

Proposal

Hello Aave Community! deBridge (<https://debridge.finance/>) is a generic messaging and cross-chain interoperability protocol that enables decentralized transfers of arbitrary data and assets between blockchains. The protocol is an infrastructure platform and framework for:

- Cross-chain composability of smart contracts
- Cross-chain swaps (deSwap is one of the applications built on top of deBridge that enables capital-efficient cross-chain swaps)
- Bridging of any arbitrary asset and data
- Interoperability and bridging of NFTs

In deBridge, we strongly believe in the concept of composable finance where a combination of different DeFi primitives or protocols enables solutions with the highest level of capital efficiency that can't be achieved by standalone protocols or applications. deBridge was designed to be fully compatible with the existing DeFi ecosystem, and deSwap (<https://app.debridge.finance/deswap>) is a good example of this. It leverages deBridge's generic messaging framework in order to provide users and protocols with the ability to perform a capital-efficient cross-chain conversion between arbitrary liquid assets, all in one transaction.

More information about deSwap can be [found here](#).

Instead of reinventing the wheel and developing a dedicated AMM or DEX, we integrated with Curve to utilize its capital-efficient stableswap AMM and partnered up and integrated with the liquidity aggregator 1inch. This design allows deSwap to source liquidity and routing from existing protocols. This is much more effective than running meaningless liquidity mining campaigns to have a ton of idle liquidity sitting as TVL with near-zero utilization. We believe it's more reasonable to source liquidity from a protocol like AAVE when it's needed and to do revenue sharing between the protocols.

Portals enable a great synergy between deBridge and AAVE by bringing additional utilization for locked liquidity in AAVE as well as providing a new type of routing for cross-chain swaps through deSwap, where no intermediary pools or wrapped tokens are needed. In addition, the integration will facilitate atomic transfers of positions between Aave instances on different chains which ease cross-chain interactions with no need to switch wallets/networks.

Technical Specifications

deBridge is an infrastructure for developers and projects to integrate with or use to build any type of cross-chain applications and primitives. The design of the deBridge protocol consists of two layers:

- Protocol layer – on-chain smart contracts deployed on every blockchain supported by deBridge.
- Infrastructure layer – off-chain validation nodes operated by validators that are elected by and work for deBridge governance. The list of active validators can be [found here](#)

More details about the technical implementation and design of the deBridge protocol can be found in our documentation portal: <https://docs.debridge.finance/>

The protocol has been live since February and has processed over \$43M in volume, 75k+ cross-chain transactions, 44k+ unique users, and generated over \$120,000 in fees for the protocol and validators securing the network.

The major activity in the protocol has been generated by deSwap, a cross-chain swap solution built on top of the deBridge generic messaging protocol. deSwap enables decentralized cross-chain conversion of arbitrary liquid assets. Here is some useful information:

- Is the entity a Bridge?
- deBridge is a generic messaging and cross-chain interoperability protocol that enables decentralized transfers of arbitrary data and assets between blockchains
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- If applicable the number of routers, total liquidity of routers
- Cross-chain swaps are currently routed through the deUSDC/deETH liquidity pools at Curve protocol which have ~\$9M of liquidity provided by deBridge users and partners. A complete list of liquidity pools can be found here: [Cross-Chain Swaps Liquidity - deBridge](#)
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Chain Swaps Liquidity - deBridge

- Can anyone provide liquidity to the protocol?
- Yes, anyone can provide liquidity to the protocol
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- Is liquidity incentivized?
- At this moment liquidity is not incentivized. Liquidity providers receive 2 BPs in the form of trading fees from Curve.
- Once control over the protocol is passed to governance, there is a plan to submit a governance proposal to the deBridge DAO to retroactively reward participants proportionally to how they have helped out the protocol in the early stages
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- Once control over the protocol is passed to governance, there is a plan to submit a governance proposal to the deBridge DAO to retroactively reward participants proportionally to how they have helped out the protocol in the early stages
- Is there a fee model for participants?
- The protocol takes a 10bps fee from every transaction (5bps go to validators and their delegators that help to secure the protocol, and another 5 bps go to deBridge treasury)
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- does the entity is or is planning to provide available liquidity into Aave protocol?
- TBD
- TBD
- Link to analytics dashboard of protocol
- <https://explorer.debridge.finance/>
- <https://dune.com/mak5577/DeBridge>
- <https://explorer.debridge.finance/>
- <https://dune.com/mak5577/DeBridge>
- If applicable, link to the user-focused dapp of the entity.
- <https://app.debridge.finance/>
- <https://app.debridge.finance/>
- Link to technical documentation
- <https://docs.debridge.finance/>
- <https://docs.debridge.finance/>

At this stage, cross-chain swaps are routed through the intermediary deUSDC pool at Curve which sets the maximal amount of swaps being limited by liquidity in the pool ([Cross-Chain Swaps Liquidity - deBridge](#)). The credit line provided by Portals will solve this problem by enabling new routings and more capital-efficient cross-chain swaps with larger transactions, limited only by the amount of the credit line.

One of the unique features of deBridge is the cross-chain “transactions bundling” where an arbitrary set of actions can be packed into one cross-chain interaction, e.g. users can do a cross-chain swap and supply the resulting liquidity to AAVE.

The liquidity from Portals will be used in various scenarios:

1. Facilitate liquidity inflow into AAVE v3 on different chains so users can supply liquidity using any arbitrary asset on any chain supported by deBridge.
2. Let anyone automatically transfer positions across instances of AAVE v3 on different chains.

- Utilized for routing of cross-chain swaps performed by users/protocols through deSwap.
- Any applications and projects that integrate the deSwap API (debridge.finance/api) which will use Portals' liquidity bringing additional monetization to the AAVE protocol.

We have prepared for the Aave community an application POC for swap + deposit into AAVE in a single transaction: <https://stake-aave.debridge.finance/stake-aave>

Once the deSwap widget is integrated into the AAVE application, all users of the AAVE UI will utilize the liquidity of Portals to perform the above-mentioned interactions with the protocol.

This is an example of ETH liquidity routing on Ethereum which is converted into AVAX and supplied to AAVE on Avalanche:

Once integrated with Portals, its credit line will be used instead of deUSDC.

Technical implementation

Integration with Portals is to be performed through a dedicated deAaveAdapter smart contract that will be developed by the deBridge team and audited by our security partner Halborn. This smart contract utilizes the deBridge generic messaging protocol and interacts with Portals (AAVE Pools).

It receives liquidity from the user, then redeems the loan on one chain and takes the same amount of credit to another chain. Whenever users or protocols perform a cross-chain swap, the following set of actions is performed by the smart contract:

- Accept liquidity from the sender on chain A (e.g. Arbitrum) and check if there is any unbacked amount to be repaid
- Pay the outstanding amount and lock the remaining liquidity in the deAaveAdapter
- Send a message to the deAaveAdapter on chain B (e.g. Polygon) through deBridge. The message contains a command to take a loan, redeem aToken and transfer liquidity to the receiver.

Once the transaction initiated on Chain A is final and irreversible, the deBridge infrastructure will execute the transaction on the destination Chain B in the following sequence:

- Execution of the passed message in the external call to deAaveAdapter
- deAaveAdapter will mint the needed amount of aTokens by calling mintUnbacked function of Portals
- deAaveAdapter will redeem received aTokens and transfer the resulting tokens to the receiver by calling withdraw method of AAVE protocol

This design of deAaveAdapter guarantees that the liquidity lent from Portals on one chain is always backed by the same amount of asset locked in deAaveAdapter on another chain. By this design, liquidity that was lent to deSwap always remains in AAVE's possession as any user/protocol can bridge assets from the chain with an outstanding loan to unlock the corresponding amount of the same asset locked in the deAaveAdapter on another chain.

This diagram shows the general flow of a cross-chain interaction when deSwap will be integrated with Portals:

Proposed list Credit Line request

The credit lines to be allocated to deBridge are requested for each blockchain where AAVE v3 is deployed. deBridge is currently deployed on 6 blockchains and one of the reasons we haven't deployed on others has been the lack of liquidity for deSwap. Portal is solving this problem and deBridge will prioritize integration to have the list of supported blockchains matching those where Portals are deployed.

Network

Asset

Current Liquidity

Requested Credit Line (per chain)

Fee Model*

Fee Requested*

All

USDC

\$9M

\$4M

Fixed bps

2 bps

All

USDT

—

\$4M

Fixed bps

2 bps

All

ETH

\$0.7M

2000 ETH

Fixed bps

2 bps

The maximal amount of the cross-chain swap that can be performed by users and protocols in one transaction is capped by the amount of approved credit line. deBridge will pay a 2bps fee on all the liquidity taken from Portals.

Incentives

An incentive program may be approved by the deBridge DAO after the deBridge token goes live.

Audits & Security

List of relevant security audits of the network

Security has always been our main priority. deBridge has passed four independent security audits by reputable companies such as

- Halborn
- Zokyo
- Ackee Blockchain
- Neodyme

All security audit reports can be found on our Github: <https://github.com/debridge-finance/debridge-security>

deBridge has a long-term partnership with [Halborn](#) that audits not only smart contracts but all the modules created for the protocol.

We also have an ongoing bug bounty program on Immunefi:

<https://immunefi.com/bounty/debridge/>

We have done extensive research and seen that many bridges are missing various security measures like basic balance sheet validation and nonce sequence validation. These crucial components among others have been implemented in deBridge. More details about our cross-chain security strategies can be found here: [10 Strategies for Cross-Chain Security](#)

Has the Entity experienced outages, downtime, or exploits/hacks? on which Networks?

Never