networks

Interfaces

ArbitrumNetwork

Represents an Arbitrum chain, e.g. Arbitrum One, Arbitrum Sepolia, or an L3 chain.

Properties

Property Type Description chainId number Id of the chain. confirmPeriodBlocks number The time allowed for validators to dispute or challenge state assertions. Measured in L1 blocks. ethBridge EthBridge The core contracts isBold? boolean Has the network been upgraded to bold. True if yes, otherwise undefined This is a temporary property and will be removed in future if Bold is widely adopted and the legacy challenge protocol is deprecated isCustom boolean Whether or not the chain was registered by the user. name string Name of the chain. nativeToken? string In case of a chain that uses ETH as its native/gas token, this is eitherundefined or the zero address

In case of a chain that uses an ERC-20 token from the parent chain as its native/gas token, this is the address of said token on the parent chain parentChainId number Chain id of the parent chain, i.e. the chain on which this chain settles to. retryableLifetimeSeconds? number Represents how long a retryable ticket lasts for before it expires (in seconds). Defaults to 7 days. teleporter? Teleporter The teleporter contracts. tokenBridge? TokenBridge The token bridge contracts.

L2NetworkTokenBridge

This type is only here for when you want to achieve backwards compatibility between SDK v3 and v4.

Please see TokenBridge for the latest type.

Deprecated

since v4

Type Aliases

L2Network

```
type
L2Network: Prettify < Omit < ArbitrumNetwork,
"chainId"

"parentChainId"

"tokenBridge"

& object
```

This type is only here for when you want to achieve backwards compatibility between SDK v3 and v4.

Please see Arbitrum Network for the latest type.

Deprecated

since v4

Source

dataEntities/networks.ts:88

Functions

assertArbitrumNetworkHasTokenBridge()

function
assertArbitrumNetworkHasTokenBridge < T
(network :
T):
asserts network is
Т

& Object Asserts that the given object has a token bridge. This is useful because not all Arbitrum network operations require a token bridge.

Type parameters

Type parameter T extends ArbitrumNetwork

Parameters

Parameter Type Description network T ArbitrumNetwork object

Returns

asserts network is T & Object

Throws

ArbSdkError if the object does not have a token bridge

Source

dataEntities/networks.ts:533

getArbitrumNetwork()

function

getArbitrumNetwork (chainId :

number): ArbitrumNetwork Returns the Arbitrum chain associated with the given signer, provider or chain id.

Parameters

Parameter Type chainld number

Returns

ArbitrumNetwork

Note

Throws if the chain is not an Arbitrum chain.

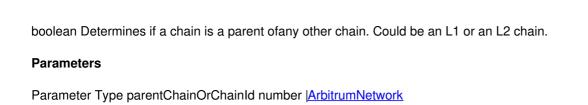
Source

dataEntities/networks.ts:307

getArbitrumNetworkInformationFromRollup()

function

```
getArbitrumNetworkInformationFromRollup (rollupAddress:
string, parentProvider: Provider):
Promise < ArbitrumNetworkInformationFromRollup
     Returns all the information about an Arbitrum network that can be fetched from its Rollup contract.
Parameters
Parameter Type Description rollupAddress string Address of the Rollup contract on the parent chain parentProvider Provider
Provider for the parent chain
Returns
Promise < Arbitrum Network Information From Rollup
An ArbitrumNetworkInformationFromRollup object
Source
dataEntities/networks.ts:356
getArbitrumNetworks()
function
getArbitrumNetworks (): ArbitrumNetwork [] Returns all Arbitrum networks registered in the SDK, both default and custom.
Returns
ArbitrumNetwork []
Source
dataEntities/networks.ts:339
getChildrenForNetwork()
function
getChildrenForNetwork (parentChainOrChainId:
number
ArbitrumNetwork): ArbitrumNetwork [] Returns a list of children chains for the given chain or chain id.
Parameters
Parameter Type parentChainOrChainId number | ArbitrumNetwork
Returns
ArbitrumNetwork []
Source
dataEntities/networks.ts:289
isParentNetwork()
function
isParentNetwork (parentChainOrChainId:
number
| ArbitrumNetwork ) :
```



Returns

boolean

Source

dataEntities/networks.ts:274

mapL2NetworkToArbitrumNetwork()

function

 $mapL2NetworkToArbitrumNetwork \ (I2Network : object) : ArbitrumNetwork \ Maps the old \underline{2Network} \ (from SDK v3) \\ to \underline{ArbitrumNetwork} \ (from SDK v4).$

Parameters

Parameter Type Description I2Network object - I2Network.chainID number - I2Network.confirmPeriodBlocks number The time allowed for validators to dispute or challenge state assertions. Measured in L1 blocks. I2Network.ethBridge EthBridge The core contracts I2Network.isBold ? boolean Has the network been upgraded to bold. True if yes, otherwise undefined This is a temporary property and will be removed in future if Bold is widely adopted and the legacy challenge protocol is deprecated I2Network.isCustom boolean Whether or not the chain was registered by the user. I2Network.name string Name of the chain. I2Network.nativeToken ? string In case of a chain that uses ETH as its native/gas token, this is eitherundefined or the zero address

In case of a chain that uses an ERC-20 token from the parent chain as its native/gas token, this is the address of said token on the parent chain I2Network.partnerChainID number - I2Network.retryableLifetimeSeconds? number Represents how long a retryable ticket lasts for before it expires (in seconds). Defaults to 7 days. I2Network.teleporter? Teleporter The teleporter contracts. I2Network.tokenBridge L2NetworkTokenBridge -

Returns

ArbitrumNetwork

Source

dataEntities/networks.ts:513

mapL2NetworkTokenBridgeToTokenBridge()

function

 $mapL2NetworkTokenBridge\ (input: L2NetworkTokenBridge\): TokenBridge\ Maps\ the\ old\ L2Network.tokenBridge\ (from\ SDK\ v3)\ to\underline{ArbitrumNetwork.tokenBridge}\ (from\ SDK\ v4).$

Parameters

Parameter Type input <u>L2NetworkTokenBridge</u>

Returns

TokenBridge

Source

dataEntities/networks.ts:489

registerCustomArbitrumNetwork()

function

registerCustomArbitrumNetwork (network : ArbitrumNetwork , options ? : object) : ArbitrumNetwork Registers a custom Arbitrum network.

Parameters

Parameter Type Description network <u>ArbitrumNetwork ArbitrumNetwork</u> to be registered options? object Additional options options.throwlfAlreadyRegistered? boolean Whether or not the function should throw if the network is already registered, defaults tofalse

Returns

ArbitrumNetwork

Source

dataEntities/networks.ts:394 Edit this page Previous Message Next RetryableData