able to send instructions to Postman on how they want to interact with other networks and it will automatically deliver the data to the host blockchain. Postman opens up advanced cross-chain functionalities for smart contracts enabling use-cases for the gaming industry among others (i.e. cross-chain yield aggregation).

For example, on-chain gaming platforms may want to rely on a high-frequency-blocks blockchain to grant their users a flawless user experience while tapping into opportunities available on other networks (i.e. access Ethereum's NFTs ecosystem or enable Bitcoin payments). pNetwork v2 and Postman enable just that, among many other use-cases.

Additionally, a revised pricing model will be introduced for Postman so as to reward the essential work of pNetwork nodes.

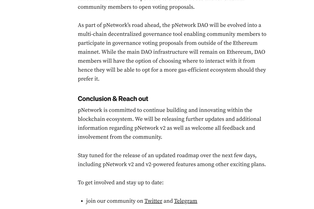
The flexibility of the Postman component can also enable additional functionalities such as the support of an oracle system. That results in a routing protocol that enables data transfers from the real-world and across a variety of blockchain protocols, therefore connecting traditional industries and data endpoints to the innovation-driven multi-chain world.

Powering the DeFi apps transforming traditional finance

pTokens to pTokens bridge

The new cross chain routing protocol introduced by pNetwork v2 results in an evolution of pTokens bridges. The pTokens to pTokens bridge powers the seamless and cost-efficient transfer of liquidity from one ecosystem to another, including direct transitions from a host blockchain to another host blockchain.

That is, for example, pTokens-version of wrapped Bitcoin on Ethereum will be able to be efficiently moved directly from Ethereum to Arbitrum to Binance Smart Chain to Polygon without the need to ever go back to the Bitcoin blockchain.



A flexible cross-chain routing protocol

The pNetwork v2 unified system sets the basis for additional features both in terms of decentralizing the whitelisting of new cross-chain connections among supported blockchains as well as the ability to potentially have multiple pricing models (i.e. flexible on volumes).

pBTC on Ethereum v2 — supporting extra functionality

pTokens version of wrapped Bitcoin on Ethereum has experienced steady and organic growth over the past few months, now figuring as the fifth biggest tokenized Bitcoin solution on Ethereum (reference: defipulse.com).

As part of pNetwork v2, the pBTC-on-ETH smart contract initially launched in March 2020 will be upgraded (and migrated to a version 2 of it) to support additional features and be future-compatible with the new cross-chain routing protocol. v2 is designed to serve and tackle new markets other than favouring the expansion on the currently addressed ones. For example, as the cryptocurrencies industry grows into mass-adoption, there is an increasing demand for assets with a socially-positive impact. Similarly, as the fragmentation of the EVM-based ecosystem increases, there is a growing need for cross-chain fungibility of assets. The upgrade of pBTC-on-ETH is designed to serve the ever-changing, innovation-driven and feature-intensive cryptocurrencies ecosystem.

Serving social and governance goals

Decentralized governance

The pNetwork DAO was launched in July 2020 as the first major step towards decentralizing the system, encouraging community participation and removing exclusive governance powers from the core team. Over the past year, the functions of the pNetwork DAO have expanded to include staking functionalities for node operators to execute nodes and for external community members to open voting proposals.

As part of pNetwork's road ahead, the pNetwork DAO will be evolved into a multi-chain decentralized governance tool enabling community members to participate in governance voting proposals from outside of the Ethereum mainnet. While the main DAO infrastructure will remain on Ethereum, DAO members will have the option of choosing where to interact with it from hence they will be able to opt for a more gas-efficient ecosystem should they prefer it.

Conclusion & Reach out

pNetwork is committed to continue building and innovating within the blockchain ecosystem. We will be releasing further updates and additional information regarding pNetwork v2 as well as welcome all feedback and involvement from the community.

Stay tuned for the release of an updated roadmap over the next few days, including pNetwork v2 and v2-powered features among other exciting plans.

To get involved and stay up to date:

- join our community on Twitter and Telegram
- participate in pNetwork governance
- register as a pNetwork node operator