# Portal

Introduction

Portal feature can be used to allow supplied assets to seamlessly flow between Aave markets on different networks.

This feature can be used bybridging protocol . There are no core-protocol methods for end-user to take advantage of Portals directly. Aave protocol V3 allowsapproved bridges to burnaTokens on the source network while instantly minting them on the destination network. The underlying assets can then be supplied to Aave on the destination network, in a deferred manner, by passing it to the pool after it has been moved through a bridge.

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How it works?

Consider a scenario where a user wants to move funds from Ethereum to an L2 or another chain (eg., Arbitrum, Avalanche):

- The user submitbridge tx
- to verified bridging protocol (say Connext) and have access to funds on the destination chain as soon astx
- is mined.
- Behind the scenes, bridging protocol:
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    - mintsunbacked aTokens
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    - , on the destination chain, to the intermediate contract and in-turn withdraw and transferunderlying asset
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    - to the user immediately.
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    - batch multiple bridge tx and actually move the underlying asset to L2
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    - Later once the funds are available on L2,bridge contract
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    - on L2 (i.e. withBRIDGE
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    - permissions on Aave V3) supply theunderlying asset
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    - andfee
- 
    - to the Aave pool to back the previously mintedunbacked aTokens.
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There are 3 parts involved in taking advantage of this feature:

- Approve contracts forBRIDGE
- role
- function addBridge (bridge)
- Since, only the contracts (addresses) added to the list ofBRIDGE
- role members can move the supplied liquidity across Aave V3 markets, the Aave Governance must have granted the required permissions/role to the verifiedBridge Contract
- via ACLManager.
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The interest rate computation is part of the core protocol but the calculation of the deferred supplies to cover unbacked amount and protocol fee is not enforced by the core protocol. Hence,caution must be taken by governance while approving the bridges. * Have access to liquidity on destination network instantly * function mintUnbacked (asset, amount, onBehalfOf, referralCode) * The contracts withBRIDGE * role can access supplied assets in Aave V3 across network instantly by callingmintUnbacked in Pool.sol * . The address specified byonBehalfOf * will have access to the respectiveamount * ofaToken * . *

To prevent potential risks of excessive minting of unbacked aTokens, anunbackedMintCap is specified per asset. * Back the liquidity after moving funds through bridge * function backUnbacked (asset, amount, fee) * Once the underlying asset are moved to the destination network viaCross Chain * Bridge * , it can be supplied to Aave V3 pool on the destination network along with the fee by callingbackUnbacked in Pool.sol * . *

The amount to back and fee paid to the protocol is decided by the governance vote forBRIDGE role.

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