

# Smart Account V1 Methods

export

interface

IBiconomySmartAccount

extends

ISmartAccount

{ init ( initializationData ? : InitializationData ) :

Promise < this

    ; initializeAccountAtIndex ( accountIndex :

number ) :

void ; getExecuteCallData ( to :

string , value : BigNumberish , data : BytesLike ) :

string ; getExecuteBatchCallData ( to :

Array < string

    , value :

Array < BigNumberish

    , data :

Array < BytesLike

    , ) :

string ; buildUserOp ( transactions : Transaction [ ] , overrides ? : Overrides , ) :

Promise < Partial < UserOperation

    ; getAllTokenBalances ( balancesDto : BalancesDto ) :

Promise < BalancesResponse

    ; getTotalBalanceInUsd ( balancesDto : BalancesDto ) :

Promise < UsdBalanceResponse

    ; getSmartAccountsByOwner ( smartAccountByOwnerDto : SmartAccountByOwnerDto , ) :

Promise < SmartAccountsResponse

    ; getTransactionsByAddress ( chainId :

number , address :

string , ) :

Promise < SCWTransactionResponse [ ]

    ; getTransactionByHash ( txHash :

string ) :

Promise < SCWTransactionResponse

    ; getAllSupportedChains ( ) :

Promise < SupportedChainsResponse

    ; }

# IBiconomySmartAccount Interface

The `IBiconomySmartAccount` interface extends the `ISmartAccount` interface and provides additional methods for interacting with a Biconomy Smart Account.

**Method Parameters Description**

- `init initializationData?: InitializationData` Initializes the smart account with the provided `initializationData`, if provided. Returns a Promise that resolves to the initialized `IBiconomySmartAccount`.
- `initializeAccountAtIndex accountIndex: number` Initializes the smart account at the specified `accountIndex`.
- `getExecuteCallData to: string, value: BigNumberish, data: BytesLike` Returns the call data for executing a single transaction to the specified address (`to`) with the given `value` and `data`.
- `getExecuteBatchCallData to: Array string, value: Array BigNumberish, data: Array BytesLike` Returns the call data for executing a batch of transactions to multiple addresses (`to`) with the corresponding `value` and `data` arrays.
- `buildUserOp transactions: Transaction[], overrides?: Overrides` Builds a `UserOperation` object from the provided array of `Transaction`s. It also accepts optional `overrides` for specifying gas limits and gas prices. Returns a Promise that resolves to the `partialUserOperation`.
- `getAllTokenBalances balancesDto: BalancesDto` Retrieves the balances of multiple tokens for the smart account based on the provided `balancesDto`. Returns a Promise that resolves to the `BalancesResponse` containing the token balances.
- `getTotalBalanceInUsd balancesDto: BalancesDto` Retrieves the total balance of all tokens in USD for the smart account based on the provided `balancesDto`. Returns a Promise that resolves to the `UsdBalanceResponse`.
- `getSmartAccountsByOwner smartAccountByOwnerDto: SmartAccountByOwnerDto` Retrieves all smart accounts owned by the specified address based on the provided `smartAccountByOwnerDto`. Returns a Promise that resolves to the `SmartAccountsResponse` containing the array of smart account addresses.
- `getTransactionsByAddress chainId: number, address: string` Retrieves the transactions associated with the specified `address` on the given `chainId`. Returns a Promise that resolves to an array of `SCWTransactionResponse` objects containing information about the transactions.
- `getTransactionByHash txHash: string` Retrieves the transaction details for the specified transaction hash (`txHash`). Returns a Promise that resolves to a `SCWTransactionResponse` object containing information about the transaction.
- `getAllSupportedChains` N/A Retrieves information about all supported chains. Returns a Promise that resolves to the `SupportedChainsResponse` containing the list of supported chains.

## ISmartAccount Interface

The `ISmartAccount` interface provides essential methods for interacting with a Biconomy Smart Account.

```
import
{ UserOperation }
from
"@biconomy/core-types" ; import
{ UserOpResponse }
from
"@biconomy/bundler" ; export

interface
ISmartAccount
{ getSmartAccountAddress ( accountIndex :
number ) :
Promise < string
; signUserOp ( userOperation : UserOperation ) :
Promise < UserOperation
; sendUserOp ( userOperation : UserOperation ) :
Promise < UserOpResponse
; sendSignedUserOp ( userOperation : UserOperation ) :
Promise < UserOpResponse
; } Method Parameters Description getSmartAccountAddress accountIndex: number Retrieves the address of the
```

smart account at the specifiedaccountIndex . Returns a Promise that resolves to the smart account address.  
signUserOp userOperation: UserOperation Signs the givenUserOperation with the necessary cryptographic signature. Returns a Promise that resolves to the signedUserOperation . sendUserOp userOperation: UserOperation Sends the providedUserOperation to the Biconomy network for execution. Returns a Promise that resolves to aUserOpResponse containing the response from the network. sendSignedUserOp userOperation: UserOperation Sends the pre-signedUserOperation to the Biconomy network for execution. Returns a Promise that resolves to aUserOpResponse containing the response from the network. [Previous Quickstart](#) [Next Tutorials](#)