EIYARO Core API Reference

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Wallet Endpoints

These endpoints are available when we set:

config.toml

```
[wallet]
disable = false
```

This is the default value and we can possibly omit it.

Create Key Endpoint

Creates a private key. The private key is encrypted in the file and not visible to the user.

Parameters

Object:

- String alias, name of the key.
- String password, password of the key.
- String language, mnemonic language of the key.

Optional:

• String - mnemonic, mnemonic of the key, create key by specified mnemonic.

Returns

Object:

- String alias, name of the key.
- String xpub, root pubkey of the key.
- String file, path to the file of key.

Optional:

• String - mnemonic, mnemonic of the key, exist when the request mnemonic is null.

Example

Create key by random pattern:

Request

```
curl -X POST http://localhost:9888/create-key -d '{"alias": "alice", "password":
"123456", "language": "en"}'
```

Response

```
{
   "alias": "alice",
   "xpub":
"a85e6eccb22f4c5fdade905f9a969003a17b6f35c237183a4313354b819a92689d52da3bcfe55f15a5508
77e8d789bd2bb9620f46e5049ea36470ab1b588a986",
   "file": "/home/yang/.eiyaro/keystore/UTC--2024-3-10T07-09-17.509894697Z--341695b9-
9223-470c-a26d-bea210f8e1bb",
   "mnemonic": "verb smoke glory dentist annual peanut oval dragon fiction current
orbit lab load total language female mushroom coyote regular toy slide welcome employ
three"
}
```

Create key by specified mnemonic:

Request

```
curl -X POST http://localhost:9888/create-key -d '{"alias":"jack",
   "password":"123456", "mnemonic":"please observe raw beauty blue sea believe then boat
float beyond position", "language":"en"}'
```

```
{
```

List Keys Endpoint

Returns the list of all available keys.

Parameters

None.

Returns

- Array of Object, keys owned by the client.
 - object:
 - String alias, name of the key.
 - String xpub, pubkey of the key.

Example

Request a list of the current keys on the node.

Request

```
curl -X POST http://localhost:9888/list-keys
```

Update Key Alias Endpoint

Update the alias for an existing key.

Parameters

Object:

- String xpub, pubkey of the key.
- String new_alias, new alias of the key.

Returns

Nothing in case the key alias is updated successfully.

Example

Update an existing key's alias.

Request

```
curl -X POST http://localhost:9888/update-key-alias -d '{"xpub":
"a7dae957c2d35b42efe7e6871cf5a75ebd2a0d0e51caffe767db42d3e6d69dbe211d1ca492ecf05908fe6
fa625ad61b3253375ea744c9442dd5551613ba50aea", "new_alias": "new_key"}'
```

Response

No response in case operation was successful.

Delete Key Endpoint

Deletes an existing key.



Please make sure that there is no balance in the related accounts.

Parameters

Object:

• String - xpub, pubkey of the key.

• String - password, password of the key.

Returns

Nothing in case the key is deleted successfully.

Example

Delete an existing key.

Request

```
curl -X POST {bas-url}delete-key -d '{"xpub":
"a7dae957c2d35b42efe7e6871cf5a75ebd2a0d0e51caffe767db42d3e6d69dbe211d1ca492ecf05908fe6
fa625ad61b3253375ea744c9442dd5551613ba50aea", "password": "123456"}'
```

Response

No response in case operation was successful.

Check Key Password Endpoint

Check an existing key's password.

Parameters

Object:

- String xpub, pubkey of the key.
- String password, password of the key.

Returns

Object:

• Boolean - check_result, if check is successful the value will be true, otherwise it will be false.

Example

Check the password for an existing key.

Request

```
curl -X POST http://localhost:9888/check-key-password -d '{"xpub":
"a7dae957c2d35b42efe7e6871cf5a75ebd2a0d0e51caffe767db42d3e6d69dbe211d1ca492ecf05908fe6
fa625ad61b3253375ea744c9442dd5551613ba50aea", "password": "123456"}'
```

Response

```
{
    "check_result": true
}
```

Reset Key Password Endpoint

Reset an existing key's password.

Parameters

Object:

- String xpub, pubkey of the key.
- String old_password, old password of the key.
- String new_password, new password of the key.

Returns

Object:

• Boolean - changed, if reset is successful the value will be true, otherwise it will be false.

Example

Reset the password for an existing key.

Request

```
curl -X POST http://localhost:9888/reset-key-password -d '{"xpub":
   "a7dae957c2d35b42efe7e6871cf5a75ebd2a0d0e51caffe767db42d3e6d69dbe211d1ca492ecf05908fe6
   fa625ad61b3253375ea744c9442dd5551613ba50aea", "old_password": "123456",
   "new_password": "654321"}'
```

Response

```
{
    "changed": true
}
```

Create Account Endpoint

Create an account to manage addresses.

Single sign account contains only one root_xpubs and quorum; however multi sign account can

contain any number of root_xpubs and quorum.

Quorum is the number of verify signatures, the range is [1, len(root_xpubs)].

Parameters

Object:

- Array of String root_xpubs, pubkey array.
- String alias, name of the account.
- Integer quorum, the default value is 1, threshold of keys that must sign a transaction to spend asset units controlled by the account.

Optional:

• String - access_token, if optional when creating account locally. However, if you want to create account remotely, it's indispensable.

Returns

Object:

- String id, account id.
- String alias, name of account.
- Integer key_index, key index of account.
- Integer quorum, threshold of keys that must sign a transaction to spend asset units controlled by the account.
- Array of Object xpubs, pubkey array.

Example

Create an account with a given root_xpubs and alias.

Request

```
curl -X POST http://localhost:9888/create-account -d
'{"root_xpubs":["2d6c07cb1ff7800b0793e300cd62b6ec5c0943d308799427615be451ef09c0304bee5
dd492c6b13aaa854d303dc4f1dcb229f9578786e19c52d860803efa3b9a"],"quorum":1,"alias":"alic
e"}'
```

```
{
    "alias": "alice",
    "id": "08F0663C00A02",
    "key_index": 1,
    "quorum": 1,
```

```
"xpubs": [

"2d6c07cb1ff7800b0793e300cd62b6ec5c0943d308799427615be451ef09c0304bee5dd492c6b13aaa854
d303dc4f1dcb229f9578786e19c52d860803efa3b9a"
]
}
```

List Accounts Endpoint

Returns a list of the available accounts on the node.

Parameters

Optional:

- String id, account id.
- String alias, name of account.

Returns

- Array of Object, account array.
 - o Object:
 - String id, account id.
 - String alias, name of account.
 - Integer key_index, key index of account.
 - Integer quorum, threshold of keys that must sign a transaction to spend asset units controlled by the account.
 - Array of Object xpubs, pubkey array.

Example

Request a list of the accounts present on the node.

Request

```
curl -X POST http://localhost:9888/list-accounts -d '{"alias":"alice"}'
```

Update Account Alias Endpoint

Updates an alias for the an existing account.

Parameters

```
Object: account_alias | account_id
* String - new_alias, new alias of account.
optional:
```

- String account_alias, alias of account.
- String account_id, id of account.

Returns

Nothing in case the account alias is updated successfully.

Example

Update the alias for a given account ID or an account alias.

Request

```
curl -X POST http://localhost:9888/update-account-alias -d '{"account_id":
   "08F0663C00A02", "new_alias": "new_account"}'
# or
curl -X POST http://localhost:9888/update-account-alias -d '{"account_alias": "alice",
   "new_alias": "new_account"}'
```

Response

No response in case operation was successful.

Delete Account Endpoint

Delete an existing account.



Parameters

Object: account_alias | account_id

Optional:

- String account_alias, alias of account.
- String account_id, id of account.

Returns

Nothing if the account is deleted successfully.

Example

Delete an existing account by account ID or account alias.

Request

```
curl -X POST http://localhost:9888/delete-account -d '{"account_id": "08F0663C00A02"}'
# or
curl -X POST http://localhost:9888/delete-account -d '{"account_alias": "alice"}'
```

Response

No response in case operation was successful.

Create Account Receiver Endpoint

Creates an address and control program.

The address and control program are a one to one relationship.

In the build-transaction endpoint, the receiver is the address when the action is of type control_address, and the receiver is the control program when the action is of type control_program, both can be used to the same effect.

Parameters

```
Object: account_alias | account_id
```

Optional:

- String account_alias, alias of account.
- String account_id, id of account.

Returns

Object:

- String address, address of account.
- String control_program, control program of account.

Example

Create an account alias on the existing account ID.

Request

```
curl -X POST http://localhost:9888/create-account-receiver -d '{"account_alias":
   "alice", "account_id": "OBDQARM800A02"}'
```

Response

```
{
    "address": "ey1q5u8u4eldhjf3lvnkmyl78jj8a75neuryzlknk0",
    "control_program": "0014a70fcae7edbc931fb276d93fe3ca47efa93cf064"
}
```

List Addresses Endpoint

Returns the sub list of all available addresses by account with a limit count.

Parameters

- String account_alias, alias of account.
- String account_id, id of account.
- Integer from, the start position of first address
- Integer count, the number of returned

Returns

- Array of Object, account address array.
 - Object:
 - String account_alias, alias of account.
 - String account_id, id of account.
 - String address, address of account.
 - Boolean **change**, whether the account address is change.

Example

List three addresses from first position by account_id or account_alias

Request

```
curl -X POST http://localhost:9888/list-addresses -d '{"account_alias": "alice",
"account_id": "086KQD75G0A02", "from": 0, "count": 3}'
```

Response

```
"account_alias": "alice",
   "account_id": "086KQD75G0A02",
    "address": "ey1qcn9lf7nxhswratvmg6d78nq7r7yupm36qgsv55",
    "change": false
 },
    "account_alias": "alice",
    "account id": "086KQD75G0A02",
    "address": "ey1qew4h5uvt5ssrtg2alms0j77r94c30m78ucrcxy",
    "change": false
 },
    "account_alias": "alice",
    "account id": "086KQD75G0A02",
    "address": "ey1qqnp4lte7wqe0rsekevjlrdh39vkzz0c2alheue",
    "change": false
 }
]
```

Validate Address Endpoint

Validate that the address is valid and report if it is local or not.

Parameters

Object:

• string - address, address of account.

Returns

Object:

• Boolean - valid, whether the account address is valid.

• Boolean - is_local, whether the account address is local.

Example

Request the validity of an address.

Request

```
curl -X POST http://localhost:9888/validate-address -d '{"address":
   "ey1qcn9lf7nxhswratvmg6d78nq7r7yupm36qgsv55"}'
```

Response

```
{
    "valid": true,
    "is_local": true,
}
```

Get Mining Address Endpoint

Query the current mining address.

Parameters

None.

Returns

Object:

• String - mining_address, the current mining address being used.

Example

Request the current mining address.

Request

```
curl -X POST http://localhost:9888/get-mining-address
```

```
{
    "mining_address":"ey1qnhr65jq3q9gf8uymza8vp0ew8tfyh642wddxh6"
}
```

Set Mining Address Endpoint

Set the current mining address, no matter wether the address is a local one or not. It returns an error message if the address format is incorrect.

Parameters

Object:

• String - mining_address, mining address to set.

Returns

Object:

• String - mining_address, the new mining address.

Example

Update the node's mining address.

Request

```
curl -X POST http://localhost:9888/set-mining-address -d
'{"mining_address":"ey1qnhr65jq3q9gf8uymza8vp0ew8tfyh642wddxh6"}'
```

Response

```
{
    "mining_address":"ey1qnhr65jq3q9gf8uymza8vp0ew8tfyh642wddxh6"
}
```

Get Coinbase Arbitrary Endpoint

Get coinbase arbitrary.

Parameters

None.

Returns

Object:

• String - **arbitrary**, the arbitrary data append to coinbase, in hexadecimal format. (The full coinbase data for a block will be <code>0x008block_height&arbitrary</code>.)

Example

Query for the coinbase arbitrary.

Request

```
curl -X POST http://localhost:9888/get-coinbase-arbitrary
```

Response

```
{
    "arbitrary":"ff"
}
```

Set Coinbase Arbitrary Endpoint

Set coinbase arbitrary.

Parameters

Object:

• String - arbitrary, the arbitrary data to be appended to coinbase, in hexadecimal format.

Returns

Object:

• String - **arbitrary**, the arbitrary data being appended to coinbase, in hexadecimal format. (The full coinbase data for a block will be <code>0x008block_height8arbitrary</code>.)

Example

Set the coinbase arbitrary.

Request

```
curl -X POST http://localhost:9888/set-coinbase-arbitrary -d '{"arbitrary":"ff"}'
```

```
{
    "arbitrary":"ff"
}
```

List pubkeys Endpoint

Returns the list of all available pubkeys by account.

Parameters

```
Object: account_alias | account_id | public_key
```

Optional:

- String account_alias, alias of account.
- String account_id, id of account.
- string public_key, public key.

Returns

Object:

- String root_xpub, root xpub.
- Array of Object -pubkey_infos, public key array.
 - String pubkey, public key.
 - Object derivation_path, derivation path for root xpub.

Example

Query for the list of pubkeys by account ID or account alias.

Request

```
curl -X POST http://localhost:9888/list-pubkeys -d '{"account_id": "0G00LLUV00A02"}'
```

Create Asset Endpoint

Create an asset definition, it prepares for the issuance of an asset.

Parameters

Object:

- String alias, name of the asset.
- Object **definition**, definition of asset.

Optional:(please pick one from the following two ways)

- Array of String root_xpubs, xpub array.
- Integer quorum, the default value is 1, threshold of keys that must sign a transaction to spend asset units controlled by the account.

or

• String - issuance_program, user-defined contract program.

Returns

Object:

- String id, asset id.
- String alias, name of the asset.
- String issuance_program, control program of the issuance of asset.
- Array of Object keys, information of asset pubkey.
- String **definition**, definition of asset.
- Integer quorum, threshold of keys that must sign a transaction to spend asset units controlled

by the account.

Example

Create an asset by xpubs:

Request

```
curl -X POST http://localhost:9888/create-asset -d '{"alias": "GOLD", "root_xpubs":
["f6a16704f745a168642712060e6c5a69866147e21ec2447ae628f87d756bb68cc9b91405ad0a95f00409
0e864fde472f62ba97053ea109837bc89d63a64040d5"], "quorum":1}'
```

Response

```
{
 "id": "3c1cf4c9436e3f942cb2f1d70a584f1c61df3697698dacccdc89e46f46a003d0",
 "alias": "GOLD",
 "issuance program":
"766baa209683b893483c0a5a317bf9868a8e2a09691f8aa8c1f3e2a7bb62b157e76712e05151ad696c00c
  "keys": [
      "root_xpub":
"f6a16704f745a168642712060e6c5a69866147e21ec2447ae628f87d756bb68cc9b91405ad0a95f004090
e864fde472f62ba97053ea109837bc89d63a64040d5",
      "asset pubkey":
"9683b893483c0a5a317bf9868a8e2a09691f8aa8c1f3e2a7bb62b157e76712e012bd443fa7d56a0627df0
a29dffcdc52641672a0f5cba54d104ad76ebeb8dfc3",
      "asset_derivation_path": [
        "000200000000000000000"
      ]
   }
 1,
 "quorum": 1,
  "definition": {}
}
```

Create an asset by issuance_program:

Request

```
curl -X POST http://localhost:9888/create-asset -d '{"alias":
    "TESTASSET","issuance_program":
    "20e9108d3ca8049800727f6a3505b3a2710dc579405dde03c250f16d9a7e1e6e78160014c5a5b563c4623
018557fb299259542b8739f6bc20163201e074b22ed7ae8470c7ba5d8a7bc95e83431a753a17465e8673af
68a82500c22741a547a6413000000007b7b51547ac1631a000000547a547aae7cac00c0",
    "definition":{"name":"TESTASSET","symbol":"TESTASSET","decimals":8,"description":{}}}'
```

Response

```
{
    "id": "59621aa82c047bd21f73711d4a7905b7a9fbb49bc1a3fdc309b13807cc8b9094",
    "alias": "TESTASSET",
    "issuance_program":
    "20e9108d3ca8049800727f6a3505b3a2710dc579405dde03c250f16d9a7e1e6e78160014c5a5b563c4623
018557fb299259542b8739f6bc20163201e074b22ed7ae8470c7ba5d8a7bc95e83431a753a17465e8673af
68a82500c22741a547a6413000000007b7b51547ac1631a000000547a547aae7cac00c0",
    "keys": null,
    "quorum": 0,
    "definition": {
        "decimals": 8,
        "description": {},
        "name": "TESTASSET",
        "symbol": "TESTASSET"
    }
}
```

Get Asset Endpoint

Query asset details by asset ID.

Parameters

Object:

• String - id, id of asset.

Returns

Object:

- String id, asset id.
- String alias, name of the asset.
- String issuance_program, control program of the issuance of asset.
- Integer key_index, index of key for xpub.
- Integer quorum, threshold of keys that must sign a transaction to spend asset units controlled by the account.
- Array of Object xpubs, pubkey array.
- String type, type of asset.
- Integer vm_version, version of VM.
- String raw_definition_byte, byte of asset definition.
- Object **definition**, description of asset.

Example

Get asset details by asset ID.

Request

```
curl -X POST http://localhost:9888/get-asset -d '{"id":
   "50ec80b6bc48073f6aa8fa045131a71213c33f3681203b15ddc2e4b81f1f4730"}'
```

Response

```
{
    "alias": "SILVER",
    "definition": null,
    "id": "50ec80b6bc48073f6aa8fa045131a71213c33f3681203b15ddc2e4b81f1f4730",
    "issue_program":
    "ae2029cd61d9ef31d40af7541f9a50831d6317fdb0870249d0564fcfa9a8f843589c5151ad",
        "key_index": 1,
        "quorum": 1,
        "raw_definition_byte": "",
        "type": "asset",
        "vm_version": 1,
        "xpubs": [

"34b16ee500615cd325f8b84099f83c1ebecaca67977c5dc9b71ae32ceaf18207f996b0a9725b901d37926
89b2babcb60febe3b81a684d9b56b65f67f307d453d"
    ]
}
```

List Assets Endpoint

Returns the list of all available assets.

Parameters

None.

Returns

- Array of Object, asset array.
 - Object:
 - String id, asset id.
 - String alias, name of the asset.
 - String issuance_program, control program of the issuance of asset.
 - Integer key_index, index of key for xpub.

- Integer quorum, threshold of keys that must sign a transaction to spend asset units controlled by the account.
- Array of Object xpubs, pubkey array.
- String type, type of asset.
- Integer vm_version, version of VM.
- String raw_definition_byte, byte of asset definition.
- Object **definition**, description of asset.

Example

List all the available assets.

Request

```
curl -X POST http://localhost:9888/list-assets -d '{}'
```

```
[
   "alias": "EY",
   "definition": {
     "decimals": 8,
     "description": "Eiyaro Official Issue",
     "name": "EY",
     "symbol": "EY"
   },
   "issue_program": "",
   "key_index": 0,
   "quorum": 0,
   "raw_definition_byte":
"7b0a202022646563696d616c73223a20382c0a2020226465736372697074696f6e223a20224279746f6d2
04f6666696369616c204973737565222c0a2020226e616d65223a202262746d222c0a20202273796d626f6
c223a202262746d220a7d",
   "type": "internal",
   "vm version": 1,
   "xpubs": null
 },
   "alias": "SILVER",
   "definition": null,
   "id": "50ec80b6bc48073f6aa8fa045131a71213c33f3681203b15ddc2e4b81f1f4730",
   "issue_program":
"ae2029cd61d9ef31d40af7541f9a50831d6317fdb0870249d0564fcfa9a8f843589c5151ad",
   "key_index": 1,
```

```
"quorum": 1,
    "raw_definition_byte": "",
    "type": "asset",
    "vm_version": 1,
    "xpubs": [

"34b16ee500615cd325f8b84099f83c1ebecaca67977c5dc9b71ae32ceaf18207f996b0a9725b901d37926
89b2babcb60febe3b81a684d9b56b65f67f307d453d"
    ]
    }
]
```

Update Asset Alias Endpoint

Update asset alias by assetID.

Parameters

Object:

- String id, id of asset.
- String alias, new alias of asset.

Returns

None if the asset alias is updated successfully.

Example

Update asset alias.

Request

```
curl -X POST http://localhost:9888/update-asset-alias -d
'{"id":"50ec80b6bc48073f6aa8fa045131a71213c33f3681203b15ddc2e4b81f1f4730",
"alias":"GOLD"}'
```

Response

No response in case operation was successful.

List Balances Endpoint

Returns the list of all available accounts' balances.

Parameters

Optional:

- String account_id, account id.
- String account_alias, name of account.

Returns

- Array of Object, balances owned by the account.
 - object:
 - String account_id, account id.
 - String account_alias, name of account.
 - String asset_id, asset id.
 - String asset_alias, name of asset.
 - Integer amount, specified asset balance of account.

Example

List all the available accounts' balances.

Request

```
curl -X POST http://localhost:9888/list-balances -d '{}'
```

Response

List available accounts' balances by a given account_id:

Request

```
curl -X POST http://localhost:9888/list-balances -d '{"account_id":"0BDQ9AP100A02"}'
```

Response

Network Endpoints

These endpoints are available regardless of the wallet being disabled or not.