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 tcp and http.

## TCP

The TCP protocol uses the standard protocol header of XEngine to realize message communication. The TCP protocol is faster and has more functions.

## 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.

Download address:https://gitee.com/xyry/libxengine

https://github.com/libxengine/xengine

### 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: You can run the program directly, the system will prompt you what you need, you can directly enter the XEngine directory to search,you can also use vscopy-\*.bat to copy dependent module.

## 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

### 2.3.2 Software Version

Minimum version requirements:

XEngine:V7.30

# 三 Interface Protocol

## 3.1 TCP

Please Note:The wReserver field of the protocol header will be used as the server reply processing result. 0 means the processing is successful, other values mean failure  
 whether protocol load is general protocol or HTTP protocol,they can be load json data.

### 3.1.1 Example

#### 3.1.1.1 Request

Protocol Header:

wHeader = XENGIEN\_COMMUNICATION\_PACKET\_PROTOCOL\_HEADER

xhToken = 0

unOperatorType = ENUM\_XENGINE\_COMMUNICATION\_PROTOCOL\_TYPE\_XMQ

unOperatorCode = XENGINE\_COMMUNICATION\_PROTOCOL\_OPERATOR\_CODE\_MQ\_REQPOST

unPacketSize = MSGLEN

byVersion = 1

byIsReply = TRUE

wReserve = 0

wPacketSerial = 0

wTail = XENGIEN\_COMMUNICATION\_PACKET\_PROTOCOL\_TAIL

Protocol Body:DATA in tail

#### 3.1.1.2 Reply

Protocol Header:

wHeader = XENGIEN\_COMMUNICATION\_PACKET\_PROTOCOL\_HEADER

xhToken = 0

unOperatorType = ENUM\_XENGINE\_COMMUNICATION\_PROTOCOL\_TYPE\_XMQ

unOperatorCode = XENGINE\_COMMUNICATION\_PROTOCOL\_OPERATOR\_CODE\_MQ\_REPPOST

unPacketSize = 0

byVersion = 1

byIsReply = FALSE

wReserve = 0

wPacketSerial = 0

wTail = XENGIEN\_COMMUNICATION\_PACKET\_PROTOCOL\_TAIL

## 3.2 HTTP

### 3.2.1 IP Address Inforamtion Query

#### 3.2.1.1 Request

Method:GET

参数:params1 = IP Address

params2 = Response typpe,1 or 0

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

#### 3.2.1.2 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"**  
}

#### 3.2.1.3 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

### 3.2.2 IDCard Information Query

ID check will verify that the ID number is correct

#### 3.2.2.1 Request

Method:GET

Parament:params1 = IP Address

params2 = type 0 or 1 is Reply

Address:http://127.0.0.1:5501/api?function=idquery&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"**  
}

#### 3.2.2.3 Reply Type1

0

511025191101018792

1911

1

1

87

1

四川省

内江市

资中县

# 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
* nCenterPort:tcp port
* 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
* nCenterThread:tcp process threads number
* nHttpThread:http process threads number

### 4.1.3 Time Configure

XTime Configure

* nTimeCheck:check time
* nCenterTimeOut:how time check once
* 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 Database Configure

XDatabase Configure

* tszIPData:IP Database address
* tszIDData:ID Database address

# 五 Advanced configuration

# 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