Snowbridge V1 2025/2026 Milestone Payouts

Executive Summary

Payment Overview

Total amount: 213,600 DOT and 4,062,500 USDC *(~5M USD, based on the current Subscan EMA7 rate of 4.61, with a 5% buffer for slippage)*, broken down into:

- **Milestone completion bonus:**
    - 17,800 DOT unlock per month from June 2025 to June 2026. Total 213,600 DOT *(based on $937,500)*.
    - Covers our final 12 months expected payouts for completed engineering and launch milestones
- **Successful operation incentives:**
    - 312500 USDC unlock per month from May 2025 to June 2026. Total 4,062,500 USDC.
    - Covers our final 13 out of 21 months payouts. *(based on the schedule agreed upon in our original proposal for longer term success in maintenance and development work on the bridge)*
- **Insurance and Bug Bounty:**
    - The above milestone and operation incentives will also be allocated to be used for bridge insurance and bug bounty payments until they unlock.

Beneficiary Address: xxxx

For further details on the payment and incentive structure, see the Payout Section below.

Purpose and Opportunity

Snowbridge (https://app.snowbridge.network/) has now been live for almost a year, running successfully with no on chain issues and zero on chain downtime. It's the longest running and most complex public goods project in the Polkadot ecosystem outside of Parity itself and since launch has become critical to the Polkadot ecosystem.

Snowbridge is the only fully trustless bridge in the ecosystem - meaning it is both fully governed by Polkadot itself and fully owned by the Polkadot Treasury as a system that can facilitate further growth and value flow into the treasury.

*(For a deeper dive into Snowbridge's purpose and value to the Polkadot ecosystem, see the **"Purpose"** section in our original funding proposal)*

Since our launch, the bridge has grown to over $63M TVL and we're expecting a burst of additional TVL soon as new assets soon launch. Snowbridge is also now integrated with ~24 parachains, wallets, apps, and other services across the Polkadot ecosystem. Our team has continued to ship tons of features and improvements for Snowbridge over the last year including significant cost and performance improvements, developer tooling for integrations and a major re-architecture into Snowbridge V2 for much improved arbitrary messaging support.

Our original proposal was in 2022, where our team and the Polkadot community agreed upon an expected milestone payment plan and incentives for the long-term project. This led to the successful development and launch of Snowbridge, and our follow up proposal last year kicked off those milestone completion payments which have been unlocking monthly over the last year.

This proposal covers the next year of spends for the final 12 milestone payments and team incentives from June 2025 to June 2026. It also renews the insurance and bug bounty programmes that we put in place last year for further incentive alignment.

Our team has continued to deliver improvements over and above those in our milestones and we've become involved in a myriad of efforts that have brought significant value to the wider Polkadot ecosystem beyond just for Snowbridge. This proposal reviews our past year and suggests a continued roadmap with growth plan efforts for the coming year.

High-Level Statistics

- Total Value Locked (TVL): ~$63M
  - Top Assets: MYTH, KILT, TBTC, AAVE, WETH, ETH, wstETH
- Since launch in April 2024:
  - ~2200 token transfers from Ethereum to Polkadot
  - ~460 token transfers from Polkadot to Ethereum
- Ecosystem Integrations: ~24 different integrations with parachains, wallets, apps, and other services. We've detailed these in subsequent sections.

For more detailed statistics, please visit the metrics dashboard compiled by ColorfulNotion. We're thankful to them for this effort.

Year in review

Even though our major milestones for the original proposal were all completed last year before our last proposal, we did and still continue to do a ton of extra work outside those agreed upon milestones. A lot of that extra 2023/2024 work was documented in our last proposal and we've continued to do the same through early 2025.

Referenda

Snowbridge has put our trustless and decentralized design and PolkadotDAO governance into practice. The Polkadot community has now done multiple successful upgrades through technical proposals that maintain and improve Snowbridge, including upgrading the Ethereum side of the bridge from a referendum on the Polkadot side and rolling out new features like Native Ether and Polkadot-Native asset support.

[Whitelisted Caller] Make WETH asset sufficient and set asset metadata

Since Snowbridge has launched and the ERC-20 Wrapped Ether token () has , set WETH to be a sufficient asset (allow the WETH account to exist without requiring an existential deposit in DOT or another sufficient asset). This ensures a better UX for new users who may not have a DOT balance on

https://polkadot.polkassembly.io/referenda/890

[Whitelisted Caller] Upgrade BridgeHub: v1.2.8

The upgrade only affects BridgeHub. The upgrade contains a change to the Snowbridge Ethereum client to be much more cost efficient, resulting in a lower cost to run the bridge (estimated decrease from around $17,000 to $1,700 per month, which lowers the pressure on Treasury to run the bridge). Release

https://polkadot.polkassembly.io/referenda/1002

Snowbridge: Update Bridge Pricing Parameters to Lower Transfer Fees

When Snowbridge was launched the transfer fees were calculated based on the following parameters which reflected market conditions at the time: Worst Case Gas price: 60 Gwei ETH:DOT exchange rate: 1:450 This resulted in price in the following prices: 11.456568 DOT to transfer from Polkadot to

https://polkadot.polkassembly.io/referenda/1127

Snowbridge: Register Ether Asset and Lower Bridge Fees

Lowers the cost of bridge transfers from Polkadot to Ethereum from ~6.12 DOT to ~1.49 DOT. Register the Ether asset on Asset Hub in preparation for the feature ahead of fellowship runtime release . Ether is made sufficient and the minimum balance is 15000 Gwei. Ether metadata: Name = Ether, Symbol = ETH,

https://polkadot.polkassembly.io/referenda/1400

Upgrade Snowbridge Gateway Contract

This proposal aims to upgrade the Snowbridge Gateway contract on Ethereum, which is remotely governed by OpenGov utilizing Snowbridge itself as a cross-chain governance bridge. New Features The upgraded gateway supports new user-facing features: Bridging Polkadot-native assets such as DOT to

https://polkadot.polkassembly.io/referenda/1468

[Whitelisted Caller] Register Polkadot Native Assets on Ethereum

Registers Polkadot native assets on Ethereum. The full list of tokens that will be registered can be viewed here:
https://github.com/Snowfork/snowbridge/blob/dcf3ebf5ff5735a785c1473419eca25fc39792fb/control/pr

https://polkadot.polkassembly.io/referenda/1498

[Runtime 1.4.3] Upgrade Polkadot Bridge Hub

Upgrades Polkadot Bridge Hub Runtime to 1.4.3. View . This upgrade is crucial to have Snowbridge ready for the Electra fork on 7 May. Fellowship whitelist proposal:
https://collectives.subsquare.io/fellowship/referenda/327

https://polkadot.polkassembly.io/referenda/1528

Performance and Cost Improvements

Reduction in Bridging Fees

We did a re-evaluation of the economics of our bridge after launch, showing that we can optimize the bridge with a significant fee reduction. We submitted two iterative governance proposals that reduced the bridging fee substantially from 12 DOT to 1.5 DOT.

Referenda:

- https://polkadot.polkassembly.io/referenda/1400
- https://polkadot.polkassembly.io/referenda/1127

Reduce costs for operating the Ethereum Light Client

We implemented a way for consensus relayers to push valid updates to the light client for free, without affecting security. This reduced the overall cost of operating the bridge.

Pull Requests:

- https://github.com/paritytech/polkadot-sdk/pull/5201
- https://github.com/polkadot-fellows/runtimes/pull/365
- Snowbridge consensus relayer balance: https://bridgehub-polkadot.subscan.io/account/16DWunYRv2q29SMxqgrPGhob5az332hhLggSj2Rysk3g1rvk?tab=balance_history (select June 2024 as the start date on the balance history to see the cost-savings effect).

Reduction in Latency for Messaging

We reduced the messaging latency from 4 hours to ~30 minutes in the Polkadot→Ethereum direction.

This was achieved by implementing a new design for on-demand updates that made our off-chain consensus relayer more intelligent. It now syncs state much faster, so long as it stays within a maximum gas budget within a specified interval of time. It uses a rate-limiting algorithm based on a token bucket design.

Pull Requests:

- https://github.com/Snowfork/snowbridge/pull/1342
- https://github.com/Snowfork/snowbridge/pull/1346
- https://github.com/Snowfork/snowbridge/pull/1345

Improve liveness of the bridge

We encountered two minor bugs in our BEEFY relayer that could result in it stalling in some scenarios, requiring manual intervention to resume. We reworked these scenarios to automatically recover in these scenarios.

- https://github.com/Snowfork/snowbridge/pull/1204
- https://github.com/Snowfork/snowbridge/pull/1335

Major New Features

Bridging Native Ether

For simplicity, the initial version of our bridge only allowed bridging ERC20 tokens. For users to send Ether, they first had to wrap it into WETH, which added unnecessary friction for users and complicated the UX for DeFi apps such as Hydration.

Implementing support for native Ether involved coordinating protocol-level changes on both sides of the bridge.

Pull Requests:

- https://github.com/Snowfork/snowbridge/pull/1354
- https://github.com/Snowfork/snowbridge/pull/1361
- https://github.com/paritytech/polkadot-sdk/pull/6855

Polkadot-native assets on Ethereum

This feature activated support for users to bridge Polkadot-native assets such as DOT to Ethereum where they are made available as wrapped ERC20 tokens

Pull Requests:

- https://github.com/Snowfork/snowbridge/pull/1155
- https://github.com/paritytech/polkadot-sdk/pull/6216
- https://github.com/Snowfork/snowbridge/pull/1405

- https://github.com/Snowfork/snowbridge/pull/1384

V2

We went through a major re-architecture of Snowbridge to support:

- More secure generalized message passing, such as the ability to send messages to arbitrary smart contracts on Ethereum and Polkadot.
- Lower bridging fees, especially in the Polkadot-Ethereum direction
- An improved messaging interface that composes better with XCM and AssetHub, allowing for more flexibility with fee payment and message routing to third-party destination parachains.
- Bridge messages that contain multiple commands, a form of batching that allows a single bridge message to have multiple effects.
- Improved relayer decentralisation

By moving complexity off-chain, the new architecture actually has less on-chain complexity than V1, and so the security and maintainability of the bridge is enhanced.

V2 is designed to run in parallel with V1 until we have migrated dApps and parachains over.

Specification: https://github.com/paritytech/polkadot-sdk/blob/master/bridges/snowbridge/docs/v2.md

Pull Requests:

- https://github.com/Snowfork/snowbridge/pull/1371
- https://github.com/paritytech/polkadot-sdk/pull/7402
- https://github.com/Snowfork/snowbridge/pull/1404
- https://github.com/Snowfork/snowbridge/pull/1381
- https://github.com/Snowfork/snowbridge/pull/1341
- https://github.com/Snowfork/snowbridge/pull/1321
- https://github.com/Snowfork/snowbridge/pull/1300
- https://github.com/Snowfork/snowbridge/pull/1327

Status:

- The onchain code has been merged into Polkadot-SDK and will be available for users as part of the `stable2503` SDK release, which is slated to be deployed around June 2025.

Snowbridge App and SDK

Link: https://app.snowbridge.network/

When Snowbridge originally launched, it consisted of onchain code and relayers with just a basic UI. We have in the last year created a Snowbridge SDK and polished Dapp that allows users to transfer assets and view the status of transfers. The App supports transferring ERC20s and Polkadot native assets across Ethereum, most supported parachains on Polkadot and soon Kusama.

This involved extensive work both on our app and SDK, as well as collaboration with multiple teams that have now integrated the SDK into their own dapps and systems.

1. **Snowbridge SDK:**
    a. Support for Polkadot, Westend and Paseo testnets.
    b. Support for both Polkadot and Ethereum assets.
        i. ERC20 support *(initial release)*
        ii. https://github.com/Snowfork/snowbridge/pull/1401
        iii. Native Ether support: https://github.com/Snowfork/snowbridge/pull/1409

iv. https://github.com/Snowfork/snowbridge-app/pull/86, https://github.com/Snowfork/snowbridge/pull/1448

c. One-click transfers to/from Ethereum to destination parachains: Hydration, Bifrost
   i. https://github.com/Snowfork/snowbridge/pull/1372

d. Asset registry for metadata confirming which assets are supported by which parachains:
   i. https://github.com/Snowfork/snowbridge/pull/1372

e. Optimized Fee calculation and querying:
   i. https://github.com/Snowfork/snowbridge/pull/1372

f. Validating transfers via dry running of transactions on the source and destination chains to ensure that users do not lose funds.
   i. https://github.com/Snowfork/snowbridge/pull/1372

g. XCM program construction to support 1-click transfers from Polkadot to Ethereum
   i. *(At launch Snowbridge required users to sign 2 tx's in order to bridge from the Polkadot to Ethereum side. New features in in XCM have allowed us to upgrade the Snowbridge SDK and UI to build XCM on the client side in javascript to issue multi-hop transfers in a single tx for users)*
   ii. https://github.com/Snowfork/snowbridge-app/pull/59

h. View the status of historical asset transfers. *(https://app.snowbridge.network/history)*
   i. https://github.com/Snowfork/snowbridge-app/pull/45

i. Supports for EVM wallets on EVM-based parachains like Moonbeam:
   i. https://github.com/Snowfork/snowbridge/pull/1398

j. Ledger Wallet Support:
   i. https://github.com/Snowfork/snowbridge/pull/1366
   ii. https://github.com/Snowfork/snowbridge-app/pull/52

2. **Snowbridge App improvements:**

   a. Add support for more parachain locations: Bifrost, Moonbeam, Hydration, Mythos.
      i. https://github.com/Snowfork/snowbridge-app/pull/65

   b. Add supports for all popular wallets:
      i. https://github.com/Snowfork/snowbridge-app/pull/26

   c. We worked closely with the KILT parachain team to provide Polar-Path functionality within the UI:
      i. https://github.com/Snowfork/snowbridge-app/pull/23

   d. The UI's look was re-worked many times, simplifying its look and feel:
      i. https://github.com/Snowfork/snowbridge-app/pull/41

   e. We implemented a simplified wizard flow to improve the UX of more complex transfers that may require signing multiple transactions.

      https://github.com/Snowfork/snowbridge-app/pull/37

Data Indexer

Snowbridge transactions often touch many parachains and do multiple hops between Ethereum and back. This meant that querying for status and history was slow and complex. To optimize the UX and provide straightforward APIs around bridge data, we created a custom indexer using Subsquid Cloud. It tracks transactions across the bridge at every checkpoint and can be queried via GraphQL.

This functionality is also exposed in the SDK so that teams who integrate with Snowbridge can use the indexed data to quickly find out the status of a transfer.

The repo is at https://github.com/Snowfork/snowbridge-subsquid, which is based on Squid SDK. Main PRs for SDK integration include:

- https://github.com/Snowfork/snowbridge/pull/1362
- https://github.com/Snowfork/snowbridge/pull/1370
- https://github.com/Snowfork/snowbridge/pull/1386/

The indexer is also used to provide reports and analysis of Snowbridge performance, for example to keep track of average recent latencies and fees collected.

Bridging to Kusama

While Snowbridge V2 will enable transfers from Ethereum to Kusama in a single transaction, we have added support for bridging ERC20 tokens from Ethereum to Kusama in a 2-step process. The UI for this feature is in active development and will be available on https://app.snowbridge.network/ within a couple of weeks.

Referenda to add ERC20 tokens to Kusama: https://kusama.polkassembly.io/referenda/514

PRs:

- Snowbridge API: https://github.com/Snowfork/snowbridge/pull/1463
- Snowbridge UI: https://github.com/Snowfork/snowbridge-app/pull/94
- Indexer: https://github.com/Snowfork/snowbridge-subsquid/pull/21

While we plan to submit a separate referendum on the Kusama network, it is worthwhile to mention the feature here.

Community-wide Technical Initiatives

Beyond just work on Snowbridge, our team has also been involved in multiple initiatives that have been for the benefit of the wider Polkadot ecosystem, helping mature new Polkadot technologies and support their adoption across different parachains.

XCMv5

Together with Parity, we collaborated on design improvements to XCM.

At a week-long summit in Berlin, we helped to stress-test new design improvements for XCMv5, to further solidify AssetHub a viable proposition for Polkadot.

The outcome of this process was a final design for:

- Some new features in XCMv5
  - `InitiateTransfer` instruction which allows transfers of assets with different reserve types in a single instruction.
  - `AliasOrigin` instruction was modified to allow the original origin of the XCM to be forwarded to downstream parachains, enabling secure generalized message passing.

Snowbridge V2 is heavily reliant on XCMv5.

Our team has also become experts in XCM and we help and advise many teams using XCM, even with scenarios that are not related to Snowbridge.

For example, we pushed many teams to adopt `pallet-xcm` to enable bridging, which is a prerequisite for robust XCM messaging with AssetHub.

Support and Promotion of Polkadot Hub

Snowbridge has been a key driver for parachain teams to adopt AssetHub, which will soon evolve into the Polkadot Hub. As such, we've been a critical part of accelerating progress of Polkadot Hub.

We provided a ton of support to multiple parachain teams to help them implement and perform upgrades to support Asset Hub. These parachains now use Asset Hub as a reserve for DOT and trust Asset Hub as the reserve for bridged assets, including for the Kusama↔Polkadot bridge.

For much of this work, we actively implemented our own pull requests to other parachain repos.

Parachain PRs:

- Mythical: https://github.com/paritytech/project-mythical/pull/26
- Acala: https://github.com/AcalaNetwork/Acala/pull/2858
- Moonbeam: https://github.com/moonbeam-foundation/moonbeam/pull/2844
- Bifrost: https://github.com/bifrost-io/bifrost/pull/1249
- NeuroWeb: https://github.com/OriginTrail/neuroweb/pull/82
- Hydration: https://github.com/galacticcouncil/hydration-node/pull/784

We also pushed support for asset hub across wallets and block explorers, which now allow them to show foreign assets:

1. SubWallet: https://github.com/Koniverse/SubWallet-Extension/issues/2604
2. Talisman: https://github.com/TalismanSociety/talisman/issues/1308
3. Subscan
    a. https://github.com/subscan-explorer/assets-info/issues/65
    b. https://github.com/subscan-explorer/assets-info/issues/62

In-Person Events and Conferences

Our team represented Snowbridge and Polkadot at in-person events last year. To foster community outreach and involvement, we spoke about our project, participated in panels and presented various workshops.

- SubZero Asia March 2024
    - Bridging workshop ahead of Snowbridge's initial release.
- Polkadot Decoded Belgium 2024
    - Blockspace Builders panel with WebZero.
    - Presentation about the Mythical integration at Decoded (panel Q/A).
    - Builders Workshop: Bridges presentation and technical workshop.
- Parity Bridges Design workshop Berlin 2024
- SubZero Asia November 2024
    - 101 intro to Snowbridge

Online Engagement

In the past year, we focused on improving our online presence by posting on X regularly, as well as posting progress updates on the Polkadot forum.

X Account: https://x.com/_snowbridge

Polkadot Forum progress updates and community engagement:

- Snowbridge September Update
- Snowbridge on Kusama
- Snowbridge March 2025 Update

Especially over the coming months as our team has shifted towards integrations and growth as opposed to just development, we expect this to continue.

Integrations

Snowbridge bridged its first token on Jun 12, 2024. Since then we have been working on getting Snowbridge integrated across the ecosystem into Parachains, Dapps, Wallets, Block Explorers and other tooling.

Mythical

Snowbridge played a key role in the launch of the Mythical parachain, with the unique use case of migrating the MYTH ERC20 token to make it fungible with MYTH native asset on their parachain.

Our team advised Mythical on the technical solution and helped them implement a bespoke integration with Snowbridge including a custom AssetTransactor for the XCM config. This lead to over 240 million MYTH bridged in the last year, migrating ~$40M worth of tokens from Ethereum to Polkadot.

Snowbridge currently holds $40M worth of MYTH as part of its TVL.

Polkadot Hub

- Ethereum native assets use Asset Hub as their reserve parachain inside the Polkadot ecosystem. We now support bridging Ether and many different ERC20 tokens.
- Bridged versions of Ether, WETH, USDC, and USDT are now sufficient assets which allow users to bridge these without requiring DOT for account creation. The proposal to make them sufficient was also done entirely by the community, exhibiting our progress towards decentralized governance: https://polkadot.subsquare.io/referenda/1510
- Ether, WETH, USDC and USDT now have liquidity pools set up allowing users on Asset Hub to use these assets to pay for delivery and execution fees, with over $3M TVL. https://kheopswap.xyz/#/polkadot/pools
- With the recently launched Polkadot native assets support, users can also send DOT and KSM between Asset Hub Polkadot and Ethereum.

Also see Support and Promotion of Polkadot Hub for our wider efforts to promote Polkadot Hub to other teams.

Hydration

Hydration supports bridging of tBTC, AAVE, LINK, SKY tokens and Native Ether to and from Ethereum. They also used our SDK and Subsquid Indexer to allow for bridging directly within the Hydration dApp. You can make swaps with these assets.

Snowbridge's assets now make up almost $6M of Hydration's TVL, and our tBTC is the 3rd largest asset by TVL. We also expect a lot more ETH to soon flow into the Polkadot ecosystem with the recent Native Ether launch.

We're in the process of getting Snowbridge's DAI/USDS, USDC and USDT to become part of Hydration stablepools and also expect Hydration's incentives and GigaDOT incentives to incorporate Snowbridge assets soon, which we expect to also result in significant upcoming growth in Snowbridge TVL.

Related PRs:

- https://github.com/galacticcouncil/hydration-node/pull/784
- https://github.com/galacticcouncil/hydration-ui/pull/2236

Moonbeam

- Bi-directional bridging on Moonbeam is supported for wstETH, WETH and WBTC. Native Ether and more tokens are in the process of being added.

https://github.com/moonbeam-foundation/moonbeam/pull/2844

StellaSwap

We now have WBTC/DOT and ETH/DOT pools StellaSwap.

The ETH/DOT pool specifically can be used to easily onboard Ethereum users to the Polkadot ecosystem, by using an EVM wallet and Ether to bridge to Moonbeam and then using an EVM wallet on Stellaswap to swap for DOT.

Snowbridge ETH and WBTC have also now been included as part of StellaSwap's incentive program. At the time of writing, only about 24 hours after the start of this program, this has already generated ~$200k of TVL in Snowbridge-related pools,

offering ~200% APR across the DOT and STELLA token.

This program will run for ~6 months and is expected to maintain at least 13.3% APR in DOT and 15.3% APR in STELLA token as TVL grows further.

Tanssi

The Tanssi project allows users to easily spin up Substrate-based appchains. Snowbridge plays a critical role in allowing these appchains to communicate securely with Ethereum. For example, Snowbridge provides the communication path that allows appchain validators to be secured using the Symbiotics universal restaking service.

Tanssi are using a customized instance of Snowbridge tailored for their specific needs. We are providing advice and guidance to Tanssi in this endeavour.

Tanssi are also active contributors to Snowbridge, and this very good as it promotes decentralization, in the sense that other teams are able to develop Snowbridge besides us:

- https://github.com/paritytech/polkadot-sdk/pull/8053
- https://github.com/paritytech/polkadot-sdk/pull/8106
- https://github.com/paritytech/polkadot-sdk/pull/8175

Tanssi tweet: https://x.com/TanssiNetwork/status/1922658519876341984

Kilt

We worked with Kilt to implement a technique for bridging their tokens called Polar Path. This is live and Snowbridge can be used to bridge the KILT parachain native asset to Ethereum.

https://github.com/KILTprotocol/docs/pull/319

We have over $7M worth of KILT tokens now bridged over to Ethereum as part of Snowbridge's TVL.

Bifrost

We can do bi-directional bridging of Ether to and from Bifrost. This will support allowing Ether to be staked on Bifrost. We're also hoping to soon add support for vDOT bridging.

https://github.com/bifrost-io/bifrost/pull/1249

Other Projects

We've integrated support for bi-directional bridging of Ethereum assets in all the following parachains, and done some additional work with each:

- NeuroWeb *(OriginTrail)*
  - We have worked closely with the NeuroWeb/OriginTrail team to put together an RFC, https://github.com/OriginTrail/OT-RFC-repository/issues/51 for the migration and automated bridging of the TRAC ERC20 token into the Polkadot ecosystem.
  - https://github.com/OriginTrail/neuroweb/pull/82
- Integritee
  - TEER token bridged to Ethereum from Asset Hub via the Snowbridge dapp.

We are also in the process of integrating with the following parachains:

- Polimec
  - Working on an integration with their PLMC token to support transfers to Ethereum from Asset Hub.
- Acala
  - https://github.com/AcalaNetwork/Acala/pull/2858
  - https://github.com/open-web3-stack/polkadot-ecosystem-tests/pull/178

- Frequency
    - We have successfully tested sending Frequency's native parachain token from Asset Hub Westend to Sepolia and they'll be launching their token on Ethereum through Snowbridge.

Uniswap

We've setup and integrated Snowbridge's KSM and DOT into Uniswap V4 pools:

- DOT: https://app.uniswap.org/explore/pools/ethereum/0x99b02018157f8a26b95f7c18ec573795745506f8e3015c1e6e0b55f20
- KSM: https://app.uniswap.org/explore/pools/ethereum/0x61714375fedb9a261414ae2ae4986252af626f6f4fd8cc4a8a621bca9

We've seeded them with some initial liquidity, and are also working to have DOT and KSM included in the default Uniswap Token lists so that they are easily accessible and safe to swap in the UI.

Colorfulnotion's Dune Dashboard

We worked with Colorfulnotion to help them build out an extensive Dune dashboard for Snowbridge. They've integrated with us and supported us in building out a very comprehensive dashboard that tracks a myriad of statistics including bridge usage, TVL, latency costs, messages and trends.

There are now also public decoders and data sources on Dune for AssetHub, BridgeHub and Snowbridge contract data that anyone can query off.

- https://dune.com/substrate/snowbridge

Turtle

We've been putting in a major effort to collaborate with Velocity Labs to build out Turtle (https://turtle.cool/)

Turtle is an ecosystem-wide endeavor to facilitate frictionless transfers across parachains and bridges. Snowbridge was the core initial functionality that it has launched with and it expects to grow into the primary, polished application for cross-chain transfers for any users in the Polkadot ecosystem.

We've worked closely with them over the last year and made heavy changes and improvements to our Snowbridge SDK and Indexer to support ease of integration with Turtle and have allocated resources to helping them build out their product and support their vision.

Paraspell

We've worked closely with Paraspell on their XCM SDK to enable support for bridged transfers and transfer of bridged assets between parachains: https://paraspell.github.io/docs/

https://github.com/paraspell/xcm-tools/pull/357

Kheopswap

Kheopswap *(https://kheopswap.xyz/)* is a client for Asset Hub's Dex. Through our Asset Hub integration, it can be used to swap and pool Snowbridge assets on Asset Hub.

Parity Asset Transfer API

We worked with Parity on the Asset Transfer SDK to enable support for bridged transfers:

- https://github.com/paritytech/asset-transfer-api/pull/383
- https://github.com/paritytech/asset-transfer-api/pull/487

Bagpipes

Bagpipes *(https://bagpipes.io/)* is a a workflow framework. They've added tentative support for bridge transfers using Snowbridge from Asset Hub to Ethereum.

- https://github.com/BagpipesOrg/bagpipes-app/pull/100

OpenZeppelin

We worked with OpenZeppelin to ensure that Snowbridge is added to the new parachain template. When teams start a new parachain using the template, they'll now be already integrated with Snowbridge:

- https://github.com/OpenZeppelin/polkadot-runtime-templates/pull/214
- https://github.com/OpenZeppelin/polkadot-runtime-templates/pull/327

Wallets

We worked closely with all major wallet teams to allow bridged assets to be viewed in them. This also meant that they added support for all AssetHub foreign assets and enhanced their wider support for Asset Hub and the Polkadot <> Kusama bridge.

Additionally, we worked with Subwallet to add native support for bridged ERC20 token transfers within the wallet.

- SubWallet:
  - https://github.com/Koniverse/SubWallet-Extension/pull/3208
  - https://github.com/Koniverse/SubWallet-Extension/pull/3250
- Talisman:
  - https://github.com/TalismanSociety/talisman/issues/1308
- Nova:
  - https://github.com/novasamatech/nova-utils/pull/3076/files
  - https://github.com/novasamatech/nova-utils/pull/3290

Subsquid Cloud

We've developed a custom indexer that integrates with Subsquid Cloud for Snowbridge transaction data indexing and analytics.

Ongoing Maintenance

Electra Hardfork

Ethereum had a major hardfork a few weeks ago: Electa. Our bridge has an onchain light client for Ethereum that tracks the consensus state for Ethereum mainnet. For the bridge to remain viable, we have to be proactive in ensuring this light client is compatible with hardforks.

We added support for Electra and successfully tested the switchover from hard-fork Deneb to Electra on Westend-Sepolia testnet on 5 March. When Electra went live on 7 May, we had an automatic successful transition on Mainnet with zero-downtime.

Pull Requests:

- Polkadot SDK: https://github.com/paritytech/polkadot-sdk/pull/7075
- Relayer: https://github.com/Snowfork/snowbridge/pull/1283
- Runtime upgrade: https://github.com/polkadot-fellows/runtimes/pull/623#pullrequestreview-2725523331
- Runtime release: https://github.com/polkadot-fellows/runtimes/pull/675

Referenda:

- https://polkadot.polkassembly.io/referenda/1528

Solidity

Various improvements were made to our Solidity codebase independently of new features we've described elsewhere.

- Upgrade Solidity to v0.8.25: https://github.com/Snowfork/snowbridge/pull/1207
- Upgrade Solidity to v0.8.28 and introduce zero-cost re-entrancy guards: https://github.com/Snowfork/snowbridge/pull/1358
- Improved test coverage for simulated upgrades of the Gateway contract. Critical to ensuring that upgrades do not brick the bridge.
  - https://github.com/Snowfork/snowbridge/pull/1393
  - https://github.com/Snowfork/snowbridge/pull/1399
  - https://github.com/Snowfork/snowbridge/pull/1400/files

Substrate, Polkadot, Runtimes

Various improvements were made to upgrade our codebase in line with new versions of Substrate, Polkadot and the Runtime repos:

- https://github.com/polkadot-fellows/runtimes/pull/625
- https://github.com/polkadot-fellows/runtimes/pull/506
- https://github.com/polkadot-fellows/runtimes/pull/331
- https://github.com/polkadot-fellows/runtimes/pull/326
- https://github.com/polkadot-fellows/runtimes/pull/313
- https://github.com/polkadot-fellows/runtimes/pull/721
- https://github.com/paritytech/polkadot-sdk/pull/7956
- https://github.com/paritytech/polkadot-sdk/pull/7296
- https://github.com/paritytech/polkadot-sdk/pull/8014
- https://github.com/paritytech/polkadot-sdk/pull/5789
- https://github.com/paritytech/polkadot-sdk/pull/8038
- https://github.com/paritytech/polkadot-sdk/pull/8037
- https://github.com/paritytech/polkadot-sdk/pull/7081
- https://github.com/paritytech/polkadot-sdk/pull/7169
- https://github.com/paritytech/polkadot-sdk/pull/6503
- https://github.com/paritytech/polkadot-sdk/pull/5747
- https://github.com/paritytech/polkadot-sdk/pull/4175
- https://github.com/paritytech/polkadot-sdk/pull/7947

Operational Improvements

As part of running Snowbridge, we've also made a range of extra improvements to further automate our operations, increase reliability and decentralize our relayer stack.

Relayers & Data Nodes

Snowbridge requires relayers for user messages and light client consensus updates.

Earlier this year, we decentralized all our relayer nodes within our team, ie, our individual team members now each operate their own relayers, use their own hosting providers.

This has been a successful precursor to decentralizing outside of our team too and we've now done all the groundwork required to roll out relayers to external parties. This includes all the required infrastructure and ops guides, as well as setting up communication channels to reach all relayers.

When Snowbridge V2 is deployed in June, relayer decentralization will become easier, and we'll advertise a program for others to run their own relayers.

We also currently work with Dwellir to maintain a set of Polkadot, AssetHub, BridgeHub, and Ethereum nodes. This will make it even easier for other teams to run relayers.

Monitoring

We have an extensive monitoring and alarming suite to ensure on-chain and off-chain integrity. For the monitoring service, the scripts reuse the snowbridge-sdk to track the status of the bridge and transfers and send metrics to CloudWatch. Alarms are integrated with PagerDuty for real-time notifications and on-call support.

We've been making a range of improvements to these since launch, including:

- https://github.com/Snowfork/snowbridge/pull/1196
- https://github.com/Snowfork/snowbridge/pull/1205
- https://github.com/Snowfork/snowbridge/pull/1222
- https://github.com/Snowfork/snowbridge/pull/1256
- https://github.com/Snowfork/snowbridge/pull/1257
- https://github.com/Snowfork/snowbridge/pull/1310

Testnets

We've continued to successfully operate the full Snowbridge stack through the year on the following testnets:

- Rococo↔Westend↔Sepolia:
  - Testing new code
  - Testing double-bridging
  - Canary tests for changes to Polkadot and Ethereum that could break the bridge
- Paseo↔Sepolia
  - Testing integrations with other parachain teams.

Bug Bounty Program

We've been running our Bug Bounty program through the year and we've had some successes from it:

- We have paid out $15,000 for a potential exploit discovered in our Testnet: https://x.com/_snowbridge/status/1881988824781447394

We're planning to spread this program more widely for the coming year, so we've started exploring working with HackenProof, a bug bounty administrator, to utilize their services to further market and grow the program:

- https://hackenproof.com/

Audits

Snowbridge has undergone multiple audits over the past year, reflecting our commitment to security and reliability. While audits are a significant investment, they are essential to ensure that no vulnerabilities are introduced as the bridge evolves. As a result, every new Snowbridge release is subject to a thorough security audit before deployment.

Since June 2024, we've completed five separate audits.

Polkadot and Kusama Runtimes Audit

A dedicated audit was conducted to review the runtime configurations for Polkadot before our launch of mainnet, as well as Solidity contract changes made since the previous audit.

Report: https://github.com/oak-security/audit-reports/blob/main/Snowbridge/2024-08-16%20Audit%20Report%20-%20Snowbridge%20Updates%20v1.0.pdf

Since no major findings were identified, we made no changes after this particular audit.

Deneb & Ethereum Client Optimizations Audit

An audit to verify the correctness of the changes made to the Ethereum client for the Deneb hardfork, as well an improvement to make the Ethereum client 10x more cost-effective to run in production.

Report: https://github.com/oak-security/audit-reports/blob/main/Snowbridge/2024-08-10%20Audit%20Report%20-%20Snowbridge%20Updates%202%20v1.0.pdf

PR: https://github.com/Snowfork/polkadot-sdk/pull/161

Polkadot Native Assets Support & Ethereum Client Free Updates

We audited our Polkadot Native Assets alongside an update to the Ethereum client, which introduced support for free valid consensus updates.

Report: https://github.com/oak-security/audit-reports/blob/main/Snowbridge/2025-01-07%20Audit%20Report%20-%20Snowbridge%20Updates%203%20v1.0.pdf

PRs:

- https://github.com/Snowfork/snowbridge/pull/1325
- https://github.com/Snowfork/snowbridge/pull/1317
- https://github.com/Snowfork/snowbridge/pull/1315

Native Ether & Electra Support

This audit covered the Ethereum contract and BridgeHub changes we made to support bridging native ether (not only wrapped ether), as well as the Ethereum Electra hard-fork changes to the Ethereum client.

Report: https://github.com/oak-security/audit-reports/blob/main/Snowbridge/2025-05-06%20Audit%20Report%20-%20Snowbridge%20Updates%204%20v1.0.pdf

Fixes:

- https://github.com/paritytech/polkadot-sdk/pull/7075/commits/cf4944ec800b3914dab60e7946c64600e0048147
- https://github.com/paritytech/polkadot-sdk/pull/7075/commits/ef89f26f9e20c6bb9bcc6b3c85e340e62bac1c84

Snowbridge V2

Our major release of Snowbridge V2 required a large scope audit to ensure that:

- Snowbridge V1 remains unaffected and secure (to remain backwards compatible).
- Snowbridge V2 is secure.

We have addressed all of the findings. The updated Snowbridge V2 crates have been released with the Polkadot SDK stable-2503-3.

PRs:

- https://github.com/Snowfork/snowbridge/pulls?q=is%3Apr+is%3Aclosed+audit
- https://github.com/paritytech/polkadot-sdk/pull/8240

Roadmap

Snowbridge V2 is code-complete, audited, and is now awaiting deployment, but there's always ways to improve, enhance and grow the project and build new capabilities on top of it to support the evolution of the Polkadot ecosystem.

Our team still plans to continue working on the project over the coming year and has many ideas for how we believe Snowbridge work can continue to bring further value to the Polkadot ecosystem.

Upcoming Features

Launching V2

V2 is slated to be deployed as part of the `stable2503` Polkadot-SDK release, around June-July.

There'll be work for us here:

- Updating BridgeHub and AssetHub runtimes in https://github.com/polkadot-fellows/runtimes repo with V2 code released in `stable2503`.
- Upgrading our Gateway contract on Ethereum using OpenGov. This is a critical and sensitive procedure and requires a lot of simulation testing to ensure bridge liveness is not affected.
- Configuring and deploying our V2 relayers
- Adding support for V2 APIs to our UX layer (Snowbridge App)

Integrations, Incentives and Growth

Over the last few months our teams efforts have shifted away from contributing to core Snowbridge functionality and rather onto integrations work with other teams. We expect this to continue over the coming months.

We want to integrate Snowbridge with more parachains and get wider support for more assets across the ecosystem. Additionally, with the launch of V2 we'll want to support teams to upgrade to it.

V2 will also unlock new functionality in easier arbitrary messaging that we hope some teams will be able to build off to create new features not possible before.

Growth in usage of Snowbridge also means increasing the assets and increasing TVL. Snowbridge currently has over $60M TVL and we're set to significantly increase that with upcoming integrations and growth programs. Continuing to work on growth efforts will be a key part of our roadmap.

In the short-term, some of the following are upcoming:

- Hydration supports sending and receiving Ether via Snowbridge, but they will soon be launching Native Ether in the Omnipool. We see this as key for onboarding users into the Polkadot Ecosystem, allowing users to bridge in Ether and swap for DOT.
- Hydration's GIGAHydration campaign will incentivise Snowbridge assets and stablecoins attracting greater liquidity into the Polkadot ecosystem and greater TVL in Snowbridge.
- We want to make Snowbridge stablecoins more useful in the Polkadot ecosystem. In order to do this we are working with Velocity labs and Wave Digital to bring in liquidity of stablecoins to create an USDT with Snowbridge USDC and USDT 3-pool on Hydration. This should enable more use cases for Snowbridge stablecoins by allowing users to swap between native and bridge variants easily.
- Snowbridge's own liquidity program: We're hoping to put through a proposal for our own liquidity incentive program to fill in the gaps that are left out from Hydration and StellaSwap's programs.
- Diversifying the main Polkadot Treasury Portfolio with Snowbridge Assets, including Ether, USDC and USDT to protect from fluctuations in DOT price. This will also allow the treasury to do governance of Ethereum via Gov2 and Snowbridge V2s generalized message passing, using Ether for fees.

Accelerated Delivery for Polkadot→Ethereum messages

Currently, users have to wait at least 30 minutes before their Polkadot→Ethereum message is finalized on Ethereum.

Bhargav Batt and Alistair Stewart from W3F have designed a novel cryptographic algorithm based on the Fiat-Shamir transformation to reduce the latency to 1-2 minutes for only a few dollars at current gas prices.

BEEFY Fiat-Shamir Transformation: https://hackmd.io/8Jd7V74iSSeeHOIG76REWw.

While most of the changes will be made in our BEEFY light client contract, there are also changes required in most other components, including our parachain code, UX code, and relayers.

Ongoing maintenance and updates

Although Snowbridge is mature, we still expect the need for ongoing maintenance an updates. For example:

- Ethereum's Fusaka hard fork is scheduled for late 2025. As most hard forks, consensus data structures are changed and this means our Ethereum light client's need to be updated too.
- Substrate, Cumulus or Polkadot upgrades could create new dependency work to do.
- Since our bridge is highly coupled with XCM, it will need to evolve along with it.
- Ongoing support for relayers, with potential updates to improve operations and continuing to keep our eye on the systems to ensure strong reliability and security for the bridge.

Testnets

We need to keep our Westend-Sepolia and Paseo-Sepolia testnets in order, so that teams can test against these environments.

- **Westend:** While Parity keeps Westend up to date with the latest Polkadot SDK, our team remains responsible for the maintenance and updates of the off-chain infrastructure, as well as running a Sepolia Ethereum node.
- **Paseo:** Our team is now solely responsible to keep Paseo BridgeHub parachain updated with the latest Polkadot SDK ourselves, since only Snowbridge is deployed on BH. Thus, the scope of maintenance for Paseo is the same as for Westend (off-chain infrastructure and Ethereum node), but also requires us to do Bridge Hub runtime upgrades.

Parity-driven Updates

Parity has some of their own new roadmap plans that they're interested in for us. We still need to work through them.

- The scope of the BridgeHub parachain is being reduced, with most of the user-facing bridging APIs being moved to Polkadot Hub. By reducing complexity, security and robustness will be increased in turn.
- More technical alignment between the Polkadot↔Kusama bridge and Snowbridge, particularly when it comes to relayer incentivization and decentralization.
- Tighter integration with EVM contracts on Polkadot Hub. We'll need to work with Parity to develop EVM precompiles so that contracts can communicate with Snowbridge.

V1 Bridge Deprecation

Once V2 goes live, we'll want to improve the security of the project by removing duplicated code paths.

This effort will involve:

- Helping other teams to upgrade their UI layers to our V2 API.
- Removing support for V1 from our client SDK
- OpenGov proposals to remove V1 on-chain code on BridgeHub and Ethereum

Given that V1 is widely used, this effort will remain open-ended and could take quite a while to complete.

Fully Decentralize Offchain Operations

Snowbridge includes many offchain components including archive nodes, message relayers, data indexers, and monitoring services. These are all maintained by our team.

With our V2 release, support for decentralized off-chain relayers has been greatly improved, and so we can now work to almost entirely remove our team as a critical piece.

We aim to reduce the dependency on our team to minimally only:

- Maintaining offchain relayer codebase and performing periodic releases.
- Running a *backup* set of user message relayers that would only relay messages in the event that all others fail

Making this reduction will require the following:

- Improve our CI pipeline so that building, testing and releasing relayer artifacts for use by partners becomes fully automated. This would outputs simpler raw binaries or docker images as required by those running relayers.

- Enhance our relayer binaries to be self-contained and require zero configuration. They'll automatically work with appropriate defaults and discover configuration parameters as necessary.
- Implement automatic claiming of relayer rewards (V2), minimizing human intervention.
- Add support for Prometheus metrics to our relayer instrumentation.
- Add example templates to run relayers with Ansible, Kubernetes or whatever tooling external parties require.

Longer Term Considerations

Beyond the above more finalized roadmap items, there are a range of longer term features we could work on to further enhance the bridge. Whether and how we actually implement some of these will likely be driven primarily by user feedback and direction learned from ongoing parachain integrations and community support.

We expect the longer term to slowly solidify over the coming months, as we get a lot of more of that feedback, but we have a shortlist of features and ideas that we think could be valuable to work on in future, specifically:

- **Fallback Governance by BEEFY validators:** We have some ideas for fallback governance that could act as a final safeguard against bridge failure, without compromising on decentralization. This would act as a secure fail-safe in case there are bugs or faults on either side of the bridge that could permanently affect liveness. Fallback Governance would essentially allow a quorum of previous BEEFY validators to sign a message that can upgrade the Snowbridge Ethereum contracts.
- **Emergency permissionless pause:** A mechanism to permissionlessly halt the bridge in case of exploits by allowing a white-hat to place a stake to pause the bridge. *(The security of this would still need to be investigated more thoroughly)*
- **Cross-chain intents:** Building support for intent libraries on top of Snowbridge V2
- **XCM wrappers over Ethereum apps:** XCM Helpers to allow Polkadot apps to use Ethereum apps such as Aave
- **Atomic swaps:** Add an atomic swap layer that runs on top of our bridge, which would allow for near-instantaneous and far cheaper bridge transfers and swaps for smaller amounts and the large majority of users.
- **Further Live ops & Red teaming:** We have strong live-ops, but could also do more red-teaming and simulated adversarial attacks in production to further strengthen our security. Further testing and improvement of our emergency response systems could be explored too.
- **Frontend relayers:** Snowbridge is permissionless, meaning anyone can be a relayer. Relayer functionality can be ported to run directly on the frontend, allowing even non-technical users to relay messages themselves directly and save on costs.
- **Onchain Epoch Update Incentives:** Bridge epoch updates are free, but although there is no cost to relaying them, there is no onchain incentive to do so either. An incentive claim for epoch updates on both sides of the bridge could be put on chain to incentivize more parties to run epoch update relayers.
- **Frontend widgets & embeds for external dapps:** Turtle plans to potentially work on widgets to allow any dapps to easily embed bridging widgets into their UIs without needing to do a deeper integration with our Javascript SDK. We could support them with these efforts

Financials and Funding

Snowbridge is now the longest running and most complex public goods project in the Polkadot ecosystem outside of Parity itself. We're a public-goods focused team competing with projects that have each raised $100m+ in funding at $1b+ valuations. We build a bridge that's not just better for DOT holders due to 100% ownership and aligned team incentives, but that's also a functionally better design based on a trust model without third party signatories that handicap trust and undermine Polkadot's security.

Snowbridge has never raised any funding from outside investors. We've been funded entirely through bootstrapping, early grants and our previous treasury proposals. We've successfully stayed a public goods-based project for many years, building long-term, complex tech which is traditionally done through massive raises at high valuations that provide major upside to the team after the project launches.

Our original proposal included incentives designed to sustain a high-performance engineering team to produce great, long term value for the Polkadot ecosystem with clear upside potential that could allow a public goods project to compete with VC funded projects.

It succeeded and brought Snowbridge to life, and the first half of our retroactive milestone payments and operating incentives have been paid out.

Snowbridge has already brought in over $60M of TVL into the Polkadot ecosystem and we're just getting started, with major assets that are still being integrated that we expect to further bring a ton of liquidity into Polkadot.

Given our continued successful launch, operation and growth, this proposal is being put forward to execute funding for the remaining milestone and incentive payments that were originally agreed upon.

Incentive Funding and Alignment

A key part of our funding has always been to ensure that incentives are aligned between Snowbridge and the Polkadot ecosystem. To ensure this, the funding was designed with the following mechanisms:

- A major portion of payouts are in the form of long-term, vesting exposure to DOT ensuring that the team is incentivized to grow value in the Polkadot ecosystem long term
- The majority of remaining payout triggers are weighted to long term success criteria for continued successful operation and integration of the bridge across the Polkadot ecosystem, not just for shipping engineering milestones.
- All the long term payout triggers are conditional on the successful operation of the bridge. If for any reason there is a break, delay, security issue or loss of funds from the bridge, the payout triggers can be paused and should then only resume if the bridge resumes in operation successfully without losses.

Additionally, during our last proposal we also agreed an insurance mechanism and bug bounty program that would be taken from our own incentives to further cement alignment.

These mechanisms will all still apply with our remaining payments, and are detailed again below:

Insurance and Bug Bounty:

- The majority of payout triggers in this proposal and our future incentives do not immediately payout to the Snowbridge team - they are scheduled over a 12 month period.
- As with our last proposal, these payouts will be earmarked for a community insurance and bug bounty program that can be used to insure the bridge and its users against some risk of loss in using the bridge.
- Snowbridge only gets its continued upside exposure if the bridge continues to be successful and secure long term, otherwise funds will be used to cover community losses up to the total cap of whatever is remaining in future Snowbridge payouts at the time of loss.
- See our previous proposal for more details on the insurance.
- Our bug bounty program will be extended up to 24 months and additional marketing spend will be allocated to it. We plan to work with HackenProof as a bug bounty provider who can market it to a wider audience of security folk.

Audit and Operational Costs

Besides for incentive funding, our last proposal included **~$1.1M** of funding specified to cover retroactive audit costs as well as new audit and relayer operational costs through July 2025. This section breaks down how those funds have been spent.

Relayer Gas Expenses Breakdown

- Consensus relayers
  - Beefy
    - Session Relayer: 12.798 ETH *($33,306 adjusted for historical prices)*
    - OnDemand Relayer: 1.088 ETH *($2,828 adjusted for historical prices)*
  - Beacon: 6061.27948 DOT *($29,785 based on current prices)*

- Message Relayers Rewards+Refunds
  - Ethereum relayer: 362.9097258 DOT subsidized *($1,779 based on current prices)*
  - Asset Hub relayer: ~1.381291518 ETH subsidized *($3376 adjusted for historical prices)*

Total Onchain Expenses: $71,074

Relayer Income Breakdown

- Total fees collected
  - Ethereum to Polkadot
    - RegisterToken: 0.05432685355 ETH *($170 adjusted for historical prices)*
    - SendToken: 0.8122480717 ETH *($1932 adjusted for historical prices)*
  - Polkadot to Ethereum:
    - SendToken: 539.899 DOT *(~$2,653 based on current price)*

Total Onchain Income: $4,755

Summary of Relayer Gas Costs

	ETH	DOT
Income		
Fees Charged to users	0.8665749253	539.899
Expenses		
Consensus Relayers	-13.886	-6061.27948
Message Relayer Rewards+Refunds	-1.381291518	-362.9097258
Net	-14.40071659	-5884.290206

Net Total in USD: ~$66,319

Relayer Infrastructure Expenses

Running high reliability, high availability relayers requires a range of infrastructure and tooling to do effectively, beyond just the onchain costs.

We use various services to maintain this infrastructure, including Amazon Web Services, Vercel, PagerDuty, Subscan, Alchemy, Dwellir, Tenderly, Github, Subsquid and misc other services.

Relayer Infrastructure Costs in 2024: ~$58,000

Relayer Infrastructure Costs in 2025: ~$22,000

Relayer Decentralization Program

We ran a relayer decentralization program internally, within our team where we sponsored developers to run their own relayer infrastructure on their own personal accounts as a way to dogfood and improve the developer experience before further relayer decentralization.

- **$1875** sponsored across the team

Audit Costs

Retroactive (Pre-2024): ~$263,000

2024: ~$93,500

2025: $170,000

Summary of Audit and Operational Costs

Description	Amount
Relayer Onchain Costs	$66,319
Relayer Infrastructure Expenses	$80,000
Relayer Decentralization Program	$1875
Audit Costs	**$526,500**
Total Costs	**$674,694**

Given we have only spent **~$675k** of our allocated $1.1M Audit and Operational funding, we still have **~$425k** remaining. This was primarily due to significant optimizations to our light client that resulted in much less needing to be spent on sponsoring them as expected.

We are thus not asking for any further audit and operational funding in this proposal, as we expect this remaining amount to cover another year of audit and operational costs and continued funding for the light clients.

We will also allocate some of this remaining funding to expand our relayer decentralization program now that the developer experience is far improved and to cover upcoming audits of new features later in the year.

Payout Structure

Our past proposals agreed upon a milestone payout structure and this proposal updates that structure:

- **Milestones:** The original milestones have all been completed and the first half of the vesting payments have already been paid out. This new funding proposal sets up a payment schedule to cover the remaining 12 months of vesting payments for the completed milestones
- **Long term incentive funding:** The first half of these vesting payments have also already been paid out. This proposal covers the next 12 months of those vesting triggers.
    - Note: One of our payment claims for this vesting failed due to a lack of USDC liquidity in the Asset Hub Treasury. The claim extrinsic on Polkadot succeeded here, however the XCM relayed to Asset Hub failed here. The Asset Hub Treasury has been topped up, but it's not possible to replay this transaction and so we're adding a single additional vesting payment to repeat and recover this claim.
- The above two buckets fully cover our team's expected pay from June 2025 to June 2026.
- **Audits, Light Client and Relayer Sponsorship:** We still have unspent funds from our previous proposal that should cover this for an additional year, so no further funding is being requested for this.
- **Roadmap:** We're happy to and are expecting to include the additional new upcoming features described in our roadmap as part of our long term incentive funding along with our existing operations and maintenance work. We're not requesting any additional funds for this.

The updated payment structure is as follows:

Payout	**Amount**
P1 - Milestone M1 completed *This proposal sets up payouts for the final 12 months of monthly unlocks*	$15,625 in DOT vesting monthly for 12 months *(based on $187,500 remaining value)*
P2 - Milestone M2 completed *This proposal sets up payouts for the final 12 months of monthly unlocks*	$23,437.5 in DOT vesting monthly for 12 months *(based on $281,250 remaining value)*
P3 - Milestone M3 completed *This proposal sets up payouts for the final 12 months of monthly unlocks.*	$39,062.50 in DOT vesting monthly for 12 months *(based on $468,750 remaining value)*
P5 - 12 months of continued successful operation and integrations on Polkadot *This proposal sets up payouts for the next 12 months.*	$312,500 in USDC vesting monthly for 12 months

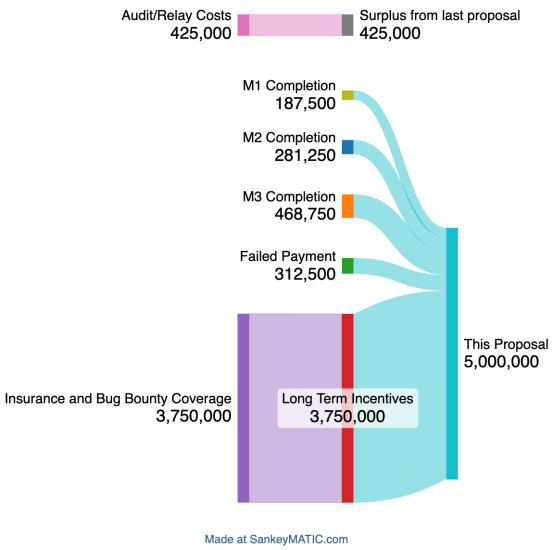
Failed claim transaction *(as described above)*	$312,500 in USDC
Total payout in this proposal	**$937,500 in DOT and 4,062,500 in USDC** *(based on ~$5M USD)*

Notes:

- *Our original proposal also included an additional planned $625k worth of KSM, paid out from the Kusama treasury for continued success of the Kusama <> Ethereum bridge. This will be submitted to the Kusama treasury in a later proposal.*

Payout structure summary

See below diagram for a summary of the full Polkadot payout structure:



As with our last proposal, our long term incentive bonus is held for an insurance and bug bounty allocation and only unlocks to us monthly over 12 months.

Technical execution details

The technical execution is a single transaction, with a batch payout that covers all 4 payment buckets mentioned:

- 12 treasury.spend of 17,800 DOT each. Each delayed to be claimable monthly over ~12 months, totalling 213,600 DOT
- 13 treasury.spend 312,500 USDC each. Each delayed to be claimable monthly over ~12 months, totalling 4,062,500 USDC.

Spend Amount	validFrom Block	Days Delayed
17800 DOT		45
17800 DOT		45
17800 DOT		60
17800 DOT		90
17800 DOT		120
17800 DOT		150
17800 DOT		180
17800 DOT		210
17800 DOT		240

17800 DOT		270
17800 DOT		300
17800 DOT		330
312500 USDC		45
312500 USDC		45
312500 USDC		45
312500 USDC		60
312500 USDC		90
312500 USDC		120
312500 USDC		150
312500 USDC		180
312500 USDC		210
312500 USDC		240
312500 USDC		270
312500 USDC		300
312500 USDC		330