router

Cross-chain Liquidity Protocol

LITEPAPER V1

VISION

To achieve a multi-blockchain future empowered by a completely secure, seamless and scalable cross-chain liquidity protocol.

MISSION

At Router, we are committed to building a cross-chain infrastructure that:

a) facilitates seamless flow of liquidity across blockchains,
b) allows for a range of use cases that leverage and extend the composability of DeFi across various blockchains,
c) promotes liquidity migration and developer efforts towards various emerging chains and solutions, and
d) eventually leads to a thriving multi-chain ecosystem.

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OVERVIEW

Current Landscape

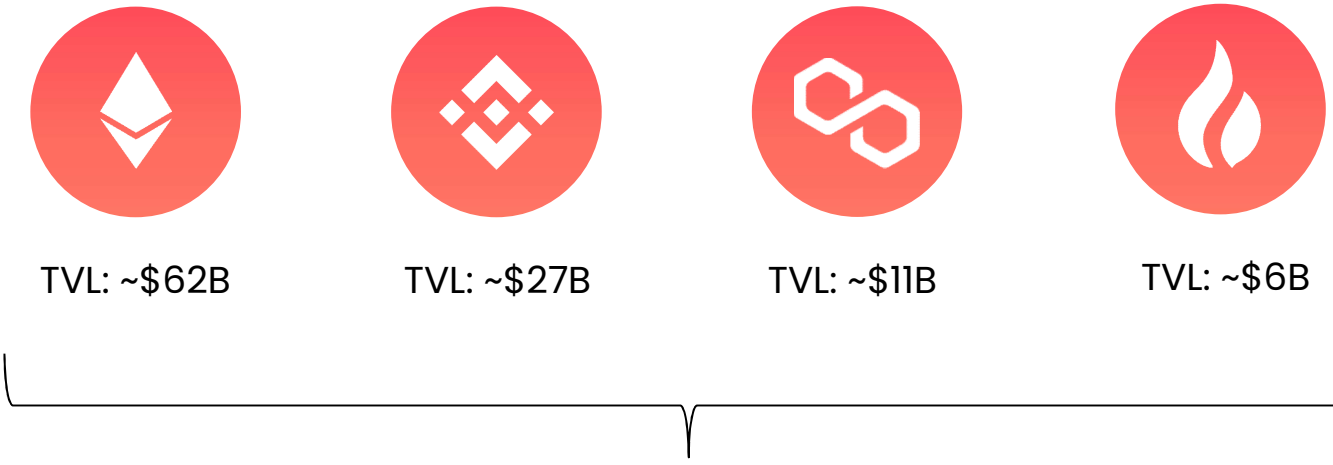
Market capitalization of over a trillion dollars

Over 5000 cryptocurrencies in the market

With a market capitalization of over a trillion dollars, the global crypto ecosystem comprises over 5,000 cryptocurrencies currently operating in restricted, isolated infrastructures, unable to access neither the liquidity nor the functionality offered by each other. Protocols and communities across the entire industry are continually striving to claim the top spot in the emerging Web 3.0 paradigm. And while the rise of Web 3.0 is inevitable, it's still too early to tell what the ecosystem will look like — will it grow into a monopoly, with the entire space dominated by a single blockchain platform such as Ethereum, or will it turn into an oligopoly, where a handful of protocols control the market?

Challenge

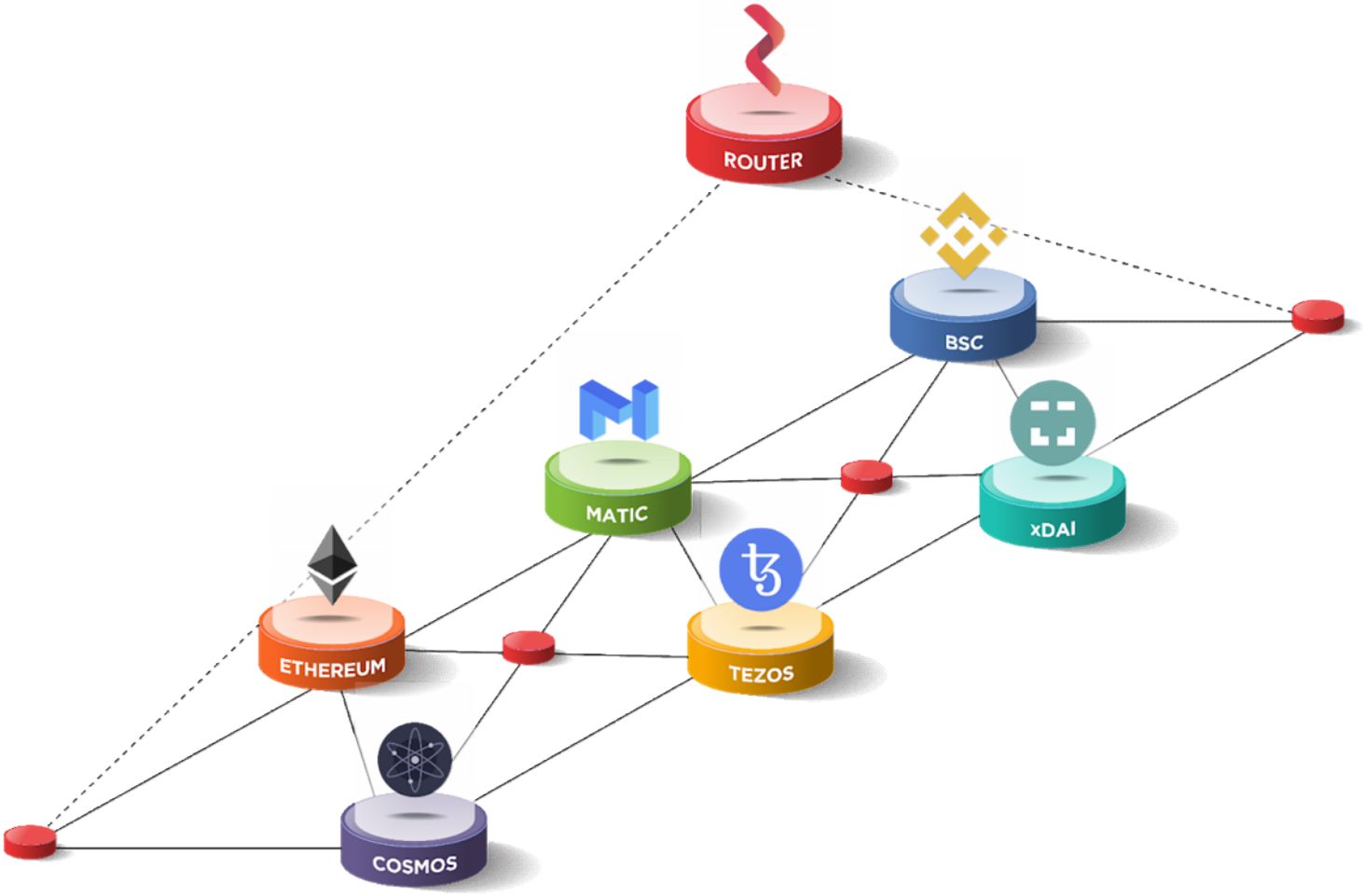
The crypto industry was built on a fundamental premise; the fragmentation and limitations endemic to traditional finance needed to be replaced with a better, more robust system with user needs at the heart of it. Unfortunately, most of these legacy encumbrances have been grandfathered into our new world of blockchains and DeFi. The market is littered with fragmented liquidity pools and creating the infrastructure that bridges the gap between them is becoming increasingly important. Moreover, as more institutional investors join the crypto space, the need for better efficiency and flexibility increases almost exponentially.



Liquidity fragmentation across popular Layer 1 and Layer 2 platforms
(TVL statistics as on June 16, 2021)

Solution

To combat the problem of liquidity fragmentation, what is needed, it seems, is an infrastructure that will seamlessly port liquidity between isolated liquidity pools, almost like highways connecting far-flung cities. A cross-chain bridging infrastructure will help promote liquidity migration and developer efforts towards various emerging chains and eventually lead to a thriving multi blockchain ecosystem.



COMPONENTS

Router's Cross-Chain Liquidity Protocol (XCLP) acts as a bridging infrastructure between current and emerging Layer 1 and Layer 2 blockchains to allow contract-level data flow across them, thus enabling asset-level data transfer with stablecoins being the medium of value transfer. Aside from connecting blockchains and enabling a free flow of information, Router will also make smart order-routing possible, enabling users to swap their assets from different networks seamlessly.

Before diving into the working of the XCLP, it is first important to understand the different components involved in Router's flow:

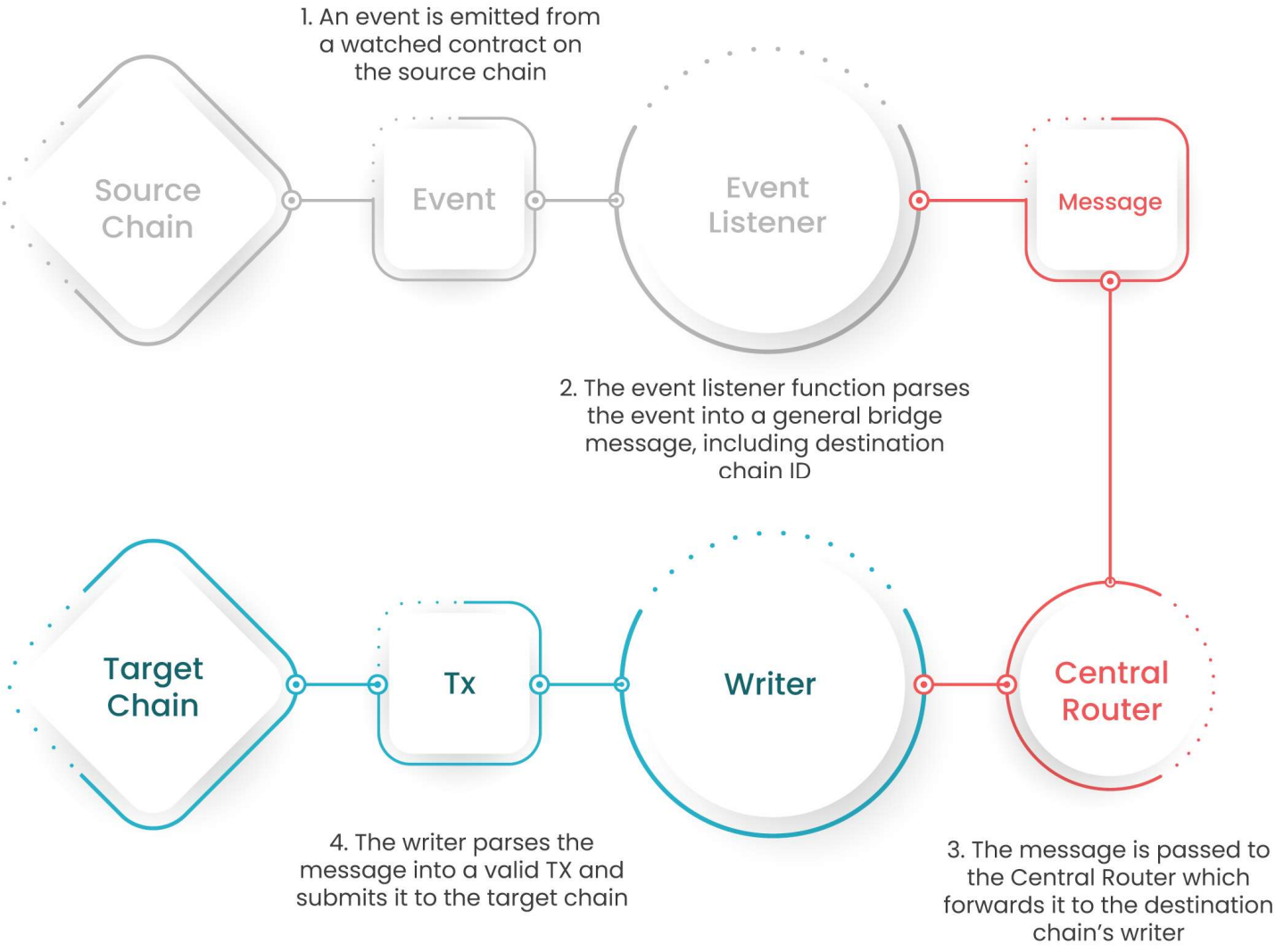
1) ParaRouter - Every chain supported by Router Protocol will have a router bridge contract known as ParaRouter deployed on it. The ParaRouter is able to lock a stablecoin and broadcast an event that can be picked up by the event listener associated with the ParaRouter.

2) Central Router - It is the hub that listens to the event on ParaRouters, validates them, and forwards the event for further processing to the destination chain.

3) Event Listener - This function is responsible for parsing the event transmitted by the ParaRouter into a general bridge message.

4) Writer – This function is responsible for parsing the bridge message into a valid transaction and submitting it to the destination chain.

5) Validators - These are special nodes associated with the Central Router that are responsible for determining the validity of the transaction.

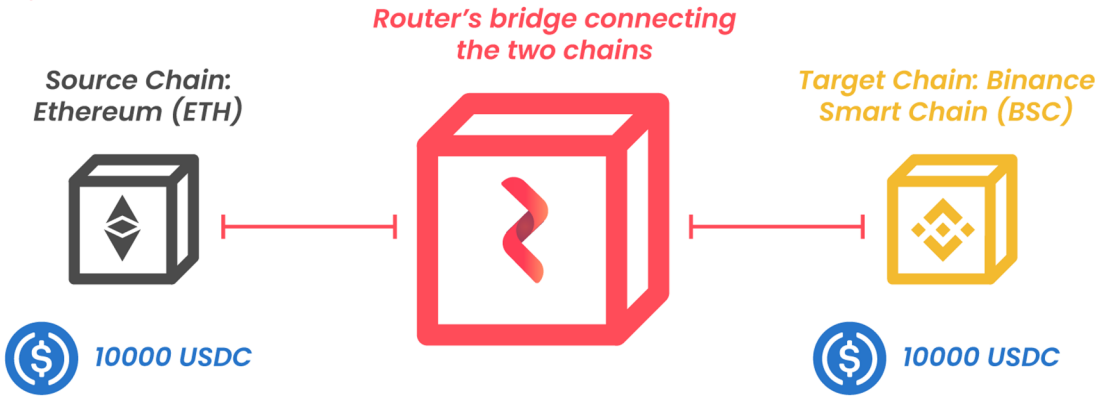


XCLP'S WORKING

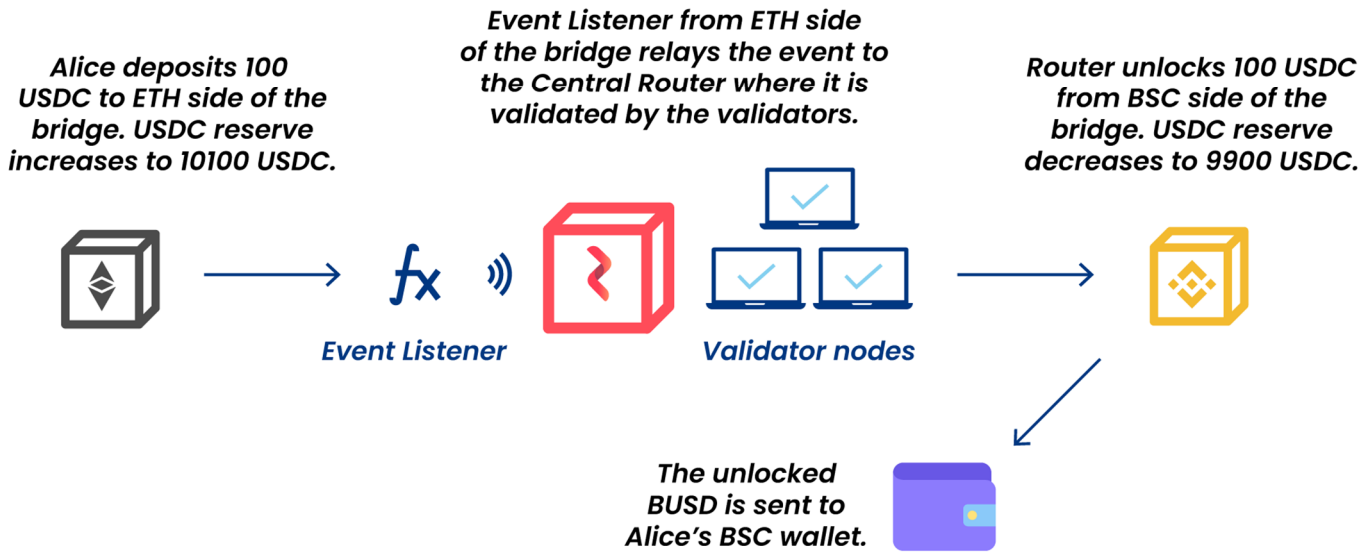
Let's say Alice wants to transfer USDC that she holds on the Ethereum network (the source chain) to the Binance Smart Chain (the destination chain). In order to execute this swap, the steps involved are as follows:

1) Router's bridge on the Ethereum side accepts Alice's USDC and locks it in the Ethereum ParaRouter reserve.
2) The ParaRouter emits a message that is picked up by the event listener and forwarded to the Central Router.
3) The Central Router, with the help of validator nodes, validates the event and instructs the ParaRouter on BSC to unlock a proportionate number of BUSD (stablecoin on BSC) tokens that's locked in the BSC ParaRouter Reserve.
4) The unlocked BUSD is sent to Alice's BSC wallet address.

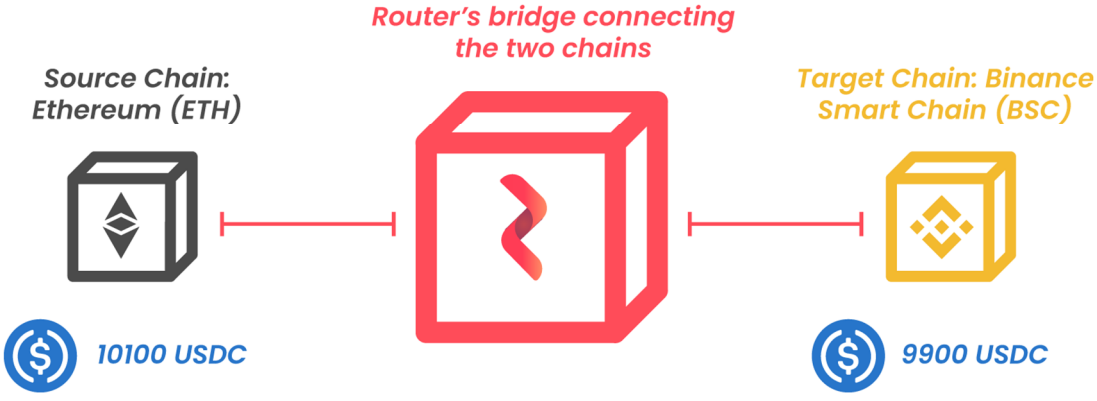
Initial State



Simulating transfer of 100 USDC from ETH to BSC



Final State



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FEATURES

01

HIGH QOE

With Router, swapping Asset A on one chain for Asset B on another chain will be as simple as booking a ticket online between two cities. You set the parameters of the trade, optimizing the price/execution certainty, and the protocol abstracts out all the underlying complexity for you.

02

SMART ORDER ROUTING

With bridges to all major blockchains, Router will achieve smart order routing by traversing through various different blockchains and their AMMs to fulfill the order at the best prices. For example, let us say, Router finds a better BTC/USD price on a venue on the Solana blockchain instead of Uniswap on Ethereum, so Router will try to fill that order from Solana.

03

UNIFIED GAS FEE

Cross-chain asset transfers require a transaction to be processed through various chains, with each chain requiring a gas fee to be paid in a token that's native to that chain. Router simplifies this process by allowing users to pay a single time fee for asset transfer.

04

MINIMAL SLIPPAGE

Cross-chain Liquidity Protocol (XCLP) is the first protocol that enables swapping of assets with stablecoins as the medium of value transfer. Since stablecoins are, in general, less volatile than most cryptocurrencies, their use ensures minimal slippage during large-scale asset transfers.

PROTOCOL SECURITY

Security is an important aspect of any decentralized application. Router's XCLP ensures security of users' assets by maintaining a decentralized network of validators to validate all transactions. Whenever a request for cross-chain transfer reaches the Central Router, it generates a proposal to accept the transaction. For the request to be forwarded to the destination chain, this proposal needs to be accepted by a fixed number of randomly selected validators. This ensures that no single validator has the authority to void a valid transaction or carry out a malicious transaction. Furthermore, since no validator knows the identity of other validators, there is very little possibility of collusion. On the off chance that the validators do find out each other's identity, the security of the network still won't be compromised since any benefit the validators gain by carrying out a malicious transaction would be far less than the loss (of their staked $ROUTE tokens) they would incur.

During the whole voting process, the custody of user's assets is maintained with Router's bridge contract on the source chain. Therefore, if any suspicious activity is detected, the tokens will be returned to user's wallet on the source chain.

TOKENOMICS

Allocations	Token %	Vesting
Seed Round	3.00%	20% unlocked after 6 months, then daily unlocking of tokens for 9 months
Private Round 1	2.50%	20% unlocked on day 0, then daily unlocking of tokens for 9 months
Private Round 2	5.11%	20% unlocked on day 0, then daily unlocking of tokens for 9 months
Reward Pool	17.22%	Locked in SC for daily distribution over a year based on Router's reward program
Team	15.00%	10% unlocked after 9 months, then monthly unlocking of tokens for 12 months
Ecosystem Fund	25.42%	8% unlocked on day 0, 7% unlocked after 3 months, then 5% monthly unlocking of tokens for 17 months
Liquidity Provision Fund	1.75%	22.86% unlocked on day 0, then remaining distributed quarterly for 12 months
Foundation	20.00%	10% unlocked after 9 months, then monthly unlocking of tokens for 12 months
Partners and Advisors	10.00%	10% unlocked on day 0, 10% unlocked after 3 months, then daily unlocking of tokens for 9 months
Total	**100%**	

Seed Round

The latest seed round saw 3% of the total 20 million $ROUTE coins allocated to a consortium of crypto investors from the US and Asia with a lock-in period of 6 months. Price of $ROUTE tokens during the seed round: $0.175.

Private Round 1

During our first private funding round, a total of 2.5% of $ROUTE tokens were allocated to investors. Price of $ROUTE tokens during the first private round: $0.200.

Private Round 2

The second private funding round saw 5.11% of $ROUTE's total token supply allocated to a select group of investors. Price of $ROUTE tokens during this round: $0.275.

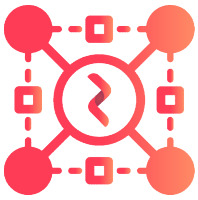
Reward Pool

Ensuring a fair and stable reward distribution for those staking in the Router ecosystem was a top priority and required allocating a significant portion of our supply to it. The reward pool will hold 17.22% of the total supply and have only 0.92% of the tokens unlocked on day 0.

Team

Learning from the mistakes of countless DeFi protocols and blockchain companies, we gave ourselves only a 15% stake in the total circulating supply of $ROUTE tokens. It was of the utmost importance for us to establish a level of trust with the community, which is why all of the tokens allocated to the development team will remain locked for 9 months.

Ecosystem Fund



While it was never our goal to create a speculative asset out of $ROUTE, we understand the value of monetary incentives, especially in a community as decentralized as Router's. Therefore, we have allocated the largest portion of our total supply to the ecosystem fund, which will see the funds distributed to projects and developers looking to build on Router. A total of 5,084,000 $ROUTE tokens, or 25.42% of the circulating supply, have been allocated to the ecosystem fund.

Liquidity Provision Fund

A great protocol is worth nothing without liquidity. Our goal with the liquidity fund was to create a system that facilitates movement and action. The fund received 1.75% of $ROUTE's total supply, with 22.86% of the 80,000 tokens unlocked on day 0.

Foundation

In anticipation of future strategic needs, we allocated 20% or 4,000,000 $ROUTE tokens to the foundation. The entirety of their tokens will be locked for 9 months, after which only 10% of their holdings will be released.

Partners & Advisors

Router's partners and advisors, while very important to the ecosystem, have a relatively small stake in the system. We allocated 10% of $ROUTE's total supply or 2,000,000 tokens, to a number of companies and experts that support our network.

TOKEN UTILITY

Governance – As Router Protocol grows, more and more bridge validators will be selected via the Proof of Stake mechanism.

Revenue Sharing - A competitive 0.05% fee will be charged over every swap, which will be equally distributed among the Central Router validators.

Unified gas fee - When a transaction is being processed through multiple chains, every step requires a gas fee to be paid in a token that's native to the particular chain. The fee is simplified for the user and the user will have to pay the gas fee only once in $ROUTE tokens.

INCENTIVIZATION

Liquidity Mining using XCLP Framework

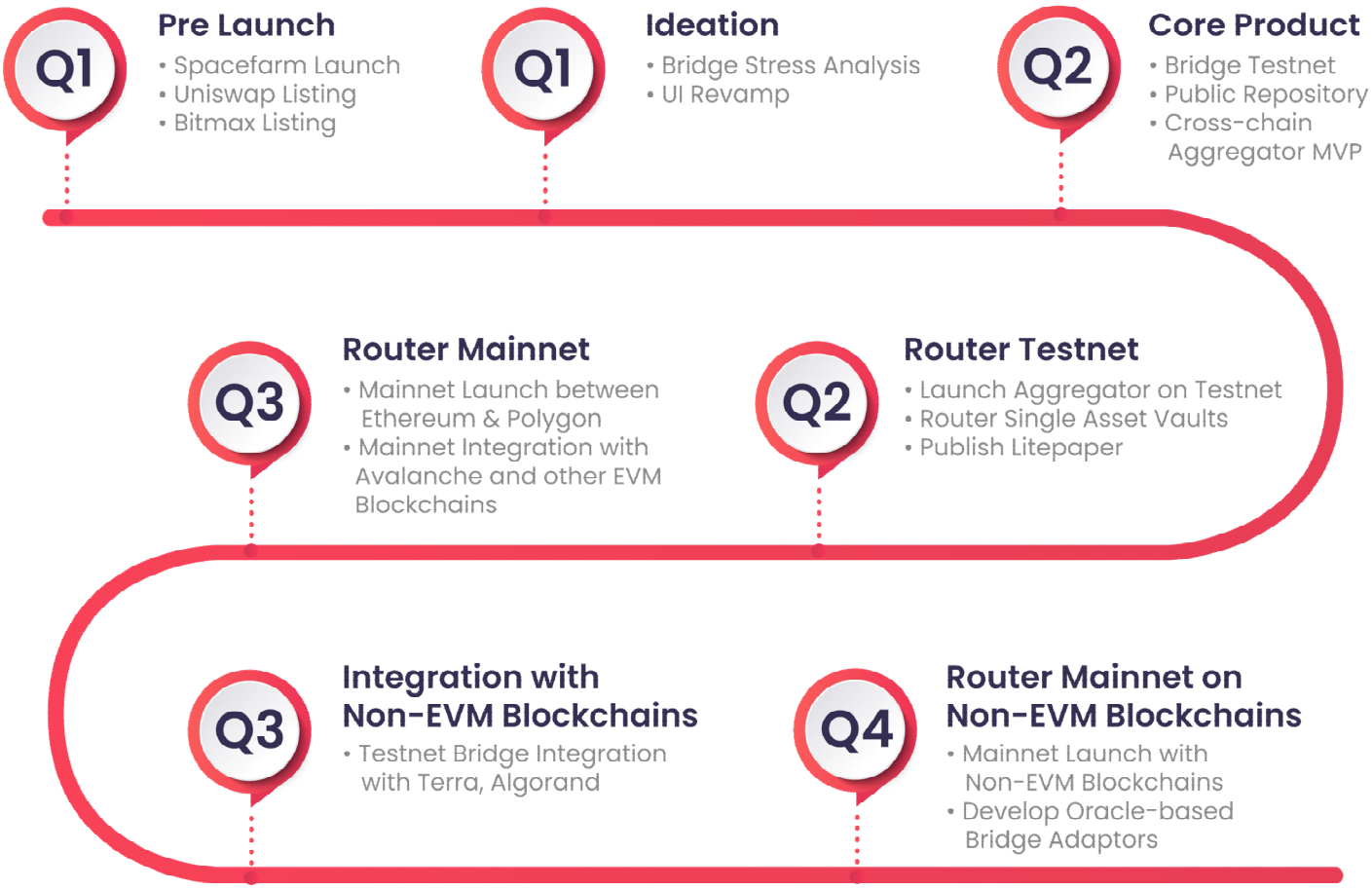
To mine $ROUTE tokens using Router's XCLP framework, users will be able to lock their assets (for example: USDC) on Router's bridge contract. In return for locking their assets, the users will receive LP tokens (R.USDC in case of USDC). The users can then choose to do one of two things:

1) Users can stake these tokens on a separate Router contract which would allow users to earn $ROUTE tokens as reward for staking their asset locally on Router.
2) Alternatively, users can pool these tokens with their stablecoin counterpart (for example: R.USDC/USDC) on Router's companion project, Dfyn.network, to earn LP fees.

Delegation

$ROUTE holders will be able to provide liquidity to the platform in their bid to become validator nodes. These validators will earn a share of the transaction fees that is charged by the platform for enabling cross-chain transactions.

ROADMAP


Q1
Pre Launch
• Spacefarm Launch
• Uniswap Listing
• Bitmax Listing
Q1
Ideation
• Bridge Stress Analysis
• UI Revamp
Q2
Core Product
• Bridge Testnet
• Public Repository
• Cross-chain Aggregator MVP
Q3
Router Mainnet
• Mainnet Launch between Ethereum & Polygon
• Mainnet Integration with Avalanche and other EVM Blockchains
Q2
Router Testnet
• Launch Aggregator on Testnet
• Router Single Asset Vaults
• Publish Litepaper
Q3
Integration with Non-EVM Blockchains
• Testnet Bridge Integration with Terra, Algorand
Q4
Router Mainnet on Non-EVM Blockchains
• Mainnet Launch with Non-EVM Blockchains
• Develop Oracle-based Bridge Adaptors

OUR TEAM

RAMANI RAMACHANDRAN

CEO & Co-Founder

MIT, Deloitte, Moody's, Schlumberger; In Crypto since 2014, built and ran one of Asia's earliest crypto funds, returned 4x; Built Fordex - the world's first stablecoin DEX along with 0x; Qume, an institutional grade crypto exchange; Launched Asia's first crypto-index token.

SHUBHAM SINGH

Full-stack Developer and Technical Architect building in crypto and blockchain since 2016; Built a crypto-index (108token) as well as Fordex - the world's first stablecoin DEX. Significant experience working on trading systems developing low-latency, high-frequency software.

CTO & Co-Founder

CHANDAN CHOUDHURY

Co-Founder

Head of Strategy at Bitpolo, leading Indian crypto exchange; Veteran trader and advisor across asset classes spanning over 15 years. Energy trader at Futures first; Managed crypto fund, generating 4x returns; Head of Ops & Market Research at Tradelab.

MOUNICA DURGA

Full-stack Developer and Technical Architect building in crypto /blockchain since 2016; Built 108token (Asia's first crypto index token) and Fordex, the world's first stablecoin DEX with 0x grant; Worked on matching engine for crypto derivatives platform.

Chief Technical Architect & Co-Founder

PRIYESHU GARG

Co-Founder

Engineer/Growth Hacker/Product Manager; Technical Advisor @Umbrella Network; Software Engineer @ Ola; Journalist @Cryptoslate & @8BTC.

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