# **Rest API-v1.2.2 Introduction**

# **Revision History**

Revision	Description	Date
1.0.0	Initial Release	2018-03-01-
1.1.0	Add Order Interface (for exchanging different tokens)	2018-05-08
1.1.1	Change the number of activated SDAs to 0.6	2018-05-15
1.2.0	Add interface of acquiring all order, add parameters of acquiring order list, and add interface of acquiring all transaction based on accounts	2018-05-18
1.2.1	Delete invalid interface parameters in 4.5	2018-05-21
1.2.2	Delete the 2.3 interface and add the 5.2 interface to change the original request to an account	2018-05-24

Revision	Description	Date

## 1.AccountInterface

## **1.1** Make a request for a new wallet

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: Use<u>Payment interface</u>to transfer 20 SDA from activated account to the new one.

## 1.2 Get 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/6 fa LUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5

```
Results:
```

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 pass 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
memo_type	String	Memo type, English plus number
memo_data	String	Content of memo

### Example:

https://rest-beta.sdchain.io/v1/accounts/payments/6 fa LUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5?submit=true

### Submitted data:

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

## 2.2 Get payment information

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/6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5/12C323E8DEAF789B790E4837438E5E59E95CA888979B4BE1311CA4BEDAF7C05E

```
Results:

{
    "hash":
"12C323E8DEAF789B790E4837438E5E59E95CA888979B4BE1311CA4BEDAF7C05E"
,
    "ledger": "86520",
    "state": "validated",
    "source_account": "6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5",
    "destination_account": "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2de",
```

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
memo_type	String	Memo type; English plus number
memo_data	String	Content of memo

# 2.3 Get payment history

Interface: /v1/accounts/payments/{:address}, GetMethod

Interface parameters:

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/6 fa LUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5

```
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": [
                 {
                     "memo type": "6D656D6F73",
                     "memo_data": "E7ACACE4B880E7AC94E4BAA4E69893",
                     "parsed memo type": "memos"
                 }
            1
```

```
"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": [
                     "memo type": "6D656D6F73",
                    "memo data": "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": [
                {
                     "memo type": "6D656D6F73",
                     "memo data": "E7ACACE4B880E7AC94E4BAA4E69893",
                     "Parsed_memo_type": "memos"
                }
            ]
        },
            "hash":
"12C323E8DEAF789B790E4837438E5E59E95CA888979B4BE1311CA4BEDAF7C05E"
            "ledger": "86520",
            "source account": "6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5",
            "destination account": "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
```

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

Parameters	Type	Description	
fee	String	Current default transaction fee	

# 3.2 Get 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:

1					
Parameters	Type	Description			
success	Boolean	Request results			
sdchaind_server_statu	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

## 4. Get Order Interface

## 4.1 Get order list

Interface: /v1/accounts/orders/{:address}, GetMethod

Parameter Interface:

Parameters	Type	Description	
address	String	Payment-related SDChain addresses	

### Details of submitted parameter:

Parameters	Type	Description
marker	String	Start position in the response page.
limit	String	(Default is 200) The maximum result of each response. Can't be less than 10. Can't be more than 400
ledger	String	Block height (taken from the previous page's return result)

## Example:

https://rest-beta.sdchain.io/v1/accounts/orders/6GiohV7XV habbtv1DfKjWEyikeyimiDSNx

# 

```
"currency": "CNY",
                  "value": "5",
                  "counterparty": "6UPd52jHtu1d88nc3S3WeroACFQpKfybhU"
             },
              "taker pays": {
                  "currency": "DDD",
                  "value": "1",
                  "counterparty": "6UPd52jHtu1d88nc3S3WeroACFQpKfybhU"\\
              },
              "sequence": 54,
             "passive": false
         },
             "type": "sell",
             "taker gets": {
                  "currency": "DDD",
                  "value": "3",
                  "counterparty": "6UPd52jHtu1d88nc3S3WeroACFQpKfybhU"\\
              },
             "taker pays": {
                  "currency": "SDA",
                  "value": "12",
                  "counterparty": ""
              },
             "sequence": 59,
              "passive": false
         }
    ],
    "success": true
}
```

### Result return parameter:

Parameters	Type	Description
success	Boolean	Request results
validated	Boolean	Hash of payment
ledger	Integer	Block height
order	Object	Order information
type	String	Type:sell, buy
taker_pays	Object	The amount the other party should spend
currency	String	Token name
counterparty	String	Publisher

Parameters	Type	Description
value	String	Value
taker_gets	Object	The amount the other party should get
currency	String	Token name
counterparty	String	Publisher
value	String	Value

## 4.2 Submit order

Interface: /v1/accounts/orders/{:address}, POSTMethod

Interface parameter:

Parameters	Type	Description
address	String	SDChain address

## Details of submitted parameter:

Parameters	Type	Description
secret	String	Private Key
orders	Object	Order Information
type	String	sell; buy
taker_pays	Object	The amount the other party should spend
currency	String	Token Name
counterparty	String	Publisher
value	String	Value
taker_gets	Object	The amount the other party should get
currency	String	Token Name
counterparty	String	Publisher
value	String	Value

## Example:

https://rest-beta.sdchain.io/v1/accounts/orders/6GiohV7XV habbtv1DfKjWEyikeyimiDSNx

```
Submitted data:
{
        "secret": "spoWzgEy9****1stWp2vsC",
        "order": {
                 "type": "buy",
                 "taker pays": {
                          "currency": "DDD",
                          "counterparty":
"6UPd52jHtu1d88nc3S3WeroACFQpKfybhU",
                          "value": "1"
                 },
                 "taker gets": {
                          "currency": "SDA",
                          "counterparty": "",
                          "value": "4"
                 }
        }
}
Result:
    "order": {
         "account": "6PKbrbSLKRmgb5nqqGP3hxWBj6o2ufZrTt",
         "taker gets": {
             "currency": "SDA",
             "value": "4",
             "counterparty": ""
         },
         "taker pays": {
             "currency": "DDD",
             "value": "1",
             "counterparty": "6UPd52jHtu1d88nc3S3WeroACFQpKfybhU"
         },
         "fee": "0.0001",
        "type": "buy",
        "sequence": 7
    },
    "hash":
"C6C62BE6921D97857382DF956D2C227E9CD1022D1DB08EEB9193D6F1A8DB48CF
```

"ledger": "49947", "state": "pending", "success": true

}

### Details of submitted parameter:

Parameters	Type	Description
success	Boolean	Request results
hash	String	Hash of payment
ledger	Integer	Block height
state	String	Transaction State
order	Object	Order Information
Fee	String	Fee
sequence	Integer	Order Sequence (for cancelling order)

## 4.3 Cancel order

Interface: /v1/accounts/orders/{:address}/{: sequence}, DELETE Method

Example:

https://rest-beta.sdchain.io/v1/accounts/orders/6GiohV7XVhabbtv1DfKjWEyikeyimiDSNx/59

Interface parameter:

Parameters	Type	Description
address	String	SDChain address
sequence	Integer	Order Sequence

### Details of submitted parameter:

Parameters	Type	Description
secret	String	Private Key

### Submitted data:

```
{
     "secret": "spoWzgEy9****1stWp2vsC",
}
Result:
{
```

Returned result information:

Parameters	Type	Description
success	Boolean	Request results
hash	String	Transaction Hash
ledger	Integer	Block Height
state	String	Transaction State
order	Object	Order Information
account	String	SDChainAddress
fee	String	Fee
offer_sequence	Integer	Sequence of Cancelled Transaction
sequence	Integer	Sequence of Current Transaction

## 4.4 Check details oforder

 $Interface: \ /v1/accounts/orders/\{:address\}/\{:hash\} \text{, } GetMethod$ 

Interface parameter:

Parameters	Type	Description
address	String	SDChain Address
hash	String	Transaction Hash

Example:

https://rest-beta.sdchain.io/v1/accounts/orders/6GiohV7XVhabbtv1DfKjWEyikeyimiDSNx/3ABE9B68EB3988E839CA5E11849FBBBDD1B8897984FA6936043AEA1873A4C71

#### Submitted data:

```
Result:
{
    "hash":
"3ABE9B68EB3988E8E39CA5E11849FBBBDD1B8897984FA6936043AEA1873A4C71
    "ledger": 50254,
    "validated": true,
    "timestamp": "2018-05-08T07:25:40.000Z",
    "fee": "0.0001",
    "action": "order create",
    "type": "buy",
    "direction": "outgoing",
    "order": {
         "account": "6GiohV7XVhabbtv1DfKjWEyikeyimiDSNx",
         "taker pays": {
              "currency": "DDD",
              "value": "1",
              "counterparty": "6UPd52jHtu1d88nc3S3WeroACFQpKfybhU"
         },
         "taker gets": {
              "currency": "SDA",
              "value": "4",
              "counterparty": ""
         },
         "passive": false,
         "immediate or cancel": false,
         "fill or kill": false,
         "type": "sell",
         "sequence": 61
    "balance_changes": [
              "counterparty": "",
              "currency": "SDA",
              "value": "-0.0001"
         }
    ],
    "order_changes": [
         {
              "taker pays": {
```

```
"currency": "SDA",
              "counterparty": "",
              "value": "0"
         },
         "taker gets": {
              "currency": "DDD",
              "counterparty": "6UPd52jHtu1d88nc3S3WeroACFQpKfybhU",
              "value": "0"
         },
         "sequence": 59,
         "status": "canceled"
    },
         "taker_pays": {
              "currency": "DDD",
              "counterparty": "6UPd52jHtu1d88nc3S3WeroACFQpKfybhU",
              "value": "1"
         },
         "taker gets": {
              "currency": "SDA",
              "counterparty": "",
              "value": "4"
         },
         "sequence": 61,
         "status": "created"
     }
],
"success": true
```

### Result return parameter:

Parameters	Type	Description
success	Boolean	Request result
hash	String	Transaction Hash
ledger	String	Block Height
state	String	Transaction State
orders	Object	Order Information
Account	String	SDChain Address
sequence	Integer	Order Sequence
type	String	sell; buy
taker_pays	Object	The amount the other party should spend
currency	String	Token Name

Parameters	Type	Description
counterparty	String	Publisher
value	String	Value
taker_gets	Object	The amount the other party should get
currency	String	Token Name
counterparty	String	Publisher
balance_changes	Array	Balance Change
order_changes	Array	Order Change

# 4.5 Acquire current list of order

Interface: /v1/order\_book/{:base}/{:counter}, GetMethod

Interface parameter:

Parameters	Type	Description	
base	String	Base Token (currency+counterparty or SDA)	
counter	String	Counter Token (currency counterparty or SDA)	

## Details of submitted parameter:

Parameters	Type	Description
limit	String	(Default is 200) The maximum result of each response. Can't be less than 10. Can't be more than 400

## Example:

 $https://rest-beta.sdchain.io/v1/order\_book/SDA/CNY+6UPd52jHtu1d88nc3S3WeroACFQ~pKfybhU?limit=2$ 

```
Result:
{
    "ledger": 50047,
    "validated": true,
    "orders": [
        {
          "type": "buy",
```

```
"taker_gets": {
                  "currency": "CNY",
                  "value": "5",
                  "counterparty": "6UPd52jHtu1d88nc3S3WeroACFQpKfybhU"
              },
              "taker pays": {
                  "currency": "DDD",
                  "value": "1",
                  "counterparty": "6UPd52jHtu1d88nc3S3WeroACFQpKfybhU"
              },
              "sequence": 54,
              "passive": false
         },
              "type": "sell",
              "taker_gets": {
                  "currency": "DDD",
                  "value": "3",
                  "counterparty": "6UPd52jHtu1d88nc3S3WeroACFQpKfybhU"
              },
              "taker_pays": {
                  "currency": "SDA",
                  "value": "12",
                  "counterparty": ""
              },
              "sequence": 59,
              "passive": false
         }
    ],
    "success": true
}
```

### Result return parameter:

Parameters	Type	Description
success	Boolean	Request Results
order_book	String	Transaction pair
ledger	Integer	Block height
validated	Boolean	Validated or not
bids	Array	Bid information
price	Object	Price (amount type)
taker_gets_total	Object	The amount the other party should get (amount type)

Parameters	Type	Description
taker_pays_total	Object	The amount the other party should spend (amount type)
order_maker	String	Address of Order Maker
asks	Array	Asks information

# **5. Interface of Transaction History**

## 5.1 Get transaction history

Interface: /v1/accounts/transactions/{:address}, GetMethod

Interface Parameter:

Parameters	Type	Description
address	String	Payment-related SDChain addresses

### Details of submitted parameter:

Parameters	Type	Description
type	String	Transaction Type : payment,offercreate,offercancel,trustset, Multiple can be provided separated by ","
start_ledger	Integer	Starting block height, optional
end_ledger	Integer	End block height, optional
per_page	Integer	Per page quantity, optional
page	Integer	Page number, optional

### Example:

 $https://rest-beta.sdchain.io/v1/accounts/transactions/6 faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5?type=payment, offercreate\&per\_page=2\&page=1$ 

```
Result:
```

"BB4839ABD6484C4AC814F1C3AF651A1FE5808703BA9D6901CC2E14EF677784D7"

,

```
"state": "validated",
             "date": 577364330,
             "type": "out",
             "fee": "0.0001",
             "result": "tesSUCCESS",
             "counterparty": "6JmTAjeQpXUMZACgGRNwvUG9EMSZmcBXU6",
             "amount": {
                  "currency": "SDA",
                  "value": "0.02",
                  "issuer": ""
             },
             "effects": [],
             "memos": [
                  {
                      "memo data": "546869732069732061206D656D6F21",
                      "memo_type": "6D656D6F"
                  }
             ]
         },
             "hash":
"81F36B67F23DF5E4D651EBA39537239E02A1F78534A48F05C010C4CF852F1768",
             "ledger": "1125346",
             "state": "validated",
             "date": 577364330,
             "type": "out",
             "fee": "0.0001",
             "result": "tesSUCCESS",
             "counterparty": "6JmTAjeQpXUMZACgGRNwvUG9EMSZmcBXU6",
             "amount": {
                  "currency": "SDA",
                  "value": "0.02",
                  "issuer": ""
             },
             "effects": []
         }
    ],
    "success": true
}
```

"ledger": "1125346",

#### Information of returned results:

Parameters	Type	Description
success	Boolean	Request results

Parameters	Type	Description
transactions	Array	Transaction object array
hash	String	Transaction hash
ledger	String	Block height
date	String	Payment amount
type	String	Туре
fee	String	Fee
result	String	Result
price	String	Price (type=offercreate)
pair	String	Pair (type=offercreate)
seq	Integer	Order number (type=offercreate)
counterparty	String	Address of the other party (type=payment)
amount	Object	Amount object
currency	String	Currency
value	String	Value
counterparty	String	Counterparty
effects	Array	Effect
effect	String	Effect type
seq	Integer	Order number
price	String	Price
pair	String	Pair
amount	Object	Quantity object
memos	Array	Memo

# 5.1 Get transaction detail

 $Interface: \ /v1/accounts/transactions/\{:address\}/\{:hash\} \text{, } GetMethod$ 

Interface Parameter:

Parameters	Type	Description	
address	String	Payment-related SDChain addresses	
hash	String	Hash of payment transaction	

Example:

https://rest-beta.sdchain.io/v1/accounts/transactions/6faLUhmp9gNgS9jXS3rAWbg8hFfi9PbWH5/BB4839ABD6484C4AC814F1C3AF651A1FE5808703BA9D6901CC2E14EF677784D7

#### Result:

```
"transaction": {
        "hash":
"BB4839ABD6484C4AC814F1C3AF651A1FE5808703BA9D6901CC2E14EF677784D7",
        "ledger": "1125346",
        "state": "validated",
        "date": "2018-04-18T10:58:50.000Z",
        "type": "outgoing",
        "fee": "0.0001",
        "result": "tesSUCCESS",
        "counterparty": "6JmTAjeQpXUMZACgGRNwvUG9EMSZmcBXU6",
        "amount": {
            "currency": "SDA",
            "value": "0.02",
            "issuer": ""
        "effects": [],
        "memos": [
                "memo_type": "6D656D6F",
                "memo_data": "546869732069732061206D656D6F21",
                "parsed memo type": "memo"
        1
    "success": true
```

#### Information of returned results:

Parameters	Type	Description
success	Boolean	Request results
transaction	Object	Transaction object
hash	String	Transaction hash
ledger	String	Block height
date	String	Payment amount
type	String	Туре

Parameters	Type	Description
fee	String	Fee
result	String	Result
price	String	Price (type=offercreate)
pair	String	Pair (type=offercreate)
seq	Integer	Order number (type=offercreate)
counterparty	String	Address of the other party (type=payment)
amount	Object	Amount object
currency	String	Currency
value	String	Value
counterparty	String	Counterparty
effects	Array	Effect
effect	String	Effect type
seq	Integer	Order number
price	String	Price
pair	String	Pair
amount	Object	Quantity object
memos	Array	Memo