# Treasury Withdrawal - Intersect metadata Midgard - Optimistic Rollups

## **Title**

Withdraw₳2,162,096 for Midgard - Optimistic Rollups administered by Intersect

## **Abstract**

This treasury withdrawal funds **Midgard - Optimistic Rollups** which will provide the following services: Midgard, which is a modular framework for deploying optimistic rollup Layer 2s on the Cardano blockchain, designed to enhance transaction throughput, reduce costs, and enable advanced decentralized applications.

This Treasury Withdrawal is submitted by Intersect on behalf of the vendor. The following sections; Abstract, Motivation, Rationale and Vendor Profile have been sourced from the approved proposal submitted by the Vendor as part of the Intersect budget process.

This treasury withdrawal funds one of 39 proposals to give effect to the approved budget info action for ₳275,269,340, administered by Intersect via gov\_action1u9x73kwufaxa70lfy59g4ynwyrcsaxdcd0gxzzmh67s9fxq4j8hqqk2phgh. The information provided herein is intended to fulfill the spirit of the constitutional requirement for a treasury withdrawal info action by also providing the details of the proposed solution, alignment to the budget, and amount to be withdrawn from the Cardano Treasury.

## **Motivation**

This proposal aims to solve the following problem:

We have Hydra as our native state of the art state channel solution, we have partnerchains as our native evolution of sidechains, Midgard aims to be our native evolution of rollups.

The UTxO system is a match made in heaven for rollups. It allows us to build true L2 rollups that inherit maximal security from Cardano. This cannot be replicated in account based systems. It’s not a coincidence that Fuel, the first general purpose L2 to receive a decentralization rating of stage 2 (highest possible) is UTxO based.

Fraud proofs for global state systems like Arbitrum and Optimism are extremely difficult to implement and very expensive and complicated to conduct onchain (and require multiple parties); this is why to this date despite spending millions in R&D neither of those protocols has working fraud proofs, and they all rely on centralized permissioned sequencers and operators.

On the other-hand, fraud proofs on Cardano are extremely straightforward and require only a single party (no challenge-response proofs) due to the local state properties of the ledger.

Not a single blockchain has managed to achieve true permissionless general purpose rollups. At the end of the day, the top “L2s”in the blockchain space right now are all custodial multisigs. The Midgard framework is a first of its kind, in its capabilities to deploy completely permissionless rollups that inherit the full security of Cardano.

* No centralized sequencer
* No challenge response “proofs”
* No custodial multisig
* Permissionless fraud proofs (open to anyone)
* Permissionless operator set
* Deposits and withdrawals cannot be censored (inherits the full censorship resistance of Cardano)

This is all made possible by Cardano’s unique local state EUTxO architecture.

UTxO contention, small block size, local state, transaction determinism, all of these “problems” may have led you to question why these design choices were made.

Midgard aims to show you that these are actually not problems at all. In-fact quite the opposite, they are extremely powerful properties that, together, provide unique value that simply does not exist in any other ecosystem. These are, in actuality, the core pillars that make Midgard even possible in the first place.

You cannot build Midgard on Ethereum, Solana or Sui. It is a protocol that is only possible on Cardano.

## **Rationale**

### Project Solution

Midgard has a tokenless design. All transaction fees on Midgard are paid in Ada, and every Midgard block is published to the Cardano L1. Where Hydra moves transactions offchain (and thus does not contribute consistently in fee revenue to the Cardano L1) Midgard keeps transactions on-chain but in a more compact form (ie. rolls up transactions offchain into a compact representation that is published on-chain, thus the name rollups). This means that increased economic activity on Midgard directly translated to increased economic activity on Cardano, this represents a significant source of fee revenue for the Cardano L1. Midgard does not have independent consensus or economic security, instead it inherits economic security and consensus from Cardano.

### Vendor Profile

Anastasia Labs is at the forefront of research & development on Cardano for over two years now. We have been involved in the development of nearly every large dApp on Cardano. We have made contributions to many of the core repos, and we actively maintain over 50 different open-source libraries, tools, and public infrastructure for Cardano.

You can read more about our work here:

<https://www.anastasialabs.com/>

Furthermore, Midgard is already in active development, and we have already made significant progress towards our goal of EOY mainnet readiness.

### Contract Management

A written off-chain Legal Contract will be created between the Vendor and the Cardano Development Holdings (CDH), as mandated by the constitution, and will be administered by Intersect. This will include details of the project delivery schedule and dispute resolution.

### Project Delivery

All milestones, acceptance criteria, payment amounts and expected delivery dates will be agreed between the Vendor and Intersect, acting on behalf of the CDH. The vendor will deliver according to the agreed-upon project schedule within the Legal Contract, of which the necessary information will be made public via the budget management platform via transaction metadata.

Defined by the milestones within a Legal Contract, the vendor will submit and attest milestone acceptance to the community, Intersect or 3rd Party Assurer.

Project progress will be monitored via Intersect’s delivery assurance function which will be communicated to the community.

Acceptance of the above work is expected to be supported by a 3rd Party Assurer, who will be responsible for reviewing and signing off the work completed at each project milestone against the corresponding milestone deliverables detailed within the Legal Contract. This work is funded from a portion of this treasury withdrawal.

### Budget Management Tooling

To administrate treasury funds on-chain, Intersect will utilize the treasury management smart contract framework developed by Sundae Labs. The smart contracts have been [extensively tested](https://github.com/SundaeSwap-finance/treasury-contracts/tree/main/offchain/tests) including audits from TxPipe and MLabs. Examples of the usage of these contracts can be seen across mainnet described across Intersect authored [Blog 1](https://www.intersectmbo.org/news/smart-contract-mainnet-demo-a-step-toward-on-chain-treasury-withdrawals), [Blog 2](https://www.intersectmbo.org/news/smart-contract-mainnet-demo-day-two-update) and [Blog 3](https://www.intersectmbo.org/news/smart-contract-mainnet-demo-day-three-update).

Final mainnet validation test can be seen via the Disburse action within transaction: 0f591dc544ae14102dbb4a74d5311a6acffc1772b163d8b7a9656b9525950b17

With the confirmed treasury reserve contract address being: stake17xzc8pt7fgf0lc0x7eq6z7z6puhsxmzktna7dluahrj6g6ghh5qjr

#### Specifics

Intersect will utilize a single Treasury Reserve Smart Contract (TRSC), with many Project-Specific Smart Contracts (PSSC), managed by Intersect. Intersect’s management consists of three ‘admin’ and two Intersect ‘leadership’ roles. An Oversight Committee consisting of five external, independent third-party entities will provide checks and balances on Intersect, and safeguard against errors and unilateral control. The administration of both TRSC and PSSCs will be managed by Intersect, with external oversight on certain actions from the Oversight Committee.

The Oversight Committee consists of Sundae Labs, Cardano Foundation, Dquadrant, Xerberus and NMKR. Their role is to independently verify key administrative actions using on-chain logic, ensuring accuracy and consistency without exercising discretion over governance decisions.

For all details on Intersect’s configuration please see the [**Smart Contract Guide**](https://docs.intersectmbo.org/cardano-facilitation-services/cardano-budget/intersect-administration-services/smart-contracts-as-part-of-our-administration) on the knowledgebase.

The high level permissions are as follows:

* TRSC Fund and PSSC Modify
  + Two of the three Intersect admins, two of the five trusted entities and one of the two Intersect leadership sign-off must authorize
* TRSC Disperse
  + Two of three Intersect admins, three of five trusted entities and two of two Intersect leadership sign-off must authorize
* TRSC Pause and Resume
  + Two of three Intersect admins, and one of two Intersect leadership sign-off must authorize
* TRSC Sweep
  + One of three Intersect admins, and one of two Intersect leadership sign-off must authorize
* TRSC Reorganize
  + Two of three Intersect admins and three of five trusted entities must authorize

#### Processes

Upon enactment of this governance action, funding for this project will be directed into the TRSC’s stake account. All instances of TRSC and PSSC can not be staked with a SPO and will be delegated to the auto-abstain predefined DRep. From here funds will be withdrawn into a UTxO remaining at the TRSC.

When the Legal contract is prepared and the vendor is ready, funding for this project will be transferred using the Fund action to a PSSC. All milestones will be outlined within the metadata.

A dashboard will be available for the community to audit the TRSC or PSSC and track metrics related to this withdrawn ada as well as being immutably verifiable on chain.

The subsections; Contract Management, Project Delivery, and Budget Management Tooling described above cover the constitutional requirements specified in Article IV section 4 and 5.

## **References**

Midgard Project Scope (PDF)

* ipfs://bafybeicct27qnakhth7bfsysv6j2mmcfmykfnz7cunagwxftsocekjve6m

Project Proposal In Ekklesia

* <https://2025budget.intersectmbo.org/ballots/680d1b63565577986442d123/proposals/680d1b64565577986442d276>

Approved Budget Info Action submitted by Intersect

* <https://gov.tools/governance_actions/e14de8d9dc4f4ddf3fe9250a8a926e20f10e99b86bd0610b77d7a054981591ee#0>

Details of all successful proposals (CSV)

* ipfs://bafybeicwrop4q7xvnyjdd5drumbe56sqtm5lbe2ul3c262zt4hgguzdycm

Automating Accountability: Cardano’s Smart Contract Framework Blog

* ipfs://bafybeihqx4ae72z7suqfnxrpqpqithp43cai7o2uuewnqtezgaoyc3ptyq

Sundae Labs Budget Management Smart Contracts Github Repository

* https://github.com/SundaeSwap-finance/treasury-contracts

Budget Management Smart Contracts TxPipe Audit Report

* ipfs://

Budget Management Smart Contracts MLabs Audit Report

* ipfs://bafybeihx2onjtlyyj5pqmpmi2z56vbhe365vhvthk2lqp57bhk4nuxyuea

## **Authors**

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