

Project Ubin Phase 2 - Quorum APIs

This is the API blueprint for Project Ubin Phase 2 Quorum prototype.

Please refer to the project repositories on GitHub to get the postman collections for this set of APIs.

Bank

ALL BANK BALANCES

GET

/api/bank/balance/all

Get account info for all banks

Returns a list of account information of all banks in the network. Can only be called by Regulator Node

Example URI

GET Quorum/api/bank/balance/all

Response 200

Headers

Content-Type: application/json

Body

```
[
  {
    "bic": "MTBCSGSG",
    "balance": 912
  },
  {
    "bic": "CSFBGSX",
    "balance": 882
  },
  {
    "bic": "OCBCSGSG",
    "balance": 1231
  },
  {
    "bic": "SCBLSGSG",
    "balance": 2223
  }
]
```

BANK INFO

GET

/api/bank/info

Get account info for self

Returns current bank information.

Example URI

GET Quorum/api/bank/info

Response 200

Headers

Content-Type: application/json

Body

```
{
  "bic": "CSFBSGSX",
  "balance": 3000,
  "position": -1040
}
```

BANK COUNTERPARTIES

GET

/api/bank/counterparties

Get list of valid counter parties

Returns a list of all counterparties in the network and their respective channel with the caller.

Example URI

GET Quorum/api/bank/counterparties

Response 200

Headers

Content-Type: application/json

Body

```
[
  {
```

```
    "bic": "CHASSGSG"
  },
  {
    "bic": "CSFBSGSX"
  }
]
```

TRANSACTION HISTORY

GET

/api/bank/transactions/

Get transaction history

Defaults to returning a list of all transactions unless a specific transaction type “pledge”, “redeem”, “transfer” is provided.

Example URI

GET Quorum/api/bank/transactions/

Response 200

Headers

Content-Type: application/json

Body

```
[
  {
    "transType": "transfer",
    "transId": "R1022342529826",
    "requestedDate": "2017-09-27T19:15:31.276Z",
    "updatedAt": "2017-09-27T19:15:31.276Z",
    "sender": "OCBCSGSG",
    "receiver": "DBSSGSG",
    "transactionAmount": 3800000,
    "status": "ACTIVE",
    "priority": 0
  },
  {
    "transType": "pledge",
    "transId": "PL022342529828",
    "requestedDate": "2017-09-27T19:15:31.276Z",
    "updatedAt": "2017-09-27T19:15:31.276Z",
    "sender": "MAS",
    "receiver": "DBSSGSG",
    "transactionAmount": 3800002,
    "status": "HOLD",
    "priority": 0
  }
]
```

```
    "transType": "redeem",
    "transId": "RD022342529829",
    "requestedDate": "2017-09-27T19:15:31.276Z",
    "updatedAt": "2017-09-27T19:15:31.276Z",
    "sender": "MAS",
    "receiver": "DBSSGSG",
    "transactionAmount": 1800009,
    "status": "HOLD",
    "priority": 0
  }
]
```

SUSPEND BANK

POST

/api/bank/suspend

Suspend Bank

Suspend a bank in the network, only Regulator Node can call this API.

Example URI

POST Quorum/api/bank/suspend

Request

Headers

Content-Type: application/json

Body

```
{
  "bic": "OCBCSGSG"
}
```

Response 201

Headers

Content-Type: application/json

Body

```
{
  "bic": "CSFBGSX",
  "status": "SUSPENDED"
}
```

UNSUSPEND BANK

POST

/api/bank/unsuspend

Unsuspend Bank

Unsuspend a bank in the network, only Regulator Node can call this API.

Example URI

POST Quorum/api/bank/unsuspend

Request

Headers

Content-Type: application/json

Body

```
{
  "bic": "OCBCSGSG"
}
```

Response 201

Headers

Content-Type: application/json

Body

```
{
  "bic": "CSFBGSX",
  "status": "ACTIVE"
}
```

BANK STATUS

POST

/api/bank/status/{bic}

Check Bank Status

Checks if a bank is suspended. Returns `true` if bank is suspended, and `false` if bank is not suspended.

Example URI

POST Quorum/api/bank/status/bic

URI Parameters

Request

Headers

Content-Type: application/json

Body

```
{}
```

Response 201

Headers

Content-Type: application/json

Body

```
{  
  true  
}
```

Fund

PLEDGE

POST /api/fund/pledge

Request to pledge funds

Pledge funds to a particular bank account in DLT

Example URI

POST Quorum/api/fund/pledge

Request

Headers

Content-Type: application/json

Body

```
{
  "receiver": "MASGSGSG",
  "transactionAmount": 9902
}
```

Response 201

Headers

Content-Type: application/json

Body

```
{
  "transId": "PL022342529826",
  "receiver": "CHASSGSG",
  "transactionAmount": 9900,
  "status": "CONFIRMED"
}
```

REDEEM

POST

/api/fund/redeem

Get Redeem Request

Returns list of redeem request from bank in the network. This API is only able to be invoked from Central Bank.

Example URI

POST Quorum/api/fund/redeem

Request

Headers

Content-Type: application/json

Body

```
{
  "sender": "CHASSGSG",
  "amount": 9902
}
```

Response 201

Headers

Content-Type: application/json

Body

```
{
  "transId": "RD022342529826",
  "sender": "MASGSGSG",
  "transactionAmount": 9900,
  "status": "CONFIRMED"
}
```

TRANSFER

POST /api/fund/transfer

Create a new payment instruction

Create a new payment instruction to the other bank in the network

Example URI

POST Quorum/api/fund/transfer

Request

Headers

Content-Type: application/json

Body


```
{
  "receiver": "CHASSGSG",
  "transactionAmount": 1555,
  "priority": 1
  "enqueue": 0
}
```

Response **201**

Headers

Content-Type: application/json

Body

```
{
  "transId": "R1022342529826",
  "sender": "OCBCSGSG",
  "receiver": "DBSSGSG",
  "transactionAmount": 3800000,
  "status": "CONFIRMED",
  "priority": 0,
  "enqueue": 0
}
```

Queue

QUEUE

GET

/api/queue/{filter}

Get all current incoming/outgoing queued items

Example URI

GET Quorum/api/queue/filter

URI Parameters

Response **200**

Headers

Content-Type: application/json

Body

```
[
  {
    "transId": "R1029302929301",
    "requestedDate": "2017-09-27T19:15:31.276Z",
    "updatedAt": "2017-09-27T19:15:31.276Z",
    "sender": "OCBCSGSG",
    "receiver": "DBSSGSG",
    "transactionAmount": 3800000,
    "status": "ACTIVE",
    "priority": 0,
    "salt": "13f1b7321149acc04a43178c7fe75120"
  },
  {
    "transId": "R1022342529826",
    "requestedDate": "2017-09-27T19:15:31.276Z",
    "updatedAt": "2017-09-27T19:15:31.276Z",
    "sender": "OCBCSGSG",
    "receiver": "DBSSGSG",
    "transactionAmount": 3800000,
    "status": "ACTIVE",
    "priority": 0,
    "salt": "23c1b7321149acc90a43178c7fe75100"
  }
]
```

QUEUE PRIORITY

PUT

/api/queue/priority

Update Payment Priority

Updates priority of payments in the queue with one of the following {priority: 1 (High Priority), 0 (Normal Priority)}

Example URI

PUT Quorum/api/queue/priority

Request

Headers

Content-Type: application/json

Body

```
{
  "transId": "T022342529826",
  "priority": 1
}
```

Response 201

Headers

Content-Type: application/json

Body

```
{
  "transId": "R1509508665141",
  "requestedDate": "2017-11-01T03:57:46.719Z",
  "updatedAt": "2017-11-01T03:57:46.719Z",
  "sender": "CSFBSGSX",
  "receiver": "MTBCSGSG",
  "transactionAmount": 5000,
  "status": "ACTIVE",
  "priority": 1,
  "salt": "13f1b7321149acc04a43178c7fe75120"
}
```

QUEUE STATUS

PUT

/api/queue/status

Update Payment Status

Updates status of a payment in the queue with one of the following {status: 2(HOLD), 0 (ACTIVE)}

Example URI

PUT Quorum/api/queue/status

Request

Headers

Content-Type: application/json

Body

```
{
  "transId": "T022342529826",
  "status": 2
}
```

Response 201

Headers

Content-Type: application/json

Body

```
{
  "transactionId": "T022342529826",
  "message": "Obligation status is updated"
}
```

QUEUE CANCEL

PUT

/api/queue/cancel

Cancel Payment Instruction

Cancel payment instructions that are in the queue based on payment instruction id.

Example URI

PUT Quorum/api/queue/cancel

Request

Headers

Content-Type: application/json

Body

```
{
  "transId": "T022342529826"
}
```

Response 201

Headers

Content-Type: application/json

Body

```
{
  "transId": "R15095086665141",
  "requestedDate": "2017-11-01T03:57:46.719Z",
  "updatedAt": "2017-11-01T03:57:46.719Z",
  "sender": "CSFBSGSX",
  "receiver": "MTBCSGSG",
  "transactionAmount": 5000,
  "status": "CANCELLED",
  "priority": 1,
  "salt": "13f1b7321149acc04a43178c7fe75120"
}
```

QUEUE SETTLE

PUT

/api/queue/settle

Settle Outgoing Payments

Settle outgoing payment in the queue if the bank has enough liquidity.

Example URI

PUT Quorum/api/queue/settle

Request

Headers

Content-Type: application/json

Body

```
{}
```

Response 201

Headers

Content-Type: application/json

Body

```
[
  {
    "transId": "R15095114064031",
    "requestedDate": "2017-11-01T03:57:46.719Z",
    "updatedAt": "2017-11-01T03:57:46.719Z",
    "sender": "CSFBSGSX",
    "receiver": "MTBCSGSG",
    "transactionAmount": 5000,
    "status": "CANCELLED",
    "priority": 1,
    "salt": "13f1b7321149acc04a43178c7fe75120"
  }
]
```

```
[
  {
    "requestedDate": "2017-11-01T04:43:26.646Z",
    "updatedAt": "2017-11-01T04:43:26.646Z",
    "sender": "CSFBGSX",
    "receiver": "SCBLSGSG",
    "transactionAmount": 100,
    "status": "ACTIVE",
    "priority": 0,
    "salt": "abc4b5234c3ec2b74a83645477e959f5"
  },
  {
    "transId": "R15095114064098",
    "requestedDate": "2017-11-01T04:43:26.646Z",
    "updatedAt": "2017-11-01T04:43:26.646Z",
    "sender": "CSFBGSX",
    "receiver": "SCBLSGSG",
    "transactionAmount": 300,
    "status": "ACTIVE",
    "priority": 0,
    "salt": "ebc4b5234c3ec2b74a83645477e959f3"
  }
]
```

Netting

NETTING STATUS

GET

/api/queue/netting/status

Get status of latest netting cycle

Example URI

GET Quorum/api/queue/netting/status

Response 200

Headers

Content-Type: application/json

Body

```
{
  "nettingStatus": "Lineopen"
}
```

