XEngine API Service Docment

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# Preface

## Reader

Development ,tester,qa

## **Overview**

This document contains related technical descriptions and interface definitions

## Associate Module

The service used XEngine as Network Toolki.if you want to use code,you have to installed XEngine

# 一 Technical structure

The Service implemented through c/c++,protocol through http.

## HTTP

Send and recv Message through post and get method.

# 二 Configure Env

## 2.1 WINDOWS

Need to download XEngine.

Complie and run and debug by vs.

### 2.1.1 Configure Environment

Follow the instructions in the XEngine Readme file to configure the environment.

### 2.1.2 complie and run

When you complete with configuration.you can come in code path.open XEngine.sln by vs

If environment not have error.complie is succesed

And you need copy file under XEngine\_Release to your complied dir.next step copy file under XEngine depend module to your complied dir.

Note: Xengine environment can be copied to your compilation directory through vscopy script, provided that you configure your xengine environment

## 2.2 LINUX

### 2.2.1 Evnironment Configure

If you use linux.you must running on ubuntu20.04 or centos8.x(Compatible with Centos-like systems)...

### 2.2.2 Complie and Run

Configure complete.you can complie it.open terminal in you xengine\_storage dir and execute command.

complie:make

install:make FLAGS=InstallAll

clean:make FLAGS=CleanAll

If there is no error.you can see complied XEngine\_\*App file in XEngine\_Release

## 2.3 Version Requirements

### 2.3.1 System Version

Minimum version requirements:

WINDOWS: win7 sp1

Ubuntu:20.04

Centos:8.x

MacOS:12

### 2.3.2 Software Version

Minimum version requirements:

XEngine:V7.38

# 三 Interface Protocol

## 3.1 IP Address Inforamtion Query

### 3.1.1 Request

Method:GET

Parament:params1 = IP Address

params2 = Response typpe,1 or 0

Address:http://127.0.0.1:5501/api?function=ip&params1=1.29.164.255&params2=0

### 3.1.2 Reply Type 0

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"tszIPAddr"**:**"1.29.164.255"**,  
        **"tszIPAddress"**:**"内蒙古通辽市霍林郭勒市"**,  
        **"tszIPCity"**:**"通辽市"**,  
        **"tszIPCountry"**:**"中国"**,  
        **"tszIPCounty"**:**"霍林郭勒市"**,  
        **"tszIPEnd"**:**"1.29.164.255"**,  
        **"tszIPISP"**:**"联通"**,  
        **"tszIPProvince"**:**"内蒙古"**,  
        **"tszIPStart"**:**"1.29.164.0"**,  
        **"tszIPTime"**:**"2021-11-03 07:33:50"**  
    },  
    **"msg"**:**"success"**  
}

### 3.1.3 Reply Type 1

0

1.29.164.255

1.29.164.0

1.29.164.255

中国

内蒙古

通辽市

霍林郭勒市

内蒙古通辽市霍林郭勒市

联通

2021-11-03 07:33:50

### 3.1.4 Error Reply

If http is not 200 or code is not 0,that’s mean is incorrent.

Msg field is json have.stream return type just is code msg only has json return type, data stream return type is only code, the same below

{  
    **"code"**:**1001**,  
    **"msg"**:**"parse is incorrent"**  
}

## 3.2 IDCard Information Query

ID check will verify that the ID number is correct

### 3.2.1 Request

Method:GET

Parament:params1 = IP Address

params2 = type 0 or 1 is Reply

Address:http://127.0.0.1:5501/api?function=id&params1=511025191101018792&params2=0

Reply:nSex:1 male 0 Women.

nCheck:Checksum

nPoliceID:Police ID

#### 3.2.2.2 Reply Type 0

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"nBirthDay"**:**1**,  
        **"nBirthMonth"**:**7**,  
        **"nBirthYear"**:**1988**,  
        **"nCheck"**:**2**,  
        **"nPoliceID"**:**87**,  
        **"nSex"**:**1**,  
        **"tszCity"**:**"内江市"**,  
        **"tszCounty"**:**"资中县"**,  
        **"tszIDNumber"**:**"511025191101018792"**,  
        **"tszProvincer"**:**"四川省"**  
    },  
    **"msg"**:**"success"**  
}

### 3.2.3 Reply Type1

0

511025191101018792

1911

1

1

87

1

四川省

内江市

资中县

## 3.3 Phone Information Query

### 3.3.1 Request

Method:GET

Parament:params1 = Phone Number

params2 = Return type,0 or 1

Address:http://127.0.0.1:5501/api?function=phone&params1=13699428888&params2=0

### 3.3.2 Reply 0

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"nAreaCode"**:**28**,  
        **"nPhoneNumber"**:**13699428888**,  
        **"nZipCode"**:**610000**,  
        **"tszCity"**:**"成都"**,  
        **"tszProvincer"**:**"四川"**  
    },  
    **"msg"**:**"success"**  
}

### 3.3.3 Reply 1

0

13699428888

四川

成都

610000

28

## 3.4 Bank Number Check

### 3.4.1 Request

Method:GET

Parament:params1 = Bank Number

params2 = type 0 or 1 is Reply

Address:http://127.0.0.1:5501/api?function=bank&params1=621400000&params2=0

### 3.4.2 Reply Type 0

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"enBankType"**:**2**,  
        **"tszBankAbridge"**:**"CMB"**,  
        **"tszBankName"**:**"招商银行"**,  
        **"tszBankNumber"**:**"621400000"**  
    },  
    **"msg"**:**"success"**  
}

### 3.4.3 Reply Type 1

0

62140000000

招商银行

CMB

2

## 3.5 Language Convert

### 3.5.1 Request

Method:GET

Parament:params1 = Convert Lanauge

params2 = Reply 0 or 1

Param3 = language choice

Address:http://192.168.1.12:5501/api?function=language&params1=繁体到简体&params2=0&params3=1

### 3.5.2 Reply 0

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"enType"**:**1**,  
        **"tszDestStr"**:**"繁體到簡體"**,  
        **"tszSourceStr"**:**"繁体到简体"**  
    },  
    **"msg"**:**"success"**  
}

### 3.5.3 Reply 1

0

繁体到简体

繁體到簡體

1

## 3.6 Translation

### 3.6.1 Request

Method:GET

Parament:params1 = Translation Source String

params2 = Return type 0 or 1

params3 = Translation Type,,Refer:ENUM\_XENGINE\_APISERVICE\_TRANSLATION\_TYPE

Address:http://192.168.1.12:5501/api?function=translation&params1=中国&params2=0&params3=0

### 3.6.2 Reply 0

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"enType"**:0,  
        **"tszDestStr"**:**"china"**,  
        **"tszSourceStr"**:**"中国"**  
    },  
    **"msg"**:**"success"**  
}

### 3.6.3 Reply 1

0

中国

china

0

## 3.7 P2XP Protocol

P2XP Protocol implemented through Http ,P2XP need to user infomation,if you want to use p2xp protocol,you may be develop authorize interface for verifying user infomation.

When user login by p2xp,user have to heartbeat every five second.

### 3.7.1 Join P2xp

Only sent to this protocol.the server will record client.client can be join p2xp network.

This function is mainly for the use of distributed storage networks across network segments. If you don't have this convenient requirement, you don't need to use it

#### 3.7.1.1 Request

Method:POST

Parament:params1 = Operator Code

Address:http://192.168.1.12:5501/api?function=p2p&params1=24577

协议体:

{  
    **"tszUserName"**:**"User name"**,  
    **"tszPrivateAddr"**:**"private or lan address"**,  
    **"tszPublicAddr"**:**"public address"**,  
    **"dwConnectType"**:**0**,  
    **"dwPeerType"**:**0**  
}

#### 3.7.1.2 Reply

{  
    **"code"**:**0**,  
    **"msg"**:**"success"**  
}

### 3.7.2 Sync List

The network address only synchronizes the internal network IP, and the external network address synchronization can synchronize all the internal network IP addresses under this external network IP address. For some large network companies and complex internal networks, this function can be used to easily determine that they are on the same network. Users under

#### 3.7.2.1 Request

Method:POST

Parament:params1 = Operator Code

Address:http://192.168.1.12:5501/api?function=p2p&params1=24579

协议体:

{  
    **"tszUserName"**:**"User name"**,  
    **"tszPrivateAddr"**:**"private or lan address"**,  
    **"tszPublicAddr"**:**"public address"**  
}

#### 3.7.2.2 Reply

{  
    **"code"**:**0**,  
    **"msg"**:**"sucess"**,  
    **"ClientCount"**:**2**,  
    **"ClientArray"**:[  
        {  
            **"ClientAddr"**:**"192.168.1.101"**,  
            **"ClientUser"**:**"123123aa"**  
        },  
        {  
            **"ClientAddr"**:**"192.168.1.102"**,  
            **"ClientUser"**:**"123123bb"**  
        }  
    ]  
}

## 3.8 Server Function Query

### 3.8.1 Request

Method:GET

Parament:无

Address:http://127.0.0.1:5501/api?function=options

### 3.8.2 Reply

{  
    **"OPTionBase"**:[  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"ip"**,  
            **"OPTionNote"**:**"IPAddress信息查询"**,  
            **"OPTionExample"**:**"[http://%s/api?function=ip¶ms1=1.29.164.255¶ms2=0](http://%s/api?function=ip&params1=1.29.164.255&params2=0" \t "https://www.json.cn/_blank)"**  
        },  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"id"**,  
            **"OPTionNote"**:**"身份证信息查询"**,  
            **"OPTionExample"**:**"[http://%s/api?function=id¶ms1=511025191101018792¶ms2=0](http://%s/api?function=id&params1=511025191101018792&params2=0" \t "https://www.json.cn/_blank)"**  
        },  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"phone"**,  
            **"OPTionNote"**:**"电话号码查询"**,  
            **"OPTionExample"**:**"[http://%s/api?function=phone¶ms1=13699428888¶ms2=0](http://%s/api?function=phone&params1=13699428888&params2=0" \t "https://www.json.cn/_blank)"**  
        },  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"bank"**,  
            **"OPTionNote"**:**"银行卡验证"**,  
            **"OPTionExample"**:**"[http://%s/api?function=bank¶ms1=6214000000¶ms2=0](http://%s/api?function=bank&params1=6214000000&params2=0" \t "https://www.json.cn/_blank)"**  
        },  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"language"**,  
            **"OPTionNote"**:**"语言转换"**,  
            **"OPTionExample"**:**"[http://%s/api?function=language¶ms1=繁体到简体¶ms2=0¶ms3=1](http://%s/api?function=language&params1=%E7%B9%81%E4%BD%93%E5%88%B0%E7%AE%80%E4%BD%93&params2=0&params3=1" \t "https://www.json.cn/_blank)"**  
        },  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"translation"**,  
            **"OPTionNote"**:**"翻译"**,  
            **"OPTionExample"**:**"[http://%s/api?function=translation¶ms1=中国¶ms2=0¶ms3=0](http://%s/api?function=translation&params1=%E4%B8%AD%E5%9B%BD&params2=0&params3=0" \t "https://www.json.cn/_blank)"**  
        },  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"p2p"**,  
            **"OPTionNote"**:**"p2p网络"**,  
            **"OPTionExample"**:**"参考文档"**  
        }  
    ],  
    **"OPTionPlugin"**:[  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"zodiac"**,  
            **"OPTionNote"**:**"生肖星座"**,  
            **"OPTionExample"**:**"[http://%s/api?function=zodiac¶ms1=19880121](http://%s/api?function=zodiac&params1=19880121" \t "https://www.json.cn/_blank)"**  
        },  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"pass"**,  
            **"OPTionNote"**:**"密码"**,  
            **"OPTionExample"**:**"[http://%s/api?function=pass¶ms1=1¶ms2=4](http://%s/api?function=pass&params1=1&params2=4" \t "https://www.json.cn/_blank)"**  
        },  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"timezone"**,  
            **"OPTionNote"**:**"时区转换"**,  
            **"OPTionExample"**:**"[http://%s/api?function=timezone¶ms1=0](http://%s/api?function=timezone&params1=0" \t "https://www.json.cn/_blank)"**  
        },  
        {  
            **"OPTionEnable"**:**true**,  
            **"OPTionMethod"**:**"bmindex"**,  
            **"OPTionNote"**:**"体脂标准"**,  
            **"OPTionExample"**:**"[http://%s/api?function=bmindex¶ms1=高(米))¶m2=体重(千克)](http://%s/api?function=bmindex&params1=%E9%AB%98(%E7%B1%B3))&param2=%E4%BD%93%E9%87%8D(%E5%8D%83%E5%85%8B)" \t "https://www.json.cn/_blank)"**  
        }  
    ]  
}

## 3.A Plugin System Interface

### 3.A.1 Password

#### 3.A.1.1 Request

Method:GET

Parament:params1 = Generated type, 1 is random

params2 = Password length

Address:http://192.168.1.12:5501/api?function=pass&params1=1&params2=4

#### 3.A.1.2 Reply

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"tszParamLength"**:**"4"**,  
        **"tszParamType"**:**"1"**,  
        **"tszPassword"**:**"9xKm"**  
    },  
    **"msg"**:**"success"**  
}

### 3.A.2 Zodiac

#### 3.A.2.1 Request

Method:GET

Parament:params1 = process date,example:1988 year 1 month 21day is:19880121

Address:http://192.168.1.12:5501/api?function=zodiac&params1=19880121

#### 3.A.2.2 Reply

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"tszChineseZodiac"**:**"龙"**,  
        **"tszDate"**:**"19880121"**,  
        **"tszEnglishZodiac"**:**"水瓶座"**  
    },  
    **"msg"**:**"success"**  
}

### 3.A.3 Bmi

#### 3.A.3.1 Request

Method:GET

Parament:params1 = height, in meters

params2 = weight, in kilograms

Address:http://127.0.0.1:5501/api?function=bmindex&params1=1.78&params2=62

#### 3.A.3.2 Reply

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"Result"**:**"标准"**,  
        **"flHigh"**:**1.78**,  
        **"flValue"**:**19.568236333796236**,  
        **"flWeight"**:**62**  
    },  
    **"msg"**:**"success"**  
}

### 3.A.4 Timezone

#### 3.A.4.1 Count Query

##### 3.A.4.1.1 Request

Method:GET

Parament:params1 = Type,0 is query count

Address:http://127.0.0.1:5501/api?function=timezone&params1=0

##### 3.A.4.1.2 Reply

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"Count"**:**91**  
    },  
    **"msg"**:**"success"**  
}

#### 3.A.4.2 List Query

##### 3.A.4.2.1 Request

Method:GET

Parament:params1 = Type,1 is list query

params2 = the range of the list to query

Address:http://127.0.0.1:5501/api?function=timezone&params1=1&params2=1-10

##### 3.A.4.2.2 Reply

{  
    **"Array"**:[  
        {  
            **"tszTimeCountry"**:**"大西洋标准时间（加拿大）"**,  
            **"tszTimeZone"**:**"AST"**  
        },  
        {  
            **"tszTimeCountry"**:**"夏威夷-阿拉斯加标准时间"**,  
            **"tszTimeZone"**:**"AHST"**  
        },  
        {  
            **"tszTimeCountry"**:**"以色列标准时间"**,  
            **"tszTimeZone"**:**"IST"**  
        }

],  
    **"Count"**:**3**,  
    **"code"**:**0**,  
    **"msg"**:**"success"**,  
    **"nPosEnd"**:**3**,  
    **"nPosStat"**:**1**  
}

#### 3.4.A.3 Timezone Convert

##### 3.A.4.3.1 Request

Method:GET

Parament:params2 = type,2 is timezone convert

params2 = convert type

Params3 = time

Address:http://127.0.0.1:5501/api?function=timezone&params1=2&params2=AST&params3=2022-07-21\_12:10:01

##### 4.A.4.3.2 Reply

{  
    **"code"**:**0**,  
    **"data"**:{  
        **"tszTimeCountry"**:**"大西洋标准时间（加拿大）"**,  
        **"tszTimeStr"**:**"2022-07-21 08:10:01"**,  
        **"tszTimeZone"**:**"AST"**  
    },  
    **"msg"**:**"success"**  
}

# 四 Configure Description

## 4.1 Service Configure

Basic Configure File:XEngine\_Config.json

### 4.1.1 basic configure

* tszIPAddr: location ip address
* bDeamon: 1 deamon process run 0 is terminal run
* nHttpPort:http port

### 4.1.2 Max Configure

XMax Configure

* nMaxClient Allow Max Client Count
* nMaxQueue Allow Max Queue
* nIOThread:network io process threads number
* nHttpThread:http process threads number

### 4.1.3 Time Configure

XTime Configure

* nTimeCheck:check time
* nP2PTimeOut:P2P Timeout
* nHttpTimeOut:same nTCPTimeOut

### 4.1.4 Log Configure

XLog Configure

* MaxSize:Log file size
* MaxCount:Log File Number
* LogLeave:Allow save level

### 4.1.5 DB Interface Configure

XDatabase Configure

* tszIPData:IP Database address
* tszIDData:ID Database address
* tszPhoneData:phone database address
* tszBankUrl:Bank card verification interface address
* tszTranslationUrl:translate interface address

### 4.1.6 插件配置

XPlugin Configure

* bEnable:whether enable plugin
* tszPluginList:plugin configure file

## 4.2 Language Configure

Configure File XEngine\_OPenccConfig.json

## 4.3 Plugin Configure

Configure File:XEngine\_PluginConfig.json

This is json array:

* PluginEnable:whether is enable
* PluginMethod:The name of the method to be registered, when function= this name, the system will automatically hand it over to the module for processing
* PluginFile:module file address

## 4.4 Server Function

Configure File:XEngine\_OPtionConfig.json

This contains the capability configuration of the server, which can be modified according to your own server conditions. The format of the configuration file is json.

# 五 Advanced Mode

## 5.1 Plugin Written

# appendix

## Appendix 1 Type Define

reference file:XEngine\_CommHdr.h

## Appendix 2 Protocol Define

reference file:XEngine\_ProtocolHdr.h

## Appendix 3 Transformation Definition

reference file:XEngine\_Types.h only LINUX

## Appendix 4 update log