

ethBridger

Classes

EthBridger

Bridger for moving either ETH or custom gas tokens back and forth between parent and child networks

Extends

- [AssetBridger](#)
- <EthDepositParams
- |EthDepositToParams
- |ParentToChildTxReqAndSigner
- ,EthWithdrawParams
- |ChildToParentTxReqAndSigner
-

Properties

Property Modifier Type Description Inherited from nativeToken? readonly string In case of a chain that uses ETH as its native/gas token, this is either undefined or the zero address

In case of a chain that uses an ERC-20 token from the parent network as its native/gas token, this is the address of said token on the parent network [AssetBridger](#) .nativeToken

Accessors

nativeTokenIsEth

get

protected

nativeTokenIsEth () :

boolean Whether the chain uses ETH as its native/gas token

Returns

boolean

Source

[assetBridger/assetBridger.ts:71](#)

Methods

approveGasToken()

approveGasToken (params : WithParentSigner < ApproveGasTokenParamsOrTxRequest
):

Promise < TransactionResponse

Approves the custom gas token to be spent by the Inbox on the parent network.

Parameters

Parameter Type Description params WithParentSigner < ApproveGasTokenParamsOrTxRequest

Returns

Promise < TransactionResponse

Source

[assetBridger/ethBridger.ts:219](#)

checkChildNetwork()

protected

checkChildNetwork (sop : SignerOrProvider) :

Promise < void

Check the signer/provider matches the child network, throws if not

Parameters

Parameter	Type	Description
sop	SignerOrProvider	

Returns

Promise <void

Inherited from

[AssetBridger .checkChildNetwork](#)

Source

[assetBridger/assetBridger.ts:60](#)

checkParentNetwork()

protected

checkParentNetwork (sop : SignerOrProvider) :

Promise < void

Check the signer/provider matches the parent network, throws if not

Parameters

Parameter	Type	Description
sop	SignerOrProvider	

Returns

Promise <void

Inherited from

[AssetBridger .checkParentNetwork](#)

Source

[assetBridger/assetBridger.ts:49](#)

deposit()

deposit (params : EthDepositParams | ParentToChildTxReqAndSigner) :

Promise < ParentEthDepositTransaction

Deposit ETH from Parent onto Child network

Parameters

Parameter	Type	Description
params	EthDepositParams ParentToChildTxReqAndSigner	

Returns

Promise <ParentEthDepositTransaction

Overrides

[AssetBridger .deposit](#)

Source

[assetBridger/ethBridger.ts:287](#)

depositTo()

depositTo (params : EthDepositToParams | ParentToChildTransactionRequest & object & object) :

Promise < ParentContractCallTransaction

Deposit ETH from parent network onto a different child network address

Parameters

Parameter Type Description params EthDepositToParams [ParentToChildTransactionRequest](#) &object &object

Returns

Promise <ParentContractCallTransaction

Source

[assetBridger/ethBridger.ts:339](#)

getApproveGasTokenRequest()

getApproveGasTokenRequest (params ? : ApproveGasTokenParams) : Required < Pick < TransactionRequest ,

"data"

|

"value"

|

"to"

Creates a transaction request for approving the custom gas token to be spent by the inbox on the parent network

Parameters

Parameter Type Description params ? ApproveGasTokenParams

Returns

Required <Pick <TransactionRequest , "data" | "value" | "to"

Source

[assetBridger/ethBridger.ts:191](#)

getDepositRequest()

getDepositRequest (params : EthDepositRequestParams) :

Promise < OmitTyped < ParentToChildTransactionRequest ,

"retryableData"

Gets tx request for depositing ETH or custom gas token

Parameters

Parameter Type Description params EthDepositRequestParams

Returns

Promise <[OmitTyped](#) <[ParentToChildTransactionRequest](#) , "retryableData"

Source

[assetBridger/ethBridger.ts:268](#)

getDepositRequestData()

private

getDepositRequestData (params : EthDepositRequestParams) :

string Gets transaction calldata for a tx request for depositing ETH or custom gas token

Parameters

Parameter Type Description params EthDepositRequestParams

Returns

string

Source

[assetBridger/ethBridger.ts:241](#)

getDepositToRequest()

getDepositToRequest (params : EthDepositToRequestParams) :

Promise < ParentToChildTransactionRequest

Get a transaction request for an ETH deposit to a different child network address using Retryables

Parameters

Parameter Type Description params EthDepositToRequestParams

Returns

Promise <[ParentToChildTransactionRequest](#)

Source

[assetBridger/ethBridger.ts:312](#)

getWithdrawalRequest()

getWithdrawalRequest (params : EthWithdrawParams) :

Promise < ChildToParentTransactionRequest

Get a transaction request for an eth withdrawal

Parameters

Parameter Type Description params EthWithdrawParams

Returns

Promise <[ChildToParentTransactionRequest](#)

Source

[assetBridger/ethBridger.ts:372](#)

isApproveGasTokenParams()

private

isApproveGasTokenParams (params : ApproveGasTokenParamsOrTxRequest) : params is WithParentSigner < ApproveGasTokenParams

Asserts that the provided argument is of typeApproveGasTokenParams and notApproveGasTokenTxRequest .

Parameters

Parameter Type Description params ApproveGasTokenParamsOrTxRequest

Returns

params is WithParentSigner

Source

[assetBridger/ethBridger.ts:181](#)

withdraw()

withdraw (params : ChildToParentTxReqAndSigner | EthWithdrawParams & object) :

Promise < ChildContractTransaction

Withdraw ETH from child network onto parent network

Parameters

Parameter Type Description params ChildToParentTxReqAndSigner |EthWithdrawParams &object

Returns

Promise <ChildContractTransaction

Overrides

[AssetBridger .withdraw](#)

Source

[assetBridger/ethBridger.ts:408](#)

fromProvider()

static

fromProvider (childProvider : Provider) :

Promise < EthBridger

Instantiates a new EthBridger from a child network Provider

Parameters

Parameter Type Description childProvider Provider

Returns

Promise <[EthBridger](#)

Source

[assetBridger/ethBridger.ts:173](#) [Edit this page](#) [Previous Erc20Bridger](#) [Next L1l3Bridger](#)