

# NAMI Protocol: The fully automated yield optimizer on Rujira

*Grow your wealth without any effort.*

Whitepaper

<https://namifi.app>

**Abstract.** NAMI is revolutionizing DeFi by addressing its core challenge: accessibility. By simplifying yield optimization through automation and sustainable economic models, NAMI **empowers users to grow their crypto assets without complexity.** With a focus on transparency, sustainability, and scalability, NAMI integrates seamlessly with existing DeFi ecosystems while offering a streamlined experience for users, whether they are crypto enthusiasts, institutions, or first-time participants. NAMI delivers fully optimized yield on single assets for EVERYONE.

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# 1. Motivation

Decentralized Finance has quickly become way too complex. Many projects have confusing designs, unclear risk profiles and might even rely on external incentives to stay attractive. While high yields are the most powerful marketing tool (as seen with Anchor Protocol), building a profitable, long-term solution with high user growth is a different challenge. Ultimately, users should feel confident enough to recommend these products even to a grandparent, ensuring crypto can reach the masses.

That's where **NAMI Protocol** comes in. We believe there should be an **easy, sustainable and trustworthy way to grow wealth**. Our goal is to make a product anyone can understand and feel good about using—without getting lost in the details or wondering if it's safe. **Spend your time where you can maximize your cash flow while we maximize your wealth.**

We offer optimized, automated yields on single assets, appealing to everyone—seasoned crypto users, institutions, protocols, and newcomers alike. Our mission is to deliver easy-to-use, reliable financial tools that form the backbone of any solid financial plan. Building on [Thorchain's](#) App-Layer [Rujira Network](#) lets us provide a user-friendly, high-performance EARN product suite accessible from any major Layer 1 and wallet.

The Protocol's approach is designed to **feel native** to all our target groups. That's why we're offering direct integrations beside our own UI. We want to reach everyone, where they feel comfortable.. For example, the experience for a completely new crypto user is like an “online banking” experience—users simply deposit their assets to earn a transparent and sustainable yield. They can withdraw at any time without any lock-up. Crypto seasoned users are more likely to use our direct integration into Rujira (RUJI Savings) or build advanced strategies on top.

# 2. Problem Statement

As developers in the crypto space, the core question we all need to face is: **What real-world problems can we solve with these powerful DeFi tools?** There are countless answers, but we focus on the primary goal: **How do we put these tools in the hands of more people?** Put simply, what will it take to onboard the next 100 million users by 2025?

- The answer is both simple and challenging: build a product that

- Delivers real, sustainable, and attractive results
- Is extremely easy to understand
- Is enjoyable to use
- Encourages frequent engagement
- Inspires sharing and conversation
- Appeals to third-party integrations

NAMI Protocol's solution is a **yield layer that fully automates and optimizes yields** for every asset on Thorchain's app-layer, Rujira. **Earn the best yield on your asset with an absolute minimum of risk.** This layer democratically addresses the core optimization mechanism, driving costs toward zero for both the protocol and its users. Rather than using instant, atomic swaps, we incentivize market participants to manage rebalancing on our behalf.

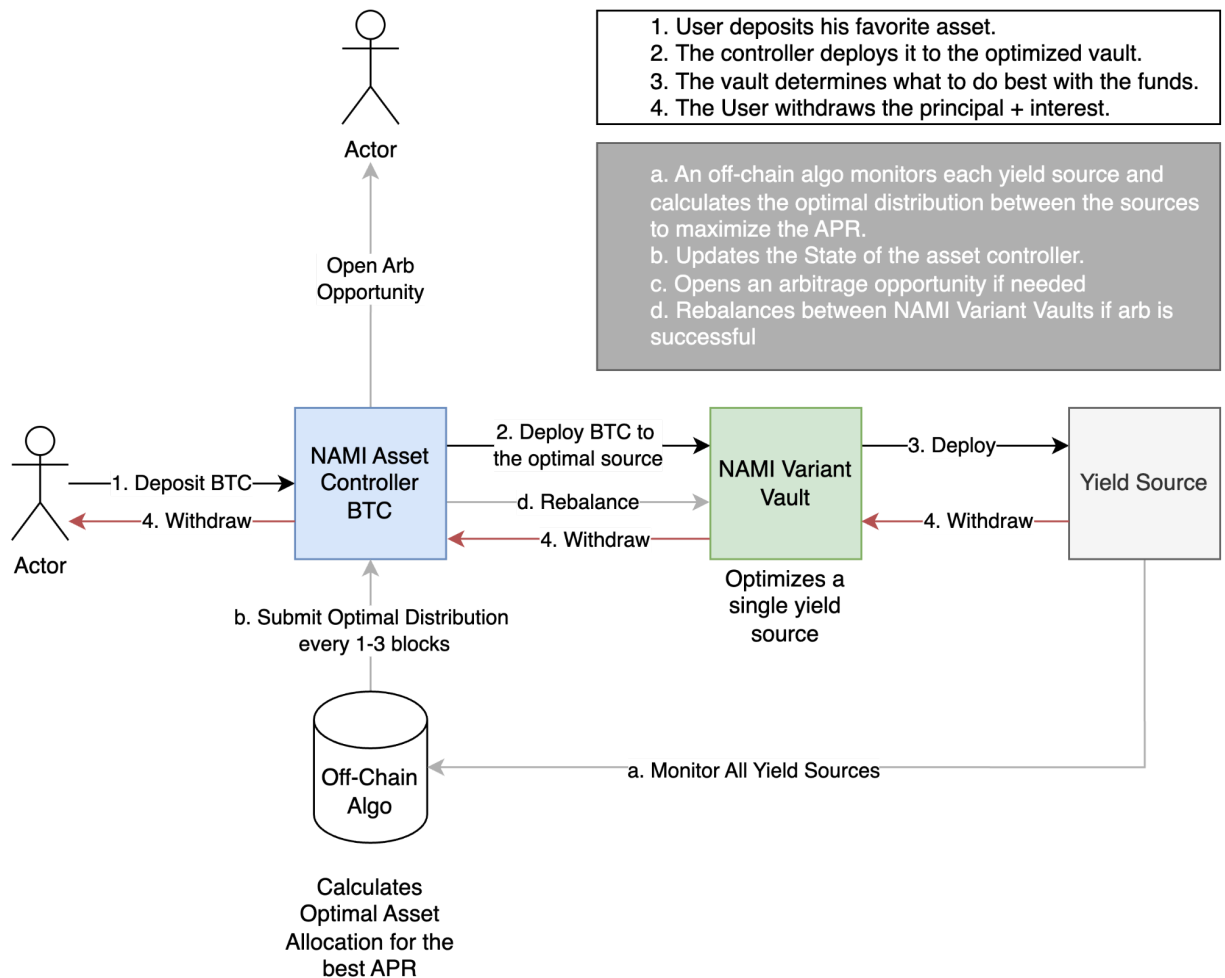
With seamless integration into any user interface or protocol, **NAMI meets people wherever they prefer to engage.** For those new to crypto, our own user-friendly, one-stop interface simplifies single-asset yields without sacrificing transparency or sustainability. The goal is to make an application that users not only want to open and use daily, but also enthusiastically recommend to others.

**NAMI delivers Thorchain's new SAVERS product, which is not built at the expense of other ecosystem participants, but rather exploits inefficiencies in the existing system—ultimately creating a net-positive outcome.**

### 3. The yield layer

#### 3.1. Economic Model

NAMI is an automated yield optimizer designed to help users **grow their preferred crypto assets**. As long as an asset is available on the Thorchain app-layer Rujira Network, NAMI delivers the most optimal yield based on current market conditions. Essentially, NAMI continuously identifies sustainable, yield opportunities for any supported asset. If needed, it shifts funds between them. All products used to generate yield bear no downside risk to the user’s asset.



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<sup>1</sup> Flow of funds

### 3.1.1. Yield Optimization

NAMI Protocol uses qualified yield sources on the Rujira Network to generate returns. A yield source is considered “qualified” if it:

- Generates yield sustainably without artificial incentives
- Minimizes risk (with additional safeguards in the controller contract)
- Defines risk as any potential loss of funds
- Keeps funds unlocked
- Allows the position’s value to be queried at any time
- Permits the impact of entry or exit to be calculated or anticipated (e.g., via machine learning)

Initially, we focus on lending markets, then expand to delta-neutral LP strategies and stable LP strategies.

The core of NAMIs functionality is yield optimization. The optimum is defined as the highest possible Annual Percentage Rate (APR) for an asset at this point in time. It occurs in two ways:

1. Rebalancing funds from lower-yield sources to higher-yield ones
2. Maximizing returns within a single yield source

Since the first method is discussed in the following chapter, this section explains single-source optimization using the USDC lending vault as an example.

In the lending market, interest rates depend on the ratio of borrowed funds to available funds. If available funds remain constant and borrowed funds increase, both borrowing and lending rates rise. Currently two linear regimes exist: one increasing slowly and one increasing faster. We use this behavior to determine the optimal balance between lending funds and holding them in the contract. All the formulas inside the lending market are controlled by the utilization ratio

The utilization ratio can be described as:

$$u = \frac{b}{d}$$

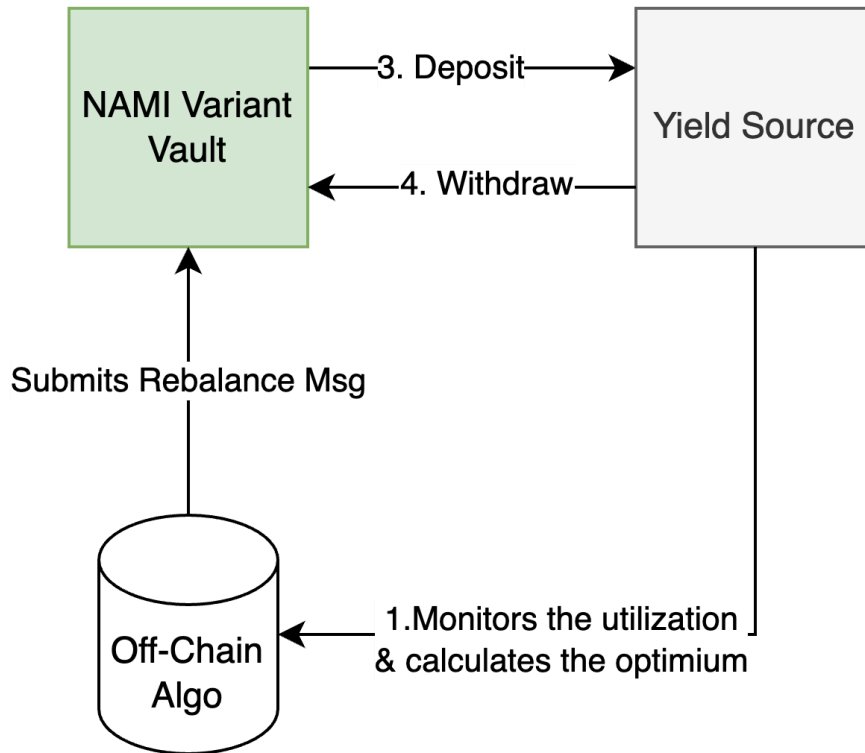
where:

- $b$  is the borrowed amount
- $d$  is the deposited amount

From the formula above, we see that if more capital is deposited than borrowed, utilization decreases. However, a higher utilization rate produces a higher yield. The algorithm accounts for

both scenarios to find the ideal balance between deposited and idle amounts, thus maximizing the contract's overall yield.

Our off-chain algorithm monitors each yield source and initiates a rebalance, if a better overall APR can be achieved.



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### 3.1.2. Arbitrage System: Reduce Rebalancing Cost to Zero

#### 3.1.2.1. Democratizing Rebalancing

When designing an optimization system, it's essential to identify the key factors influencing outcomes. Maximizing returns from a single yield source often has minimal costs—zero in the lending example (apart from transaction fees). However, switching between assets introduces a different challenge.

In our initial proof of concept, we used market swaps on FIN's decentralized orderbook, which provided atomic and instantaneous behavior. But this approach added two costs: orderbook fees and price impact based on position size. These costs reduce the achievable APR, making the product less attractive, and the issue grows exponentially as NAMI Protocol's share of the network's TVL increases.

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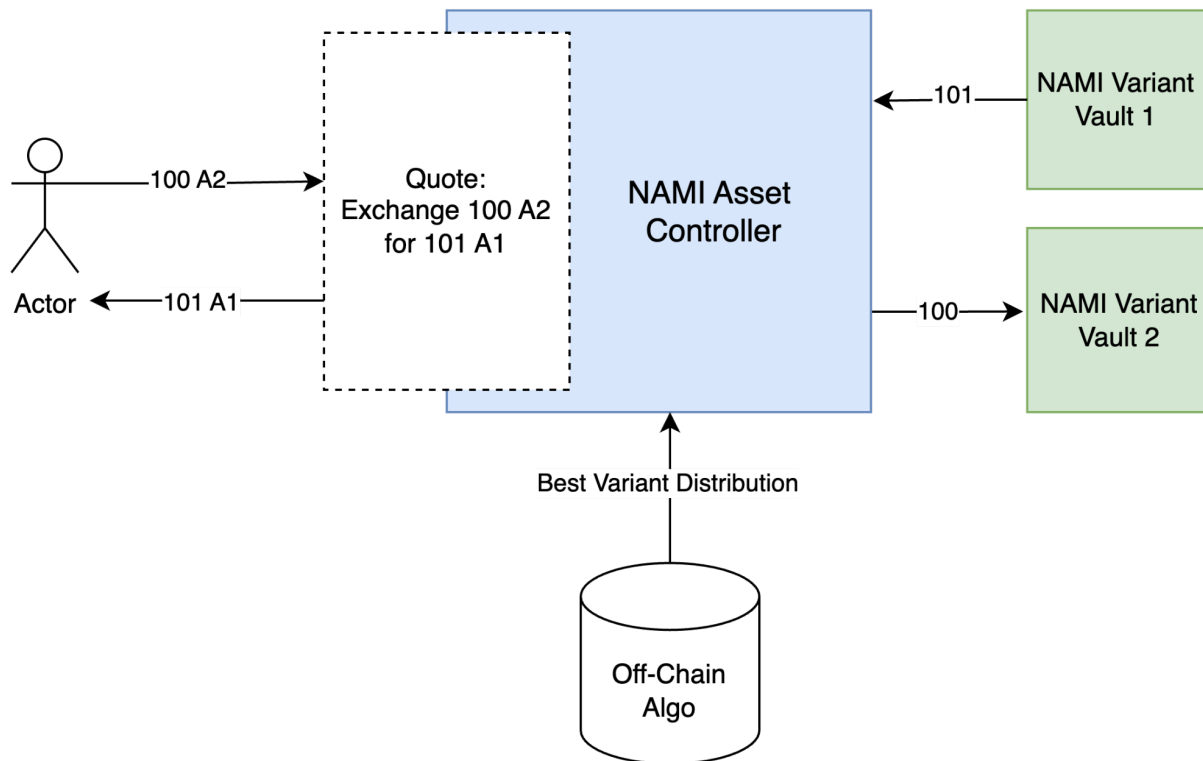
<sup>2</sup> Single Yield Source Optimization Flow

A potential solution is to let market participants rebalance for the protocol, relying on a few hypotheses:

1. Participants often want to swap asset A for asset B anyway.
2. Participants aim to minimize costs.
3. If participants lack sufficient motivation, incentives can drive them to act.
4. Incentives speed up participant engagement.
5. These incentives can be lower than the combined cost of a typical orderbook swap.

In the long run, the protocol could form a symbiotic relationship with arbitrageurs, allowing incentives to trend toward zero because of the value these participants gain. Achieving this will require substantial business development and depends on Thorchain’s as well as Rujira’s overall development.

### 3.1.2.2. The System



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An off-chain algorithm first determines that rebalancing between the Variant Vaults will increase overall APR. It submits its recommended configuration to the Controller contract. The arbitrage state machine then calculates which assets need to be exchanged and in what amounts. It checks the daily cost limit safety parameter to decide if it can offer a premium, then constructs a quote (with or without a premium). At this point, all funds remain in their current Variant Vaults.

<sup>3</sup> Flow of Funds for the Arbitrage System



When a participant chooses to take advantage of the offer, they send their funds via a contract message. Those funds are deposited into the appropriate vault, and the return value is withdrawn from another vault and sent back to the participant.

### 3.1.2.3. Optimized Swap Experience

In its simplest form, the rebalancing system can be accessed by calling the appropriate smart contract. While this suits professional participants, it doesn't serve the average user. Another challenge is that users often don't want to swap the exact amount offered by the contract—sometimes it's less (which can be reduced accordingly), but if it's more, they're forced to handle only a small portion and seek another solution elsewhere. This leads to a poor user experience.

To address this, we introduce **NAMI Swap**, a router on the Rujira Network that provides the best available quote from Asset A to Asset B at any given time. It's accessible through our UI to anyone. The router first fills any incentivized opportunities, then proxies Rujira's TRADE for the remainder of the swap, without charging any additional fees.

### 3.1.3. Limitations

As the main objective of this paper is to discuss the solution for a fully automated yield optimizer that is accessible from any chain, it is equally important to address the limitations that come with it.

- General Limitations
  - Participation in Arbitrage Offerings
  - No differentiation of the value of assets (1 USDC = 1 USDT & 1 BTC = 1 cbBTC)... → What risks / mechanism does that create?
  - Liquidity in TRADE → is there a correlation between tradable liquidity and frequency of rebalancing by the router?
- Product Specific Limitations
  - Lending
    - Borrow demand
    - Extrem Case: Lock Up
  - Delta-Neutral LPing
    - Extrem Case:
  - Stable LPing
    - Extrem Case: Depeg → IL

## 3.2. Technical Architecture

### 3.2.1. The advantages of Thorchain and Rujira Network

**Thorchain** is a cross-chain liquidity protocol that enables seamless swaps across multiple blockchains without relying on centralized intermediaries. By using continuous liquidity pools and an incentive-driven economic model, Thorchain maintains a truly decentralized infrastructure. Its open design allows anyone to add assets from nearly any Layer 1 (L1) chain, supporting broad interoperability and market-driven, sustainable liquidity.<sup>4</sup>

Building on Thorchain, **Rujira Network** serves as an application layer that increases functionality, accessibility, and supports testing of higher-risk products. It inherits Thorchain's decentralized governance, security, and economic incentives, while also offering a variety of new products and a platform for developers to build innovative financial solutions. This approach enables projects to tap into existing deep liquidity and create groundbreaking products accessible from any chain.<sup>5</sup>

Together, **Thorchain** and **Rujira Network** form an ideal technical foundation for NAMI Protocol's automated yield optimizer. Economic incentives ensure that liquidity remains sustainable, and governance stays in the hands of the community rather than a centralized authority. Since both networks interoperate with multiple L1 blockchains, users can seamlessly access NAMI from a range of ecosystems with a single transaction. By adding NAMI Swap, the entire ecosystem benefits from an even greater positive impact.

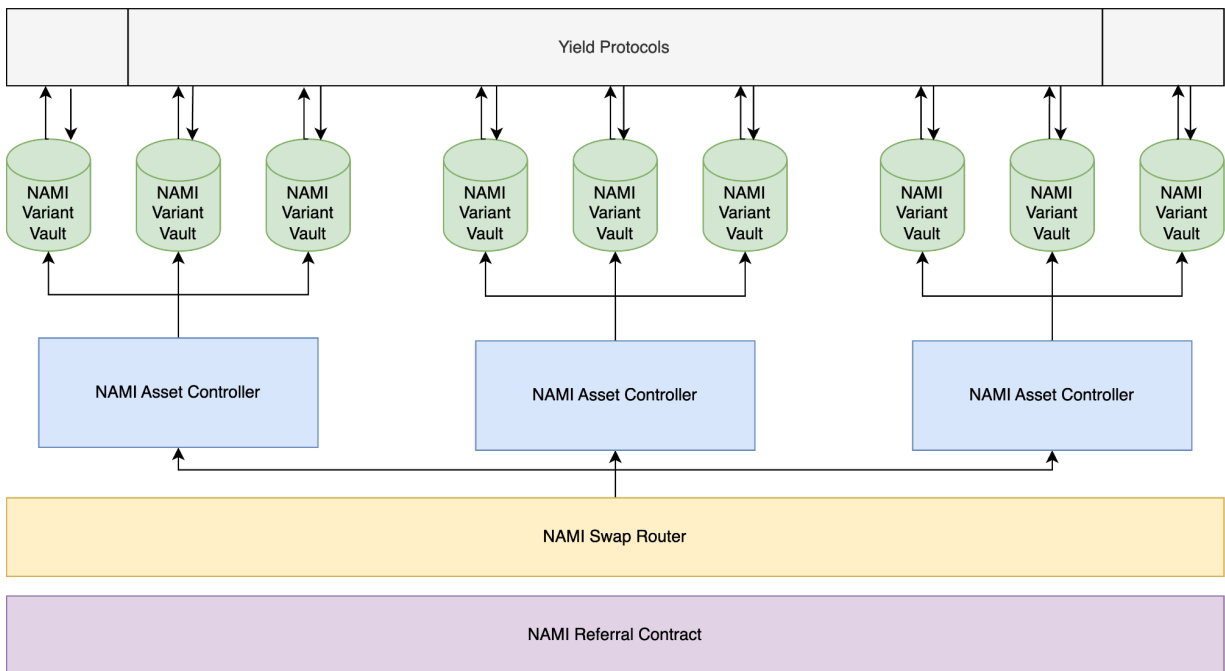
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<sup>4</sup> <https://thorchain.org/>

<sup>5</sup> <https://rujira.network/>

### 3.2.2. Smart Contract Architecture

- External protocols providing yield for a specific asset variant eg. Lending Usdc - Lending Usdt - Auto Delta-Neutral BTC - Lending BTC
- NAMI Contract providing the optimized yield for a specific variant and a specific protocol eg. Lending Usdc - Lending Usdt - Auto Delta-Neutral BTC - Lending BTC
- NAMI Contract providing the optimized yield for an asset regardless the variant or the yield specific protocol eg. USD Asset Controller (Optimize together Lending Usdc Lending Usdt etc)
- NAMI Contract providing an adapter on top of Ruji Trade that uses the Nami Asset Controller liquidity to allow slippage zero or premium swaps between variant assets
- NAMI Contract enabling referral functionality where referrer AND user earn based on duration and height of deposits of both.



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Nami Protocol is built on a **simple, flexible system** of smart contracts. These contracts let users grow their digital assets through various yield protocols, with easy setup and seamless integration into other platforms. The system has four main components:

1. Variant Vault
2. Asset Controller
3. Swap Router
4. Referral System

Below are some **core definitions**:

<sup>6</sup> Diagram: Smart Contract Architecture

- **Asset:** A general term for any digital currency or token, regardless of issuer. For instance, “asset USD” can include USDT, USDC, or DAI.
- **Asset Variant:** A specific type of digital currency tied to a particular issuer. For example, USDC is a variant of “asset USD.”

#### 3.2.2.1. Variant Vault

Each **Variant Vault** manages a **single Asset Variant**—for example, USDT or USDC under the “asset USD” category. It uses one yield protocol (such as a lending market or a Delta-Neutral LP strategy) and only interacts with *Nami Asset Controller* contracts, so users cannot access it directly. The Vault issues nTOKENS as receipt tokens to track individual balances, which are held by the controller. Off-chain algorithms then determine the best approach to maximize yield within each vault’s chosen protocol.

#### 3.2.2.2. Asset Controller

The Asset Controller brings together all Variant Vaults for a given asset (e.g., USD). It uses an **Arbitrage State Machine** that connects with our off-chain algorithms to find the best Variant configuration to maximize the overall yield. As the primary entry point for deposits and withdrawals, it provides **two deposit options: auto-compounding** with a per-asset receipt token (naToken) and **streamed yield** in USDC for advanced strategies. The controller also features a **point system** that rewards users based on how long and how much they deposit. These points are the basis for our referral system.

The **Arbitrage State Machine** is the part within the Asset Controller that is responsible for calculating and offering rebalance opportunities among different Asset Variants. It does this based on the optimal distribution it gets fed by the off-chain algorithm. It lets any user swap Asset Variants at a premium when this action enhances the controller’s overall yield. These opportunities arise only when the protocol needs a more balanced distribution of Asset Variants.

#### 3.2.2.3. Swap Router

The Swap Router enables instant exchanges between any asset A to any asset B for the lowest possible cost, as long as it exists on Rujira. It works as a proxy to RUJI Trade, filling incentivized opportunities by NAMI first. In an advanced version, we might even be able to integrate routing algorithms to deliver the best simple swap experience for the end user.

#### 3.2.2.4. Referral System

The Referral System is a **single-level program** linked to the different Asset Controllers. It rewards both the user and the referrer with a share of the fees, effectively providing an APR boost. The longer a referred user keeps his funds in Nami, the greater these rewards become for both parties. This structure encourages the growth of a dedicated “squad” of users who treat Nami as their primary yield platform.

#### 3.2.3. Audits

This section will be updated once the new contracts are finalized and the audit is complete.

## 4. Token Economics: The \$NAMI token

On April 25, 2024, the official token of the NAMI Protocol, \$NAMI, was distributed via a PILOT Sale using a French Auction mechanism on the Kujira Blockchain. The token address is: **factory/kujira13x2l25mpkhwnwcdzdz34cr8fyht9jlj7xu9g4uffe36g3fmln8qkvm3qn/unami** ([Goingecko](#)).

The average sale price was 0.0238 USDC, resulting in a fully diluted valuation (FDV) of \$2.38 million at launch. The total supply is capped at 100 million \$NAMI, with no possibility of minting additional tokens.

### 4.1. Distribution

Category	% of Total Supply	Vesting
Public Sale	40	no vesting
Team	15	30 months linear (Oct 2026)
Operations	15	30 months linear (Oct 2026)
Seed Liquidity	4	no vesting
Treasury	26	no vesting

### 4.2. Utility

\$NAMI serves as the governance token for protocol-owned liquidity within the **NAMI DAO**. To participate in governance, holders must deposit their tokens into the staking contract via the

official [user interface](#) or through [DAO DAO](#). In return for active participation, 90% of fees generated by the protocol are continuously distributed to stakers. These rewards can be claimed using the protocol's [UI](#) or through the DAO issuer, [DAO DAO](#).

## 5. Team

We are a passionate group of software engineers from Switzerland, Greece, Spain, and Germany who developed an idea to make low-risk wealth accumulation possible again. Our goal is to operate with complete user-centricity, removing unnecessary complexities from the crypto space. We currently have three full-time employees and one contractor.



**JP** had the idea for NAMI in 2023 and quickly confirmed its market fit by building in the open and gathering extensive user feedback. With a background in high-tech sales and software engineering, JP is driven by curiosity and a passion for new possibilities. Building NAMI fulfills his vision of contributing to a user-centric financial system. To bring this idea to life, he teamed up with his former programming teacher.

**Exalkas** joined soon after to help build the proof of concept. With more than 25 years of software industry experience, he brings a calm perspective and asks the tough questions that push the team forward.

As Rujira developed the App-Layer for Thorchain, it became clear our proof of concept needed further improvement. We recruited **Zefiro** as our Smart Contract and Algorithm Lead. He has a professional background in mathematics and finance, extensive experience in blockchain consulting and development (including EVM and Cosmos), and expertise in crypto regulations. His skill set gives us a strategic edge in creating products that address real challenges in the most effective way.

Our top priority is to deliver a robust, secure product that gains recognition and adoption well beyond the Thorchain ecosystem. Our next hire will likely be a Performance/Online Marketer to bring the product to the masses.

## 6. Legal Disclaimer

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