

# Building the Future of NFTs: The Rarible Protocol - Arbitrum Integration Proposal

## Non-Constitutional

## Abstract

The Rari Foundation is submitting a proposal to drive growth in the Arbitrum NFT ecosystem. The proposal involves integrating Arbitrum L2 with the open-source [Rarible protocol](#)

, which currently supports the [Rarible](#) NFT marketplace, that will enable NFT-based application development on Arbitrum. Additionally, the proposal includes plans to build an Arbitrum NFT community marketplace

. This integration offers a revenue-generating opportunity for the Arbitrum community through fee collection while also jumpstarting NFT ecosystem development

on the Arbitrum network.

## Motivation

The Rarible Protocol is an open-source, EVM-based SDK and multichain indexer that currently powers [Rarible.com](#), 3,000+ community NFT marketplaces, and a series of non-marketplace-based applications like wallets and NFT analytics services (see use cases [here](#)). We believe that the growth of the NFT ecosystem will flourish on decentralized infrastructure and that integrating with Arbitrum will help jumpstart the development and ecosystem growth utilizing Arbitrum NFTs.

We also believe that the Arbitrum NFT ecosystem has a potential for rapid growth during the next bull run and want to set it up for success by building a dedicated community NFT marketplace for Arbitrum specifically. The [Rarible.com](#) team has built successful marketplaces for brands such as [Animoca](#), [Mattel](#), and [Smurfs](#) and can, besides deploying the marketplace, support via marketing efforts to drive fame for the marketplace and, ultimately, traffic. Details [here](#).

While the Protocol integration provides the Arbitrum community with a powerful dev tool to build novel applications with, the community marketplace presents a revenue-making opportunity. In this past bear-market year, Arbitrum NFTs traded at \$39.7M in volume, \$13.1M of which was in the past 3 months. The Arbitrum NFT market is not diversified, with OpenSea dominating the trade volumes at 80% in the past 3 months (data as of June 26, source [NFT Scan](#)).

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The Arbitrum community marketplace could offer a marketplace alternative and collect fees, the size of which will be determined by the community.

## Rationale

The proposed AIP aligns with the Arbitrum community's mission and guiding values by enhancing the utility, scalability, and inclusivity of the Arbitrum network. The Rarible Protocol, a decentralized toolset for NFT applications, is open-source and free, mirroring Arbitrum's commitment to technical inclusivity and neutrality.

By integrating Arbitrum One into the Rarible Protocol, we empower developers to create more complex and innovative applications on Arbitrum. This integration increases accessibility to real-time and historical Arbitrum blockchain data, aligning closely with Arbitrum's commitment to user-centricity and technical inclusivity.

Lastly, the establishment of a marketplace will increase the visibility of Arbitrum NFTs, attracting new users to the Arbitrum ecosystem. This aligns with Arbitrum's goal of being Ethereum-aligned and sustainable, as it promotes the growth and sustainability of the Arbitrum ecosystem by providing a platform for the trading and showcasing of Arbitrum NFTs.

## Key Terms

- The Rari Foundation: The legal entity for the Rari DAO community that is in possession of \$RARI Treasury and on the path of possession of the Rarible protocol
- Rarible Protocol: Open-source, free-to-use, community-governed Protocol (which includes an SDK, indexer and orderbook) for the creation, transaction, and distribution of NFTs.
- Rarible SDK: A part of the Rarible protocol that provides a set of tools for developers to interact with multiple blockchains
- Rarible Inc.: A leading NFT marketplace that allows users to mint, buy, and sell NFTs. One of the applications using

the Rarible protocol.

- \$RARI: An ERC20 Token that powers the Rarible ecosystems and when locked, can be used for governance

## Specifications

Below is a detailed breakdown of how the integration will take place and the platforms and technologies that will be used.

## Rarible Protocol: Integrating Arbitrum One and, subsequently, Nova

The Rarible Protocol is a decentralized toolset that allows developers to build NFT applications. It includes smart contracts, an indexer, an SDK, and APIs. The integration of Arbitrum One into the Rarible Protocol will extend these capabilities to the Arbitrum ecosystem, enhancing its utility and inclusivity.

- Rarible Arbitrum SDK
  - The Rarible SDK will expedite Arbitrum application development. By extending the SDK to support Arbitrum One, we will provide developers with tools for interacting with smart contracts, supporting NFT operations like minting, transferring, and burning, and integrating with multiple wallets.
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- Rarible Orderbook & Smart Contracts
  - Our contracts, specifically the Rarible Exchange V2, will be deployed to the Arbitrum chain, granting access to our off-chain order book. Certain actions such as canceling, confirming, updating, or when price changes occur, are on-chain but the creation of orders is off-chain.
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- Rarible Public API
  - With the integration of Arbitrum One, the API will offer extended support for these chains, allowing developers to easily access and interact with NFT data on Arbitrum.
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- Rarible Arbitrum Indexer
  - Rarible's multichain Indexer will be able to track and record NFT events on Arbitrum, providing developers with a comprehensive view of NFT activities on Arbitrum.
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## New Arbitrum Marketplace

We will create an Arbitrum NFT marketplace, allowing for the buying/selling/trading/bidding of existing and upcoming Arbitrum One NFT collections. This marketplace will be built by Rarible Inc. as a custom enterprise contract using the newly updated Rarible Protocol.

### Marketplace Features

The marketplace will support multiple collections on Arbitrum with popular wallets, allowing users to effortlessly list, sell, make instant purchases, and place bids.

- Listing & Buying - Users can list, de-list, and modify items as well as make instant purchases with the "buy now" feature.
- Bids / Offers - The marketplace will enable users the ability to place/accept collection and item-level offers.
- Wallet Integrations - The marketplace seamlessly integrates with popular Arbitrum-compatible wallets such as MetaMask and Rainbow (all wallets that use wcv2)
- Ability to add existing and new collections - Adding collections to the new Arbitrum Marketplace will be seamless, and new projects can apply to have their collection listed.

## Core Pages:

- Home Page - Marketplace overview with features such as searching, viewing and interacting with existing collections.
- Collection Pages - Each collection will have its own page with stats, activity, and filtering. Here, users can also list/buy/bid/offer.
- User Profile - Users will have a profile with various sections such as “My items,” where users can view all the NFTs they own, “Active listings,” which displays their currently listed items in the marketplace, and “Active bids,” where users can view/edit/cancel any active bids they have placed on items in the marketplace.

## Steps to Implement

The implementation of this proposal consists of two main milestones:

1. Arbitrum integration into Rarible Protocol - to allow for development using the Protocol by anyone as the Protocol is open-source
2. Build of custom community marketplace for Arbitrum NFTs

### **Milestone 1: Arbitrum One integration into Rarible Protocol**

The first key milestone will be integrating Arbitrum into the Rarible Protocol, which will set the foundation for future milestones involving building NFT applications on Arbitrum.

Tasks: Integration of Arbitrum One chain into Rarible Protocol

- Arbitrum API Integration: This task involves integrating the Arbitrum API into the Rarible Protocol API to support Arbitrum One.
- Node Preparation: A separate node for Arbitrum will be set up for rapid indexing upon approval
- Contract Deployment: The Rarible Shared NFT, Rarible Factory (for creating collections), and Rarible ExchangeV2 contracts will be deployed to Arbitrum for users to interact with.
- Orderbook: Rarible’s orderbook will be able to store listings, orders, and bids made with the protocol
- Arbitrum Indexer: Index NFT contracts, ERC-721/1155, ERC-20 tokens, Exchange orders & bids (from Seaport & Rarible).
- Arbitrum support on Rarible Multichain SDK: This involves adding a new blockchain, connectors to wallets, and ensuring functionality similar to ETH/Polygon.
- Debugging and Testing: General debugging of all components will be conducted, along with testing on production with OpenSea orders.
- Build Testnet for Arbitrum: An additional environment for the testnet will be set up, including indexing, reindexing, etc.

After protocol development, we want to display the power of Arbitrum integration by building brand new Arbitrum NFT Marketplace

### **Milestone 2: Deployment of the Arbitrum NFT Community Marketplace**

This milestone is dependent on milestone 1’s completion.

Tasks: Develop an Arbitrum Marketplace using Rarible Protocol

- Design: Design of the “Arbitrum Marketplace” using Arbitrum Branding
- Marketing and Launch: Rarible will utilize its existing social media channels and homepage (which gets 500k users monthly) to advertise and direct traffic to the launch of the new marketplace
- Development: Marketplace front-end and backend built to interact with the Rarible protocol
- Full end-to-end testing: The entire website will be tested to ensure a bug-free experience

### **Post Launch Support (1 year)**

- Maintenance of protocol integration, including support of Arbitrum L2 technology upgrades and reported bugs
- We will add Arbitrum Nova to the Rarible Protocol, supporting all features identical to Arbitrum One on the protocol, the set up of a new node, and Arbitrum NOVA NFT support on the previously created marketplace

## Timeline

Tentative timeline assumes the project can kick off upon proposal approval, and both milestones are to be covered back to back. Total timings: 13 weeks.

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## Overall Cost

The below costs are broken down per milestone:

Milestone 1: Integration of Arbitrum One into the Rarible Protocol

Duration: 5 Weeks (assuming we build our own node)

Costs: 200,000 \$

Resources:

- Product Manager
- Back-end engineer
- DevOps engineer
- SDK engineer
- Contract engineer
- QA engineer

Payment terms:

1. 50% payable upon proposal approval
2. 50% payable upon completion

Milestone 2: Deployment of Arbitrum Community Marketplace

Duration: 6 weeks

Costs: 300,000 \$

Resources:

- Product Manager
- Back-end engineer
- DevOps engineer
- SDK engineer
- Product designer
- Marketing support

Payment terms:

1.
  1. 50% payable upon Protocol integration completion
2. 50% payable upon Protocol integration completion
3.
  1. 50% payable upon Arbitrum Market Place handover
4. 50% payable upon Arbitrum Market Place handover

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Post-deployment support: Protocol+marketplace

Duration: 1 year

Costs: 150,000 \$

Resources:

- Product Manager
- Back-end engineer
- DevOps engineer
- SDK engineer
- Contract engineer
- QA engineer

Payment terms:

1. Commences upon Arbitrum Market Place handover
2. Cost accrued annually, 25% payable on the first day of each quarter

To generate revenue (and to offset the costs over time), the Rari Foundation is proposing that the Arbitrum community charges transaction fees in the Arbitrum marketplace - we recommend 1%, but this will ultimately be the community's decision. This transaction fee would be collected in Arbitrum DAO's treasury or wallet.

The Rari Foundation also proposes a token swap of 50,000 \$RARI for \$ARB in order to allow each DAO to participate in mutual governance and to be a stakeholder in their respective ecosystems.