

Routers

This section contains a full API reference of all public functions & events related to routers and router liquidity management.

Events

RouterAdded

...

Copy eventRouterAdded(addressrouter,addresscaller)

...

Emitted when a new router is added

Parameters

Name	Type	Description
router	address	- The address of the added router
caller	address	- The account that called the function

RouterRemoved

...

Copy eventRouterRemoved(addressrouter,addresscaller)

...

Emitted when an existing router is removed

Parameters

Name	Type	Description
router	address	- The address of the removed router
caller	address	- The account that called the function

RouterRecipientSet

...

Copy eventRouterRecipientSet(addressrouter,addressprevRecipient,addressnewRecipient)

...

Emitted when the recipient of router is updated

Parameters

Name	Type	Description
router	address	- The address of the added router
prevRecipient	address	- The address of the previous recipient of the router
newRecipient	address	- The address of the new recipient of the router

RouterOwnerProposed

...

Copy eventRouterOwnerProposed(addressrouter,addressprevProposed,addressnewProposed)

...

Emitted when the owner of router is proposed

Parameters

Name	Type	Description
router	address	- The address of the added router
prevProposed	address	- The address of the previous proposed
newProposed	address	- The address of the new proposed

RouterOwnerAccepted

...

Copy eventRouterOwnerAccepted(addressrouter,addressprevOwner,addressnewOwner)

...

Emitted when the owner of router is accepted

Parameters

Name	Type	Description
router address	-	The address of the added router
prevOwner address	-	The address of the previous owner of the router
newOwner address	-	The address of the new owner of the router

RouterLiquidityAdded

...

Copy eventRouterLiquidityAdded(addressrouter,addresslocal,bytes32key,uint256amount,addresscaller)

...

Emitted when a router adds liquidity to the contract

Parameters

Name	Type	Description
router address	-	The address of the router the funds were credited to
local address	-	The address of the token added (all liquidity held in local asset)
key	bytes32	The hash of the canonical id and domain
amount	uint256	The amount of liquidity added
caller address	-	The account that called the function

RouterLiquidityRemoved

...

Copy eventRouterLiquidityRemoved(addressrouter,addresssto,addresslocal,bytes32key,uint256amount,addresscaller)

...

Emitted when a router withdraws liquidity from the contract

Parameters

Name	Type	Description
router address	-	The router you are removing liquidity from
to address	-	The address the funds were withdrawn to
local address	-	The address of the token withdrawn
key	bytes32	The amount of liquidity withdrawn
amount	uint256	The amount of liquidity withdrawn
caller address	-	The account that called the function

Getters

getRouterApproval

...

Copy functiongetRouterApproval(address_router)publicviewreturns(bool)

...

Returns the approval status of a router for the given router address.

Parameters

Name	Type	Description
_router address	-	The relevant router address

Return Values

Name	Type	Description
[0]	bool	True if router is approved

getRouterRecipient

...

Copy functiongetRouterRecipient(address_router)publicviewreturns(address)

...

Returns the recipient for the specified router

The recipient (if set) receives all funds when router liquidity is removed

Parameters

Name	Type	Description
_router	address	The relevant router address

Return Values

Name	Type	Description
[0]	address	Recipient address for router

getRouterOwner

...

Copy functiongetRouterOwner(address_router)publicviewreturns(address)

...

Returns the router owner if it is set, or the router itself if not

Uses logic function here to handle the case where router owner is not set. Other getters within this interface use explicitly the stored value

Parameters

Name	Type	Description
_router	address	The relevant router address

Return Values

Name	Type	Description
[0]	address	Owner address of router

getProposedRouterOwner

...

Copy functiongetProposedRouterOwner(address_router)publicviewreturns(address)

...

Returns the currently proposed router owner

All routers must wait for the delay timeout before accepting a new owner

Parameters

Name	Type	Description
_router	address	The relevant router address

Return Values

Name	Type	Description
[0]	address	Proposed owner address of router

getProposedRouterOwnerTimestamp

...

Copy functiongetProposedRouterOwnerTimestamp(address_router)publicviewreturns(uint256)

...

Returns the currently proposed router owner timestamp

All routers must wait for the delay timeout before accepting a new owner

Parameters

Name	Type	Description
_router	address	The relevant router address

Return Values

Name	Type	Description
[0]	uint256	Currently proposed router owner timestamp

routerBalances

...

Copy functionrouterBalances(address_router,address_asset)publicviewreturns(uint256)

...

Gets balance of asset for the specified router.

Parameters

Name	Type	Description
_router	address	The relevant router address
_asset	address	The relevant asset

Return Values

Name	Type	Description
[0]	uint256	Balance the router owns of asset

Functions

setupRouter

...

Copy functionsetupRouter(addressrouter,addressowner,addressrecipient)external

...

Used to set router initial properties

Parameters

Name	Type	Description
router	address	Router address to setup
owner	address	Initial Owner of router
recipient	address	Initial Recipient of router

removeRouter

...

Copy functionremoveRouter(addressrouter)external

...

Used to remove routers that can transact crosschain

Parameters

Name	Type	Description
router	address	Router address to remove

setRouterRecipient

...

Copy functionsetRouterRecipient(addressrouter,addressrecipient)external

...

Sets the designated recipient for a router

Router should only be able to set this once otherwise if router key compromised, no problem is solved since attacker could just update recipient

Parameters

Name	Type	Description
router	address	Router address to set recipient
recipient	address	Recipient Address to set to router

proposeRouterOwner

...

Copy functionproposeRouterOwner(addressrouter,addressproposed)external

...

Current owner or router may propose a new router owner

Parameters

Name	Type	Description
router	address	Router address to set recipient proposed address
Proposed owner	Address	Address to set to router

acceptProposedRouterOwner

...

Copy functionacceptProposedRouterOwner(addressrouter)external

...

New router owner must accept role, or previous if proposed is 0x0

Parameters

Name	Type	Description
router	address	Router address to set recipient

addRouterLiquidityFor

...

Copy functionaddRouterLiquidityFor(uint256_amount,address_local,address_router)externalpayable

...

This is used by anyone to increase a router's available liquidity for a given asset.

The liquidity will be held in the local asset, which is the representation if you are not on the canonical domain, and the canonical asset otherwise.

Parameters

Name	Type	Description
_amount	uint256	- The amount of liquidity to add for the router
_local	address	- The address of the asset you're adding liquidity for. If adding liquidity of the native asset, routers may useaddress(0) or the wrapped asset
_router	address	The router you are adding liquidity on behalf of

addRouterLiquidity

...

Copy functionaddRouterLiquidity(uint256_amount,address_local)externalpayable

...

This is used by any router to increase their available liquidity for a given asset.

The liquidity will be held in the local asset, which is the representation if you are not on the canonical domain, and the canonical asset otherwise.

Parameters

Name	Type	Description
_amount	uint256	- The amount of liquidity to add for the router
_local	address	- The address of the asset you're adding liquidity for. If adding liquidity of the native asset, routers may useaddress(0) or the wrapped asset

removeRouterLiquidityFor

...

Copy functionremoveRouterLiquidityFor(uint256_amount,address_local,addresspayable_to,address_router)external

...

This is used by any router owner to decrease their available liquidity for a given asset.

Parameters

Name	Type	Description
_amount	uint256	- The amount of liquidity to remove for the router
_local	address	- The address of the asset you're removing liquidity from. If removing liquidity of the native asset, routers may useaddress(0) or the wrapped asset
_to	address payable	The address that will receive the liquidity being removed
_router	address	The address of the router

removeRouterLiquidity

...

Copy functionremoveRouterLiquidity(uint256 _amount,address _local,address payable _to)external

...

This is used by any router to decrease their available liquidity for a given asset.

Parameters

Name Type Description
_amount uint256 - The amount of liquidity to remove for the router
_local address - The address of the asset you're removing liquidity from. If removing liquidity of the native asset, routers may useaddress(0) or the wrapped asset
_to address payable The address that will receive the liquidity being removed if no router recipient exists.

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