# MorningPay开发文档

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| 1.0 | Abill | 2019/8/20 | 初始 | 初始化文档 |
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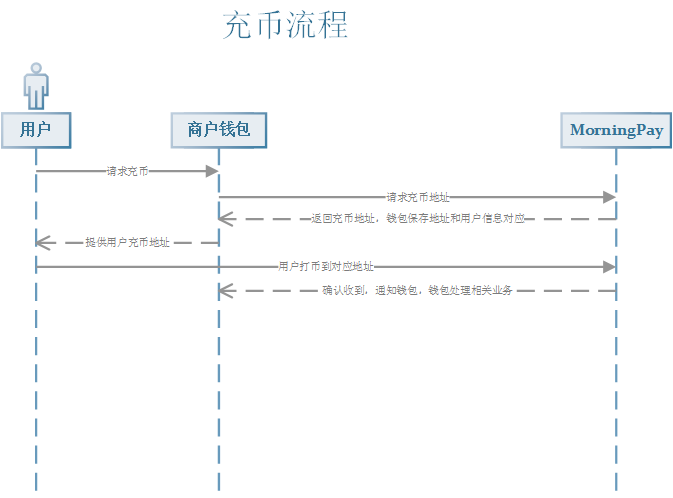
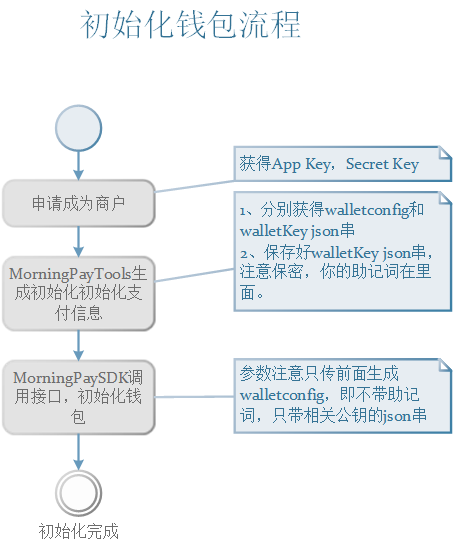
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### 1 概述

MorningPay是全球领先的数字资产支付平台，旨在为第三方平台提供快速接入区块链支付服务，实现数字货币资产最快速、最安全的流通，让商户释放精力更加专注于自身的业务开发，而不再需要费时费力的去实现各种公链的支付。

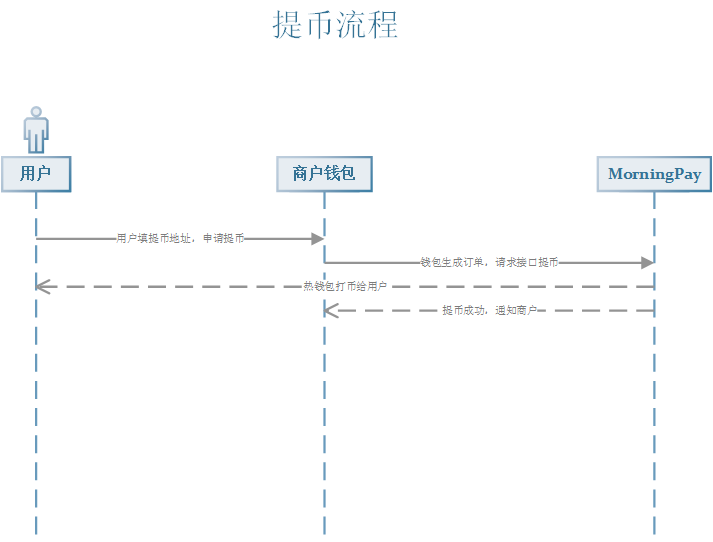
MorningPay适用于各种规模的交易所、钱包、区块链游戏等相关应用。

##### 初始化钱包流程

****

##### 充币流程

#### **1.3 提币流程**



### 2 相关接口

接口url：http://api.morningpay.io/api/

请求方式：所有接口都是通过http post json请求。

例如， {"coinType":"EOS","sign":"e6eb52200f93431b1039858a0fb5369b0cb538bbdeacbe325ba5756285298512","appKey":"b93c3006-fc8a-4148-948e-617e48f8f10c","page":"1"}

sign签名算法：按照&key=value的方式拼接，再使用分配的App Secret作为秘钥做SHA256加密获得。

例如拼接后字符串：

address=testaddressx&appKey=b93c3006-fc8a-4148-948e-617e48f8f10c&coinType=EOS

SHA256后，sign为1548f399fda5d06a455a14f18da8cf7536cd2c309ffb92ebe75a9c665494d5c7

返回结果：

返回结果都为json，当code为0时，则请求成功。否则返回错误码和提示。

例如：{"msg":"success","code":0}

#### **2.1 初始化配置**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 接口地址 | api/init | | | |
| 接口说明 | 根据morningPayTools生成的walletconfig json串，初始化配置。具体描述见[附录](#_3 附录)。 | | | |
| 请求类型 | POST | | | |
| 请求参数 | 参数名 | 类型 | 是否必需 | 描述 |
| appKey | 字符串 | 是 | 申请成为商家后分配的APP Key |
| data | 字符串 | 是 | morningPayTools生成的walletconfig json串。注意未带私钥的！例如：  {"ethHotConfigObj":{"path":"M/44H/60H/1H/0","chainCode":"1ee21014d21cb8d4eabc16a83bb7e0ea8f0803ecae301f91d8adb4fec6f4a6db","address0":"16jYubE7f92V6Tp9o9J5WptKEUUBt3UevJ","pubKey":"02adae3a2a70de9827a63918b20f3ba4ba2e84fd9b1d03fff13fab5ddec838cc30"},"btcColdConfigObj":{"path":"M/44H/0H/0H/0","chainCode":"50631ec00f6c888bccc9b1e41fda37fa2a0a96ddd6f1474d673be55a57dbe177","address0":"1NKzAHR11npqG46ZCpGJYNDFfjr6L5Sr2n","pubKey":"03381ed18fb5bc7d09176643e7ca46e5f404f7988205464023d6c3e3ebb72f7659"},"eosColdConfigObj":{"path":"M/44H/194H/0H/0","chainCode":"95ad27a178937d3f874cd8ad84493f3025e483e74edde97bf1ee7112a8cb88a1","address0":"1BzxrxjF9vFBQ14FULjaonBEvqDAKkPFKT","pubKey":"02354477f2d6fb50f125c632c04637638989a4b299a57f8b92e6858478377b91df"},"usdtHotConfigObj":{"path":"M/44H/0H/4H/0","chainCode":"dde15dd3f858fd65b091fb59187f633b3184c6620aebc7022226e6fcb8e4ad9d","address0":"19Jd1GCznfB8e3BwiFzCSBMDffPjCPyLmi","pubKey":"02f68c11be6dfd46708ceeb5fa59995aa98be45899bba752d50b9f7e1958f97748"},"btcHotConfigObj":{"path":"M/44H/0H/1H/0","chainCode":"7ba0c85c9231f07d0556d1ac10f3eba52f51c638b8d0bb6d4d870886eabb1541","address0":"1DiwJxhziB7iWe9XtwH2zeRN6nfThBuFxm","pubKey":"0337d213e895ed605fe97f4a7189482d9faad47dcee3383cceb38632358153a680"},"ethColdConfigObj":{"path":"M/44H/60H/0H/0","chainCode":"062f9a63f998a80232dc37ed700fa9993b3d222adb2a84b2081336df35a29280","address0":"1BrjburvGABrcu1ME12E4ipRS85BqzCpid","pubKey":"033211199bd8dfd4c31d587e12fe588cb592f77a83f606421b27fdabc81c227b21"},"usdtColdConfigObj":{"path":"M/44H/0H/3H/0","chainCode":"bd26de89b381ee3c17b0bd8fb8366623d57ddc3e98a7d7be934960a142725942","address0":"1PKtCtoCwGd6SNYt9Wk8PM256Di7EeKxo7","pubKey":"02a18bed738ab4332bbff303861679bd69f6bd29e64d15769913c7f7ed9350e53e"},"eosHotConfigObj":{"path":"M/44H/194H/1H/0","chainCode":"3343519cbb60472224652e3bfabee491e38644a7733ebff183fca3b8a1d39390","address0":"1FMHMbViRgRDHeieweuseWHJnu9RYP8PTk","pubKey":"032f7708a6e0d20c8aeba68dc99e09c7ad0df76563cc47917817aca0c4d21f5f1e"},"userName":"yourname","rsaPubKey":"MIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQCbnvEHzoqdwalmvYn+L3Afmz+d+ZqN+waB11rOPZmhZuKCB1sOKniM1Lc8hQOET3eJAuKHJtQ++N+dJmUMemOy2mnqA1Jc0rzsHzBSNbkCnwdfa9Todpx6wUqw5YHiI88oWeaXjZPqQ1j0u3WKcDc3ZAa99l4vVhpQhMcW1AzQ2wIDAQAB"} |
| sign | 字符串 | 是 | 签名。参数按照ASII码升序，并按照&key=value的方式拼接，再使用分配的App Secret作为秘钥做SHA256加密获得。  例如拼接后字符串：appKey=b93c3006-fc8a-4148-948e-617e48f8f10c&data={"ethHotConfigObj":{"path":"M/44H/60H/1H/0","chainCode":"1ee21014d21cb8d4eabc16a83bb7e0ea8f0803ecae301f91d8adb4fec6f4a6db","address0":"16jYubE7f92V6Tp9o9J5WptKEUUBt3UevJ","pubKey":"02adae3a2a70de9827a63918b20f3ba4ba2e84fd9b1d03fff13fab5ddec838cc30"},"btcColdConfigObj":{"path":"M/44H/0H/0H/0","chainCode":"50631ec00f6c888bccc9b1e41fda37fa2a0a96ddd6f1474d673be55a57dbe177","address0":"1NKzAHR11npqG46ZCpGJYNDFfjr6L5Sr2n","pubKey":"03381ed18fb5bc7d09176643e7ca46e5f404f7988205464023d6c3e3ebb72f7659"},"eosColdConfigObj":{"path":"M/44H/194H/0H/0","chainCode":"95ad27a178937d3f874cd8ad84493f3025e483e74edde97bf1ee7112a8cb88a1","address0":"1BzxrxjF9vFBQ14FULjaonBEvqDAKkPFKT","pubKey":"02354477f2d6fb50f125c632c04637638989a4b299a57f8b92e6858478377b91df"},"usdtHotConfigObj":{"path":"M/44H/0H/4H/0","chainCode":"dde15dd3f858fd65b091fb59187f633b3184c6620aebc7022226e6fcb8e4ad9d","address0":"19Jd1GCznfB8e3BwiFzCSBMDffPjCPyLmi","pubKey":"02f68c11be6dfd46708ceeb5fa59995aa98be45899bba752d50b9f7e1958f97748"},"btcHotConfigObj":{"path":"M/44H/0H/1H/0","chainCode":"7ba0c85c9231f07d0556d1ac10f3eba52f51c638b8d0bb6d4d870886eabb1541","address0":"1DiwJxhziB7iWe9XtwH2zeRN6nfThBuFxm","pubKey":"0337d213e895ed605fe97f4a7189482d9faad47dcee3383cceb38632358153a680"},"ethColdConfigObj":{"path":"M/44H/60H/0H/0","chainCode":"062f9a63f998a80232dc37ed700fa9993b3d222adb2a84b2081336df35a29280","address0":"1BrjburvGABrcu1ME12E4ipRS85BqzCpid","pubKey":"033211199bd8dfd4c31d587e12fe588cb592f77a83f606421b27fdabc81c227b21"},"usdtColdConfigObj":{"path":"M/44H/0H/3H/0","chainCode":"bd26de89b381ee3c17b0bd8fb8366623d57ddc3e98a7d7be934960a142725942","address0":"1PKtCtoCwGd6SNYt9Wk8PM256Di7EeKxo7","pubKey":"02a18bed738ab4332bbff303861679bd69f6bd29e64d15769913c7f7ed9350e53e"},"eosHotConfigObj":{"path":"M/44H/194H/1H/0","chainCode":"3343519cbb60472224652e3bfabee491e38644a7733ebff183fca3b8a1d39390","address0":"1FMHMbViRgRDHeieweuseWHJnu9RYP8PTk","pubKey":"032f7708a6e0d20c8aeba68dc99e09c7ad0df76563cc47917817aca0c4d21f5f1e"},"userName":"yourname","rsaPubKey":"MIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQCbnvEHzoqdwalmvYn+L3Afmz+d+ZqN+waB11rOPZmhZuKCB1sOKniM1Lc8hQOET3eJAuKHJtQ++N+dJmUMemOy2mnqA1Jc0rzsHzBSNbkCnwdfa9Todpx6wUqw5YHiI88oWeaXjZPqQ1j0u3WKcDc3ZAa99l4vVhpQhMcW1AzQ2wIDAQAB"}  SHA256后，sign为1743df225837c322d72723ab5ff194e31b11d8eff898476a576ff3ae6be7c9e0 |
| 请求参数示例 | {"data":"{\"ethHotConfigObj\":{\"path\":\"M/44H/60H/1H/0\",\"chainCode\":\"1ee21014d21cb8d4eabc16a83bb7e0ea8f0803ecae301f91d8adb4fec6f4a6db\",\"address0\":\"16jYubE7f92V6Tp9o9J5WptKEUUBt3UevJ\",\"pubKey\":\"02adae3a2a70de9827a63918b20f3ba4ba2e84fd9b1d03fff13fab5ddec838cc30\"},\"btcColdConfigObj\":{\"path\":\"M/44H/0H/0H/0\",\"chainCode\":\"50631ec00f6c888bccc9b1e41fda37fa2a0a96ddd6f1474d673be55a57dbe177\",\"address0\":\"1NKzAHR11npqG46ZCpGJYNDFfjr6L5Sr2n\",\"pubKey\":\"03381ed18fb5bc7d09176643e7ca46e5f404f7988205464023d6c3e3ebb72f7659\"},\"eosColdConfigObj\":{\"path\":\"M/44H/194H/0H/0\",\"chainCode\":\"95ad27a178937d3f874cd8ad84493f3025e483e74edde97bf1ee7112a8cb88a1\",\"address0\":\"1BzxrxjF9vFBQ14FULjaonBEvqDAKkPFKT\",\"pubKey\":\"02354477f2d6fb50f125c632c04637638989a4b299a57f8b92e6858478377b91df\"},\"usdtHotConfigObj\":{\"path\":\"M/44H/0H/4H/0\",\"chainCode\":\"dde15dd3f858fd65b091fb59187f633b3184c6620aebc7022226e6fcb8e4ad9d\",\"address0\":\"19Jd1GCznfB8e3BwiFzCSBMDffPjCPyLmi\",\"pubKey\":\"02f68c11be6dfd46708ceeb5fa59995aa98be45899bba752d50b9f7e1958f97748\"},\"btcHotConfigObj\":{\"path\":\"M/44H/0H/1H/0\",\"chainCode\":\"7ba0c85c9231f07d0556d1ac10f3eba52f51c638b8d0bb6d4d870886eabb1541\",\"address0\":\"1DiwJxhziB7iWe9XtwH2zeRN6nfThBuFxm\",\"pubKey\":\"0337d213e895ed605fe97f4a7189482d9faad47dcee3383cceb38632358153a680\"},\"ethColdConfigObj\":{\"path\":\"M/44H/60H/0H/0\",\"chainCode\":\"062f9a63f998a80232dc37ed700fa9993b3d222adb2a84b2081336df35a29280\",\"address0\":\"1BrjburvGABrcu1ME12E4ipRS85BqzCpid\",\"pubKey\":\"033211199bd8dfd4c31d587e12fe588cb592f77a83f606421b27fdabc81c227b21\"},\"usdtColdConfigObj\":{\"path\":\"M/44H/0H/3H/0\",\"chainCode\":\"bd26de89b381ee3c17b0bd8fb8366623d57ddc3e98a7d7be934960a142725942\",\"address0\":\"1PKtCtoCwGd6SNYt9Wk8PM256Di7EeKxo7\",\"pubKey\":\"02a18bed738ab4332bbff303861679bd69f6bd29e64d15769913c7f7ed9350e53e\"},\"eosHotConfigObj\":{\"path\":\"M/44H/194H/1H/0\",\"chainCode\":\"3343519cbb60472224652e3bfabee491e38644a7733ebff183fca3b8a1d39390\",\"address0\":\"1FMHMbViRgRDHeieweuseWHJnu9RYP8PTk\",\"pubKey\":\"032f7708a6e0d20c8aeba68dc99e09c7ad0df76563cc47917817aca0c4d21f5f1e\"},\"userName\":\"yourname\",\"rsaPubKey\":\"MIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQCbnvEHzoqdwalmvYn+L3Afmz+d+ZqN+waB11rOPZmhZuKCB1sOKniM1Lc8hQOET3eJAuKHJtQ++N+dJmUMemOy2mnqA1Jc0rzsHzBSNbkCnwdfa9Todpx6wUqw5YHiI88oWeaXjZPqQ1j0u3WKcDc3ZAa99l4vVhpQhMcW1AzQ2wIDAQAB\"}","sign":"1743df225837c322d72723ab5ff194e31b11d8eff898476a576ff3ae6be7c9e0","appKey":"b93c3006-fc8a-4148-948e-617e48f8f10c"} | | | |
| 返回结果示例 | {"msg":"success","code":0} | | | |

#### 

#### **2.2 添加自定义冷钱包地址**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 接口地址 | api/addDefineAddress | | | |
| 接口说明 | 添加自定义冷钱包地址，此地址为商户的用户打币时，打入的地址 | | | |
| 请求类型 | POST | | | |
| 请求参数 | 参数名 | 类型 | 是否必需 | 描述 |
| appKey | 字符串 | 是 | 申请成为商家后分配的APP Key |
| coinType | 字符串 | 是 | 币类型，例如BTC，ETH，USDT，EOS等。规则见[附录](#_3.1 Coin Type规则) |
| address | 字符串 | 是 | 收币地址 |
| sign | 字符串 | 是 | 签名。参数按照ASII码升序，并按照&key=value的方式拼接，再使用分配的App Secret作为秘钥做SHA256加密获得。  例如拼接后字符串：address=testaddressx&appKey=b93c3006-fc8a-4148-948e-617e48f8f10c&coinType=EOS  SHA256后，sign为1548f399fda5d06a455a14f18da8cf7536cd2c309ffb92ebe75a9c665494d5c7 |
| 请求参数示例 | {"coinType":"EOS","address":"testaddressx","sign":"1548f399fda5d06a455a14f18da8cf7536cd2c309ffb92ebe75a9c665494d5c7","appKey":"b93c3006-fc8a-4148-948e-617e48f8f10c"} | | | |
| 返回结果示例 | {"msg":"success","code":0} | | | |

#### 

#### **2.3 获取冷钱包地址**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 接口地址 | api/getAddress | | | |
| 接口说明 | 获取冷钱包子地址 | | | |
| 请求类型 | POST | | | |
| 请求参数 | 参数名 | 类型 | 是否必需 | 描述 |
| appKey | 字符串 | 是 | 申请成为商家后分配的APP Key |
| coinType | 字符串 | 是 | 币类型，例如BTC，ETH，USDT，EOS等。规则见[附录](#_3.1 Coin Type规则) |
| sign | 字符串 | 是 | 签名。参数按照ASII码升序，并按照&key=value的方式拼接，再使用分配的App Secret作为秘钥做SHA256加密获得。  例如拼接后字符串：appKey=b93c3006-fc8a-4148-948e-617e48f8f10c&coinType=BTC  SHA256加密后，sign为c43fceeb5607b05974278abefda10173104903a0bc0110329e4459c31e476f53 |
| 请求参数示例 | {"coinType":"BTC","sign":"c43fceeb5607b05974278abefda10173104903a0bc0110329e4459c31e476f53","appKey":"b93c3006-fc8a-4148-948e-617e48f8f10c"} | | | |
| 返回结果示例 | {"msg":"success","code":0,"data":{"address":"1AG9FGiqaBDK3kTQgcTXndDXjrdztMwSqg","coin\_type":"BTC","keyIndex":10,"configuration\_cold\_id":80}}，其中address为所需要的地址 | | | |

#### **2.4 获取冷钱包收币记录**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 接口地址 | api/queryColdRecord | | | |
| 接口说明 | 获取冷钱包收币记录 | | | |
| 请求类型 | POST | | | |
| 请求参数 | 参数名 | 类型 | 是否必需 | 描述 |
| appKey | 字符串 | 是 | 申请成为商家后分配的APP Key |
| coinType | 字符串 | 是 | 币类型，例如BTC，ETH，USDT，EOS等。规则见[附录](#_3.1 Coin Type规则) |
| page | 数字 | 是 | 页数 |
| sign | 字符串 | 是 | 签名。参数按照ASII码升序，并按照&key=value的方式拼接，再使用分配的App Secret作为秘钥做SHA256加密获得。  例如拼接后字符串：appKey=b93c3006-fc8a-4148-948e-617e48f8f10c&coinType=EOS&page=1  SHA256加密后，sign为e6eb52200f93431b1039858a0fb5369b0cb538bbdeacbe325ba5756285298512 |
| 返回结果 | 参数名 | 类型 |  | 描述 |
| txid | 字符串 |  | 交易hash |
| type | 字符串 |  | 冷钱包为cold |
| direction | 字符串 |  | 转入为in，转出为out |
| coinType | 字符串 |  | 币唯一标示。规则见附录 |
| symbol | 字符串 |  | 币名 |
| blockHight | 字符串 |  | 区块高度 |
| memo | 字符串 |  | 交易memo。币为EOS时，这个用来确认那个用户充的币 |
|  | createtime | 字符串 |  | 创建日期 |
| 请求参数示例 | {"coinType":"EOS","sign":"e6eb52200f93431b1039858a0fb5369b0cb538bbdeacbe325ba5756285298512","appKey":"b93c3006-fc8a-4148-948e-617e48f8f10c","page":"1"} | | | |
| 返回结果示例 | {  "msg": "success",  "code": 0,  "data": [  {  "id": 7704,  "txid": "ac0ca711a0d03dee84b149dca47e4442aaaf50cafc3ae9282e55fb8e0a4b293d",  "type": "cold",  "address": "xxx.xxx",  "symbol": "EOS",  "direction": "in",  "qty": 0.0006,  "blockhash": "71384557",  "blockHight": 71384557,  "curBlockHight": 0,  "contract": "eosio.token",  "serialNumber": null,  "userid": 1563411877047,  "firstNoticeCounter": 0,  "secondNoticeCounter": 0,  "uniquekey": "-844806681\_eostokenpark\_ac0ca711a0d03dee84b149dca47e4442aaaf50cafc3ae9282e55fb8e0a4b293d\_20abce6c16b3421a25f88fa43d29e49c",  "memo": null,  "coinType": "EOS",  "createtime": "2019-07-30 19:36:07",  "updatetime": "2019-07-30 19:36:07"  }  ]  } | | | |

#### **2.5 获取提现记录**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 接口地址 | api/queryWithdrawRecord | | | |
| 接口说明 | 获取提现记录 | | | |
| 请求类型 | POST | | | |
| 请求参数 | 参数名 | 类型 | 是否必需 | 描述 |
| appKey | 字符串 | 是 | 申请成为商家后分配的APP Key |
| coinType | 字符串 | 是 | 币类型，例如BTC，ETH，USDT，EOS等。规则见[附录](#_3.1 Coin Type规则) |
| page | 数字 | 是 | 页数 |
| sign | 字符串 | 是 | 签名。参数按照ASII码升序，并按照&key=value的方式拼接，再使用分配的App Secret作为秘钥做SHA256加密获得。  例如拼接后字符串：appKey=b93c3006-fc8a-4148-948e-617e48f8f10c&coinType=USDT&page=1  SHA256加密后，sign为a9c5a86600143a0dd4d3a46eab03e663d9abeef136a90f11a21f3d0eb9a16fb6 |
| 返回结果 | 参数名 | 类型 |  | 描述 |
| txid | 字符串 |  | 交易hash |
| type | 字符串 |  | 冷钱包为cold |
| direction | 字符串 |  | 转入为in，转出为out |
| coinType | 字符串 |  | 币唯一标示 |
| symbol | 字符串 |  | 币名 |
| blockHight | 字符串 |  | 区块高度 |
| memo | 字符串 |  | 交易memo。币为EOS时，这个用来确认那个用户充的币 |
|  | createtime | 字符串 |  | 创建日期 |
| 请求参数示例 | {"coinType":"USDT","sign":"a9c5a86600143a0dd4d3a46eab03e663d9abeef136a90f11a21f3d0eb9a16fb6","appKey":"b93c3006-fc8a-4148-948e-617e48f8f10c","page":"1"} | | | |
| 返回结果示例 | {  "msg": "success",  "code": 0,  "data": [  {  "id": 14,  "coinType": "USDT",  "to": "1JHQjzsMkjDCuoKJYq6DJrvkSpmcxLBEuz",  "memo": null,  "qty": 1.0,  "serialNumber": "1559795630864\_1563263249844\_1559795630864",  "contractaddress": null,  "symbol": "USDT",  "feeCost": 0.00002,  "gasLimit": 0.0,  "gasPrice": 0.0,  "txid": "776ddee1616720d039b7be9237224fc42b7e2ee35882f6f14bd7160aa7d54bb4",  "createtime": "2019-07-16 17:55:32",  "updatetime": "2019-07-16 17:55:32",  "status": "ok",  "sign": "3b94f1453b36a006541170f813790c03287923f5ea6b3c1d416a411e8061dff5",  "userId": 1559795630864,  "fee": 0.00002,  "trx": ""  }  ]  } | | | |

#### **2.6 提币**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 接口地址 | api/withdraw | | | |
| 接口说明 | 提币 | | | |
| 请求类型 | POST | | | |
| 请求参数 | 参数名 | 类型 | 是否必需 | 描述 |
| appKey | 字符串 | 是 | 申请成为商家后分配的APP Key |
| coinType | 字符串 | 是 | 币类型，例如BTC，ETH，USDT，EOS等,规则见[附录](#_3.1 Coin Type规则) |
| to | 字符串 | 是 | 提币地址 |
| quantity | 数字 | 是 | 提币数量 |
| serialNumber | 字符串 | 是 | 商户订单号，请确保唯一 |
| memo | 字符串 | 否 | 备注 |
| feeCost | 数字 | 是 | 矿工费。用户BTC，omni USDT |
| gasLimit | 数字 | 是 | 最多使用gas数量。ETH及ERC 20代币用到 |
| gasPrice | 数字 | 是 | Gas价格。可以区块浏览器查到 |
| rsaSign | 字符串 |  | 参数按照ASII码升序，并按照&key=value的方式拼接，再使用MorningPayTools生成的walletKey json串中的rsaPrivateKey进行RSA签名得到。  例如拼接后字符串：appKey=b93c3006-fc8a-4148-948e-617e48f8f10c&coinType=USDT&contractAddress=&feeCost=0.00002000&gasLimit=&gasPrice=&memo=xxx&quantity=0.01000000&serialNumber=1566302872304&symbol=&to=1JHQjzsMkjDCuoKJYq6DJrvkSpmcxLBEuz，RSA签名后为：tWndmBsK3z1ntkF7dgkztiLke1yjYr75UIT2XLTEgmZhTiCgKV3xSUWqWF4fWwnxLTWeGK6ME3/uWTv8uQJBNJfO5Wap9I2bdRbwRD7QXP5NoIY++eZnijoiSpzSF2DNRXB4xqDag/jWq/zC7sz0c11Tc19oHIvDAuy3Pe5+JHM= |
| sign | 字符串 | 是 | 签名。参数按照ASII码升序，并按照&key=value的方式拼接，再使用分配的App Secret作为秘钥做SHA256加密获得。  例如拼接后字符串：{"coinType":"USDT","symbol":"","quantity":"0.01000000","serialNumber":"1566302872304","sign":"f4c98711284726f1742318ab9efae04edd6441b63989c9963d77dabe3f28b1ed","memo":"xxx","contractAddress":"","gasLimit":"","feeCost":"0.00002000","appKey":"b93c3006-fc8a-4148-948e-617e48f8f10c","to":"1JHQjzsMkjDCuoKJYq6DJrvkSpmcxLBEuz","rsaSign":"tWndmBsK3z1ntkF7dgkztiLke1yjYr75UIT2XLTEgmZhTiCgKV3xSUWqWF4fWwnxLTWeGK6ME3/uWTv8uQJBNJfO5Wap9I2bdRbwRD7QXP5NoIY++eZnijoiSpzSF2DNRXB4xqDag/jWq/zC7sz0c11Tc19oHIvDAuy3Pe5+JHM=","gasPrice":""}  SHA256加密后，sign为f4c98711284726f1742318ab9efae04edd6441b63989c9963d77dabe3f28b1ed |
| 请求参数示例 | {"coinType":"USDT","symbol":"","quantity":"0.01000000","serialNumber":"1566302872304","sign":"f4c98711284726f1742318ab9efae04edd6441b63989c9963d77dabe3f28b1ed","memo":"xxx","contractAddress":"","gasLimit":"","feeCost":"0.00002000","appKey":"b93c3006-fc8a-4148-948e-617e48f8f10c","to":"1JHQjzsMkjDCuoKJYq6DJrvkSpmcxLBEuz","rsaSign":"tWndmBsK3z1ntkF7dgkztiLke1yjYr75UIT2XLTEgmZhTiCgKV3xSUWqWF4fWwnxLTWeGK6ME3/uWTv8uQJBNJfO5Wap9I2bdRbwRD7QXP5NoIY++eZnijoiSpzSF2DNRXB4xqDag/jWq/zC7sz0c11Tc19oHIvDAuy3Pe5+JHM=","gasPrice":""} | | | |
| 返回结果示例 | {"msg":"success","code":0} | | | |

### 3 附录

#### **3.1** Coin Type规则

Coin Type公链币为其本身。例如：BTC，ETH，EOS，USDT

代币则为：公链币\_代币本身名称\_合约账号。例如

ETH\_USDT\_[0xdac17f958d2ee523a2206206994597c13d831ec7](https://eth.btc.com/accountinfo/0xdac17f958d2ee523a2206206994597c13d831ec7) 代表ERC-20 USDT

ETH\_HT\_0x6f259637dcd74c767781e37bc6133cd6a68aa161 代表ERC -20 HT

#### **3.2** morningPayTools工具

源码地址：

可执行jar包：

执行命令

java -jar morningPayTools.jar> data.txt

则执行结果生成到当前目录的data.txt文件中

#### **3.3** morningPaySDK for java

源码地址：