Rest API-v1.0 Introduction

1AccountInterface

1.1Make a request for a new wallet

Interface：/v1/wallet/new，GetMethod

Example：

https://rest-beta.sdchain.io/v1/wallet/new

Results：

```
{
    "wallet": {
        "address": "6wDwUi99cwgiEv8Zb3whNUzqWpyi7Jm6KX",
        "secret": "ss6Vi              QBdr13pDAJ",
    },
    "success": true
}
```

Result return parameter：

Parameters	Type	Description
success	Boolean	Request results
wallet	Object	Wallet
address	String	Wallet address of SDChain (public key)
secret	String	Private key

Note: The newly acquired wallet is inactive. Activation method: UsePayment interfaceto transfer 6 SDA from activated account to the new one.

1.2Get account balance

Interface：/V1/accounts/balances/{:address}，GetMethod

Interface parameters:

Parameters	Type	Description
Address	String	User address of SDChain

Example：

https://rest-beta.sdchain.io/v1/accounts/balances/6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5

Results：

```
{
    "ledger": 92261,
    "balances": [
        {
            "value": "1959.99994",
            "currency": "SDA",
            "counterparty": ""
        }
    ],
    "success": true
}
```

Returned result information:

Parameters	Type	Description
success	Boolean	Request results
ledger	String	Block height
balances	Array	Balances, array of objects
value	String	Number
currency	String	Sign of token
counterparty	String	Issuer, empty when the Token is SDA

2 Payment Interfaces

2.1 Payment request

Interface：/v1/accounts/payments/{:source_address}?submit=true，POST method

Interface parameters:

Parameters	Type	Description
source_address	String	Payer's SDChain address

Details of Submit parameter:

Parameters	Type	Description
secret	String	Payer's private key of wallet
payment	Object	Payment object
source_account	String	Initiate account
destination_account	String	Target account
amount	String	Amount paid
memos	Array	Payment memo;Array of objects;Option
MemoType	String	Memo type, English plus number
MemoData	String	Content of memo

Example：

https://rest-beta.sdchain.io/v1/accounts/payments/6faLUhmp9gNgS9jXS3rAWbg8hFfi9Pb WH5?submit=true

Submitted data:

```
{
   "secret": "saNYbpu          A3Hhg8kRu",
   "payment": {
      "source_account": "6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5",
      "destination_account": "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
      "amount":"20",
      "memos": [
             {
                  "MemoType": "memos",
                  "MemoData": "First deal"
             }
         ]
   }
}
```
Results：
```
{
```

"hash":
"12C323E8DEAF789B790E4837438E5E59E95CA888979B4BE1311CA4BEDAF7C05E"
,
        "status_url":
"https://rest-beta.sdchain.io/v1/accounts/payments/6faLUhmp9gNgS9jXS3rAWbg8hFfi9P
bWH5/12C323E8DEAF789B790E4837438E5E59E95CA888979B4BE1311CA4BEDAF7
C05E",
        "success": true
}
Result return parameter：

Parameters	Type	Description
success	Boolean	Request results
hash	String	Hash of payment transaction
status_url	String	View address of transaction status

2.2Get payment information (Compact version)

Interface：/V1/accounts/payments/{:address}/{:Hash}，GetMethod

Interface parameters:

Parameters	Type	Description
address	String	SDChain address of payment user
hash	String	Hash of payment transaction

Example：

https://rest-beta.sdchain.io/v1/accounts/payments/6faLUhmp9gNgS9jXS3rAWbg8hFfi9Pb
WH5/12C323E8DEAF789B790E4837438E5E59E95CA888979B4BE1311CA4BEDAF7C
05E

Results：

{
        "hash":
"12C323E8DEAF789B790E4837438E5E59E95CA888979B4BE1311CA4BEDAF7C05E"
,
        "ledger": "86520",
        "state": "validated",
        "source_account": "6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5",
        "destination_account": "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",

```
    "amount": "20",
    "direction": "outgoing",
    "timestamp": "2018-03-06T08:15:42.000Z",
    "fee": "0.000012",
    "memos": [
        {
            "Memo type": "6D656D6F73",
            "Memo data": "E7ACACE4B880E7AC94E4BAA4E69893",
            "parsed_memo_type": "memos"
        }
    ],
    "success": true
}
```

Returned result information:

Parameters	Type	Description
success	Boolean	Request results
hash	String	Hash of payment
ledger	String	Block height
state	String	State （Validated : Completed;Pending: Trading)
source_account	String	Payment party
destination_account	String	Payee
direction	String	Type of transaction
amount	String	Transaction amount
timestamp	String	Trading time
fee	String	Fee
memos	Array	Payment memo;Array of object;Option
MemoType	String	Memo type; English plus number
MemoData	String	Content of memo

2.3Get payment information (Full version)

Interface：/v1/transactions/{:hash}， GetMethod

Interface：

Parameters	Type	Description
hash	String	Hash of payment transaction

Example：

https://rest-beta.sdchain.io/v1/transactions/12C323E8DEAF789B790E4837438E5E59E95CA888979B4BE1311CA4BEDAF7C05E

Result：

```
{
    "transaction": {
        "TransactionType": "Payment",
        "Flags": 2147483648,
        "Sequence": 5,
        "LastLedgerSequence": 86521,
        "Amount": "20000000",
        "Fee": "12",
        "SigningPubKey":
"03DA86711E8A378DB0F8FBAF8CE15B24C21D02D598ED94D15D6AB76237DB48B85D",
        "TxnSignature":
"3045022100A0C7DA557F7BD8FB7C2E8E67346A9101027D005A67F4FA4D3D61647C226085C902207948D62EFBDBB845ABA9627144944E04B0D7C5B54FAAA8F5777A870AE4C57B5B",
        "Account": "6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5",
        "Destination": "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
        "Memos": [
            {
                "Memo": {
                    "MemoType": "6D656D6F73",
                    "MemoData": "E7ACACE4B880E7AC94E4BAA4E69893",
                    "parsed_memo_type": "memos"
                }
            }
        ],
        "date": 573639342,
        "hash":
"12C323E8DEAF789B790E4837438E5E59E95CA888979B4BE1311CA4BEDAF7C05E",
        "inLedger": 86520,
        "ledger_index": 86520,
        "meta": {
            "TransactionIndex": 0,
            "AffectedNodes": [
                {
                    "ModifiedNode": {
                        "LedgerEntryType": "AccountRoot",
```

                        "PreviousTxnLgrSeq": 86517,
                        "PreviousTxnID":
"BB3D605366CBDD5F199D2DAD609EE72ABBD2270C85BAD7C76CAF718088430D
73",
                        "LedgerIndex":
"35C97BB2890349B177A9DAF1DA5B5631C0F07B6F25059BB0E5136C38606A6395",
                        "PreviousFields": {
                            "Balance": "60000000"
                        },
                        "FinalFields": {
                            "Flags": 0,
                            "Sequence": 1,
                            "OwnerCount": 0,
                            "Balance": "80000000",
                            "Account":
"6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc"
                        }
                    }
                },
                {
                    "ModifiedNode": {
                        "LedgerEntryType": "AccountRoot",
                        "PreviousTxnLgrSeq": 86517,
                        "PreviousTxnID":
"BB3D605366CBDD5F199D2DAD609EE72ABBD2270C85BAD7C76CAF718088430D
73",
                        "LedgerIndex":
"C5D69B9AD27CDD3257A4E7F65F386CF44315AFD28B116F1D5EA31F596A8887A1
",
                        "PreviousFields": {
                            "Sequence": 5,
                            "Balance": "1979999952"
                        },
                        "FinalFields": {
                            "Flags": 0,
                            "Sequence": 6,
                            "OwnerCount": 0,
                            "Balance": "1959999940",
                            "Account":
"6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5"
                        }
                    }
                }
            ],

```
                "TransactionResult": "tesSUCCESS",
                "delivered_amount": "20000000"
            },
            "validated": true
        },
        "success": true
}
```

Returned result information:

Parameters	Type	Description
success	Boolean	Request results
transaction	Object	Transaction information
TransactionType	String	Transaction type
Flags	Integer	Flag
Sequence	Integer	Transaction count
LastLedgerSequence	Integer	Block count once completed
Integer	String	Quantity
Fee	String	Fee
SigningPubKey	String	Signature
TxnSignature	String	Transaction Signature
Account	String	SDChain addressof sender
Destination	String	SDChain address of receiver
date	Integer	Date（sec, since AD 2000）
hash	String	Hash of payment transaction
inLedger	String	Ledger of transaction
ledger_index	String	ID of ledger
meta	Object	Change of node
validated	Boolean	Status of validation
client_resource_id	String	Transaction ID

2.4Get payment history

Interface：/V1/accounts/payments/{:address}， GetMethod

Interface parameters:

Parameters	Type	Description

Parameters	Type	Description
address	String	Payment-related SDChain address

Submit parameter Details:

Parameters	Type	Description
source_account	String	SDChain address of Payer, optional
destination_account	String	SDChain address of Payee, optional
direction	String	Type of transaction,optional value Incoming: Paid Outgoing:Pay, optional
start_ledger	Integer	Starting block height, optional
end_ledger	Integer	End block height, optional
per_page	Integer	Page quantity, optional
page	Integer	Page number, optional

Example：

https://rest-beta.sdchain.io/v1/accounts/payments/6faLUhmp9gNgS9jXS3rAWbg8hFfi9Pb
WH5

Results：

```
{
    "payments": [
        {
            "hash":
"D11971630D8038BFFA69A5538C5C1DCF906E95008C1612CF597C5DAA19A30938",
            "ledger": "86224",
            "source_account": "6Hb9CJAWyB46j91VRWn9rDkukG4bwdtyTh",
            "destination_account": "6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5",
            "amount": "2000",
            "direction": "incoming",
            "timestamp": "2018-03-06T08:01:00.000Z",
            "fee": "0.000012",
            "memos": [
                {
                    "MemoType": "6D656D6F73",
                    "MemoData": "E7ACACE4B880E7AC94E4BAA4E69893",
                    "parsed_memo_type": "memos"
                }
            ]
```

        },
        {
            "hash":
"96DFC38DE2841A9AD5E83016D462E45F0D88164E923B30D881FA7A2EEB3395B6"
,
            "ledger": "86459",
            "source_account": "6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5",
            "destination_account": "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
            "amount": "2000",
            "direction": "outgoing",
            "timestamp": "2018-03-06T08:12:41.000Z",
            "fee": "0.000012",
            "memos": [
                {
                    "MemoType": "6D656D6F73",
                    "MemoData": "E7ACACE4B880E7AC94E4BAA4E69893",
                    "parsed_memo_type": "memos"
                }
            ]
        },
        {
            "hash":
"BB3D605366CBDD5F199D2DAD609EE72ABBD2270C85BAD7C76CAF718088430D
73",
"ledger": "86517",
            "source_account": "6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5",
            "destination_account": "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
            "amount": "20",
            "direction": "outgoing",
            "timestamp": "2018-03-06T08:15:33.000Z",
            "fee": "0.000012",
            "Memos": [
                {
                    "MemoType": "6D656D6F73",
                    "MemoData": "E7ACACE4B880E7AC94E4BAA4E69893",
                    "Parsed_memo_type": "memos"
                }
            ]
        },
        {
            "hash":
"12C323E8DEAF789B790E4837438E5E59E95CA888979B4BE1311CA4BEDAF7C05E"
,
            "ledger": "86520",

```
            "source_account": "6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5",
            "destination_account": "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
            "amount": "20",
            "direction": "outgoing",
            "timestamp": "2018-03-06T08:15:42.000Z",
            "fee": "0.000012",
            "memos": [
                {
                    "MemoType": "6D656D6F73",
                    "MemoData": "E7ACACE4B880E7AC94E4BAA4E69893",
                    "parsed_memo_type": "memos"
                }
            ]
        }
    ],
    "success": true
}
```

The result returned is the data for the next page, and the result information returned:

Parameters	Type	Description
success	Boolean	Request results
payments	Array	Payment history, information in the same transaction record

3 Server Information Interface

3.1 Get default transaction fee

Interface：/v1/transaction-fee，GetMethod

Example：

https://rest-beta.sdchain.io/v1/transaction-fee

Result：
```
{
    "fee": "0.000001",
    "success": true
}
```

Result return parameter：

Parameters	Type	Description
success	Boolean	Request results
fee	String	Current default transaction fee

3.2Get server information

Interface：/v1/server，GetMethod

Example：

https://rest-beta.sdchain.io/v1/server

Result：
```
{
    "sdchaind_server_status": {
        "complete_ledgers": "1-1471300",
        "server_state": "proposing",
        "reserve_base_sda": 6
    },
    "success": true
}
```
Result return parameter：

Parameters	Type	Description
success	Boolean	Request results
sdchaind_server_status	Object	Current status of SDChain server
complete_ledgers	String	Completed block
server_state	String	Server status
reserve_base_sda	Integer	Least SDA quantity for activation

3.3 Check connection with server

Interface：/v1/server/connected，GetMethod

Example：

https://rest-beta.sdchain.io/v1/server/connected

Result：
```
{
```

```
        "connected": true,
        "success": true
}
```

Result return parameter：

Parameters	Type	Description
success	Boolean	Request results
connected	Boolean	Status of connection with server