

00A0 2203 \exists 2200 \forall 2286 \subseteq 2713x 27FA \iff 221A \surd 221B \surd 2295 \oplus 2297 \otimes

WeBASE Documentation

Release v1.0.0

WeBankFinTech

Aug 07, 2019

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 - WeBASE-Web [WeBASE-Web](#)
 - WeBASE-Codegen-Monkey [WeBASE-Codegen-Monkey](#)
 - WeBASE-Collect-Bee [WeBASE-Collect-Bee](#)
 - WeBASE-Sign [WeBASE-Sign](#)
 - WeBASE-Transaction [WeBASE-Transaction](#)
-

WeBASE WeBank Blockchain Application Software Extension FISCO-
BCOS WeBASE Web

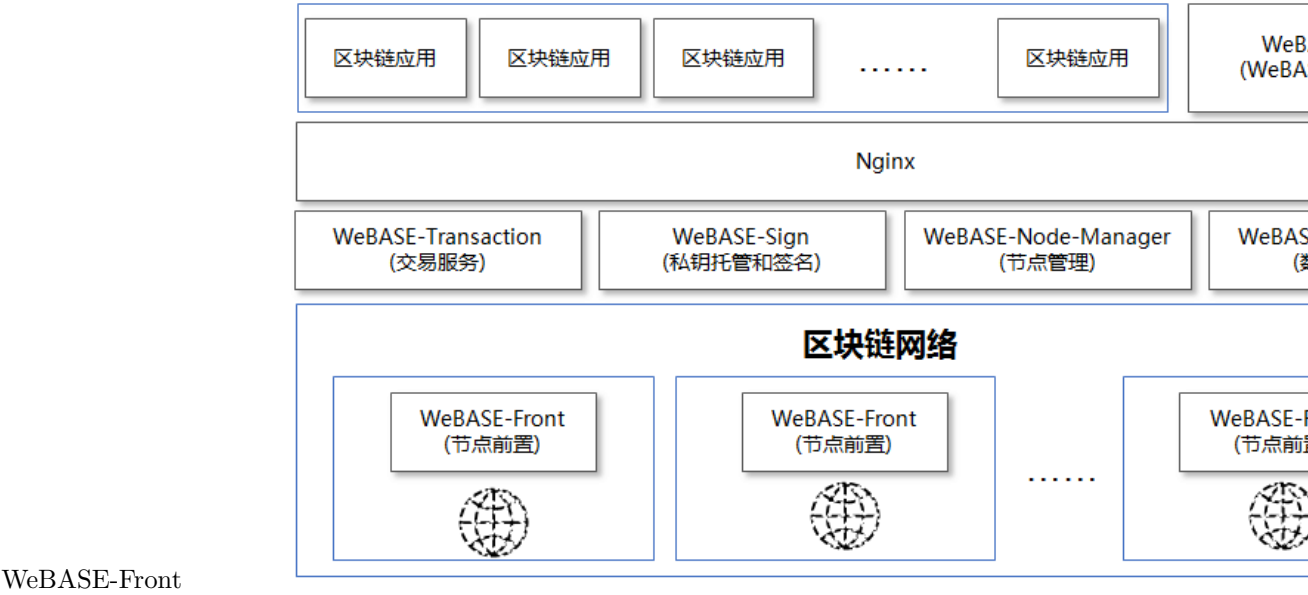
1.1

WeBASE WeBASE

1.2

WeBASE
WeBASE Spring Boot RESTful
WeBASE
WeBASE

1.3



1.4



1.5

- WeBASE-Front web3sdk RESTful http web
- WeBASE-Node-Manager web
- WeBASE WeBASE-Web
- WeBASE-Transcation tps

- WeBASE-Sign
- WeBASE-Codegen-Monkey
- WeBASE-Collect-Bee event

WeBASE

2.1

Web WeBASE WeBASE FISCO-BCOS WeBASE-Front WeBASE-Node-Manager WeBASE-

2.1.1

2.1.2

```
wget https://github.com/WeBankFinTech/WeBASELargeFiles/releases/download/WeBASEV1.0.0/webase-  
deploy.zip
```

```
unzip webase-deploy.zip
```

```
cd webase-deploy
```

2.1.3

vi common.properties

1024

```
ip sed -i "s%127.0.0.1%${your_db_ip}%g" common.properties
sed -i "s%3306%${your_db_port}%g" common.properties
sed -i "s%dbUsername%${your_db_account}%g" common.properties
sed -i "s%dbPassword%${your_db_password}%g" common.properties
sed -i "s%db_mgr%${your_db_name}%g" common.properties

sed -i "s%8080%${your_web_port}%g" common.properties
sed -i "s%8081%${your_mgr_port}%g" common.properties
sed -i "s%8082%${your_front_port}%g" common.properties

fisco sed -i "s%2.0.0-rc2%${your_fisco_version}%g" common.properties
sed -i "s%nodeCounts%${your_node_counts}%g" common.properties
p2p sed -i "s%30300%${your_p2p_port}%g" common.properties
channel sed -i "s%20200%${your_channel_port}%g" common.properties
rpc sed -i "s%8545%${your_rpc_port}%g" common.properties
h2 sed -i "s%/db_front%${your_dist_dir}%g" common.properties
sed -i "s%/data%${your_dist_dir}%g" common.properties

/data /home sed -i "s%/data%/home%g" common.properties
```

2.1.4

```
python deploy.py startAll
```

```
python deploy.py stopAll
```

```
python deploy.py help
```

2.1.5

```
http://{deployIP}:{webPort}
```

```
http://{deployIP}:{frontPort}/WeBASE-Front
```

IP

2.1.6

```
log/
nodes/127.0.0.1/node*/log/
web  webase-web/log/
mgr  webase-node-mgr/logs/
front webase-front/log/
```

2.1.7

Java

1 java

```
mkdir /software
tar -zxvf jdkXXX.tar.gz /software/
```

2

```
export JAVA_HOME=/software/jdk1.8.0_121
export PATH=$JAVA_HOME/bin:$PATH
export CLASSPATH=.:$JAVA_HOME/lib/dt.jar:$JAVA_HOME/lib/tools.jar
```

Centos/Fedora

1 root

```
sudo -s
```

2 mysql

```
yum install mysql*
# linux mariadb mariadb mysql
yum install mariadb*
```

3 mysql

```
service mysqld start
# mariadb
systemctl start mariadb.service
```

4

```
mysql -u root
```

root

```
mysql > SET PASSWORD FOR 'root'@'localhost' = PASSWORD('123456');
mysql > GRANT ALL PRIVILEGES ON *.* TO 'root'@'%' IDENTIFIED BY '123456' WITH GRANT OPTION;
```

1. 123456

2.

test

```
mysql > create user 'test'@'localhost' identified by '123456';
```

5

ssh test

```
mysql -utest -p123456 -h 127.0.0.1 -P 3306
```

sql

```
mysql > show databases;
mysql > use test;
```

6

```
mysql -utest -p123456 -h 127.0.0.1 -P 3306
```

```
mysql > create database db_mgr;
```

Python

- CentOS

```
sudo yum install -y python-requests
```

- Ubuntu

```
sudo apt-get install -y python-requests
```

MySQL-python

- CentOS

```
sudo yum install -y MySQL-python
```

- Ubuntu

```
sudo apt-get install -y python-pip
sudo pip install MySQL-python
```

2.1.8

```
centos mysql      Access denied for user 'root'@'localhost'
/etc/my.cnf [mysqld]
```

```
skip-grant-tables
```

mysql

```
service mysqld restart
```

```
mysql
```

```
mysql -uroot -p mysql
```

MySQLdb

```
Traceback (most recent call last):
```

```
...
```

```
ImportError: No module named MySQLdb
```

MySQL-python

```
...
Connecting to github-production-release-asset-2e65be.s3.amazonaws.com (github-production-
↪release-asset-2e65be.s3.amazonaws.com)|52.216.112.19|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 22793550 (22M) [application/octet-stream]
Saving to: 'WeBASE-Front.zip'
```

```
0% [
```

```
↪
```

```
] 77,974      37.8KB/s
```

```
↵
```

[WeBASE-Web](#)

[WeBASE-Node-Manager](#)

[WeBASE-Front](#)

[webase-](#)

deploy

```
...
checking database connection
```

```
Traceback (most recent call last):
```

```
File "/data/temp/webase-deploy/comm/mysql.py", line 21, in dbConnect
```

```
conn = mdb.connect(host=mysql_ip, port=mysql_port, user=mysql_user, passwd=mysql_password,↵
↪charset='utf8')
```

```
File "/usr/lib64/python2.7/site-packages/MySQLdb/__init__.py", line 81, in Connect
```

```
return Connection(*args, **kwargs)
```

```
File "/usr/lib64/python2.7/site-packages/MySQLdb/connections.py", line 193, in __init__
```

```
super(Connection, self).__init__(*args, **kwargs2)
```

```
OperationalError: (1045, "Access denied for user 'root'@'localhost' (using password: YES)")
```

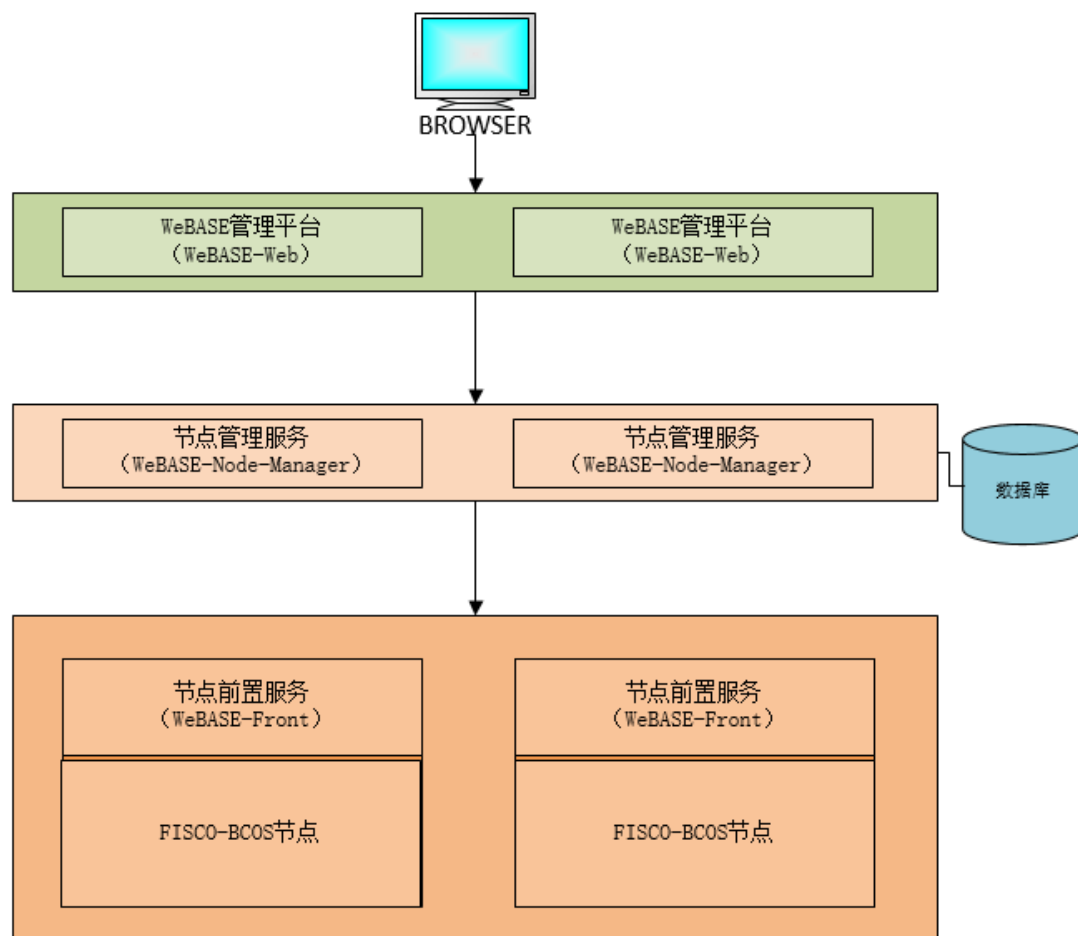
2.2

2.2.1 1

WeBASE

WeBASE

WeBASE



WeBASE

2.2.2 2

WeBASE

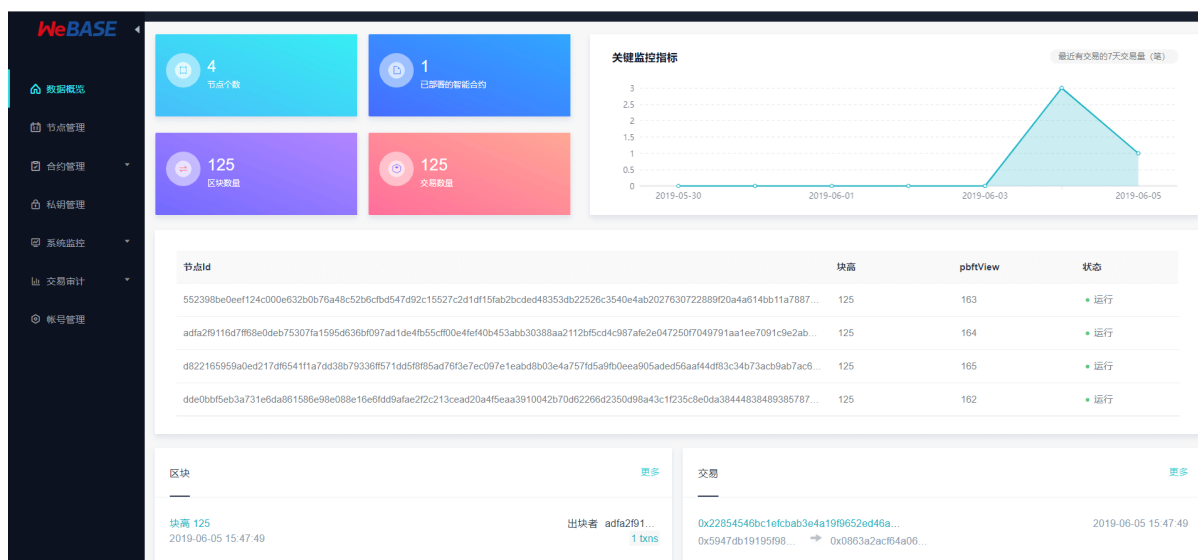
3.1

3.1.1

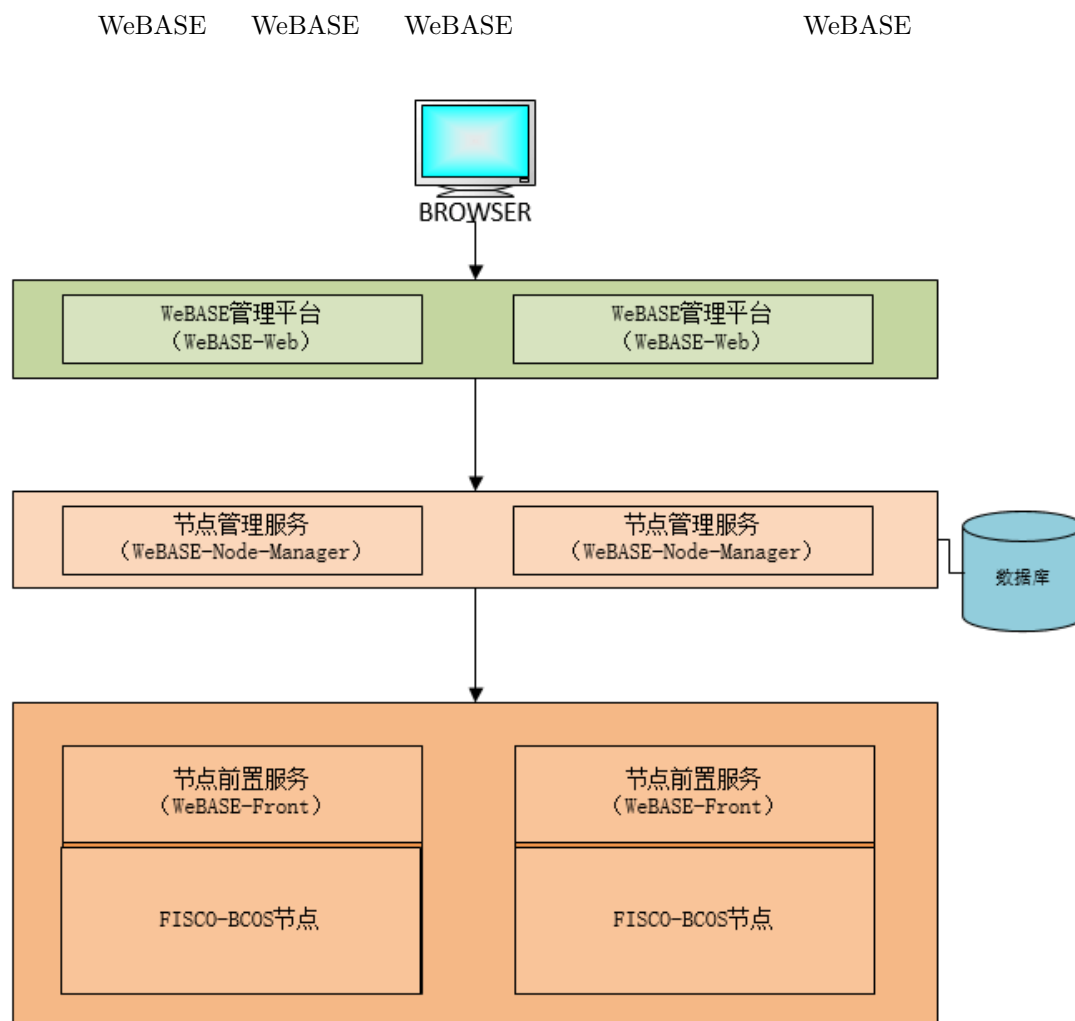
WeBASE WeBASE FISCO-BCOS

3.1.2

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.



3.1.3



3.2

3.2.1

FISCO-BCOS 2.0

1. `build_chain`
2. `FISCO-BCOS generator`
`build_chain`

3.2.2 WeBASE

WeBASE WeBASE

1

2

2.1

Spring Boot JAVA

2.2

Spring Boot JAVA

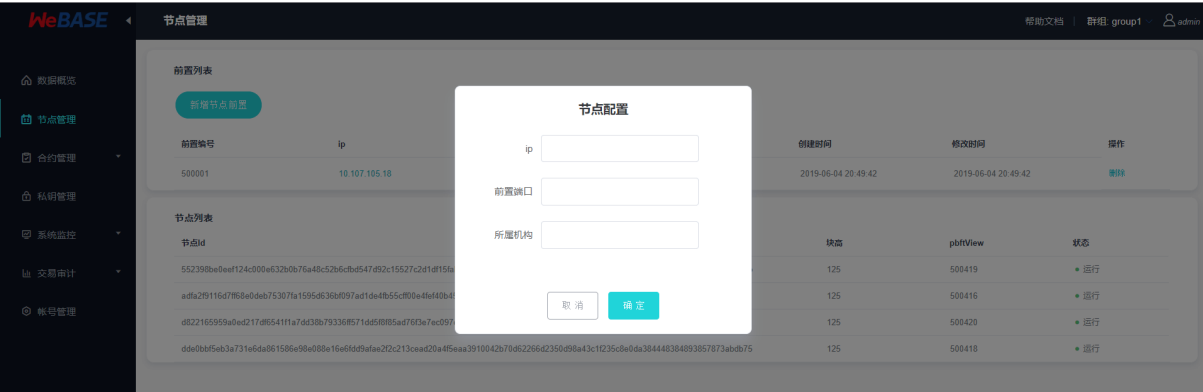
2.3 WeBASE

WeBASE `vue-cli` WeBASE

3.3

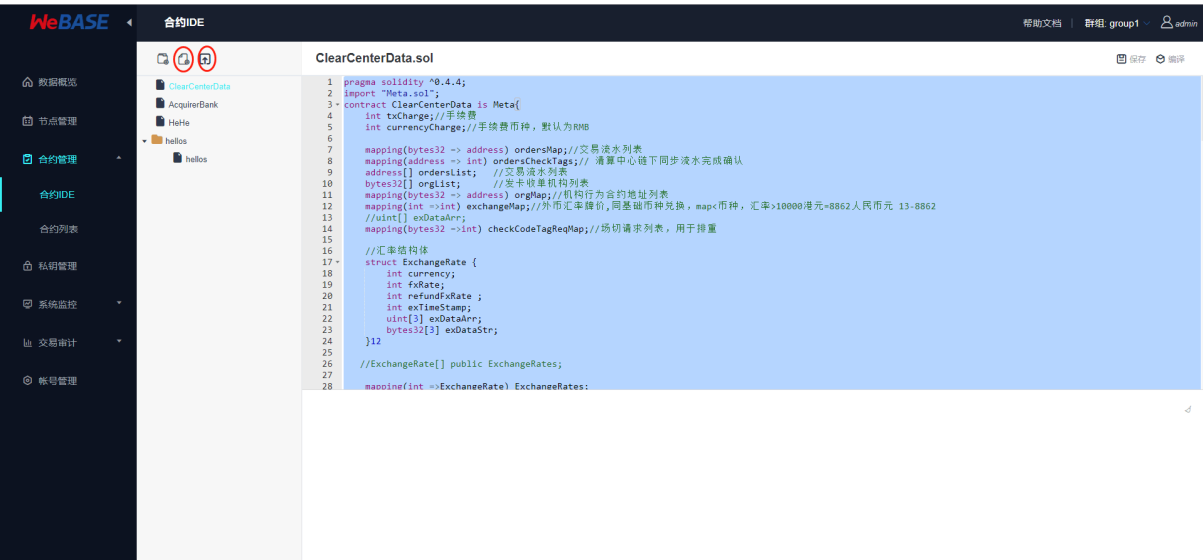
`nginx` WeBASE IP (`XXX.XXX.XXX.XXX:XXXX`) `admin` `Abcd1234`

3.3.1

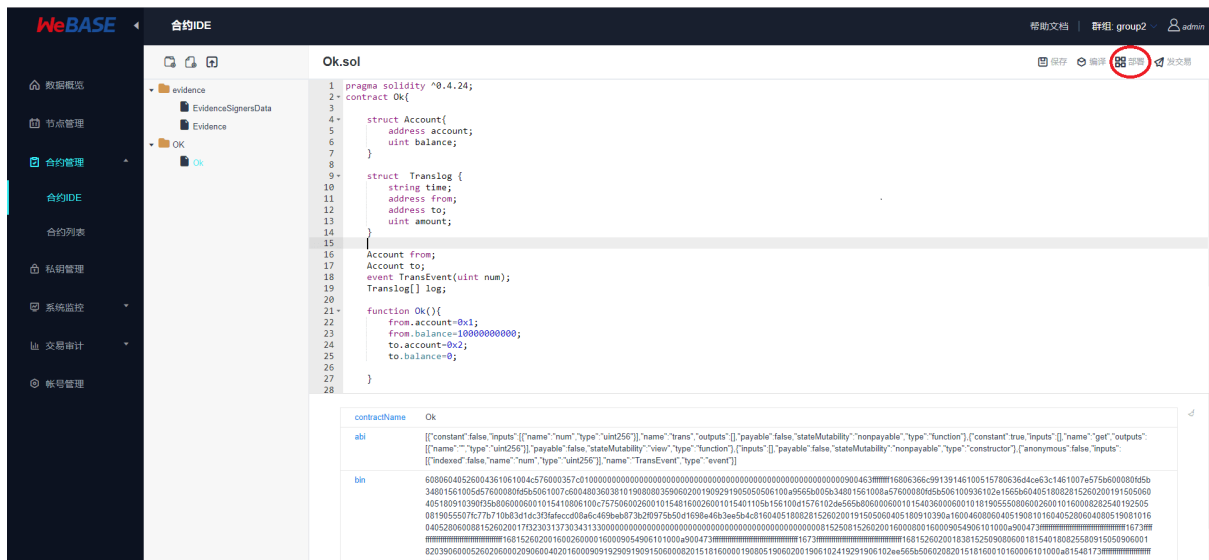


3.3.2

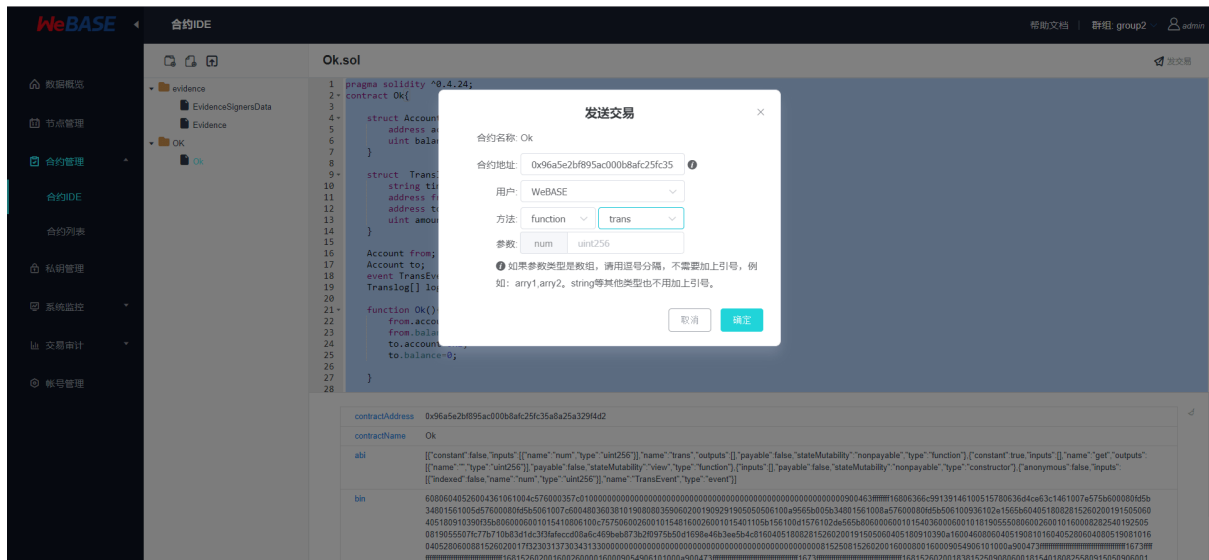
1



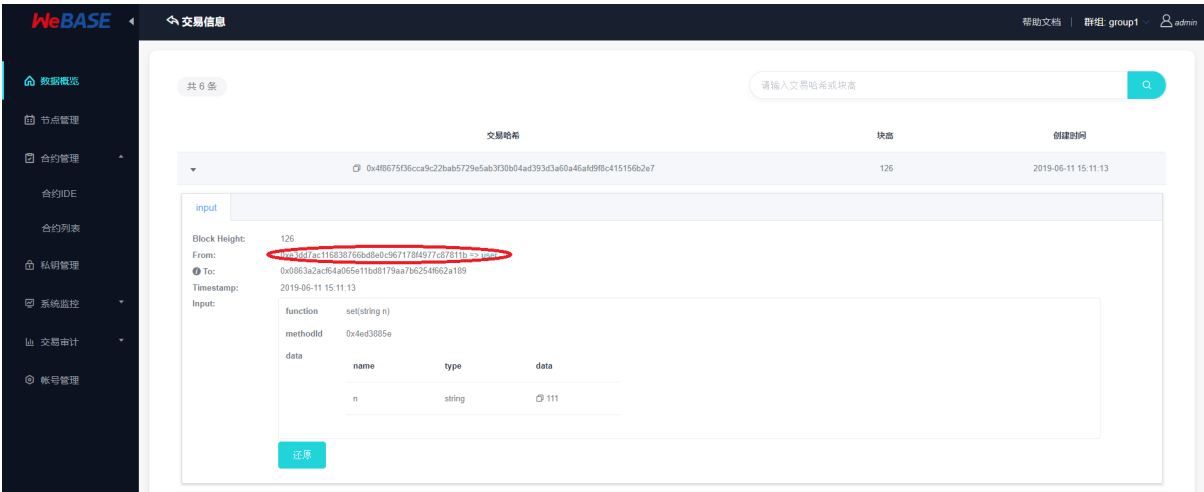
2



3



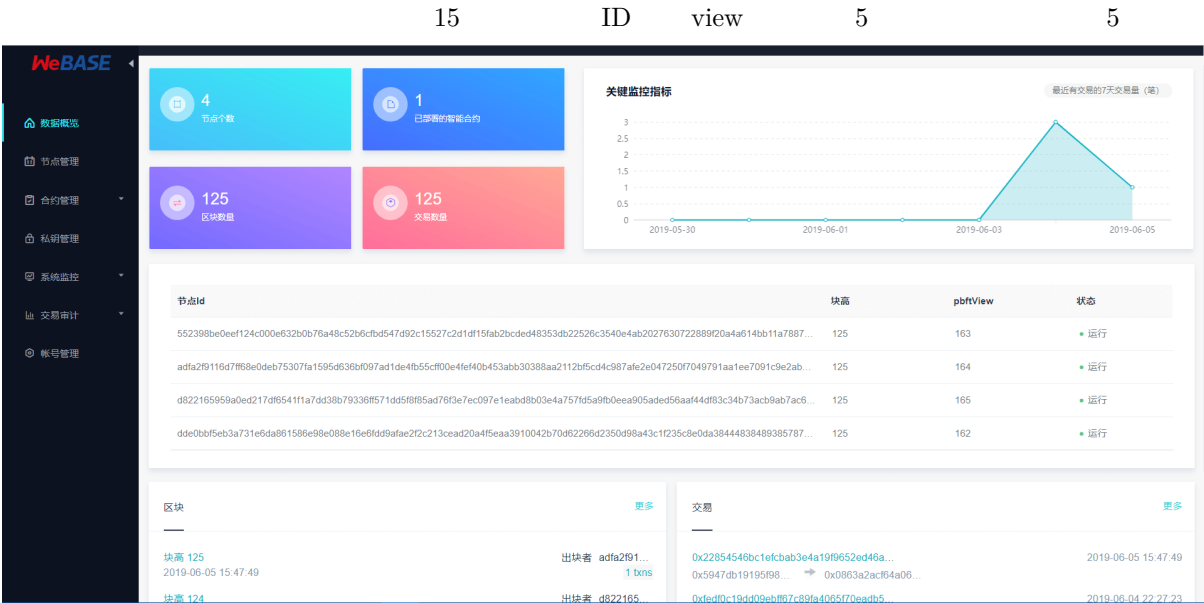
3.3.3



3.4

WeBASE

3.4.1



3.4.2

WeBASE

节点管理

帮助文档 | 群组: group2 | admin

数据概览

节点管理

合约管理

私钥管理

系统监控

交易审计

帐号管理

前置列表

新建节点前置

前置编号	ip	前置端口	所属机构	创建时间	修改时间	操作
500001	10.107.105.18	8881	aa	2019-06-04 20:49:42	2019-06-04 20:49:42	删除

节点列表

节点id	块高	pbftView	状态
56edfa160bcb09b9814ad31dcdf959eb3880314445db3deb92cedde97cdece210f713591a15f3a7168ba023290cbe78656b57c37157e6ec74a85182630bd61	18	1104770	运行
adfa20116d7068e0deb75307fa1595db30b097ad1de4b55cd00e44ef40b453abb30388aa2112b5cd4c907afe2e047250f7049791aa1ee7991c9e2ab7bb	18	1104767	运行
d822165959a0ed217d05411fa7d53b793368571dd59895ad76f3e7ecd97e1eabdb803e4a757d5a9b0eea905aded56aaf44d83c34b73ac9ab7ac65010	18	1104771	运行
e28f3d7f5bb2e21910a15639eac342cd46f78ebb0efe7c55c76514b0ba6b28ace8e47b4a25c9b39f763b79db047a250a19827b132f23298980f3ca9779c2564	18	1104769	运行

3.4.3

IDE IDE

WeBASE

合约IDE

帮助文档 | 群组: group2 | admin

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证据

EvidenceSignersData

Evidence

EvidenceSignersData.sol

1 pragma solidity ^0.4.4;
2 import "Evidence.sol";
3
4 contract EvidenceSignersData{
5 address[] signers;
6 event newEvidenceEvent(address addr);
7 function newEvidence(string evi, string info,string id,uint8 v, bytes32 r,bytes32 s)public returns(address)
8 {
9 Evidence evidence = new Evidence(evi, info, id, v, r, s, this, msg.sender);
10 newEvidenceEvent(evidence);
11 return evidence;
12 }
13
14 function EvidenceSignersData(address[] evidenceSigners)public{
15 for(uint i=0; i<evidenceSigners.length; ++i) {
16 signers.push(evidenceSigners[i]);
17 }
18 }
19
20 function verify(address addr)public constant returns(bool){
21 for(uint i=0; i<signers.length; ++i) {
22 if (addr == signers[i]){
23 {
24 return true;
25 }
26 }
27 }
28 return false;
29 }
30 }

3.4.4

用户查看

新增用户

请输入用户名或公钥地址

用户名	用户ID	用户描述	用户公钥地址信息	用户状态	操作
admin	700004		6c9407ba778cc5fe37787c7879...	正常	修改

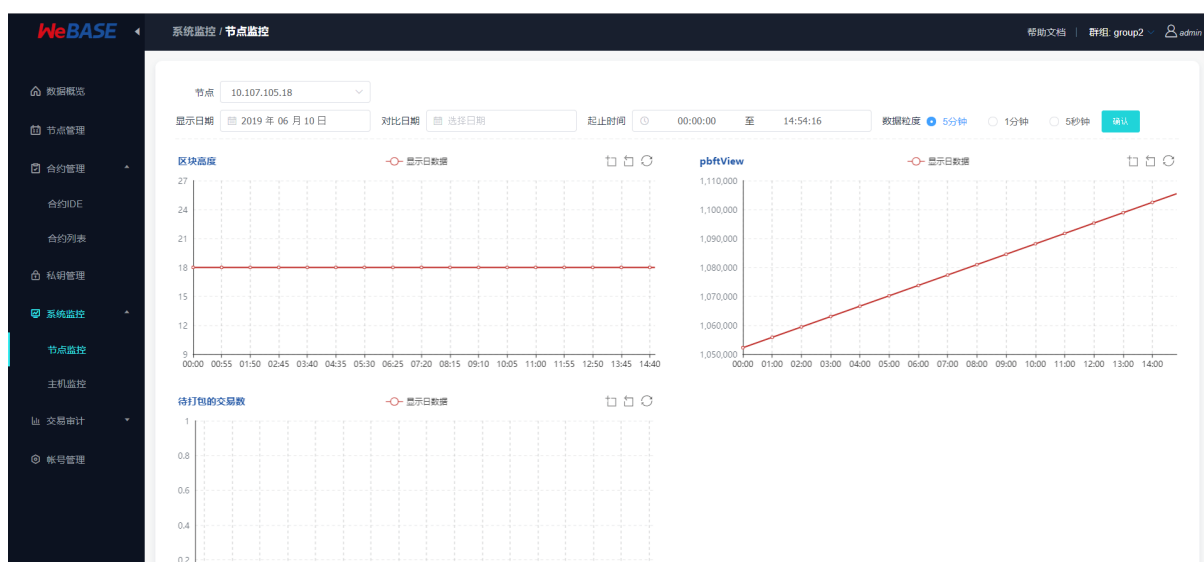
共 1 条 10条/页 < 1 > 前往 1 页

3.4.5

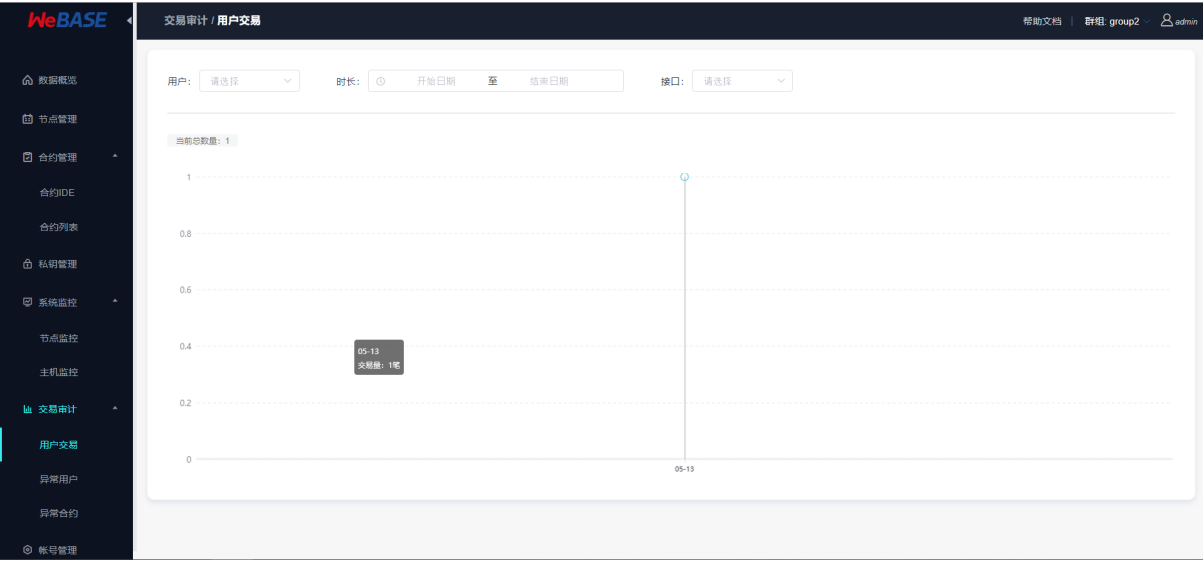
pbftview

CPU

IO



3.4.6



3.4.7

The screenshot shows the 'Account Management' page in the WeBASE interface. The sidebar on the left contains various management options. The main content area features a table with the following data:

帐号	角色	操作
admin	管理员	删除 修改

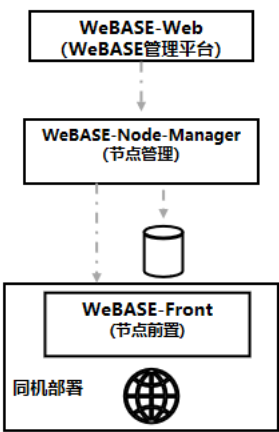
Below the table, the pagination bar indicates '共 1 条' (Total 1 item), '10条/页' (10 items per page), and '前往 1 页' (Go to page 1).

4.1

4.1.1

1.

WeBASE-Front FISCO-BCOS FISCO-BCOS 2.0 HTTP web3jsdk



:

- 1. front , http://{nodeIP}:8081/WeBASE-Front
 - 2. WeBASE-Node-Manager WeBASE-Web
- WeBASE-Front front

4.1.2

1.

2.

2.1

```
git clone https://github.com/WeBankFinTech/WeBASE-Front.git
```

2.2

```
sdk ca.crt node.crt node.key src/main/resources
```

```
cp ~/nodes/127.0.0.1/sdk/* ~/WeBASE-Front/src/main/resources
```

2.3

application.yml

```
spring:
  datasource:
    url: jdbc:h2:file:~/.h2/front_db;DB_CLOSE_ON_EXIT=FALSE // H2 ~/.h2/front_db,

constant:
  transMaxWait: 30 //
  monitorDisk: /home //
  keyServer: 127.0.0.1:8082 // ( WeBASE-Bode-Manager ) IP front
```

application.yml sdk

```
sdk:
  ip: 127.0.0.1 // ip ip ip
  channelPort: 20200 //
```

2.4

WeBASE-Front

```
chmod +x ./gradlew
./gradlew build -x test
```

WeBASE-Front dist

2.5

```
cd dist
```

```
: sh start.sh
: sh stop.sh
: sh status.sh
```

:

```
chmod + *.sh
dos2unix *.sh
```

2.6

```
cd dist
```

```
tail -f log/WeBASE-Front.log
web3 tail -f log/web3sdk.log
```

2.7

<http://{nodeIP}:8081/WeBASE-Front>

4.1.3

1.

1.1. abi

abi abi

URL

<http://localhost:8081/WeBASE-Front/contract/abiInfo>

HTTP POST

1

2

```
{
  "groupId": 1,
  "contractName": "HelloWorld",
  "address": "0x31b26e43651e9371c88af3d36c14cfd938baf4fd",
  "contractBin": "608060405234801561001057600080fd5b5060405161031d38038061031d8339810180",
  "abiInfo": [
    {"inputs": [{"type": "string", "name": "n"}], "constant": false, "name": "set",
    "outputs": [], "payable": false, "type": "function"},
    {"inputs": [], "constant": true, "name": "get", "outputs": [{"type": "string",
    "name": ""}], "payable": false, "type": "function"},
    {"inputs": [], "constant": false, "name": "HelloWorld", "outputs": [],
    "payable": false, "type": "function"}
  ]
}
```

1

1.2.

URL

<http://localhost:8081/WeBASE-Front/contract/deploy>

HTTP POST

1

2

```
{
  "user": 700001,
  "contractName": "HelloWorld",
  "abiInfo": [],
  "bytecodeBin": "",
  "funcParam": []
}
```

1

```
{
  "0x60aac015d5d41adc74217419ea77815ecb9a2192"
}
```

1.3. `cns`

URL

`http://localhost:8081/WeBASE-Front/contract/cns?groupId={groupId}&name={name}&version={version}`

HTTP POST

1.

2 `http://localhost:8081/WeBASE-Front/contract/cns?groupId=1&name=HelloWorld&version=2`

1

```
{
  "0x31b26e43651e9371c88af3d36c14cfd938baf4fd"
}
```

1.4. `java`

`abi java`

URL

`http://localhost:8081/WeBASE-Front/contract/compile-java`

HTTP POST


```
{
  "id": 1,
  "contractPath": "/",
  "contractName": "HeHe",
  "contractStatus": 1,
  "groupId": 1,
  "contractSource": "cHJhZ21hIHNvbGlkaXR5IF4wLjQuMjsKCmICB9Cn0=",
  "contractAbi": "[{\"payable\":false,\"stateMutability\":\"nonpayable\", \"type\": \"constructor\"}]\"",
  "contractBin": "60806040526004361061004c5760003569b80029",
  "bytecodeBin": "608060405234801561001057600080fd5b506029",
  "contractAddress": null,
  "deployTime": null,
  "description": null,
  "createTime": "2019-06-10 11:48:51",
  "modifyTime": "2019-06-10 15:31:29"
}
```

1.6.

URL

`http://localhost:8081/WeBASE-Front/contract/{groupId}/{contractId}`

HTTP DELETE

1

2 `http://localhost:8081/WeBASE-Front/contract/1/1`

1

2

```
{
  "code": 0,
  "message": "success",
  "data": null
}
```

1.7.

URL

`http://localhost:8081/WeBASE-Front/contract/contractList`

HTTP POST

1

2

```
{
  "groupId": "1",
  "pageNumber": 0,
  "pageSize": 10,
  "contractName": "",
  "contractAddress": "",
  "contractStatus": 2
}
```

1

2

```
{
  "code": 0,
  "message": "success",
  "data": [
    {
      "id": 2,
      "contractPath": "/",
      "contractName": "HeHe",
      "contractStatus": 1,
      "groupId": 1,
      "contractSource": "cHJhZ21hIHNvbGlkaXR5IICB9Cn0=",
      "contractAbi": "",
      "contractBin": "",
      "bytecodeBin": null,
      "contractAddress": null,
      "deployTime": null,
      "description": null,
      "createTime": "2019-06-10 16:42:50",
      "modifyTime": "2019-06-10 16:42:52"
    }
  ],
}
```

```
"totalCount": 1
}
```

2.

2.1.

URL

`http://localhost:8081/WeBASE-Front/privateKey?useAes={useAes}&userName={userName}`

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/privateKey?useAes=false&userName=test`

1

```
{
  "publicKey":
    ↪ "1c7073dc185af0644464b178da932846666a858bc492450e9e94c77203428ed54e2ce45679dbb36bfed714dbe055a215dc1aaf4a75fa
    ↪ ",
  "privateKey": "008cf98bd0f37fb0984ab43ed6fc2dcdf58811522af7e4a3bedbe84636a79a501c",
  "address": "0x2e8ff65fb1b2ce5b0c9476b8f8beb221445f42ee"
}
```

2.2.

URL

`http://localhost:8081/WeBASE-Front/privateKey/import?privateKey={privateKey}&useAes={useAes}`

HTTP GET

1

2

```
http://localhost:8081/WeBASE-Front/privateKey/import?privateKey=
008cf98bd0f37fb0984ab43ed6fc2dcdf58811522af7e4a3bedbe84636a79a501c&useAes=false
```

1

```
{
  "publicKey":
  ↪ "1c7073dc185af0644464b178da932846666a858bc492450e9e94c77203428ed54e2ce45679dbb36bfed714dbe055a215dc1aaf4a75fa
  ↪ ",
  "privateKey": "008cf98bd0f37fb0984ab43ed6fc2dcdf58811522af7e4a3bedbe84636a79a501c",
  "address": "0x2e8ff65fb1b2ce5b0c9476b8f8beb221445f42ee"
}
```

3. web3

3.1.

URL

```
http://localhost:8081/WeBASE-Front/{groupId}/web3/blockNumber
```

HTTP GET

1

2 `http://localhost:8081/WeBASE-Front/1/web3/blockNumber`

3.2.

`http://localhost:8081/WeBASE-Front/1/web3/blockByNumber/{blockNumber}`

1.

<http://localhost:8081/WeBASE-Front/1/web3/blockByNumber/100>

1

4.1.

[illegible]

3.3. hash

hash

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/blockByHash/{blockHash}`

1

`http://localhost:8081/WeBASE-Front/1/web3/blockByHash/0xf27ff42d4be65329a1e7b11365e190086d92f9836168d0379e92642786db7ade`

[illegible]


```
        "publicKey": null,  
        "raw": null,  
        "r": null,  
        "s": null,  
        "v": 0,  
        "valueRaw": "0x0",  
        "gasPriceRaw": "0x1c9c380",  
        "gasRaw": "0x1c9c380",  
        "blockNumberRaw": "0x64",  
        "transactionIndexRaw": "0x0",  
        "nonceRaw": "0x2069170146129593df177e2c37f1b7fe74e2d0fda53dcbbca34a243d46e367a"  
      }  
    ],  
    "uncles": [],  
    "sealFields": null,  
    "gasUsedRaw": "0x1d8ce",  
    "totalDifficultyRaw": "0x65",  
    "numberRaw": "0x64",  
    "nonceRaw": null,  
    "sizeRaw": "0x47",  
    "gasLimitRaw": "0x77359400",  
    "timestampRaw": "0x16366bddafe",  
    "difficultyRaw": "0x1"  
  }  
}
```

3.4.

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/blockTransCnt/{blockNumber}`

HTTP GET

1.

2

`http://localhost:8081/WeBASE-Front/1/web3/blockTransCnt/100`

1

```
{  
  1  
}
```

```
}
```

3.5. PbftView

PbftView

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/pbftView`

HTTP GET

1.

2

`http://localhost:8081/WeBASE-Front/1/web3/pbftView`

1

```
{  
  160565  
}
```

3.6.

hash

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/transactionReceipt/{transHash}`

HTTP GET

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/clientVersion`

HTTP GET

1

1. `http://localhost:8081/WeBASE-Front/1/web3/clientVersion`

1

2

```
{
  "Build Time": "20190318 10:56:37",
  "Build Type": "Linux/g++/RelWithDebInfo",
  "FISCO-BCOS Version": "2.0.0-rc1",
  "Git Branch": "master",
  "Git Commit Hash": "2467ddf73b091bc8e0ee611ccee85db7989ad389"
}
```

3.9.

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/code/{address}/{blockNumber}`

HTTP GET

1

- 1.

`http://localhost:8081/WeBASE-Front/1/web3/code/0x00/1`

2

```
{  
  0x  
}
```

3.10.

URL

`http://localhost:8081/WeBASE-Front/{groupId}/transaction-total`

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/1/web3/transCnt/0x00/1`

1

2

```
{  
  "txSum": 125,  
  "blockNumber": 125,  
  "blockNumberRaw": "0x7d",  
  "txSumRaw": "0x7d"  
}
```

3.11. hash index

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/transByBlockHashAndIndex/{blockHash}/{tran`

HTTP GET

1

2

http://localhost:8081/WeBASE-Front/1/web3/consensusStatus

1

```
[
  {
    "accountType": 1,
    "allowFutureBlocks": true,
    "cfgErr": false,
    "connectedNodes": 3,
    "consensusedBlockNumber": 126,
    "currentView": 499824,
    "groupId": 1,
    "highestblockHash": "0x563d4ec57b597d5d81f0c1b0045c04e57ffebe3a02ff3fef402be56742dc8fd1",
    ↪",
    "highestblockNumber": 125,
    "leaderFailed": false,
    "max_faulty_leader": 1,
    "node index": 2,
    "nodeId":
    ↪"d822165959a0ed217df6541f1a7dd38b79336ff571dd5f8f85ad76f3e7ec097e1eabd8b03e4a757fd5a9fb0eea905aded56aaf44df83",
    ↪",
    "nodeNum": 4,
    "omitEmptyBlock": true,
    "protocolId": 264,
    "sealer.0":
    ↪"552398be0eef124c000e632b0b76a48c52b6cfbd547d92c15527c2d1df15fab2bcded48353db22526c3540e4ab2027630722889f20a4",
    ↪",
    "sealer.1":
    ↪"adfa2f9116d7ff68e0deb75307fa1595d636bf097ad1de4fb55cff00e4fef40b453abb30388aa2112bf5cd4c987afe2e047250f70497",
    ↪",
    "sealer.2":
    ↪"d822165959a0ed217df6541f1a7dd38b79336ff571dd5f8f85ad76f3e7ec097e1eabd8b03e4a757fd5a9fb0eea905aded56aaf44df83",
    ↪",
    "sealer.3":
    ↪"dde0bbf5eb3a731e6da861586e98e088e16e6fdd9afae2f2c213cead20a4f5eaa3910042b70d62266d2350d98a43c1f235c8e0da3844",
    ↪",
    "toView": 499824
  },
  [
    {
      "nodeId":
      ↪"552398be0eef124c000e632b0b76a48c52b6cfbd547d92c15527c2d1df15fab2bcded48353db22526c3540e4ab2027630722889f20a4",
      ↪",
      "view": 499823
    },
    {
      "nodeId":
      ↪"adfa2f9116d7ff68e0deb75307fa1595d636bf097ad1de4fb55cff00e4fef40b453abb30388aa2112bf5cd4c987afe2e047250f70497",
      ↪",
    }
  ]
]
```

```

        "view": 499820
      },
      {
        "nodeId":
↪ "d822165959a0ed217df6541f1a7dd38b79336ff571dd5f8f85ad76f3e7ec097e1eabd8b03e4a757fd5a9fb0eea905aded56aaf44df83",
↪ ",
        "view": 499824
      },
      {
        "nodeId":
↪ "dde0bbf5eb3a731e6da861586e98e088e16e6fdd9afae2f2c213cead20a4f5eaa3910042b70d62266d2350d98a43cf235c8e0da3844",
↪ ",
        "view": 499822
      }
    ],
    {
      "prepareCache_blockHash":
↪ "0x0000000000000000000000000000000000000000000000000000000000000000",
      "prepareCache_height": -1,
      "prepareCache_idx": "65535",
      "prepareCache_view": "9223372036854775807"
    },
    {
      "rawPrepareCache_blockHash":
↪ "0x0000000000000000000000000000000000000000000000000000000000000000",
      "rawPrepareCache_height": -1,
      "rawPrepareCache_idx": "65535",
      "rawPrepareCache_view": "9223372036854775807"
    },
    {
      "committedPrepareCache_blockHash":
↪ "0x15cf36c1f15572c448f7d4295958972e6b876deef319c532b8f7d79fcbde072f",
      "committedPrepareCache_height": 125,
      "committedPrepareCache_idx": "1",
      "committedPrepareCache_view": "62209"
    },
    {
      "signCache_cachedSize": "0"
    },
    {
      "commitCache_cachedSize": "0"
    },
    {
      "viewChangeCache_cachedSize": "0"
    }
  ]

```

3.14.

pbftview

URL

<http://localhost:8081/WeBASE-Front/{groupId}/web3/nodeHeartBeat>

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/1/web3/getNodeStatusList`

1

```
{  
  "blockNumber": 1,  
  "pbftView": 1232  
}
```

3.15.

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/groupList`

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/1/web3/groupList`

1

```
[  
  "1",  
  "2"  
]
```

3.16.

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/groupPeers`

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/1/web3/groupPeers`

1

```
[  
  ↪ "d822165959a0ed217df6541f1a7dd38b79336ff571dd5f8f85ad76f3e7ec097e1eabd8b03e4a757fd5a9fb0eea905aded56aaf44df83",  
  ↪ "  
  ↪ "adfa2f9116d7ff68e0deb75307fa1595d636bf097ad1de4fb55cff00e4fef40b453abb30388aa2112bf5cd4c987afe2e047250f70497",  
  ↪ "  
  ↪ "552398be0eef124c000e632b0b76a48c52b6cfbd547d92c15527c2d1df15fab2bcded48353db22526c3540e4ab2027630722889f20a4",  
  ↪ "  
  ↪ "dde0bbf5eb3a731e6da861586e98e088e16e6fdd9afae2f2c213cead20a4f5eaa3910042b70d62266d2350d98a43cf235c8e0da3844",  
  ↪ "  
]
```

3.17.

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/observerList`

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/1/web3/observerList`

1

```
[
  ↪ "d822165959a0ed217df6541f1a7dd38b79336ff571dd5f8f85ad76f3e7ec097e1eabd8b03e4a757fd5a9fb0eea905aded56aaf44df83
  ↪ "
]
```

3.18. pbftview

top

pbftview

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/pbftView`

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/1/web3/pbftView`

1

859

3.19. P2P

P2P

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/peers`

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/1/web3/peers`

1

```
[
  {
    "ipandPort": "127.0.0.1:30301",
    "IPAndPort": "127.0.0.1:30301",
    "NodeID":
    ↪"adfa2f9116d7ff68e0deb75307fa1595d636bf097ad1de4fb55cff00e4fef40b453abb30388aa2112bf5cd4c987afe2e047250f70497
    ↪",
    "Topic": []
  },
  {
    "ipandPort": "127.0.0.1:57678",
    "IPAndPort": "127.0.0.1:57678",
    "NodeID":
    ↪"e28f3d7f5b82e21918a15639eac342dcf678ebb0efe7c65c76514b0ba6b28ace8e47b4a25c9b3f9763b79db847e250a19f827b132f23
    ↪",
    "Topic": []
  },
  {
    "ipandPort": "127.0.0.1:57608",
    "IPAndPort": "127.0.0.1:57608",
    "NodeID":
    ↪"dde0bbf5eb3a731e6da861586e98e088e16e6fdd9afae2f2c213cead20a4f5eaa3910042b70d62266d2350d98a43c1f235c8e0da3844
    ↪",
  }
]
```

```

    "Topic": [],
  },
  {
    "ipandPort": "127.0.0.1:57616",
    "IPAndPort": "127.0.0.1:57616",
    "NodeID":
    ↪ "552398be0eef124c000e632b0b76a48c52b6cfbd547d92c15527c2d1df15fab2bcded48353db22526c3540e4ab2027630722889f20a4",
    ↪ ",
    "Topic": [],
  },
  {
    "ipandPort": "127.0.0.1:57670",
    "IPAndPort": "127.0.0.1:57670",
    "NodeID":
    ↪ "56edfaf60bcb09b9814ad31dcd959eb388f0314445db3deb92cedde97c0ecec210f713591a15f3a7168ba023290cfbe78656b57c3715",
    ↪ ",
    "Topic": []
  }
]

```

3.20.

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/pending-transactions-count`

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/1/web3/pending-transactions-count`

1

0

3.21.

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/sealerList`

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/1/web3/sealerList`

1

```
[
  ↪ "d822165959a0ed217df6541f1a7dd38b79336ff571dd5f8f85ad76f3e7ec097e1eabd8b03e4a757fd5a9fb0eea905aded56aaf44df83",
  ↪ ",
  ↪ "adfa2f9116d7ff68e0deb75307fa1595d636bf097ad1de4fb55cff00e4fef40b453abb30388aa2112bf5cd4c987afe2e047250f70497",
  ↪ ",
  ↪ "552398be0eef124c000e632b0b76a48c52b6cfbd547d92c15527c2d1df15fab2bcded48353db22526c3540e4ab2027630722889f20a4",
  ↪ ",
  ↪ "dde0bbf5eb3a731e6da861586e98e088e16e6fdd9afae2f2c213cead20a4f5eaa3910042b70d62266d2350d98a43c1f235c8e0da3844",
  ↪ "
]
```

3.22. /

hash

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/search?input={inputValue}`

HTTP GET


```

],
"uncles": null,
"sealFields": null,
"nonceRaw": null,
"numberRaw": "0x1",
"difficultyRaw": null,
"totalDifficultyRaw": null,
"sizeRaw": null,
"gasLimitRaw": "0x0",
"gasUsedRaw": "0x0",
"timestampRaw": "0x16a969296df"
}

```

3.23.

URL

`http://localhost:8081/WeBASE-Front/{groupId}/web3/syncStatus`

HTTP GET

1

2

`http://localhost:8081/WeBASE-Front/1/web3/syncStatus`

1

```

{
  "blockNumber": 126,
  "genesisHash": "0xed3350d191d23cbc609c98e920baa583403b9a02fa934df868e7f425cd72f5c3",
  "isSyncing": false,
  "latestHash": "0x49ca6eb004f372c71ed900ec6992582cd107e4f3ea36aaa5a0a78829ebef1f14",
  "nodeId":
  ↪ "d822165959a0ed217df6541f1a7dd38b79336ff571dd5f8f85ad76f3e7ec097e1eabd8b03e4a757fd5a9fb0eea905aded56aaf44df83",
  ↪ ",
  "peers": [
    {
      "blockNumber": 126,
      "genesisHash": "0xed3350d191d23cbc609c98e920baa583403b9a02fa934df868e7f425cd72f5c3
      ↪ ",
      "latestHash": "0x49ca6eb004f372c71ed900ec6992582cd107e4f3ea36aaa5a0a78829ebef1f14",
      "nodeId":
      ↪ "552398be0eef124c000e632b0b76a48c52b6cfbd547d92c15527c2d1df15fab2bcded48353db22526c3540e4ab2027630722889f20a4",
      ↪ "
    }
  ]
}

```

```
    },
    {
      "blockNumber": 126,
      "genesisHash": "0xed3350d191d23cbc609c98e920baa583403b9a02fa934df868e7f425cd72f5c3
↪",
      "latestHash": "0x49ca6eb004f372c71ed900ec6992582cd107e4f3ea36aaa5a0a78829ebef1f14",
      "nodeId":
↪"adfa2f9116d7ff68e0deb75307fa1595d636bf097ad1de4fb55cff00e4fef40b453abb30388aa2112bf5cd4c987afe2e047250f70497
↪"
    },
    {
      "blockNumber": 126,
      "genesisHash": "0xed3350d191d23cbc609c98e920baa583403b9a02fa934df868e7f425cd72f5c3
↪",
      "latestHash": "0x49ca6eb004f372c71ed900ec6992582cd107e4f3ea36aaa5a0a78829ebef1f14",
      "nodeId":
↪"dde0bbf5eb3a731e6da861586e98e088e16e6fdd9afae2f2c213cead20a4f5eaa3910042b70d62266d2350d98a43c1f235c8e0da3844
↪"
    }
  ],
  "protocolId": 265,
  "txPoolSize": "0"
}
```

3.24.

hash

URL

http://localhost:8081/WeBASE-Front/{groupId}/web3/transaction/{transHash}

HTTP GET

1

2

```
http://localhost:8081/WeBASE-Front/1/web3/transaction/
↪0x4145b921309fcaa92b05b782e0181d671b8e68fc6d61d939358ed558fa3489c9
```

1

```
{
  "hash": "0x4145b921309fcaa92b05b782e0181d671b8e68fc6d61d939358ed558fa3489c9",
  "nonce": 1.47418536037145E+75,
```



```
{  
  "transactionHash": "0x4145b921309fcaa92b05b782e0181d671b8e68fc6d61d939358ed558fa3489c9",  
  "transactionIndex": 0,  
  "blockHash": "0x3875dbec6e0ad0790dc0a0e8535b7c286ef7cee4149e5b1494f5c65631a9e321",  
  "blockNumber": 1,  
  "cumulativeGasUsed": 0,  
  "gasUsed": 88537,  
  "contractAddress": "0x30905b39fa9f08822f342377d229d781ae8f9be6",  
  "root": null,  
  "status": "0x0",  
  "from": "0x33a41878e78fb26735bf425f9328990e3a1a89df",  
  "to": "0x0000000000000000000000000000000000",  
  "output": "0x",  
  "logs": [],  
  "logsBloom":  
    "0x00000000000000000000000000000000000000000000000000000000000000000000000000000000000"  
    ,  
  "transactionIndexRaw": "0x0",  
  "blockNumberRaw": "0x1",  
  "statusOK": true,  
  "cumulativeGasUsedRaw": null,  
  "gasUsedRaw": "0x159d9"  
}
```

4.

4.1.

URL

<http://localhost:8081/WeBASE-Front/performance/config>

HTTP GET

1

4.2.

URL

<http://localhost:8081/WeBASE-Front/performance>

HTTP GET

1

1

```
{
  [{"metricType": "cpu", "data": {"lineDataList": {"timestampList": [], "valueList": []},
    ↪ "contrastDataList": {"timestampList": [], "valueList": []}}}, {"metricType": "memory", "data": {
    ↪ "lineDataList": {"timestampList": null, "valueList": []}, "contrastDataList": {"timestampList
    ↪ ": null, "valueList": []}}}, {"metricType": "disk", "data": {"lineDataList": {"timestampList": null,
    ↪ "valueList": []}, "contrastDataList": {"timestampList": null, "valueList": []}}}, {"metricType":
    ↪ "txbps", "data": {"lineDataList": {"timestampList": null, "valueList": []}, "contrastDataList": {
    ↪ "timestampList": null, "valueList": []}}}, {"metricType": "rxbps", "data": {"lineDataList": {
    ↪ "timestampList": null, "valueList": []}, "contrastDataList": {"timestampList": null, "valueList": []}
    ↪ }}}}]
}
```

5.

5.1.

“constant”	“constant”	“constant”	hash	hash
------------	------------	------------	------	------

URL

<http://localhost:8081/WeBASE-Front/trans/handle>

HTTP POST

1

2

```
{
  "useAes ":false,
  "user ":700001,
  "contractName":"HelloWorld",
  "contractAddress":"dasdfav23rf213vbcadvadf3bcdf2fc23rqde",
  "funcName":"set",
  "funcParam":["Hi,Welcome!"],
  "groupId" : "1"
}
```

```
curl -l -H "Content-type: application/json" -X POST -d '{"contractName": "HelloWorld",
"funcName": "set", "funcParam": ["Hi,Welcome!"], "userId": 700001, "useAes": false, "contractAddress": "dasdfav23rf213vbcadvadf3bcdf2fc23rqde", "groupId": 1}' http://10.0.0.1:8081/WeBASE-Front/trans/handle
```

1.

a

```
{"Hi,Welcome!"}
```

b ()

```
{
  "code": 0,
  "message": "success",
  "data": {
    "blockHash":
    "0x1d8d8275aa116d65893291c140849be272dac1d4ca0a722f44404b2f2356c3",
    "gasUsed": 32798,
    "transactionIndexRaw": "0",
    "blockNumberRaw": "33",
    "blockNumber": 33,
    "contractAddress": "0x0000000000000000000000000000000000000000",
    "cumulativeGasUsed": 32798,
    "transactionIndex": 0,
    "gasUsedRaw": "0x801e",
    "logs": [],
    "cumulativeGasUsedRaw": "0x801e",
    "transactionHash": "0x0653a8e959771955330461456dd094a96d9071bfa31e6f43b68b30f10a85689c"
  }
}
```

6.

1.

4.1.4

1.

1.1 Java

1 java

```
mkdir /software
tar -zxvf jdkXXX.tar.gz /software/
```

2

```
export JAVA_HOME=/software/jdk1.8.0_121
export PATH=$JAVA_HOME/bin:$PATH
export CLASSPATH=.:$JAVA_HOME/lib/dt.jar:$JAVA_HOME/lib/tools.jar
```

1.2 Gradle

1 Gradle

```
mkdir /software/
unzip -d /software/ gradleXXX.zip
```

2

```
export GRADLE_HOME=/software/gradle-4.9
export PATH=$GRADLE_HOME/bin:$PATH
```

2.

- 1 shell permission denied
 chmod +x
- 2: eclipse

```
...
/data/temp/WeBASE-Front/src/main/java/com/webank/webase/front/performance/PerformanceService.
↪ java:167: error: cannot find symbol
    log.info("begin sync performance");
    ^
symbol:   variable log
location: class PerformanceService
Note: /data/temp/WeBASE-Front/src/main/java/com/webank/webase/front/contract/CommonContract.
↪ java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
Note: Some input files use unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
100 errors

> Task :compileJava FAILED

FAILURE: Build failed with an exception.
...
```

Lombok build.gradle

```
//annotationProcessor 'org.projectlombok:lombok:1.18.6'
```

- 3: front
 http://{ip}:{port}/WeBASE-Front/8081/1/web3/refresh

4.2

4.2.1

1.

WeBASE-Node-Manager web

4.2.2

1.

2.

-
-

3.

```
git clone https://github.com/WeBankFinTech/WeBASE-Node-Manager.git
```

4.

```
cd WeBASE-Node-Manager
```

WeBASE-Node-Manager

```
gradle build -x test
Gradle          ./gradlew build -x test
```

WeBASE-Node-Manager dist

5.

5.1

```
# MySQL:
mysql -u ${your_db_account} -p${your_db_password} mysql -u root -p123456
#
CREATE DATABASE IF NOT EXISTS {your_db_name} DEFAULT CHARSET utf8 COLLATE utf8_general_ci;
```

5.2

```
cd dist/script
```

```
sed -i "s/fisco-bcos-data/${your_db_name}/g" webase.sh
sed -i "s/defaultAccount/${your_db_account}/g" webase.sh
sed -i "s/defaultPassword/${your_db_password}/g" webase.sh
```

root

```
sed -i "s/defaultAccount/root/g" webase.sh
```

5.3

```
bash webase.sh ${dbIP} ${dbPort}
```

```
bash webase.sh 127.0.0.1 3306
```

6.

6.1

```
cd dist/conf
```

```
WeBASE-Node-Manager sed -i "s/8080/${your_server_port}/g" application.yml
IP sed -i "s/127.0.0.1/${your_db_ip}/g" application.yml
sed -i "s/3306/${your_db_port}/g" application.yml
sed -i "s/fisco-bcos-data/${your_db_name}/g" application.yml
sed -i "s/defaultAccount/${your_db_account}/g" application.yml
sed -i "s/defaultPassword/${your_db_password}/g" application.yml
```

6.2

```
cd dist
```

```
bash start.sh
```

```
bash stop.sh
```

```
bash serverStatus.sh
```

6.3

```
cd dist/logs
```

```
tail -f WeBASE-Node-Manager.log    tail -f WeBASE-Node-Manager-error.log
```

4.2.3

1

1.1

1.1.1

- HTTP
- /front/new
- POST
- Content-type: application/json
- JSON

1.1.2

1

2

<http://127.0.0.1:8080/WeBASE-Node-Manager/front/new>

```
{
  "frontIp": "127.0.0.1",
  "frontPort": "8081",
  "agency": "abc"
}
```

1.1.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": {
    "frontId": 500001,
    "frontIp": "127.0.0.1",
    "frontPort": 8181,
    "agency": "abc",
    "createTime": "2019-02-14 17:47:00",
    "modifyTime": "2019-03-15 11:14:29"
  }
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

1.2

1.2.1

- HTTP
- /front/find?frontId={frontId}&groupId={groupId}
- GET
- JSON

1.2.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/front/find`

1.2.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": [
    {
      "frontId": 500001,
      "frontIp": "10.107.105.18",
      "frontPort": 8081,
      "agency": "aa",
      "createTime": "2019-06-04 20:49:42",
      "modifyTime": "2019-06-04 20:49:42"
    }
  ],
  "totalCount": 1
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

1.3

1.3.1

- HTTP
- /front/{frontId}
- DELETE
- Content-type: application/json
- JSON

1.3.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/front/{frontId}`

1.3.3

1

2

-

```
{
  "code": 0,
  "data": {},
  "message": "Success"
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

2

2.1

2.1.1

- HTTP
- /transaction/transList/{groupId}/{pageNumber}/{pageSize}?
transactionHash={transactionHash}&blockNumber={blockNumber}
- GET
- JSON

2.1.2

1

2

```
http://127.0.0.1:8080/WeBASE-Node-Manager/transaction/transList/300001/1/10?
↪transactionHash=0x303daa78ebe9e6f5a6d9761a8eab4bf5a0ed0b06c28764488e4716de42e1df01
```

2.1.3

1

2

•

```
{
  "code": 0,
  "message": "success",
  "data": [
    {
      "transHash": "0x303daa78ebe9e6f5a6d9761a8eab4bf5a0ed0b06c28764488e4716de42e1df01",
      "groupId": 300001,
      "blockNumber": 133,
      "statisticsFlag": 1,
      "createTime": "2019-03-15 09:36:17",
      "modifyTime": "2019-03-15 09:36:17"
    }
  ],
  "totalCount": 1
}
```

•

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

2.2

2.2.1

- HTTP
- /transaction/transactionReceipt/{groupId}/{transHash}
- GET
- JSON

2.2.2

1

2

```
http://127.0.0.1:8080/WeBASE-Node-Manager/transaction/transactionReceipt/1/  
↔Oxda879949df6b5d75d2d807f036b461e0cebcc1abaccac119c9a282d3941a4818
```

2.2.3

1

2

•

```
{  
  "code": 0,  
  "message": "success",  
  "data": {  
    "transactionHash": "Oxda879949df6b5d75d2d807f036b461e0cebcc1abaccac119c9a282d3941a4818"  
↔",  
    "transactionIndex": 0,  
    "blockHash": "0x739853061c6c87ed691c0ee6f938589f7e2e442d42b16f582b353a475359b91d",  
    "blockNumber": 4311,  
    "cumulativeGasUsed": 0,  
    "gasUsed": 32940,  
    "contractAddress": "0x0000000000000000000000000000000000",  
    "status": "0x0",  
    "from": "0xe4bc056009daed8253008e03db6f62d93ccfacea",  
    "to": "0x522eda3fbe88c07025f1db3f7dc7d9836af95b3f",  
    "output": "0x",  
    "logs": [],  
    "logsBloom": "0x0000000000000000000000000000000000",  
    "blockNumberRaw": "0x10d7",  
    "transactionIndexRaw": "0x0",  
    "statusOK": true,  
    "gasUsedRaw": "0x80ac"  
  }  
}
```

•

```
{  
  "code": 102000,  
  "message": "system exception",  
  "data": {}  
}
```

2.3 hash

2.3.1

- HTTP
- /transaction/transInfo/{groupId}/{transHash}
- GET
- JSON

2.3.2

1

2

```
http://127.0.0.1:8080/WeBASE-Node-Manager/transaction/transInfo/1/
↪0xda879949df6b5d75d2d807f036b461e0cebcc1abaccac119c9a282d3941a4818
```

2.3.3

1

2

•

```
{
  "code": 0,
  "message": "success",
  "data": {
    "hash": "0xda879949df6b5d75d2d807f036b461e0cebcc1abaccac119c9a282d3941a4818",
    "nonce": "600264747827990445399299219738839026203774909117379671331964756256186263529",
    "blockHash": "0x739853061c6c87ed691c0ee6f938589f7e2e442d42b16f582b353a475359b91d",
    "blockNumber": 4311,
    "transactionIndex": 0,
    "from": "0xe4bc056009daed8253008e03db6f62d93ccfacea",
    "to": "0x522eda3fbe88c07025f1db3f7dc7d9836af95b3f",
    "value": 0,
    "gasPrice": 100000000,
    "gas": 100000000,
    "input": "0x4ed3885e0000000000000000",
    "v": 0,
    "nonceRaw": "0x153bce0f26461030fe5189385b9c3e84336b007769a3849524ca3f4af7d67e9",
    "blockNumberRaw": "0x10d7",
    "transactionIndexRaw": "0x0",
    "gasPriceRaw": "0x5f5e100",
    "gasRaw": "0x5f5e100"
  }
}
```

•

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

3

3.1

3.1.1

- HTTP
- /account/accountInfo
- post
- Content-type: application/json
- JSON

3.1.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/account/accountInfo`

```
{
  "account": "testAccount",
  "accountPwd": "3f21a8490cef2bfb60a9702e9d2ddb7a805c9bd1a263557dfd51a7d0e9dfa93e",
  "roleId": 100001
}
```

3.1.3

1

2

•

```
{
  "code": 0,
  "message": "success",
  "data": {
    "account": "testAccount",
    "roleId": 100001,
    "roleName": "visitor",
    "roleNameZh": " ",
    "loginFailTime": 0,
    "accountStatus": 1,
    "description": null,
    "createTime": "2019-03-04 15:11:44",
    "modifyTime": "2019-03-04 15:11:44"
  }
}
```

•

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

3.2

3.2.1

- HTTP
- `/account/accountInfo`
- PUT
- Content-type: application/json
- JSON

3.2.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/account/accountInfo`

```
{
  "account": "testAccount",
  "accountPwd": "82ca84cf0d2ae423c09a214cee2bd5a7ac65c230c07d1859b9c43b30c3a9fc80",
  "roleId": 100001
}
```

3.2.3

1

2

•

```
{
  "code": 0,
  "message": "success",
  "data": {
    "account": "testAccount",
    "roleId": 100001,
    "roleName": "visitor",
    "roleNameZh": " ",
    "loginFailTime": 0,
    "accountStatus": 1,
    "description": null,
    "createTime": "2019-03-04 15:11:44",
    "modifyTime": "2019-03-04 15:11:44"
  }
}
```

•

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

3.3

3.3.1

- HTTP
- `/account/{account}`
- DELETE
- JSON

3.3.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/account/testAccount`

3.3.3

1

2

-

```
{
  "code": 0,
  "data": {},
  "message": "Success"
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

3.4

3.4.1

- HTTP
- : `/account/accountList/{pageNumber}/{pageSize}?account={account}`
- GET
- JSON

3.4.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/account/accountList/1/10?account=`

3.4.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": [
    {
      "account": "testAccount",
      "roleId": 100001,
      "roleName": "visitor",
      "roleNameZh": " ",
      "loginFailTime": 0,
      "accountStatus": 1,
      "description": null,
      "createTime": "2019-03-04 15:11:44",
      "modifyTime": "2019-03-04 15:18:47"
    },
    {
      "account": "admin",
      "roleId": 100000,
      "roleName": "admin",
      "roleNameZh": " ",
      "loginFailTime": 0,
      "accountStatus": 2,
      "description": null,
      "createTime": "2019-02-14 17:33:50",
      "modifyTime": "2019-02-14 17:45:53"
    }
  ],
  "totalCount": 2
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

3.5

3.5.1

- HTTP
- /account/passwordUpdate
- put
- Content-type: application/json
- JSON

3.5.2

1

2

<http://127.0.0.1:8080/WeBASE-Node-Manager/account/passwordUpdate>

```
{
  "oldAccountPwd": "dfdfgdg490cef2bfb60a9702erd2ddb7a805c9bd1arrewefd51a7d0etttfa93e ",
  "newAccountPwd": "3f21a8490cef2bfb60a9702e9d2ddb7a805c9bd1a263557dfd51a7d0e9dfa93e"
}
```

3.5.3

1

2

-

```
{
  "code": 0,
  "message": "success"
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

3.6

3.6.1

- HTTP
- /account/pictureCheckCode
- get
- Content-type: application/json
- JSON

3.6.2

1

2

<http://127.0.0.1:8080/WeBASE-Node-Manager/account/pictureCheckCode>

3.6.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": {
    "base64Image":
    ↪ "iVBORw0KGgoAAAANSUhEUgAAAJsAAAA8CAIAAAD+G1+NAAAC3E1EQVR42u3c004DMRAG4DkER6CFhoNwCgoq6DgQh0DiVJR0oUCKovWuPU97
    ↪ GnGb8g9PN7wbXSRReUtQpEIYoCURSIokAUBaIQTV2+P798r3mfnJbB69nXvmAnjdHm9+8ZgruNjI31mUQrvWPpPpeuH+43n2g9F0Jyr0JmiMp
    ↪ ff3F+mVENJHVDMeEUGB1W0mFGgLRhnVI9OL1QdZ58wzTnVIMcA3X3FXTQP6tjJ7dFuBjnm29JgXlGXbazoubcs63K23Jg$xu/
    ↪ MQXXpKd1IW56XQ42b7Z0oH/1IZfp9ff7YXCuJHvX709sj87Jb1kQ5Ichp/XpPySmlra9hvCJA13vr77qg8k0/
    ↪ h2idU4eaRJTTCXzRo9QtSu0kBu0jckQVriWqC7MIldnX6jD10fF25NwNUP679X50n+4qljH2rMBJvNYY5QefDrWspZ4xRSxj0qMyh1I+arhoq
    ↪ AlRL00J10gShcwyvVotKjjLGmD2vSOXptGc3J63iSaBFUUX+oDmVSilf4/
    ↪ nWieMHURLRwsomrUnhvcOVEDRW8tyIIkuj90tKmVUDSC01NUh9ozr2ZDdU+5jRPvIFHmEsUy3eVMeqP37jtwVk7uyCgkrCU5Vt0FcsW1/
    ↪ 2F4kCjnCLZxPqqIiHot/mmMPVKDNgXdRflnMso9I07Aqc/
    ↪ abl+PwM0sispvmaRZVL3ru3vmF7EkdT+NWUq0kr5F04V13U31iB0GL865UAV/Czj8X/
    ↪ t0UoxdhN9hyChqqQ7RpTghClEUiKJAFKIQBSPEF0aFKETX7cRsW1q6JyEoHh0qZABWfDqdnDPi5rGPSqf1HLK060BKIM701e0DRH1EIEtN2HY
    ↪ d/aH4oBfftm+5EiAAAAAE1FTkSuQmCC",
    "token": "eyJhbGciOiJIUzI1NiJ9.
    ↪ eyJqdGkiOiIzOGM0NjlnNC1kMTg3LTQyZDQyZWY1YS02OWU0OWM5MjMxNTkiLCJpYXQiOiJlNjAyNDY3MzksInN1YiI6ImU1RnoiLCJleHAiOi
    ↪ FjYRZJSaHfjv0_P4AjM06bno0ZJiu-AOSd09ikb-30M"
  }
}
```

•

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

3.7

3.7.1

- HTTP
- /account/login?checkCode={checkCode}
- get
- Content-type: application/json;token:{token}
- JSON

3.7.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/account/login?checkCode=aege

```
{
  "account": "admin",
  "accountPwd": "Abcd1234"
}
```

1.1.3

1

2

-

```
{
  "code": 0,
  "data": {
    "accountStatus": 2,
    "roleName": "admin",
    "account": "admin"
  },
  "message": "success"
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

4

4.1

4.1.1

- HTTP
- `:/block/blockList/{groupId}/{pageNumber}/{pageSize}}?pkHash={pkHash}&blockNumber={blockNumber}`
- GET
- JSON

4.1.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/block/blockList/300001/1/10?pkHash=`

4.1.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": [
```

```

    {
      "pkHash": "0x10fb8485eebffb2a0b0d4f22d58d5cd54df2ac53f974b6c731c954957f36dd7",
      "blockNumber": 127,
      "blockTimestamp": "2019-06-11 18:11:32",
      "transCount": 1,
      "sealerIndex": 2,
      "sealer":
↪ "552398be0eef124c000e632b0b76a48c52b6cfbd547d92c15527c2d1df15fab2bcded48353db22526c3540e4ab2027630722889f20a4
↪ ",
      "createTime": "2019-06-11 18:11:36",
      "modifyTime": "2019-06-11 18:11:36"
    }
  ],
  "totalCount": 1
}

```

-

```

{
  "code": 102000,
  "message": "system exception",
  "data": {}
}

```

4.2 hash

4.2.1

- HTTP
- `:/block/blockList/{groupId}/{pageNumber}/{pageSize}?pkHash={pkHash}&blockNumber={blockNumber}`
- GET
- JSON

4.2.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/block/blockByNumber/1/11`

4.2.3

1

2

-

```

{
  "code": 0,
  "message": "success",
  "data": {
    "number": 11,
    "hash": "0xeef574a136f1d5031ce7f5d4bbc19fa1a1b5736f38ec5687d43405a572219405",
    "parentHash": "0xca84147e343acb972dc9247727b920b5c081320bbe940f4e2b24363836dca4a1",
    "nonce": "0",

```



```
    "sealer": "0x0",
    "logsBloom": "0x00000000000000000000000000000000",
    "transactionsRoot": "0x68510be0e37b993874c6cb59170b87f01fc9672a162b30df7ea96cb026f3ab27
↪",
    "stateRoot": "0xa6e930f100c2f4a13816e57aede9b63f3b7d51d64148f4412d8a6efcb0fa9c79",
    "difficulty": 0,
    "totalDifficulty": 0,
    "extraData": [],
    "size": 0,
    "gasLimit": 0,
    "gasUsed": 0,
    "timestamp": "1551667286153",
    "gasLimitRaw": "0x0",
    "timestampRaw": "0x1694693d089",
    "gasUsedRaw": "0x0",
    "numberRaw": "0xb",
    "transactions": [
      {
        "hash": "0x30ab22a942a6545cfe46fd725e53311fbcfea655f9c0d1e198b83749f5d7bf9b",
        "nonce":
↪ "1224685724047484442779169279180691132123728860283320089873703663086305160417",
        "blockHash":
↪ "0xeef574a136f1d5031ce7f5d4bbc19fa1a1b5736f38ec5687d43405a572219405",
        "blockNumber": 11,
        "transactionIndex": 0,
        "from": "0x148947262ec5e21739fe3a931c29e8b84ee34a0f",
        "to": "0xdfb1684019f7f6ea2c41590ac55d29961de5deba",
        "value": 0,
        "gasPrice": 300000000,
        "gas": 300000000,
        "input":
↪ "0x66c9913900000000000000000000000000000000000000000000000000000004",
        "v": 0,
        "nonceRaw": "0x2b525c633f530fdd935428a58afcfbb533e4dd16f24eda6b6a860b63e6a2ce1
↪",
        "blockNumberRaw": "0xb",
        "transactionIndexRaw": "0x0",
        "gasPriceRaw": "0x11e1a300",
        "gasRaw": "0x11e1a300"
      }
    ]
  }
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

5

5.1

5.1.1

- HTTP
- /contract/contractList/{groupId}/{pageNumber}/{pageSize}

- POST
- JSON

5.1.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/contract/contractList`

5.1.3

1

2

•

```
{
  "code": 0,
  "message": "success",
  "data": [
    {
      "contractId": 200002,
      "contractPath": "hellos",
      "contractVersion": null,
      "contractName": "hellos",
      "contractStatus": 2,
      "groupId": 1,
      "contractType": 0,
      "contractSource": "cHJhZ21hIHNvbGlkaXgICAJbmFtZSA9IG47CiAgICB9Cn0=",
      "contractAbi": "[\"payable\":false,\"stateMutability\":\"nonpayable\", \"type\": \"\
↪ \"constructor\"}]\"",
      "contractBin":
↪ "60806040526004361061004c576000398de7e4ddf5fdc9ccbcfd44565fed695cd960b0029",
      "bytecodeBin": "608060405234801561001057600080004d4c",
      "deployTime": "2019-06-11 18:11:33",
      "description": null,
      "createTime": "2019-06-05 16:40:40",
      "modifyTime": "2019-06-11 18:11:33"
    }
  ],
  "totalCount": 1
}
```

•

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

5.2

5.2.1

- HTTP

- /contract/{contractId}
- GET
- JSON

5.2.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/contract/200001

5.2.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": {
    "contractId": 200002,
    "contractPath": "hellos",
    "contractVersion": null,
    "contractName": "hellos",
    "contractStatus": 2,
    "groupId": 1,
    "contractType": 0,
    "contractSource": "cHJhZ21hIHNvbGlkaXgICAJbmFtZSA9IG47CiAgICB9Cn0=",
    "contractAbi": "[\\"payable\\":false,\\"stateMutability\\":\\"nonpayable\\",\\"type\\":\\"
↪"constructor\\"}]\"",
    "contractBin":
↪"60806040526004361061004c576000398de7e4ddf5fdc9ccbcfd44565fed695cd960b0029",
    "bytecodeBin": "608060405234801561001057600080004d4c",
    "deployTime": "2019-06-11 18:11:33",
    "description": null,
    "createTime": "2019-06-05 16:40:40",
    "modifyTime": "2019-06-11 18:11:33"
  }
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

5.3

5.3.1

- HTTP
- /contract/deploy

- POST
- Content-type: application/json
- JSON

5.3.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/contract/deploy

```
{
  "groupId": "1",
  "contractBin": "60806040526004361061004c576000357c010000002269b80029",
  "bytecodeBin": "60806040523480156100105761146031c79ef057dd274c87bff322ea2269b80029",
  "contractAbi": "[]",
  "contractSource": "cHJhZ21hIHNvbGlkaXR5IF4wLlCAJbmFtZSA9IG47CiAgICB9Cn0=",
  "user": 700006,
  "contractName": "HeHe",
  "contractId": 200008,
  "contractPath": "Hi",
  "constructorParams": ["a"]
}
```

5.3.3

1

2

•

```
{
  "code": 0,
  "message": "success",
  "data": {
    "contractId": 200008,
    "contractPath": "Hi",
    "contractVersion": null,
    "contractName": "HeHe",
    "contractStatus": 2,
    "groupId": 1,
    "contractType": null,
    "contractSource": "cHJhZ21hIHNvbGlkaXR5IF4wLjQuM0=",
    "contractAbi": "[]",
    "contractBin": "60806040526004361061004c576000357c010274c87bff322ea2269b80029",
    "bytecodeBin": "608060405234801561001057629",
    "contractAddress": "0xa2ea2280b3a08a3ae2e1785dff09561e13915fb2",
    "deployTime": "2019-06-11 18:58:33",
    "description": null,
    "createTime": null,
    "modifyTime": null
  }
}
```

•

```
{
  "code": 102000,
```

```
"message": "system exception",
"data": {}
}
```

5.4

5.4.1

- HTTP
- /contract/transaction
- POST
- Content-type: application/json
- JSON

5.4.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/contract/transaction`

```
{
  "groupId": "300001",
  "contractBin": "6060604052600f8dee08980029",
  "bytecodeBin": null,
  "contractAbi": "[{\"constant\":false,\"inputs\":[{\"name\":\"num\",\"type\":\"uint256\"}],\"
  ↪name\":\"trans\",\"outputs\":[],\"payable\":false,\"type\":\"function\"}]",
  "contractSource": "cHJhZ21hIHNVbGlkaXR5IF4wLjQuMjQ==",
  "userId": 700001,
  "contractId": 200033
}
```

3 5.4

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": {}
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

5.5 bytecodeBin

5.2.1

- HTTP
- /contract/findByPartOfBytecodeBin
- GET
- JSON

5.2.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/contract/findByPartOfBytecodeBin

```
{
  "groupId": "300001",
  "partOfBytecodeBin": "abc123455dev"
}
```

5.2.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": {
    "contractId": 200002,
    "contractName": "Ok",
    "groupId": 2,
    "chainIndex": null,
    "contractType": 0,
    "contractSource": "cHJhZ21hIDQoNCgOKfQ==",
    "contractAbi": "[]",
    "contractBin": "60606040526000357c01000000000029",
    "bytecodeBin": "123455",
    "contractAddress": "0x19146d3a2f138aacb97ac52dd45dd7ba7cb3e04a",
    "deployTime": null,
    "contractVersion": "v6.0",
    "description": null,
    "createTime": "2019-04-15 21:14:40",
    "modifyTime": "2019-04-15 21:14:40"
  }
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
}
```

```
}  
  "data": {}  
}
```

6

6.1

6.1.1

- HTTP
- /chain/mointorInfo/{nodeId}?beginDate={beginDate}&endDate={endDate}&contrastBeginDate={contrastBeginDate}&gap={gap}
- GET
- JSON

6.1.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/chain/mointorInfo/500001?

gap=60&beginDate=2019-03-13T00:00:00&endDate=2019-03-13T14:34:22&contrastBeginDate=2019-03-13T00:00:00

6.1.3

1

2

-

```
{  
  "code": 0,  
  "message": "success",  
  "data": [  
    {  
      "metricType": "blockHeight",  
      "data": {  
        "lineDataList": {  
          "timestampList": [  
            1552406401042,  
            1552406701001  
          ],  
          "valueList": [  
            747309,  
            747309  
          ]  
        },  
        "contrastDataList": {  
          "timestampList": [  
            1552320005000,  
            1552320301001  
          ],  
          "valueList": [  
            null,  
            747309  
          ]  
        }  
      }  
    }  
  ]  
}
```

```

    ]
  }
},
{
  "metricType": "pbftView",
  "data": {
    "lineDataList": {
      "timestampList": null,
      "valueList": [
        118457,
        157604
      ]
    },
    "contrastDataList": {
      "timestampList": null,
      "valueList": [
        null,
        33298
      ]
    }
  }
}
]
}

```

-

```

{
  "code": 102000,
  "message": "system exception",
  "data": {}
}

```

6.2

6.2.1

- HTTP
- performance/ratio/{nodeId}?gap={gap}&beginDate={beginDate}&endDate={endDate}&contrastBeginDate={contrastBeginDate}
- GET
- JSON

6.2.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/performance/ratio/500001?
gap=1&beginDate=2019-03-15T00:00:00&endDate=2019-03-15T15:26:55&contrastBeginDate=2019-03-15T00:00:00

6.2.3

1

2


```
{
  "code": 0,
  "message": "success",
  "data": [
    {
      "metricType": "txbps",
      "data": {
        "lineDataList": {
          "timestampList": [
            1552406401042,
            1552406701001
          ],
          "valueList": [
            12.24,
            54.48
          ]
        },
        "contrastDataList": {
          "timestampList": [
            1552320005000,
            1552320301001
          ],
          "valueList": [
            22.24,
            24.48
          ]
        }
      }
    },
    {
      "metricType": "cpu",
      "data": {
        "lineDataList": {
          "timestampList": null,
          "valueList": [
            118457,
            157604
          ]
        },
        "contrastDataList": {
          "timestampList": null,
          "valueList": [
            null,
            33298
          ]
        }
      }
    }
  ]
}
```

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

7

7.1

7.1.1

- HTTP
- /monitor/userList/{groupId}
- GET
- JSON

7.1.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/monitor/userList/300001`

7.1.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": [
    {
      "userName": "SYSTEMUSER",
      "userType": 0,
      "groupId": null,
      "contractName": null,
      "contractAddress": null,
      "interfaceName": null,
      "transType": null,
      "transUnusualType": null,
      "transCount": null,
      "transHashs": null,
      "transHashLastest": null,
      "createTime": null,
      "modifyTime": null
    },
    {
      "userName": "asdf",
      "userType": 0,
      "groupId": null,
      "contractName": null,
      "contractAddress": null,
      "interfaceName": null,
      "transType": null,
      "transUnusualType": null,
      "transCount": null,
      "transHashs": null,
      "transHashLastest": null,
      "createTime": null,

```

```
        "modifyTime": null
      }
    ]
  }
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

7.2

7.2.1

- HTTP
- /monitor/interfaceList/{groupId}?userName={userName}
- GET
- JSON

7.2.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/monitor/interfaceList/300001`

7.2.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": [
    {
      "userName": "SYSTEMUSER",
      "userType": 0,
      "groupId": null,
      "contractName": null,
      "contractAddress": null,
      "interfaceName": null,
      "transType": null,
      "transUnusualType": null,
      "transCount": null,
      "transHashs": null,
      "transHashLastest": null,
      "createTime": null,
      "modifyTime": null
    },
  ],
}
```

```
{
  "userName": "asdf",
  "userType": 0,
  "groupId": null,
  "contractName": null,
  "contractAddress": null,
  "interfaceName": null,
  "transType": null,
  "transUnusualType": null,
  "transCount": null,
  "transHashs": null,
  "transHashLastest": null,
  "createTime": null,
  "modifyTime": null
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

7.3 hash

7.3.1

- HTTP
- /monitor/interfaceList/{groupId}
- GET
- JSON

7.3.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/monitor/transList/300001?
 userName=0x5d97f8d41638a7b1b669b70b307bab6d49df8e2c&interfaceName=0x4ed3885e

7.3.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": {
    "groupId": 300001,
  }
}
```

```
{
  "userName": "0x5d97f8d41638a7b1b669b70b307bab6d49df8e2c",
  "interfaceName": "0x4ed3885e",
  "totalCount": 1,
  "transInfoList": [
    {
      "transCount": 1,
      "time": "2019-03-13 15:41:56"
    }
  ]
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

7.4

7.4.1

- HTTP
- /unusualUserList/{groupId}/{pageNumber}/{pageSize}?userName={userName}
- GET
- JSON

7.4.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/monitor/unusualUserList/300001/1/10?
userName=

7.4.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": [
    {
      "userName": "0x08b52f85638a925929cf62a3ac77c67415012c24",
      "transCount": 1,
      "hashs": "0x43b50faa3f007c22cf5dd710c3561c5cde516e01a55b5b4acffd7d94cf61fc57",
      "time": "2019-03-13 22:28:29"
    }
  ]
}
```

```

    }
  ],
  "totalCount": 1
}

```

-

```

{
  "code": 102000,
  "message": "system exception",
  "data": {}
}

```

7.5

7.5.1

- HTTP
- /unusualContractList/{groupId}/{pageNumber}/{pageSize}?contractAddress={contractAddress}
- GET
- JSON

7.5.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/monitor/unusualContractList/300001/1/10?contractAddress=

7.5.3

1

2

-

```

{
  "code": 0,
  "message": "success",
  "totalCount": 1,
  "data": [
    {
      "contractName": "0x00000000",
      "contractAddress": "0x000000000000000000000000000000000000000000000000",
      "transCount": 3,
      "hashs": "0xc87e306db85740895369cc2a849984fe544a6e9b0ecdbd2d898fc0756a02a4ce",
      "time": "2019-03-13 15:41:56"
    }
  ]
}

```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

8

8.1

8.1.1

- HTTP
- /group/general/{groupId}
- GET
- JSON

8.1.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/group/300001`

8.1.3

1

2

-

```
{
  "code": 0,
  "data": {
    "latestBlock": 7156,
    "contractCount": 0,
    "groupId": "300001",
    "nodeCount": 2,
    "transactionCount": 7131
  },
  "message": "Success"
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

8.2

8.2.1

- HTTP
- /group/all
- GET
- JSON

8.2.2

1

2

<http://127.0.0.1:8080/WeBASE-Node-Manager/group/all>

8.2.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "totalCount": 1,
  "data": [
    {
      "groupId": 300001,
      "groupName": "group1",
      "latestBlock": 133,
      "transCount": 133,
      "createTime": "2019-02-14 17:33:50",
      "modifyTime": "2019-03-15 09:36:17"
    }
  ]
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

8.3

8.3.1

- HTTP
- /group/transDaily/{groupId}

- GET
- JSON

8.3.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/group/transDaily/300001`

8.3.3

1

2

-

```
{
  "code": 0,
  "data": [
    {
      "day": "2018-11-21",
      "groupId": "300001",
      "transCount": 12561
    },
    {
      "day": "2018-11-22",
      "groupId": "300001",
      "transCount": 1251
    }
  ],
  "message": "Success"
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

9

9.1

9.1.1

- HTTP
- `:/node/nodeList/{groupId}/{pageNumber}/{pageSize}?nodeName={nodeName}`
- GET
- JSON

9.1.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/node/nodeList/300001/1/10?nodeName=`

9.1.3

1

2

•

```
{
  "code": 0,
  "message": "success",
  "totalCount": 1,
  "data": [
    {
      "nodeId": 500001,
      "nodeName": "127.0.0.1_10303",
      "groupId": 300001,
      "nodeIp": "127.0.0.1",
      "p2pPort": 10303,
      "description": null,
      "blockNumber": 133,
      "pbftView": 5852,
      "nodeActive": 1,
      "createTime": "2019-02-14 17:47:00",
      "modifyTime": "2019-03-15 11:14:29"
    }
  ]
}
```

•

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

9.2

9.2.1

- HTTP
- `/node/nodeInfo/{groupId}?nodeType={nodeType}`
- GET
- JSON

9.2.2

1

2

‘http://127.0.0.1:8080/WeBASE-Node-Manager/node/nodeInfo/1

9.2.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": {
    "nodeId": 500001,
    "nodeName": "127.0.0.1_10303",
    "groupId": 1,
    "nodeIp": "127.0.0.1",
    "p2pPort": 10303,
    "description": null,
    "blockNumber": 133,
    "pbftView": 5852,
    "nodeActive": 1,
    "createTime": "2019-02-14 17:47:00",
    "modifyTime": "2019-03-15 11:14:29"
  }
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

10

10.1

10.1.1

- HTTP
- role/roleList
- GET
- JSON

10.1.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/role/roleList?groupId=300001&pageNumber=&pageSize=&roleId=

10.1.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "totalCount": 2,
  "data": [
    {
      "roleId": 100000,
      "roleName": "admin",
      "roleNameZh": " ",
      "roleStatus": 1,
      "description": null,
      "createTime": "2019-02-14 17:33:50",
      "modifyTime": "2019-02-14 17:33:50"
    },
    {
      "roleId": 100001,
      "roleName": "visitor",
      "roleNameZh": " ",
      "roleStatus": 1,
      "description": null,
      "createTime": "2019-02-14 17:33:50",
      "modifyTime": "2019-02-14 17:33:50"
    }
  ]
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

11

11.1

11.1.1

- HTTP
- /user/userInfo
- POST
- Content-type: application/json
- JSON

11.1.2

1

2

http://127.0.0.1:8080//WeBASE-Node-Manager/user/userInfo

```
{
  "groupId": "300001",
  "description": " ",
  "userName": "user1"
}
```

11.1.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": {
    "userId": 700007,
    "userName": "asdfvw",
    "groupId": 300001,
    "publicKey":
    ↪ "0x4189fdacff55fb99172e015e1adc360777bee6682fcc975238aabf144fbf610a3057fd4b5",
    "userStatus": 1,
    "userType": 1,
    "address": "0x40ec3c20b5178401ae14ad8ce9c9f94fa5ebb86a",
    "hasPk": 1,
    "description": "sda",
    "createTime": "2019-03-15 18:00:27",
    "modifyTime": "2019-03-15 18:00:27"
  }
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

11.2

11.2.1

- HTTP
- /user/bind
- POST
- Content-type: application/json
- JSON

11.2.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/user/userInfo

```
{
  "userName": "sdfasd",
  "publicKey":
  ↪ "0x4189fdacff55fb99172e015e1adb96dc77b0cae1619b1a41cc360777bee6682fcc9752d8aabf144fbf610a3057fd4b5
  ↪",
  "groupId": "300001",
  "description": "sdfa"
}
```

1.1.3

1

2

•

```
{
  "code": 0,
  "message": "success",
  "data": {
    "userId": 700007,
    "userName": "asdfvw",
    "groupId": 300001,
    "publicKey":
    ↪ "0x4189fdacff55fb99172e015e1adb96dc77b0cae1619b1a41cc360777bee6682fcc9752d8aabf144fbf610a3057fd4b5
    ↪",
    "userStatus": 1,
    "userType": 1,
    "address": "0x40ec3c20b5178401ae14ad8ce9c9f94fa5ebb86a",
    "hasPk": 1,
    "description": "sda",
    "createTime": "2019-03-15 18:00:27",
    "modifyTime": "2019-03-15 18:00:27"
  }
}
```

•

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

11.3

11.3.1

- HTTP
- /user/userInfo

- PUT
- Content-type: application/json
- JSON

11.3.2

1

2

http://127.0.0.1:8080/WeBASE-Node-Manager/user/userInfo

```
{
  "userId": "400001",
  "description": "newDescription"
}
```

11.3.3

1

2

•

```
{
  "code": 0,
  "message": "success",
  "data": {
    "userId": 400001,
    "userName": "asdfvw",
    "groupId": 300001,
    "publicKey": "0x4189fdacff55fb99172e015e1682fcc9752d8aabf144fbf610a3057fd4b5",
    "userStatus": 1,
    "userType": 1,
    "address": "0x40ec3c20b5178401ae14ad8ce9c9f94fa5ebb86a",
    "hasPk": 1,
    "description": "newDescription",
    "createTime": "2019-03-15 18:00:27",
    "modifyTime": "2019-03-15 18:00:27"
  }
}
```

•

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

11.4

11.4.1

- HTTP
- /user/privateKey/{userId}

- GET
- json

11.4.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/user/privateKey/4585`

1.1.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": {
    "privateKey": 123456,
    "address": "asfsafasfasfasfasfas"
  }
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

11.5

11.5.1

- HTTP
- `:/user/userList/{groupId}/{pageNumber}/{pageSize}?userParam={userName}`
- GET
- JSON

11.5.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/user/userList/300001/1/10?userParam=asdfvw`

1.1.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "totalCount": 1,
  "data": [
    {
      "userId": 700007,
      "userName": "asdfvw",
      "groupId": 300001,
      "publicKey":
↪ "0x4189fdacff55fb99172e015e1adb96dc71cc360777bee6682fcc975238aabb144fbf610a3057fd4b5",
      "userStatus": 1,
      "userType": 1,
      "address": "0x40ec3c20b5178401ae14ad8ce9c9f94fa5ebb86a",
      "hasPk": 1,
      "description": "sda",
      "createTime": "2019-03-15 18:00:27",
      "modifyTime": "2019-03-15 18:00:28"
    }
  ]
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

12

12.1

12.1.1

- HTTP
- /method/add
- POST
- Content-type: application/json
- JSON

12.1.2

1

2

<http://127.0.0.1:8080/WeBASE-Node-Manager/method/add>

```
{
  "groupId": 2,
  "methodList": [
    {
      "abiInfo": "fsdabiTestfd232222",
      "methodId": "methodIasdfdttttt",
      "methodType": "function"
    }
  ]
}
```

1.1.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": null
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

12.2

12.1.1

- HTTP
- /method/findById/{groupId}/{methodId}
- POST
- Content-type: application/json
- JSON

12.1.2

1

2

`http://127.0.0.1:8080/WeBASE-Node-Manager/method/findById/2/methodIasdfdttttt`

1.1.3

1

2

-

```
{
  "code": 0,
  "message": "success",
  "data": {
    "methodId": "methodIasdfdttttt",
    "groupId": 2,
    "abiInfo": "fsdabiTestfd232222",
    "methodType": "function",
    "createTime": "2019-04-16 16:59:27",
    "modifyTime": "2019-04-16 16:59:27"
  }
}
```

-

```
{
  "code": 102000,
  "message": "system exception",
  "data": {}
}
```

4.2.4

1.

- shell

```
[app@VM_96_107_centos deployInputParam]$ bash start.sh
start.sh: line 2: $'\r': command not found
start.sh: line 8: $'\r': command not found
start.sh: line 9: $'\r': command not found
start.sh: line 10: $'\r': command not found
```

```
dos2unix *.sh
```

-

```
The last packet sent successfully to the server was 0 milliseconds ago. The driver has not
↵received any packets from the server.
```

```
centos7
3306 firewall-cmd --query-port=3306/tcp
3306 firewall-cmd --zone=public --add-port=3306/tcp --permanent
firewall-cmd --reload
```

-

```
ERROR 2003 (HY000): Can't connect to MySQL server on '127.0.0.1' (110)
```

```
MySQL      MySQL      TestUser
```

```
GRANT ALL PRIVILEGES ON *.* TO 'TestUser'@'%' IDENTIFIED BY 'TestUser' WITH GRANT OPTION;
```

WeBASE-Node-Manager

- `gradle build -x test`

```
A problem occurred evaluating root project 'WeBASE-Node-Manager'.
Could not find method compileOnly() for arguments [[org.projectlombok:lombok:1.18.2]] on root
↳project 'WeBASE-Node-Manager'.
```

```
1  Gradle      Gradle 4.10      2  ./gradlew build -x test
```

2.

4.3 WeBASE

4.3.1

```

WeBASE      vue-cli
IE9  360    IE9  360    chrome
FISCO-BCOS 2.0

1.          input event
2.          ip
3.  IDE
4.
5.
6.  admin
```

4.3.2

1.

nginx

2.

/data

```
git clone https://github.com/WeBankFinTech/webase-web.git
```

```
docs  nginx      nginx  nginx.conf  nginx.conf
nginx  nginx  /usr/local      /etc  ,      sudo
```

```
cd /usr/local/nginx/conf
```

1 web

```
sed -i "s/3002/${your_server_port}/g" nginx.conf
```

```
sed -i "s/3002/8080/g" nginx.conf      8080
```

2 ip

```
sed -i "s/10.0.0.1/${your_server_ip}/g" nginx.conf
```

```
sed -i "s/10.0.0.1/192.168.0.1/g" nginx.conf
```

ip 192.168.0.1,

3

```
sed -i "s/\\data\\webase-web\\dist/${your_file_route}/g" nginx.conf
```

4 mgr ip

```
sed -i "s/10.0.0.1:8083/${your_mgrServer_ipPort}/g" nginx.conf
```

nginx nginx server

```
upstream node_mgr_server{
    server 10.0.0.1:8083; #
}
server {
    listen      3002 default_server; #
    server_name 10.0.0.1;           #
    location / {
        root    /data/webase-web/dist; # ( )
        index   index.html index.htm;
        try_files $uri $uri/ /index.html =404;
    }

    # Load configuration files for the default server block.
    include /etc/nginx/default.d/*.conf;

    location /mgr {
        proxy_pass      http://node_mgr_server/;
        proxy_set_header Host                $host;
        proxy_set_header X-Real-IP           $remote_addr;
        proxy_set_header X-Forwarded-For     $proxy_add_x_forwarded_for;
    }
}
```

3. nginx

1 nginx

```
/usr/local/nginx/sbin/nginx      (nginx /usr/local )
```

nginx

```
ps -ef | grep nginx
```

```
error.log access.log ,nginx
2 url nginx ip : url http://10.0.0.1:3002
3 ( admin/Abcd1234)
```

4.3.3

1 nginx

1.1 nginx

nginx gcc pcre-devel zlib-devel openssl-devel

```
yum -y install gcc pcre-devel zlib-devel openssl openssl-devel
```

```
sudo
```

1.2 nginx

nginx <https://nginx.org/download/>

```
wget http://nginx.org/download/nginx-1.9.9.tar.gz ( )
```

```
/usr/local/
```

1.3 nginx

1.3.1

```
tar -zxvf nginx-1.9.9.tar.gz
```

1.3.2 nginx

```
cd nginx-1.9.9
```

1.3.3

```
./configure --prefix=/usr/local/nginx
```

1.3.4 make

```
make
make install
```

1.3.5

```
/usr/local/nginx/sbin/nginx -t
```

```
nginx: the configuration file /usr/local/nginx/conf/nginx.conf syntax is ok
nginx: configuration file /usr/local/nginx/conf/nginx.conf test is successful
```

1.3.6 nginx

```
/usr/local/nginx/sbin/nginx -s reload      #
/usr/local/nginx/sbin/nginx -s reopen      #   Nginx
/usr/local/nginx/sbin/nginx -s stop         #   Nginx
ps -ef | grep nginx                        #   nginx
```

2

2.1 “ ”

“ ”

1. WeBASE-Node-Manager
2. WeBASE-Node-Manager
3. nginx

2.2

“ ”

2.3

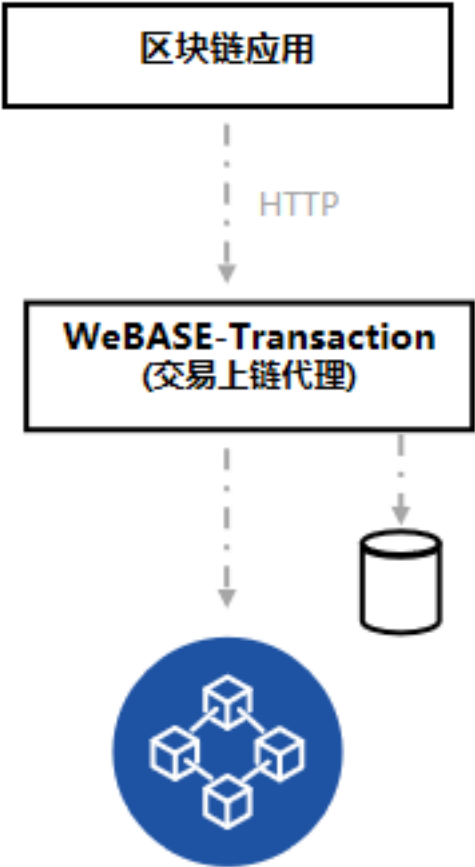
2.4

3.

4.4

4.4.1

tps



zip “./xxx.sol”

constant constant

- -
- zookeeper

4.4.2

1.

-1 ZooKeeper

2.

```
git clone https://github.com/WeBankFinTech/WeBASE-Transaction.git
```



```
cd WeBASE-Transaction
```

3.

-2 Gradle gradle-4.10

```
gradle build -x test
```

Gradle gradle-4.10 gradlew

```
./gradlew build -x test
```

WeBASE-Transaction dist

4.

1

```
cd dist/conf
```

sdk ca.crt node.crt node.key

2

```
vi application.yml
```

```
server:
  #
  port: 8082
  context-path: /webase-transaction

spring:
  datasource:
    #
    url: jdbc:mysql://127.0.0.1:3306/db_transaction?useUnicode=true&characterEncoding=utf8
    #
    username: dbUsername
    #
    password: dbPassword
    driver-class-name: com.mysql.jdbc.Driver

sdk:
  #
  orgName: webank
  timeout: 10000
  #
  groupConfig:
    allChannelConnections:
      - groupId: 1
        connectionsStr:
          - 127.0.0.1:20200
          - 127.0.0.1:20201
      - groupId: 2
        connectionsStr:
          - 127.0.0.1:20200
          - 127.0.0.1:20201

constant:
  #
  privateKey: edf02a4a69b14ee6b1650a95de71d5f50496ef62ae4213026bd8d6651d030995
```

```

cronTrans: 0/1 * * * * ?
requestCountMax: 6
selectCount: 10
intervalTime: 600
sleepTime: 50
#      true- false-
ifDistributedTask: false

job:
  regCenter:
    #      zookeeper
    serverLists: 127.0.0.1:2181
    namespace: elasticjob-trans
  dataflow:
    #      3      3
    shardingTotalCount: 3

```

5.

```
cd dist
```

```

sh start.sh
sh stop.sh
sh status.sh

```

```
:
```

```

chmod + *.sh
dos2unix *.sh

```

6.

```
dist
```

```

tail -f log/transaction.log
web3  tail -f log/web3sdk.log

```

4.4.3

1.

1.1.

```
zip      “./xxx.sol”
```

URL

<http://localhost:8082/webase-transaction/contract/compile>

HTTP POST

1

2

1

2

a.

```
{
  "code": 0,
  "message": "success",
  "data": [
    {
      "contractName": "HelloWorld",
      "contractBin": "xxx",
      "contractAbi": []
    }
  ]
}
```

b. 1

```
{
  "code": 103001,
  "message": "system error",
  "data": null
}
```

1.2.

URL

<http://localhost:8082/webase-transaction/contract/deploy>

HTTP POST

1

2

```
{
  "groupId":1,
  "uuidDeploy":"XXX",
  "signType":0,
  "contractBin":"0xXXXXXX",
  "contractAbi":[],
  "funcParam":["hello"]
}
```

1

2

a.

```
{
  "code": 0,
  "message": "success",
  "data": null
}
```

b. 1

```
{
  "code": 103001,
  "message": "system error",
  "data": null
}
```

1.3.

URL

`http://localhost:8082/webase-transaction/contract/address/{groupId}/{uuidDeploy}`

HTTP GET

1

2

4.4.

`http://127.0.0.1:8082/webase-transaction/contract/address/1/10001`

1

2

a.

```
{
  "code": 0,
  "message": "success",
  "data": "0xXXXXX"
}
```

b. 1

```
{
  "code": 103001,
  "message": "system error",
  "data": null
}
```

1.4. event

event

URL

`http://localhost:8082/webase-transaction/contract/event/{groupId}/{uuidDeploy}`

HTTP GET

1

2

`http://127.0.0.1:8082/webase-transaction/contract/event/1/10001`

1

2

a.

```
{
  "code": 0,
  "message": "success",
  "data": {
    "constructorEvent1": [
      "hello!"
    ],
    "constructorEvent": [
      "test",
      8
    ]
  }
}
```

b. 1

```
{
  "code": 103001,
  "message": "system error",
  "data": null
}
```

2. keystore

2.1.

URL

<http://localhost:8082/webase-transaction/key/address>

HTTP GET

1

2

1

2

a.

```
{
  "code": 0,
  "message": "success",
  "data": {
    "0xfe12013103cf85f05b0862e5ef49da4fbd8f99"
  }
}
```

b. 1

```
{
  "code": 103001,
  "message": "system error",
  "data": null
}
```

3.

3.1.

abi

URL

<http://localhost:8082/webase-transaction/trans/send>

HTTP POST

1

2

```
{
  "groupId":1,
  "uuidStateless":"XXX",
  "uuidDeploy":"XXX",
  "signType":0,
  "contractAddress":"0xXXXXX",
  "contractAbi":[],
  "funcName":"set",
  "funcParam":["hello"]
}
```

1

2

a.

```
{
  "code": 0,
  "message": "success",
  "data": null
}
```

b. 1

```
{
  "code": 103001,
  "message": "system error",
  "data": null
}
```

3.2.

abi

URL

<http://localhost:8082/webase-transaction/trans/call>

HTTP POST

1

2

```
{
  "groupId": 1,
  "uuidDeploy": "XXX",
  "contractAbi": [],
  "funcName": "get",
  "funcParam": []
}
```

1

2

a.

```
{
  "code": 0,
  "message": "success",
  "data": [
```



```
    "hello"  
  ]  
}
```

b. 1

```
{  
  "code": 103001,  
  "message": "system error",  
  "data": null  
}
```

3.3. event

event

URL

<http://localhost:8082/webase-transaction/trans/event/{groupId}/{uuidStateless}>

HTTP GET

1

2

<http://127.0.0.1:8082/webase-transaction/trans/event/1/20001>

1

2

a.

```
{  
  "code": 0,  
  "message": "success",  
  "data": {  
    "setEvent": [  
      "test"  
    ],  
    "setEvent1": [  
      "test"  
    ]  
  }  
}
```

b. 1

```
{
  "code": 103001,
  "message": "system error",
  "data": null
}
```

3.4. output

output

URL

`http://localhost:8082/webase-transaction/trans/output/{groupId}/{uuidStateless}`

HTTP GET

1

2

`http://127.0.0.1:8082/webase-transaction/trans/output/1/20001`

1

2

a.

```
{
  "code": 0,
  "message": "success",
  "data": [
    "hello!"
  ]
}
```

b. 1

```
{
  "code": 103001,
  "message": "system error",
  "data": null
}
```

1.

4.4.4

1.

1.1 Java

1 java

```
mkdir /software
tar -zxvf jdkXXX.tar.gz /software/
```

2

```
export JAVA_HOME=/software/jdk1.8.0_121
export PATH=$JAVA_HOME/bin:$PATH
export CLASSPATH=.:$JAVA_HOME/lib/dt.jar:$JAVA_HOME/lib/tools.jar
```

1.2.

Centos/Fedora

1 root

```
sudo -s
```

2 mysql

```
yum install mysql*
#   linux   mariadb mariadb mysql
yum install mariadb*
```

3 mysql

```
service mysqld start
#   mariadb
systemctl start mariadb.service
```

4

```
mysql -u root
```

root

```
mysql > SET PASSWORD FOR 'root'@'localhost' = PASSWORD('123456');
mysql > GRANT ALL PRIVILEGES ON *.* TO 'root'@'%' IDENTIFIED BY '123456' WITH GRANT OPTION;
```

1. 123456

2.

test

```
mysql > create user 'test'@'localhost' identified by 'test1234';
```

5

```
ssh test
```

```
mysql -utest -ptest1234 -h 127.0.0.1 -P 3306
```

```
sql
```

```
mysql > show databases;
mysql > use test;
```

6

```
mysql -utest -ptest1234 -h 127.0.0.1 -P 3306
```

```
mysql > create database db_transaction;
```

1.3. Zookeeper

1

```
mkdir /software
tar -zxvf zookeeper-XXX.tar.gz /software/
```

2

ZooKeeper

-
-

2.

2.1

shell permission denied

“chmod +x ”

2.2

“gradle build -x test” Lombok

```
...
/data/trans/webase-transcation/src/main/java/com/webank/webase/transaction/trans/TransService.
↪java:175: error: cannot find symbol
           log.warn("save fail. contract is not deployed", contractAddress);
           ^
symbol:   variable log
location: class TransService
/data/trans/webase-transcation/src/main/java/com/webank/webase/transaction/trans/TransService.
↪java:183: error: cannot find symbol
```

```
log.warn("call fail. contractAddress:{} abi is not exists",  
↪contractAddress);  
^  
symbol:    variable log  
location:  class TransService  
Note: /data/trans/webase-transcation/src/main/java/com/webank/webase/transaction/util/  
↪ContractAbiUtil.java uses unchecked or unsafe operations.  
Note: Recompile with -Xlint:unchecked for details.  
100 errors  
  
FAILURE: Build failed with an exception.  
...
```

build.gradle

```
//annotationProcessor 'org.projectlombok:lombok:1.18.2'
```

4.5

4.5.1

1.

2.

4.5.2

1.1

```
git clone https://github.com/WeBankFinTech/WeBASE-Sign.git
```

```
cd WeBASE-Sign
```

1.2

Gradle Gradle-4.10

```
gradle build -x test
```

Gradle Gradle-4.10 gradlew

```
./gradlew build -x test
```

WeBASE-Sign dist

1.3

1

```
cd dist
```

2

```
vi conf/application.yml
```

```
server:
  #
  port: 8085
  context-path: /WeBASE-Sign

spring:
  datasource:
    #
    url: jdbc:mysql://127.0.0.1:3306/testdb?useUnicode=true&characterEncoding=utf8
    #
    username: dbUsername
    #
    password: dbPassword
    driver-class-name: com.mysql.jdbc.Driver

constant:
  # aes key 16
  aesKey: EfdsW23D23d3df43
```

1.4

```
sh start.sh
sh stop.sh
sh status.sh
```

:

```
chmod + *.sh
dos2unix *.sh
```

1.5

```
tail -f log/WeBASE-Sign.log
```

4.5.3

1.

URL

<http://localhost:8085/WeBASE-Sign/user/newUser>

1

2

a.

```
{
  "code": 0,
  "message": "success",
  "data": {
    "userId": 100011,
    "address": "0xaf7f9ad9560aa7cde37c693ba373707ab31d7823",
    "publicKey":
↪ "0x6efc55a03436057c4181160c195581e4f6b8a2135ea1030a326d5339a4f4a2a9bf2d603e020c77fa5b52af109f18955747bd0bcfa2",
↪ ",
    "privateKey": "d3d8583b27bc5be0bca0fffb9d53db5a3324585148cd88e629a0b1084d2755bc8",
    "description": null
  }
}
```

b. 1

```
{
  "code": 103001,
  "message": "system error",
  "data": null
}
```

2.

URL

`http://localhost:8085/WeBASE-Sign/user/{userAddress}/userInfo`

HTTP GET

1

2

`http://localhost:8085/WeBASE-Sign/user/0xaf7f9ad9560aa7cde37c693ba373707ab31d7823/userInfo`

1

2

a.

```
{
  "code": 0,
  "message": "success",
  "data": {
    "userId": 100011,
    "address": "0xaf7f9ad9560aa7cde37c693ba373707ab31d7823",
    "publicKey":
    ↪ "0x6efc55a03436057c4181160c195581e4f6b8a2135ea1030a326d5339a4f4a2a9bf2d603e020c77fa5b52af109f18955747bd0bcfa2",
    ↪ ",
    "privateKey": "d3d8583b27bc5be0bca0ffb9d53db5a3324585148cd88e629a0b1084d2755bc8",
    "description": null
  }
}
```

b. 1

```
{
  "code": 103001,
  "message": "system error",
  "data": null
}
```

4.5.4

Java

1 java

```
mkdir /software
tar -zxvf jdkXXX.tar.gz /software/
```

2

```
export JAVA_HOME=/software/jdk1.8.0_121
export PATH=$JAVA_HOME/bin:$PATH
export CLASSPATH=.:$JAVA_HOME/lib/dt.jar:$JAVA_HOME/lib/tools.jar
```

Centos/Fedora

1 root

```
sudo -s
```

2 MySQL

```
yum install mysql*
# linux mariadb mariadb MySQL
yum install mariadb*
```


3 MySQL

```
service mysqld start
# mariadb
systemctl start mariadb.service
```

4

```
mysql -u root
```

root

```
mysql > SET PASSWORD FOR 'root'@'localhost' = PASSWORD('123456');
mysql > GRANT ALL PRIVILEGES ON *.* TO 'root'@'%' IDENTIFIED BY '123456' WITH GRANT OPTION;
```

1. 123456

2.

test

```
mysql > create user 'test'@'localhost' identified by 'test1234';
```

5

ssh test

```
mysql -utest -ptest1234 -h 127.0.0.1 -P 3306
```

sql

```
mysql > show databases;
mysql > use test;
```

6

```
mysql -utest -ptest1234 -h 127.0.0.1 -P 3306
```

```
mysql > create database testdb;
```

4.6

4.6.1

1.

OuterLinkColorWeBASE-Collect-Bee OuterLinkColorFISCO-BCOS

OuterLinkColorWeBASE-Collect-Bee

DB ES MQ Hadoop

OuterLinkColorWeBASE-Collect-Bee

FISCO-BCOS OuterLinkColorWeBASE-Collect-
Bee event

OuterLinkColorWeBASE-Collect-Bee Restful API http

2.

OuterLinkColorWeBASE-Collect-Bee
Codegen-Monkey
Collect-Bee

WeBASE-
OuterLinkColorWeBASE-

3.

3.1

-

FISCO-BCOS

-

WeBASE-Codegen-Monkey OuterLinkColorWeBASE-Collect-
Bee db PM

3.2

-

FISCO-BCOS

-

WeBASE-Codegen-Monkey OuterLinkColorWeBASE-Collect-
Bee event

3.3

-

FISCO-BCOS

-

WeBASE-Codegen-Monkey OuterLinkColorWeBASE-Collect-
Bee OuterLinkColorWeBASE-Collect-Bee Restful
API

4.

4.1

Java

WeBASE-Codegen-Monkey

Mysql

4.2

Event

4.3 Restful API

Restful API

Event

4.4

API OuterLinkColorWeBASE-Collect-Bee

Restful

4.5

OuterLinkColorWeBASE-Collect-Bee

4.6

OuterLinkColorWeBASE-Collect-Bee

4.7

OuterLinkColorWeBASE-Collect-Bee grafana dashboard

4.8 API

OuterLinkColorWeBASE-Collect-Bee swagger API



4.6.2

1.

2.

2.1

2.1.1

```
#  
curl -LO https://github.com/WeBankFinTech/WeBASE-Codegen-Monkey/raw/  
↪master/src/main/install_scripts.tar.gz  
#  
tar -zxvf install_scripts.tar.gz  
cd install_scripts
```

2.1.2

install_scripts Evidence.java

```
install_scripts  
  config  
    contract  
      Evidence.java  
    resources  
      application.properties  
  generate_bee.sh
```

2.2

2.2.1

	Java	Java	./config/contract	HelloWorld.java
Java	Solidity	Java	OuterLinkColor	java
:	SQL		key select delete	

2.2.2

./config/resources

- ca.crt

- node.crt

- node.key

2.2.3

application.properties

```
# IP      NODE_NAME
system.nodeStr=[NODE_NAME]@[IP]:[PORT]
system.groupId=[GROUP_ID]
# FISCO-BCOS NODE_NAME
# mysql serverTimezone
system.dbUrl=jdbc:mysql://[IP]:[PORT]/[database]?useSSL=false&
serverTimezone=GMT%2b8&useUnicode=true&characterEncoding=UTF-8
system.dbUser=[user_name]
system.dbPassword=[password]
# Java
monitor.contractPackName=[ Solidity ]
```

1

2.3

2.3.1

```
chmod +x generate_bee.sh
sh generate_bee.sh
```

OuterLinkColorWeBASE-Collect-Bee

: sudo Gradlew depot

2.3.2

```
chmod +x generate_bee.sh
sh generate_bee.sh build
```

OuterLinkColorWeBASE-Collect-Bee ./WeBASE-Collect-Bee/dist

```
chmod +x *.jar
nohup java -jar *.jar >/dev/null 2>&1 &
tail -f *.log
```

2.3.3 supervisor

supervisor	supervisor	daemon	-
fork/exec	supervisor	supervisor	
supervisor	supervisord	root user user	2.2.3.2
supervisor	6		

2.4

2.4.1

```
ps -ef |grep WeBASE-Collect-Bee
```

```
app 21980 24843 0 15:23 pts/3 00:00:44 java -jar WeBASE-Collect-
↳ Bee0.3.0-SNAPSHOT.jar
```

2.4.2

```
Hibernate: select blockheigh0_.pk_id as pk_id1_2_, blockheigh0_.block_
↳ height as block_he2_2_, blockheigh0_.event_name as event_na3_2_,
↳ blockheigh0_.depot_updatetime as depot_up4_2_ from block_height_info
↳ blockheigh0_ where blockheigh0_.event_name=?
Hibernate: select blockheigh0_.pk_id as pk_id1_2_, blockheigh0_.block_
↳ height as block_he2_2_, blockheigh0_.event_name as event_na3_2_,
↳ blockheigh0_.depot_updatetime as depot_up4_2_ from block_height_info
↳ blockheigh0_ where blockheigh0_.event_name=?
Hibernate: select blockheigh0_.pk_id as pk_id1_2_, blockheigh0_.block_
↳ height as block_he2_2_, blockheigh0_.event_name as event_na3_2_,
↳ blockheigh0_.depot_updatetime as depot_up4_2_ from block_height_info
↳ blockheigh0_ where blockheigh0_.event_name=?
```

```
tail -f webasebee.log| grep "sync block"
```

```
$ tail -f webasebee.log| grep "sync block"
2019-05-05 14:41:07.348 INFO 60538 --- [main] c.w.w.c.service.
↳ CommonCrawlerService : Try to sync block number 0 to 90 of 90
2019-05-05 14:41:07.358 INFO 60538 --- [main] c.w.w.c.service.
↳ BlockTaskPoolService : Begin to prepare sync blocks from 0 to 90
2019-05-05 14:41:17.142 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 0 of 90 sync block succeed.
2019-05-05 14:41:17.391 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 1 of 90 sync block succeed.
2019-05-05 14:41:17.618 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 2 of 90 sync block succeed.
2019-05-05 14:41:18.072 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 3 of 90 sync block succeed.
2019-05-05 14:41:18.395 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 4 of 90 sync block succeed.
2019-05-05 14:41:18.796 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 5 of 90 sync block succeed.
2019-05-05 14:41:19.008 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 6 of 90 sync block succeed.
2019-05-05 14:41:19.439 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 7 of 90 sync block succeed.
2019-05-05 14:41:20.303 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 8 of 90 sync block succeed.
2019-05-05 14:41:20.512 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 9 of 90 sync block succeed.
2019-05-05 14:41:20.738 INFO 60538 --- [main] c.w.w.crawler.service.
↳ BlockSyncService : Block 10 of 90 sync block succeed.
.....
```

2.4.3

DB

```
#
mysql -u[ ] -p[ ] -e "use [ ]; select count(*) from block_detail_info"
```

```
+-----+
| count(*) |
+-----+
|      633 |
+-----+
```

2.4.4

```
ps -ef |grep WeBASE-Collect-Bee |grep -v grep|awk '{print $2}' |xargs_
↵kill -9
```

2.3

3.

3.1

docker docker OuterLinkColordocker docker grafana

```
docker pull grafana/grafana
```

sudo docker permission denied :

```
sudo docker pull grafana/grafana
```

3.2 grafana

```
docker run -d -p 3000:3000 --name=grafana -e "GF_INSTALL_
↵PLUGINS=grafana-clock-panel,grafana-simple-json-datasource" grafana/
↵grafana
```

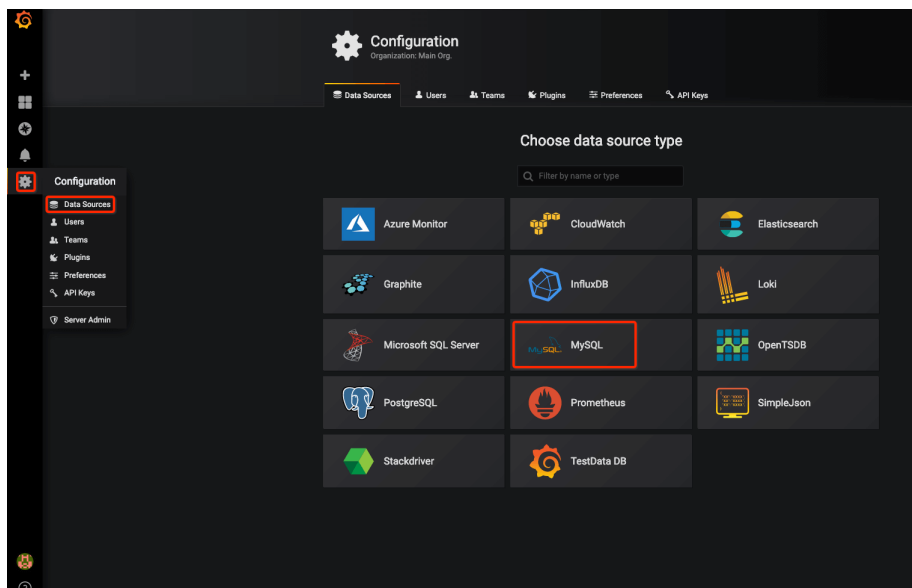
grafana 3000 Json

3.3 grafana

http://your_ip:3000/ IP your_ip admin/admin

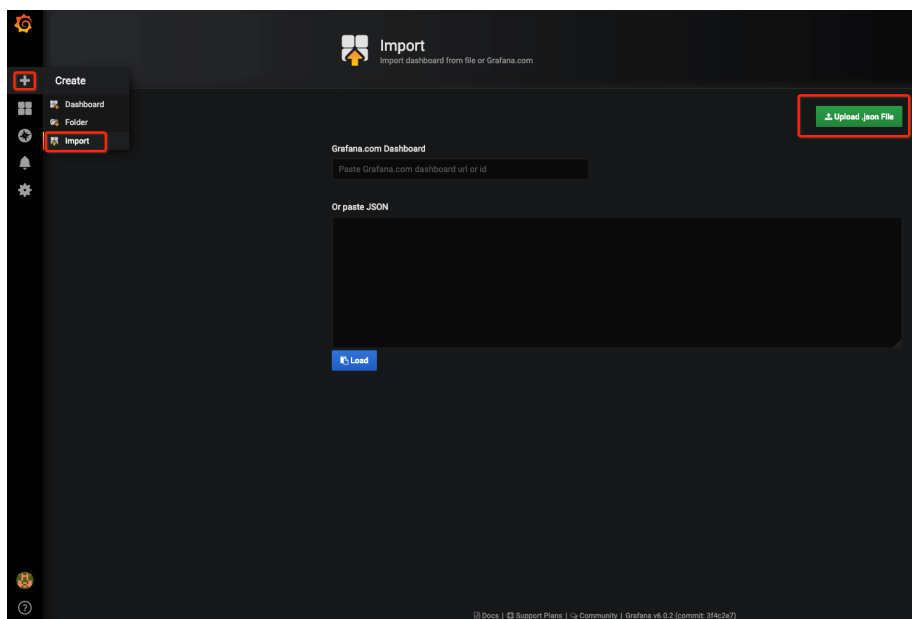
3.4 MySQL

Password Data Sources MySQL Host Database User



3.5 Dashboard

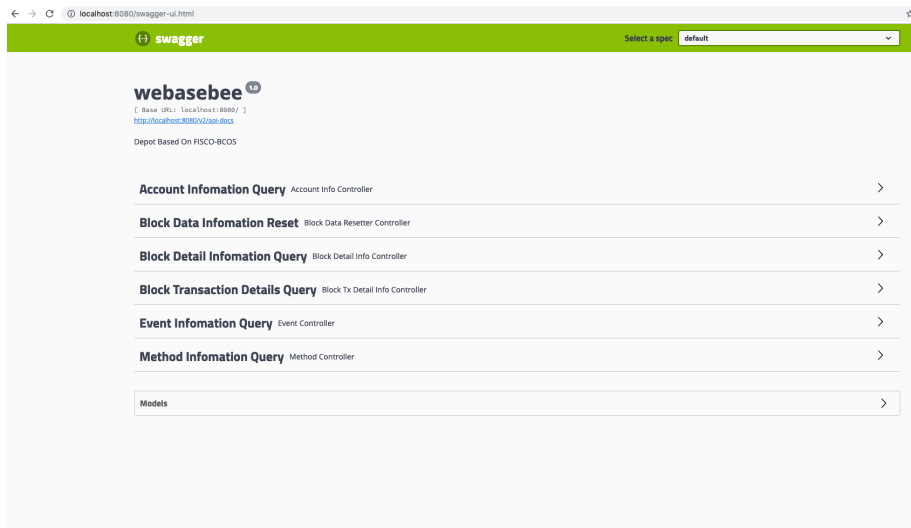
WeBASE-Codegen-Monkey dashboard WeBASE-Collect-Bee/src/main/scripts/grafana/default_dashboard.json + import Upload.json File , WeBASE-Collect-Bee/src/main/scripts/grafana/default_dashboard.json import



dashboards FISCO-BCOS
Grafana OuterLinkColorGrafana

4.

OuterLinkColorWeBASE-Collect-Bee swagger



swagger

4.1 swagger

http://your_ip:port/swagger-ui.html

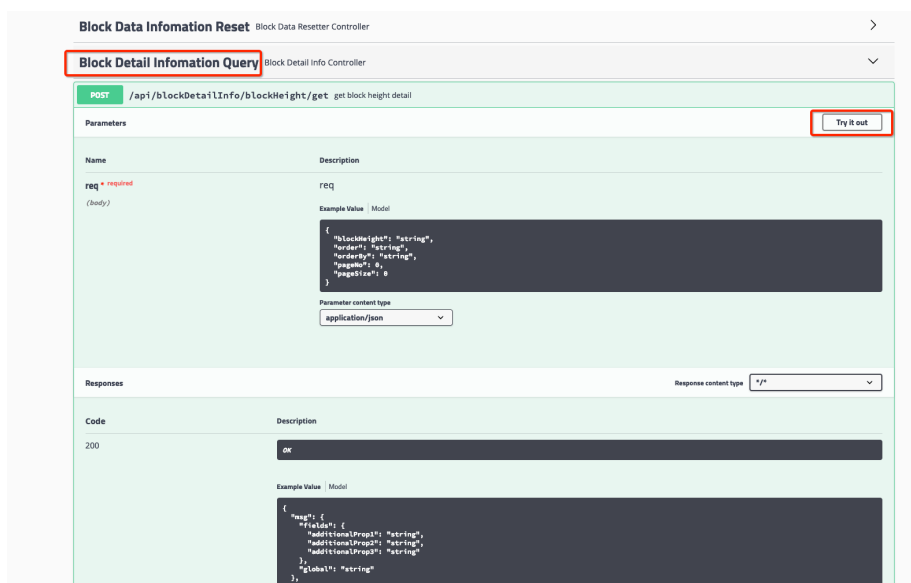
OuterLinkColorWeBASE-Collect-Bee 8080

http://localhost:8080/swagger-ui.html

http

4.2 swagger

http http “try it out” Json “Excute”



Block Detail Information Query

Block Detail Info Controller

POST

/api/blockDetailInfo/blockHeight/get

get block height detail

Parameters

Cancel

Name	Description
req * required (body)	req <div><div>Example Value</div><div>Model</div><div><pre>{ "blockHeight": "13"}</pre></div></div>

Cancel

Parameter content type
application/json

Execute

Clear

Curl

```
curl -X POST "http://localhost:8080/api/blockDetailInfo/blockHeight/get" -H "accept: */*" -H "Content-Type: application/json" -d '{ "blockHeight": "13"}'
```

Request URL
http://localhost:8080/api/blockDetailInfo/blockHeight/get

Server response

Code	Details				
200	<div><div>Response body</div><div><pre>{ "status": 0, "data": { "pageNo": 1, "pageSize": 20, "totalCount": 1, "orderBy": "BlockTimeStamp", "order": "DESC", "result": [{ "pkid": 4, "blockHeight": 13, "blockHash": "0a924c8d4e2d184165a39779f96b89ba122a0b5b2d9ca5da915a3ca7fa696cde", "blockCount": 1, "blockTimeStamp": "2019-03-19 19:58:32", "status": null, "depositUpdateTime": "2019-04-02 16:35:12" }] } }</pre></div><div>Download</div></div> <div><div>Response headers</div><div><pre>content-type: application/json; charset=UTF-8 date: Wed, 03 Apr 2019 06:24:57 GMT transfer-encoding: chunked</pre></div></div>				
200	<div><div>Responses</div><div><table><thead><tr><th>Code</th><th>Description</th></tr></thead><tbody><tr><td>200</td><td>OK</td></tr></tbody></table></div></div>	Code	Description	200	OK
Code	Description				
200	OK				

4.6.3

MySQL

1.

1.1

block_task_pool, :

1.2

block_detail_info

1.3

block_tx_detail_info

2.

account_info

A new B B

3.

Event

3.1

```
pragma solidity ^0.4.7;
contract UserInfo {
    bytes32 _userName;
    uint8 _sex;

    function UserInfo(bytes32 userName, uint8 sex) public {
        _userName = userName;
        _sex = sex;
    }

    event modifyUserNameEvent(bytes32 userName uint8 sex);

    function modifyUserName(bytes32 userName) public returns(bytes32){
        _userName = userName;
        modifyUserNameEvent(_userName _sex);
        return _userName;
    }
}
```

3.1.1

— UserInfo modifyUserNameEvent user_info_modify_user_name_event

3.1.2

modifyUserNameEvent userName user_info_modify_user_name_event user_name

3.2

4.

Function

Event

constant

4.1

3.3.1

4.1.1

— UserInfo modifyUserName user_info_modify_user_name UserInfo

4.1.2

4.2

3.1

4.6.4

1. block_task_pool block_detail_info

A block_task_pool block_detail_info

2.

A monitor.contractPackName

3. V1.2.0

A: 1.2.0 web3sdk V1.2.0 Java OuterLinkColor java Java ABI web3sdk
solc V1.2.0 Java ABI Java Java

4.

A Java

4.6.5

4.6.6

1.

WeBASE-Codegen-Monkey OuterLinkColorWeBASE-Collect-Bee WeBASE-Codegen-Monkey application.properties

1.1 Springboot

1.2 FISCO-BCOS

FISCO-BCOS OuterLinkColorWeBASE-Collect-Bee WeBASE-Collect-Bee

1.3

MySQL

sysTableName

1.4 FISCO-WeBASE-Collect-Bee

1.5

system.multiLiving=true

1.6

zookeeper system.multiLiving=false zookeeper

1.7

2. Java

Ubuntu Java

```
#    Java (Java 8 )
sudo apt install -y default-jdk
#    Java
java -version
```

CentOS Java

```
#    centos    Java
$ rpm -qa|grep java
#    Java
$ rpm -e --nodeps java
#    Java
$ java -version
#    Java 8          jdk software
#    openJDK (https://jdk.java.net/java-se-ri/8) Oracle (https://www.
↪oracle.com/technetwork/java/javase/downloads/index.html) Java_
↪8          jdk-8u201-linux-x64.tar.gz
$ mkdir /software
#    jdk
$ tar -zxvf jdk-8u201-linux-x64.tar.gz
#    Java    /etc/profile
$ vim /etc/profile
#
export JAVA_HOME=/software/jdk-8u201-linux-x64.tar.gz
export PATH=$JAVA_HOME/bin:$PATH
export CLASSPATH=.:$JAVA_HOME/lib/dt.jar:$JAVA_HOME/lib/tools.jar
#    profile
$ source /etc/profile
#    Java
java -version
```

3. Git

git

centos:

```
sudo yum -y install git
```

ubuntu:

```
sudo apt install git
```

4. Mysql

Centos/Fedora

1 root

```
sudo -s
```

2 mysql

```
yum install mysql*  
# linux mariadb mariadb mysql  
yum install mariadb*
```

3 mysql

```
service mysqld start  
# mariadb  
service mariadb start
```

4 root

```
mysql -u root
```

```
/* test */  
create user 'test'@'localhost' identified by 'test1234';
```

5 SQL root

```
GRANT ALL PRIVILEGES ON *.* TO 'test'@'%' IDENTIFIED BY 'test1234' WITH  
↳ GRANT OPTION;
```

```
** **
```

6

ssh

```
mysql -utest -ptest@2107 -h 127.0.0.1 -P 3306
```

sql

```
show databases;  
use test;  
select * from tb_txnByDay;
```

5. zookeeper

zookeeper zookeeper

OuterLinkColor

OuterLinkColor

6. supervisor

```
sudo yum -y install supervisor
```

```
/etc/supervisord.conf /etc/supervisord.d
```

```
cd /etc/supervisord.d /etc/supervisord.conf [include]
```

```
[include]
files = supervisord.d/*.ini
[supervisord]
```

```
/etc/supervisord.d webasebee_config1.ini webasebee
```

```
[program:supervisor_webasebee]
directory = /WeBASE-Collect-Bee/dist ;
command = nohup java -jar WeBASE-Collect-Bee0.3.0-SNAPSHOT.jar & ;
↪
autostart = true ; supervisor
startsecs = 15 ; 15
autorestart = true ;
startretries = 3 ; 3
user = app ;
redirect_stderr = true ; stderr stdout false
stdout_logfile_maxbytes = 150MB ; stdout 50MB
stdout_logfile_backups = 20 ; stdout
stderr_logfile= /WeBASE-Collect-Bee/dist/log/webase_bee_error.log
stdout_logfile = /WeBASE-Collect-Bee/dist/log/webase_bee_out.log ;
↪ log
[supervisord]
```

supervisor supervisorctl supervisord systemctl supervisord

```
supervisord -c /etc/supervisord.d/webasebee_config1.ini
```

```
ps -ef|grep supervisord|grep webasebee| awk '{print $2}'|xargs kill -9
ps -ef|grep WeBASE-Collect-Bee|grep -v grep| awk '{print $2}'|xargs kill
↪ -9
```

4.

4.1

OuterLinkColorWeBASE-Codegen-Monkey

4.2

sharding-jdbc

4.3

elstic-job

4.4

4.5 Restful API

Restful API

4.6 API

swagger API

4.7

WeBASE-Collect-Bee grafana dashboard

4.7.2

1.

2

2.1

OuterLinkColorWeBASE-Codegen-Monkey

OuterLinkColorWeBASE-Codegen-Monkey
Collect-Bee

WeBASE-

WeBASE-Collect-Bee gradle SpringBoot

```

-build.gradle
-config/contract
-src/main
    -resources
        application-sharding-tables.properties
        application.properties
        ca.crt
        node.crt
        node.key
    -java

```

```

build.gradle gradle    config/contract    Java    src/main/resources

```

```

Java    src/main/java/com/webank/webasebee/generated    config/contract    package    src/main/java

```

2.2 ()

```

OuterLinkColorWeBASE-Codegen-Monkey    WeBASE-Collect-
Bee    WeBASE-Collect-Bee

```

```

WeBASE-Collect-Bee    WeBASE-Collect-Bee

```

```

cd WeBASE-Collect-Bee

```

```

src/main/resources    application.properties    application-
sharding-tables.properties

```

```

sh gradlew clean bootJar

```

```

src/main/resources/application.properties

```

```

src/main/resources/application.properties

```

```

####    false
system.multiLiving=false

####
system.crawlBatchUnit=100

```

```

src/main/resources/application.properties

```

```

####    true
system.multiLiving=true

#### zookeeper    ip
regcenter.serverList=ip:port
#### zookeeper
regcenter.namespace=namespace

```

```

#### prepareTaskJob
#### cron
prepareTaskJob.cron=0/5 * * * * ?
###
prepareTaskJob.shardingTotalCount=1
####           ,    0
prepareTaskJob.shardingItemParameters=0=A

#### dataflowJob
dataflowJob.cron=0/5 * * * * ?
###
dataflowJob.shardingTotalCount=3
####           ,    0
dataflowJob.shardingItemParameters=0=A,1=B,2=C

```

src/main/resources/application-sharding-tables.properties

1TB

10G

```

####
sharding.jdbc.datasource.names=ds0,ds1

#### ds0
sharding.jdbc.datasource.ds0.type=com.zaxxer.hikari.HikariDataSource
sharding.jdbc.datasource.ds0.driver-class-name=com.mysql.cj.jdbc.Driver
sharding.jdbc.datasource.ds0.url=jdbc:mysql://localhost:3306/ds0
sharding.jdbc.datasource.ds0.username=
sharding.jdbc.datasource.ds0.password=

#### ds1
sharding.jdbc.datasource.ds1.type=com.zaxxer.hikari.HikariDataSource
sharding.jdbc.datasource.ds1.driver-class-name=com.mysql.cj.jdbc.Driver
sharding.jdbc.datasource.ds1.url=jdbc:mysql://localhost:3306/ds1
sharding.jdbc.datasource.ds1.username=
sharding.jdbc.datasource.ds1.password=

####
sharding.jdbc.config.sharding.default-database-strategy.inline.sharding-
↳column=user_id
####
sharding.jdbc.config.sharding.default-database-strategy.inline.algorithm-
↳expression=ds$->{user_id % 2}

#### block_tx_detail_info          5 block_height%5 pk-id
sharding.jdbc.config.sharding.tables.block_tx_detail_info.actual-data-
↳nodes=ds.block_tx_detail_info_$->{0..4}
sharding.jdbc.config.sharding.tables.block_tx_detail_info.table-strategy.
↳inline.sharding-column=block_height
sharding.jdbc.config.sharding.tables.block_tx_detail_info.table-strategy.
↳inline.algorithm-expression=block_tx_detail_info_$->{block_height % 5}
sharding.jdbc.config.sharding.tables.block_tx_detail_info.key-generator-
↳column-name=pk_id

####

```

#####

```
sharding.jdbc.datasource.names=master,slave0,slave1

sharding.jdbc.datasource.master.type=org.apache.commons.dbcp.
↳ BasicDataSource
sharding.jdbc.datasource.master.driver-class-name=com.mysql.jdbc.Driver
sharding.jdbc.datasource.master.url=jdbc:mysql://localhost:3306/master
sharding.jdbc.datasource.master.username=
sharding.jdbc.datasource.master.password=

sharding.jdbc.datasource.slave0.type=org.apache.commons.dbcp.
↳ BasicDataSource
sharding.jdbc.datasource.slave0.driver-class-name=com.mysql.jdbc.Driver
sharding.jdbc.datasource.slave0.url=jdbc:mysql://localhost:3306/slave0
sharding.jdbc.datasource.slave0.username=
sharding.jdbc.datasource.slave0.password=

sharding.jdbc.datasource.slave1.type=org.apache.commons.dbcp.
↳ BasicDataSource
sharding.jdbc.datasource.slave1.driver-class-name=com.mysql.jdbc.Driver
sharding.jdbc.datasource.slave1.url=jdbc:mysql://localhost:3306/slave1
sharding.jdbc.datasource.slave1.username=
sharding.jdbc.datasource.slave1.password=

sharding.jdbc.config.masterslave.name=ms
sharding.jdbc.config.masterslave.master-data-source-name=master
sharding.jdbc.config.masterslave.slave-data-source-names=slave0,slave1

sharding.jdbc.config.props.sql.show=true
```

+

```
sharding.jdbc.datasource.names=master,slave0

sharding.jdbc.datasource.master.type=com.zaxxer.hikari.HikariDataSource
sharding.jdbc.datasource.master.driver-class-name=com.mysql.cj.jdbc.
↳ Driver
sharding.jdbc.datasource.master.jdbc-url=jdbc:mysql://106.12.31.94:3306/
↳ test0?useSSL=false&serverTimezone=GMT%2b8&useUnicode=true&
↳ characterEncoding=UTF-8
sharding.jdbc.datasource.master.username=
sharding.jdbc.datasource.master.password=

sharding.jdbc.datasource.slave0.type=com.zaxxer.hikari.HikariDataSource
sharding.jdbc.datasource.slave0.driver-class-name=com.mysql.cj.jdbc.
↳ Driver
sharding.jdbc.datasource.slave0.jdbc-url=jdbc:mysql://106.12.31.94:3306/
↳ test1?useSSL=false&serverTimezone=GMT%2b8&useUnicode=true&
↳ characterEncoding=UTF-8
sharding.jdbc.datasource.slave0.username=
sharding.jdbc.datasource.slave0.password=

sharding.jdbc.config.sharding.master-slave-rules.ds0.master-data-source-
↳ name=master
```

```
sharding.jdbc.config.sharding.master-slave-rules.ds0.slave-data-source-
↳names=slave0

sharding.jdbc.config.sharding.tables.activity_activity.actual-data-
↳nodes=ds0.block_tx_detail_info$->{0..1}
sharding.jdbc.config.sharding.tables.activity_activity.table-strategy.
↳inline.sharding-column=block_height
sharding.jdbc.config.sharding.tables.activity_activity.table-strategy.
↳inline.algorithm-expression=block_tx_detail_info$->{block_height % 2}

sharding.jdbc.config.props.sql.show=true
```

2.3

OuterLinkColorWeBASE-Codegen-Monkey

```
sh gradlew clean bootJar
sh generate_bee.sh build
cd dist
chmod +x *.jar
nohup java -jar *.jar >/dev/null 2>&1 &
tail -f *.log
```

supervisor	supervisor	daemon
fork/exec	supervisor	supervisor

supervisor	supervisord	root user	user
supervisor	OuterLinkColorWeBASE-Codegen-Monkey	6	

2.4

2.4.1

```
ps -ef |grep WeBASE-Collect-Bee
```

```
app 21980 24843 0 15:23 pts/3 00:00:44 java -jar WeBASE-Collect-
↳Bee0.3.0-SNAPSHOT.jar
```

2.4.2

```
Hibernate: select blockheigh0.pk_id as pk_id1_2_, blockheigh0.block_
↳height as block_he2_2_, blockheigh0.event_name as event_na3_2_,
↳blockheigh0.depot_updatetime as depot_up4_2_ from block_height_info
↳blockheigh0 where blockheigh0.event_name=?
Hibernate: select blockheigh0.pk_id as pk_id1_2_, blockheigh0.block_
↳height as block_he2_2_, blockheigh0.event_name as event_na3_2_,
↳blockheigh0.depot_updatetime as depot_up4_2_ from block_height_info
↳blockheigh0 where blockheigh0.event_name=?
Hibernate: select blockheigh0.pk_id as pk_id1_2_, blockheigh0.block_
↳height as block_he2_2_, blockheigh0.event_name as event_na3_2_,
↳blockheigh0.depot_updatetime as depot_up4_2_ from block_height_info
↳blockheigh0 where blockheigh0.event_name=?
```

2.4.3

DB

```
# mysql -u[ ] -p[ ] -e "use [ ]; select count(*) from block_detail_info"
```

```
+-----+  
| count(*) |  
+-----+  
|      633 |  
+-----+
```

2.4.4

```
ps -ef |grep WeBASE-Collect-Bee |grep -v grep|awk '{print $2}' |xargs kill -9
```

2.5

WeBASE-Collect-Bee dist monitor.sh .

2.5.1

monitor.sh

```
# WeBASE-Collect-Bee IP  
ip=127.0.0.1  
# WeBASE-Collect-Bee  
port=8082  
# 20  
threshold=20  
# 1.  
warn_number=1
```

2.5.2

monitor.sh .

```
./monitor.sh  
block height now is 47  
download number is 48  
Now have 0 blocks to depot  
OK! to do blocks is lesss than 20  
OK! done blocks from 48 to 48, and height is from 48 to 48
```

2.5.3

```
OK! to do blocks is lesss than $threshold . OK! done
blocks from $prev_done to $b, and height is from $prev_height
to $a . ERROR! $todo_blocks:the block height is far
behind. . ERROR! Depot task stuck in trouble, done block
is $prev_done to $b , but block height is from $prev_height to $a
. ERROR! Get block height error. . ERROR! Get done block
count error.
```

2.5.4 crontab

```
monitor.sh crontab ERROR! ,
crontab
```

```
*/1 * * * * /data/app/fisco-bcos/WeBASE-Collect-Bee/dist/monitor.sh >> /
data/app/fisco-bcos/WeBASE-Collect-Bee/dist/monitor.log 2>&1
```

```
monitor.sh monitor.log
```

3.

3.1

```
docker docker OuterLinkColordocker
docker grafana
```

```
docker pull grafana/grafana
```

```
sudo docker permission denied :
```

```
sudo docker pull grafana/grafana
```

3.2 grafana

```
docker run -d -p 3000:3000 --name=grafana -e "GF_INSTALL_
PLUGINS=grafana-clock-panel,grafana-simple-json-datasource" grafana/
grafana
```

```
grafana 3000 Json
```

3.3 grafana

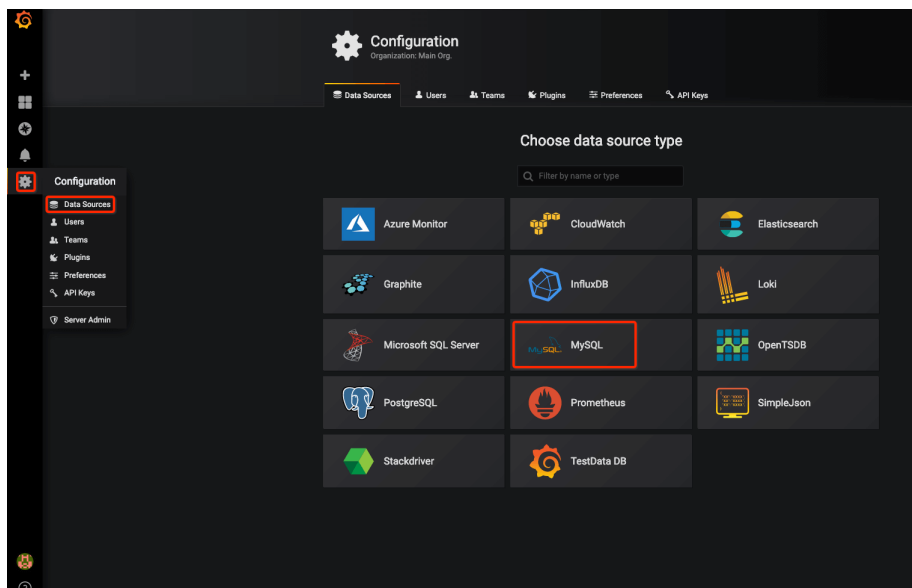
```
http://your_ip:3000/
```

```
IP your_ip
```

```
admin/admin
```

3.4 MySQL

```
Data Sources MySQL
```

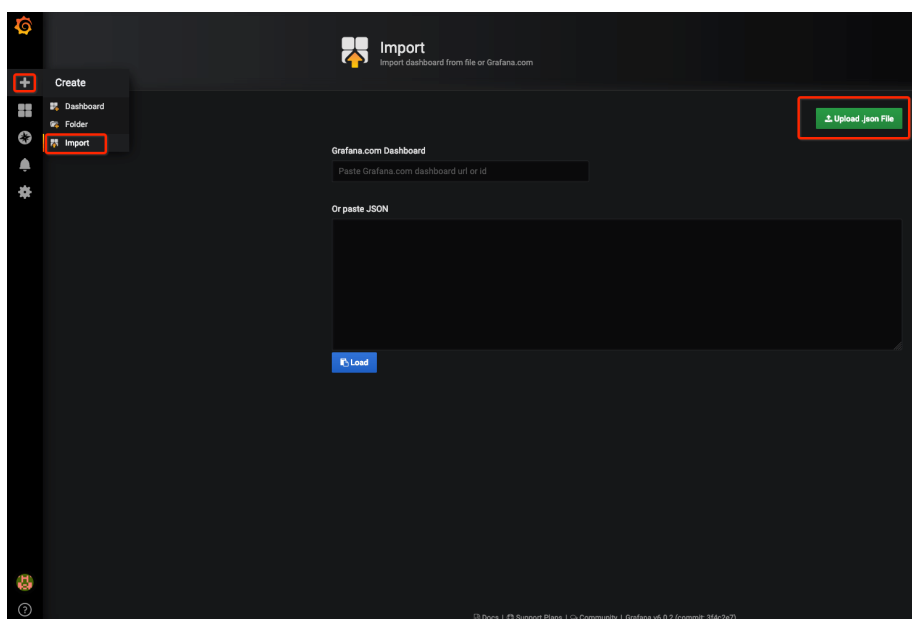


Host Database User Password

3.5 Dashboard

OuterLinkColorWeBASE-Codegen-Monkey dashboard WeBASE-Collect-Bee/src/main/scripts/grafana/default_dashboard.json

+ import Upload .json File , WeBASE-Collect-Bee/src/main/scripts/grafana/default_dashboard.json



import

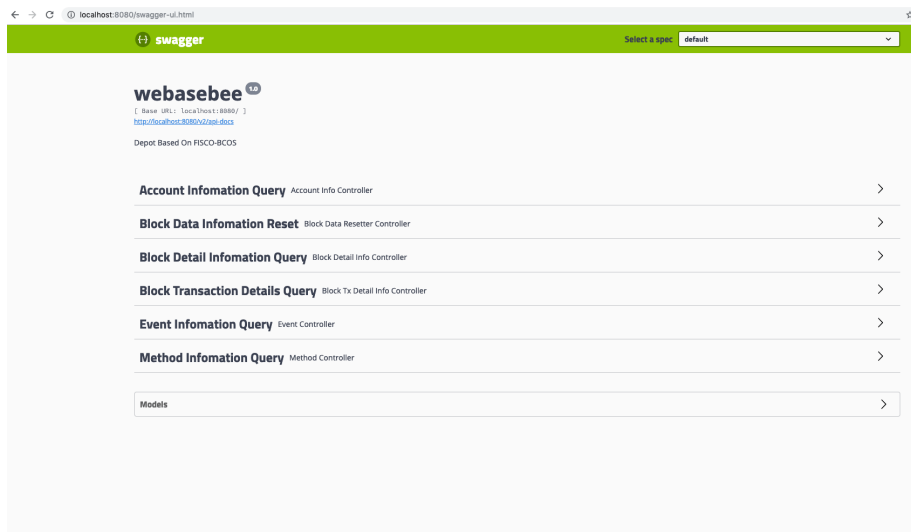
dashboards FISCO-BCOS

Grafana

OuterLinkColorGrafana

4.

WeBASE-Collect-Bee swagger



swagger

4.1 swagger

http://your_ip:port/swagger-ui.html

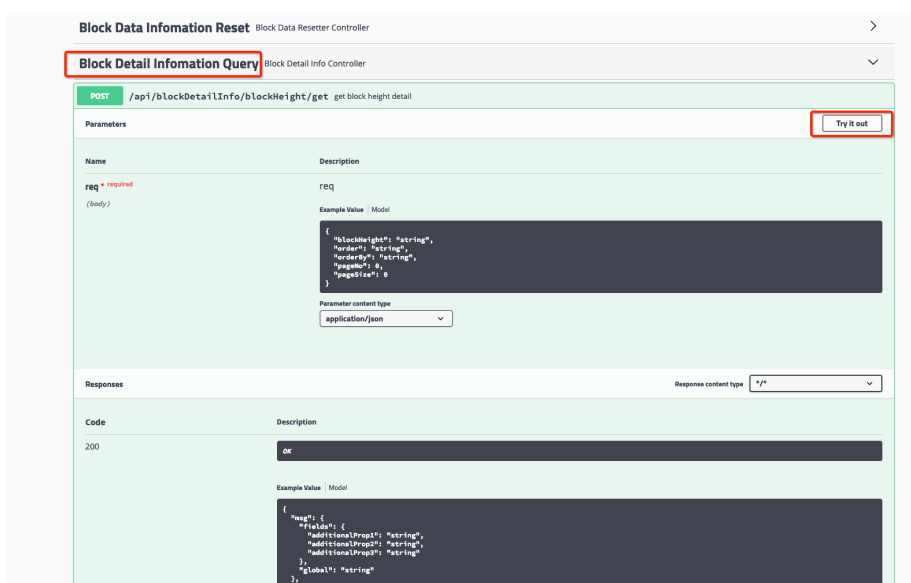
WeBASE-Collect-Bee 8080

http://localhost:8080/swagger-ui.html

http

4.2 swagger

http http “try it out” Json “Excute”



Block Detail Information Query

Block Detail Info Controller

POST

/api/blockDetailInfo/blockHeight/get

get block height detail

Parameters

Name

Description

req

req

Example Value

Model

{

"blockHeight": "13"

}

Parameter content type

application/json

Execute

Clear

Curl

curl -X POST "http://localhost:8080/api/blockDetailInfo/blockHeight/get" -H "accept: */*" -H "Content-Type: application/json" -d "{ \"blockHeight\": \"13\"}"

Request URL

http://localhost:8080/api/blockDetailInfo/blockHeight/get

Server response

Code

Details

200

Response body

{

"status": 0,

"data": {

"pageNo": 1,

"pageSize": 20,

"totalCount": 1,

"orderBy": "BlockTimeStamp",

"order": "DESC",

"result": [

{

"pkid": 4,

"blockHeight": 13,

"blockHash": "0a924c8d4e2d184165a39779f96b89ba122a0b5b2d9ca5da915a3ca7fa696cde",

"blockCount": 1,

"blockTimeStamp": "2019-03-19 19:58:32",

"status": null,

"depositUpdateTime": "2019-04-02 16:35:12"

}

}

}

Response headers

content-type: application/json; charset=UTF-8

date: Wed, 03 Apr 2019 06:24:57 GMT

transfer-encoding: chunked

Responses

Code

Description

200

OK

4.7.3

MySQL

1.

1.1

block_task_pool, :

1.2

block_detail_info

1.3

block_tx_detail_info

2.

account_info

A new B B

3.

Event

3.1

```
pragma solidity ^0.4.7;
contract UserInfo {
    bytes32 _userName;
    uint8 _sex;

    function UserInfo(bytes32 userName, uint8 sex) public {
        _userName = userName;
        _sex = sex;
    }

    event modifyUserNameEvent(bytes32 userName uint8 sex);

    function modifyUserName(bytes32 userName) public returns(bytes32){
        _userName = userName;
        modifyUserNameEvent(_userName _sex);
        return _userName;
    }
}
```

3.1.1

— UserInfo modifyUserNameEvent user_info_modify_user_name_event

3.1.2

modifyUserNameEvent userName user_info_modify_user_name_event user_name

3.2

4.

Function

Event

constant

4.1

3.3.1

4.1.1

— UserInfo modifyUserName user_info_modify_user_name UserInfo

4.1.2

4.2

3.1

CHAPTER 5

WeBASE

5.1 WeBASE

WeBASE, OuterLinkColor

5.2 WeBASE

WeBASE WeBASE WeBASE

WeBASE

数据概览

节点管理

合约管理

合约IDE

合约列表

私钥管理

系统监控

交易审计

用户交易

异常用户

异常合约

帐号管理

节点管理

新增节点

节点编号	ip	前置端口	所属机构	创建时间	修改时间	操作
500001	212.128.164.69	8082	abc	2019-06-20 16:01:02	2019-06-20 16:01:02	删除

节点列表

节点id	块高	pubView	状态
9820908c15db16887d14e10f0e8203d1e00335833798033872119405a8a831245d140a47185cca0411dc8032a2d8eef5bdc...	5	779	运行
bdc03d7718a9a0100d9d070594262d2c0389a3ba2c4564748b7a4c0a04a7e19048925170690333ee0805d898458a775d030704...	5	783	运行
ba1a97c38148a6c106c5db771a988ba32d11b021d89a6910aaf08411d8cab3483a8db4767b53c75b16d5a3690a52b598864721...	5	781	运行
d9ec251ee508d9ec268d09a1221c1e18a9324e1653001467109f0b2a2a03d3c0867c73ac549c5a3379d169eacc5459d923d02...	5	782	运行

WeBASE

新增用户

请输入用户名或公钥地址

用户名	用户ID	用户描述	用户公钥地址信息	用户状态	操作
keyUser	700002	abc	0x0188ac5af5e77b7006d11...	正常	删除

共 1 条 10条/页 1 页

5.3

HelloWorld.sol

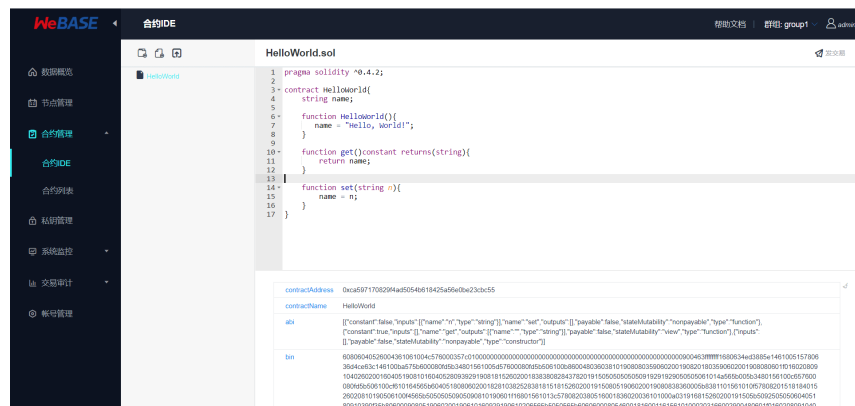
```
pragma solidity ^0.4.2;

contract HelloWorld{
    string name;

    function HelloWorld(){
        name = "Hello, World!";
    }

    function get()constant returns(string){
        return name;
    }

    function set(string n){
        name = n;
    }
}
```



- IDE , ,

5.4

-

OuterLinkColor

IDE

OuterLinkColorHelloWorld

-

```
application.yml

transactionUrl: http://127.0.0.1:8082/webase-front/trans/handle
groupId: 1
userAddress: "0x4f08eac5af5e77b7006d11bee94adba2f721def8"
useAes: true
contract.name: HelloWorld
contract.address: "0xca597170829f4ad5054b618425a56e0be23cbc55"
contract.funcName: set
contract.funcParam: "[\"abc\"]"
```

- TransactionService.java

```
@Slf4j
@Data
```

```

@Service
public class TransactionService {
    @Autowired
    private RestTemplate rest;
    @Value("${transactionUrl}")
    private String url;
    @Value("${userAddress}")
    private String user;
    @Value("${groupId}")
    private int groupId;
    @Value("${useAes}")
    private Boolean useAes;
    @Value("${contract.name}")
    private String contractName;
    @Value("${contract.address}")
    private String contractAddress;
    @Value("${contract.funcName}")
    private String funcName;
    @Value("${contract.funcParam}")
    private String funcParam;

    public void sendTransaction() {

        try {
            TransactionParam transParam = new TransactionParam();
            transParam.setGroupId(groupId);
            transParam.setContractAddress(contractAddress);
            transParam.setUseAes(useAes);
            transParam.setUser(user);
            transParam.setContractName(contractName);
            transParam.setFuncName(funcName);
            transParam.setFuncParam(JSONArray.parseArray(funcParam));

            log.info("transaction param:{}", JSON.
↵toJSONString(transParam));
            Object rsp = rest.postForObject(url, transParam, Object.
↵class);

            String rspStr = "null";
            if (Objects.nonNull(rsp)) {
                rspStr = JSON.toJSONString(rsp);
            }
            log.info("transaction result:{}", rspStr);
        } catch (Exception ex) {
            log.error("fail sendTransaction", ex);
        }
        System.exit(1);
    }
}

```

5.5

WeBASE

WeBASE

交易信息

帮助文档 群组 group1

数据概览

节点管理

合约管理

合约IDE

合约列表

合约管理

系统监控

交易审计

账户管理

共 5 条

请输入交易哈希或块高

交易哈希

块高

创建时间

0x2950a9520927c270b08898b40ee34c54271180078e63eda8309543220f

5

2019-06-20 18:35:58

input

Block Height: 5

From: 0x4f050ac5a5fe77b7006d110ee94adb20721d4d => keyUser

To: 0xc35971700294ad50054b61842a05e09e20c3c3c55

Timestamp: 2019-06-20 18:35:58

Input:

function set(string n)

methodId 0x4c03855e

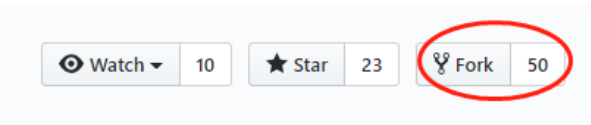
name	type	data
n	string	0x40c

记录

WeBASE

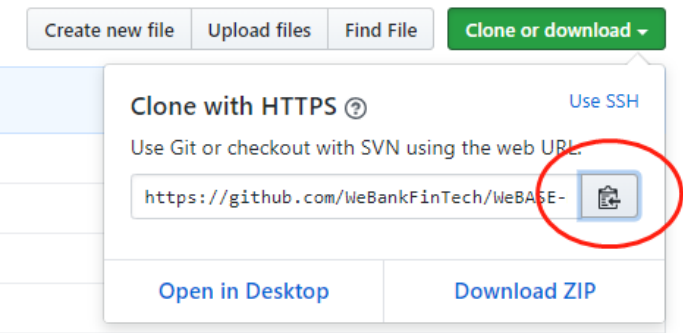
WeBASE-Node-Manager
git, OuterLinkColor

6.1 Fork



Fork

6.2 Clone



git

```
git clone " url "
```

“ url ”

```
git clone https://github.com/" Github "/"WeBASE-Node-Manager.git
```

‘ Github ’ Github WeBASE-Node-Manager

6.3

```
cd WeBASE-Node-Manager
```

```
vim XXX
```

6.4 Commit

```
git commit -m " "
```

6.5 Push GitHub

```
git push
```

```
git push origin < >
```

6.6 Pull Request

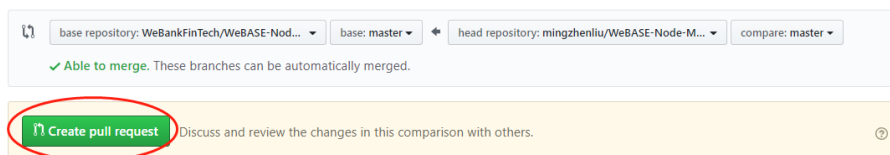
Github Compare & pull request



Create pull request pull request

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also [compare across forks](#).



CHAPTER 7

7.1 FISCO-BCOS 2.0.X

WeBASE V1.0.0 FISCO-BCOS 2.0.0-rc1 FISCO-BCOS 2.0.0-rc2 FISCO-BCOS 2.0.0-rc3 WeBASE FISCO-BCOS OuterLinkColorFISCO-BCOS 2.0.0-rc3

7.2 FISCO-BCOS 1.3.X

WeBASE V0.5.X FISCO-BCOS 1.3.X WeBASE FISCO-BCOS OuterLinkColorFISCO BCOS 1.3.8 Release
Release tag README.md