**M50 WebSocket SDK**

**Communication Protocol**

Change Log

|  |  |
| --- | --- |
| Date | Description |
| 2024/12/19 | Added new Commands.  GetVideoStreamSetting  SetVideoStreamSetting  GetCenterScreenMessage  SetCenterScreenMessage |
| 2024/12/16 | Updated the Command.  *TimeLog\_v2* (added <*UtcTimezoneMinutes*>) |
| 2024/12/11 | Updated the Commands.  *TimeLog\_v2* |
| 2024/11/9 | Added the new Command.  *GetUserQRCode*  Updated the Commands to add user QR code.  *GetUserData*  *SetUserData*  *GetFirstUserData*  *GetNextUserData*  *GetNextUserDataExt* |
| 2024/1/3 | Added the new Command.  *EnrollFaceByPhoto* |
| 2023/9/28 | Updated the Commands to add user period.  *GetUserData*  *SetUserData*  *GetFirstUserData*  *GetNextUserData*  *GetNextUserDataExt* |
| 2023/9/27 | Updated Login to add Result: FailUnknownToken |
| 2023/3/30 | Added the new Command.  *DeleteGlogWithPos*  *GetGlogPosInfo* |
| 2022/12/28 | Added the new Command.  *KeepAlive* |
| 2016/08/04 | Added the Commands.  *TimeLog\_v2,*  *AdminLog\_v2.*  Deprecated *TimeLog, AdminLog.* |
| 2016/07/19 | Added the description of <*FaceData*> in the request of *SetUserData* and the response of *GetUserData.* |
| 2016/05/30 | Added <*ParamName*> in the response of *GetDeviceStatus.*  Added <*AllowNoCertificate*> in the request of *SetUserData*.  Added the new Commands.  *GetDeviceInfoAll,*  *GetDeviceStatusAll,*  *GetFirstGlog,*  *GetNextGlog,*  *GetFirmwareVersion,*  *FirmwareUpgradeHttp* |
| 2016/03/24 | Added the <*FingerNo*>tag in the RemoteEnroll command. |
| 2016/03/12 | Added the <*CloudId*>tag in the Register request from the device, so that the server can deny the connection attempt of the devices with the invalid cloud id. |
| 2016/03/07 | Detailed the description of *TimeLog* by adding <*LogImage*>tag. |
| 2016/02/25 | Added *ExitRemoteEnroll.* |
| 2016/01/20 | Detailed the description of *SetUserData.* |
| 2015/10/16 | Initial |

1. Introduction

The system administrator can change settings or manipulate the device over Internet.

The devices transmit attendance logs and management logs to the server in real time.

For this purpose, the devices support websocket communication.

2. Stages

2.1 Establishing websocket connection

The device administrator can set the URL of the websocket server in the device menu.

(For example, ws://sample/ or wss://smaple)

After power on, the device tries to connect to that server every 10s.

When successfully connected (handshake), starts message communication.

When the connection is closed, the device will automatically retry to connect to the server.

2.2 Registration

The administrator should register the device serial number of the devices to manage into the database.

Server generates a new token and also stores it to the database.

When server receives registration request from the device, it replies the token.

2.3 Login

Before going into normal communication state, the device should login.

The device sends device serial number (key) and the token.

If the device serial number and the token have already been registered in the system database, the server replies OK response. Else, replies Fail response.

When login fails, the device close connection and retries again.

The Web Server Application can be implemented so that the administrator can see online devices (such devices that are connected but not yet logged in) in the “Register Devices” page, and do registration devices.

(In the sample, the server just allows the registration for the register request from the device without any condition.)

The administrator can select any of them to change setting or manipulate.

3. Message Detail

## Register

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<Request>Register</Request>*

*<TerminalType>F500</TerminalType>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<CloudId>cloudid12345678</CloudId>*

*</Message>*

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Response>Register</ Response>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Token>ee73fe2d-f765-7c13-bc8a-b584b0db5796</Token>*

*<Result>OK</Result>*

*</Message>*

## Login

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<Request>Login</Request>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Token>ee73fe2d-f765-7c13-bc8a-b584b0db5796</Token>*

*</Message>*

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Response>Login</ Response>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Result>OK/Fail/FailUnknownToken</Result>*

*</Message>*

## GetUserData

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Reuqest>GetUserData</Request>*

*<UserID>1~99999999</UserID>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>GetUserData</Response>*

*<UserID>1~99999999</UserID>*

*<Name>23A/+</Name>( base64 encoded UTF-16 LE string)*

*<Privilege>User/Manager/Administrator</Privilege>*

*<Depart>0</Depart>*

*<Enabled>Yes/No</Enabled>*

*<TimeSet1>0~49</TimeSet1>*

*<TimeSet2>0~49</TimeSet2>*

*<TimeSet3>0~49</TimeSet3>*

*<TimeSet4>0~49</TimeSet4>*

*<TimeSet5>0~49</TimeSet5>*

*<UserPeriod\_Used>Yes/No</UserPeriod\_Used>*

*<UserPeriod\_Start>(Integer value)</UserPeriod\_Start>*

*<UserPeriod\_End>(Integer value)</UserPeriod\_End>*

*(Integer value) = (Year-2000) << 16 + (Month << 8) + Day*

*<Card>5342354 (in base64 encoding)</Card>*

*<PWD>012345</ PWD>*

*<QR>5342354 (in base64 encoding)</QR>*

*<Fingers>xxxx </ Fingers> (bit mask, [2\*n]th bit represents nth finger is enrolled or not, [2\*n+1]th bit represents nth finger is duress finger or not)*

*<FaceEnrolled>Yes/No</FaceEnrolled> <FaceData>Template data in base64 encoding</FaceData> <!-- optional -->*

*<Result>OK/Fail</Result></Message>*

## SetUserData

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> SetUserData</Request>*

*<UserID>1~99999999</UserID>*

*<Type>Set/Delete</Type> <!--Update: replace specific data -->*

*<Name>/23…</Name>*

*<Privilege>User/Manager/Administrator</Privilege><!-- optional -->*

*<Enabled>Yes/No</Enabled> <!-- optional -->*

*<TimeSet1>0~49</TimeSet1> <!-- optional -->*

*<TimeSet2>0~49</TimeSet2> <!-- optional -->*

*<TimeSet3>0~49</TimeSet3> <!-- optional -->*

*<TimeSet4>0~49</TimeSet4> <!-- optional -->*

*<TimeSet5>0~49</TimeSet5> <!-- optional -->*

*<UserPeriod\_Used>Yes/No</UserPeriod\_Used> <!-- optional -->*

*<UserPeriod\_Start>(Integer value)</UserPeriod\_Start> <!-- optional -->*

*<UserPeriod\_End>(Integer value)</UserPeriod\_End> <!-- optional -->*

*(Integer value) = (Year-2000) << 16 + (Month << 8) + Day*

*<Card>543453 (in base64 encoding)</Card> <!-- optional -->*

*<PWD>012345</ PWD> <!-- optional -->*

*<QR>543453 (in base64 encoding)</QR> <!-- optional -->*

*<FaceData>Template data in base64 encoding</FaceData> <!-- optional -->*

*<AllowNoCertificate>Yes/No</AllowNoCertificate> <!-- optional -->*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetUserData </Response>*

*<UserID>1~99999999</UserID>*

*<Type>Set/Delete</Type>*

*<Result>OK/Fail</Result>*

*<Error>No Certificates</Error> <!--optional -->*

*</Message>*

To delete user, use <Type>*Delete*</Type>.

To delete card number, use <Type>*Set*</Type><Card></Card>.

To delete password, use <Type>*Set*</Type>< PWD ></ PWD >.

To delete QR code, use <Type>*Set*</Type><QR></QR>.

When <Type> is ‘*Set’* and <AllowNoCertificate> is not *‘Yes’*, if no verification data is existed after operation, then it will be returned *<Result> Fail</Result><Error>No Certificates</Error> .*

## GetFirstUserData

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetFirstUserData</Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetFirstUserData </Response>*

*<UserID>1~99999999</UserID>*

*<Name>23A/+</Name>*

*<Privilege>User/Manager/Administrator</Privilege>*

*<Depart>0</Depart>*

*<Enabled>Yes/No</Enabled>*

*<TimeSet1>0~49</TimeSet1>*

*<TimeSet2>0~49</TimeSet2>*

*<TimeSet3>0~49</TimeSet3>*

*<TimeSet4>0~49</TimeSet4>*

*<TimeSet5>0~49</TimeSet5>*

*<UserPeriod\_Used>Yes/No</UserPeriod\_Used>*

*<UserPeriod\_Start>(Integer value)</UserPeriod\_Start>*

*<UserPeriod\_End>(Integer value)</UserPeriod\_End>*

*(Integer value) = (Year-2000) << 16 + (Month << 8) + Day*

*<Card>56234</Card> <!-- optional -->*

*<PWD>012345</ PWD> <!-- optional -->*

*<QR>56234</QR> <!-- optional -->*

*<Fingers >xxx…</ Fingers> <!-- optional -->*

*<FaceEnrolled>Yes/No</FaceEnrolled> <More>Yes/No</More>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetNextUserData

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetNextUserData</Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetNextUserData</Response>*

*<UserID>1~99999999</UserID>*

*<Name>23A/+</Name>*

*<Privilege>User/Manager/Administrator</Privilege>*

*<Depart>0</Depart>*

*<Enabled>Yes/No</Enabled>*

*<TimeSet1>0~49</TimeSet1>*

*<TimeSet2>0~49</TimeSet2>*

*<TimeSet3>0~49</TimeSet3>*

*<TimeSet4>0~49</TimeSet4>*

*<TimeSet5>0~49</TimeSet5>*

*<UserPeriod\_Used>Yes/No</UserPeriod\_Used>*

*<UserPeriod\_Start>(Integer value)</UserPeriod\_Start>*

*<UserPeriod\_End>(Integer value)</UserPeriod\_End>*

*(Integer value) = (Year-2000) << 16 + (Month << 8) + Day*

*<Card>56234</Card> <!-- optional -->*

*<PWD>012345</ PWD> <!-- optional -->*

*<QR>56234</QR> <!-- optional -->*

*<Fingers >xxx…</ Fingers> <!-- optional -->*

*<FaceEnrolled>Yes/No</FaceEnrolled> <More>Yes/No</More>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetNextUserDataExt

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetNextUserDataExt</Request>*

*<UserID>1~99999999</UserID>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetNextUserDataExt</Response>*

*<UserID>1~99999999</UserID>*

*<Name>23A/+</Name>*

*<Privilege>User/Manager/Administrator</Privilege>*

*<Depart>0</Depart>*

*<Enabled>Yes/No</Enabled>*

*<TimeSet1>0~49</TimeSet1>*

*<TimeSet2>0~49</TimeSet2>*

*<TimeSet3>0~49</TimeSet3>*

*<TimeSet4>0~49</TimeSet4>*

*<TimeSet5>0~49</TimeSet5>*

*<UserPeriod\_Used>Yes/No</UserPeriod\_Used>*

*<UserPeriod\_Start>(Integer value)</UserPeriod\_Start>*

*<UserPeriod\_End>(Integer value)</UserPeriod\_End>*

*(Integer value) = (Year-2000) << 16 + (Month << 8) + Day*

*<Card>56234</Card> <!-- optional -->*

*<PWD>012345</ PWD> <!-- optional -->*

*<QR>56234</QR> <!-- optional -->*

*<Fingers >xxx…</ Fingers> <!-- optional -->*

*<FaceEnrolled>Yes/No</FaceEnrolled> <More>Yes/No</More>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetUserPassword

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetUserPassword </Request>*

*<UserID>1~99999999</UserID>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetUserPassword</Response>*

*<UserID>1~99999999</UserID>*

*<Password>532</Password>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetUserCardNo

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetUserCardNo </Request>*

*<UserID>1~99999999</UserID>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetUserCardNo</Response>*

*<UserID>1~99999999</UserID>*

*<CardNo>394382</CardNo>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetUserQRCode

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetUserQR </Request>*

*<UserID>1~99999999</UserID>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetUserQR</Response>*

*<UserID>1~99999999</UserID>*

*<QR>394382</QR>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetUserPhoto

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetUserPhoto </Request>*

*<UserID>1~99999999</UserID>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetUserPhoto</Response>*

*<UserID>1~99999999</UserID>*

*<PhotoData>Photo data in base64 encoding</PhotoData>*

*<Result>OK/Fail</Result>*

*</Message>*

## SetUserPhoto

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> SetUserPhoto </Request>*

*<UserID>1~99999999</UserID>*

*<PhotoSize>5543</PhotoSize>*

*<PhotoData>Photo data in base64 encoding</PhotoData>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetUserPhoto</Response>*

*<UserID>1~99999999</UserID>*

*<Result>OK/Device Not Ready/Fail</Result>*

*<Reason> Fail Reason </Reason>*

*</Message>*

## EnrollFaceByPhoto

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> EnrollFaceByPhoto </Request>*

*<UserID>1~99999999</UserID>*

*<PhotoSize>5543</PhotoSize>*

*<PhotoData>Photo data in base64 encoding</PhotoData>*

*<!—Photo data is a Jpg file. Maximum file size is 32KB. -->*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> EnrollFaceByPhoto </Response>*

*<UserID>1~99999999</UserID>*

*<Result>OK/Device Not Ready/Fail</Result>*

*<Reason> Fail Reason </Reason>*

*</Message>*

## GetFingerData

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetFingerData</Request>*

*<UserID>1~99999999</UserID>*

*<FingerNo>0~9</FingerNo>*

*<FingerOnly>1/0</FingerOnly>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetFingerData</Response>*

*<UserID>1~99999999</UserID>*

*<FingerNo>0~9</FingerNo>*

*<Duress>Yes/No</Duress>*

*<FingerData>Template data in base64 encoding</FingerData>*

*<Result>OK/Fail</Result>*

*</Message>*

## SetFingerData

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> SetFingerData </Request>*

*<UserID>1~99999999</UserID>*

*<Privilege>User/Manager/Administrator</Privilege>*

*<FingerNo>0~9</FingerNo>*

*<DuplicationCheck>1/0</DuplicationCheck>*

*<Duress>1/0</Duress>*

*<FingerData>Template data in base64 encoding</FingerData>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetFingerData</Response>*

*<UserID>1~99999999</UserID>*

*<FingerNo>0~9</FingerNo>*

*<Result>OK/Device Not Ready/Fail</Result>*

*</Message>*

## GetFaceData

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetFaceData</Request>*

*<UserID>1~99999999</UserID>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>GetFaceData</Response>*

*<UserID>1~99999999</UserID>*

*<FaceEnrolled>Yes</FaceEnrolled> <FaceData>Template data in base64 encoding</FaceData>*

*<Result>OK/Fail</Result>*

*</Message>*

## SetFaceData

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>SetFaceData</Request>*

*<UserID>1~99999999</UserID>*

*<Privilege>User/Manager/Administrator</Privilege>*

*<DuplicationCheck>Yes/No</DuplicationCheck>*

*<FaceData>Template data in base64 encoding</FaceData>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetFaceData</Response>*

*<UserID>1~99999999</UserID>*

*<Action>Update/Delete</Action> <Result>OK/Device Not Ready/Fail</Result>*

*</Message>*

## RemoteEnroll

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>RemoteEnroll</Request>*

*<Backup>RemoteEnrollFace/RemoteEnrollFP/RemoteEnrollCard/RemoteEnrollQR</Backup>*

*<FingerNo>0~9</FingerNo> (Optional)*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>RemoteEnroll</Response>*

*<ResultCode>Success/ EnrollNumberError/ DatabaseFull/ FaceAlreadyEnrolled/ FPAllEnrolled / FPAlreadyEnrolled / InvalidFingerNumber / CardAlreadyEnrolled / QRAlreadyEnrolled / MenuProcessing / RemoteEnrollAlreadyStarted / Unknown </ResultCode>*

*</Message>*

## [ExitRemoteEnroll]

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>ExitRemoteEnroll</Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>ExitRemoteEnroll</Response>*

*<ResultCode>SuccessExitRemoteEnroll/NotStartedRemoteEnroll</ResultCode>*

*</Message>*

## GetDepartment

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetDepartment</Response>*

*<DeptNo>0~29</DeptNo>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetDepartment </Response>*

*<DeptNo>0~29</DeptNo>*

*<Name>839A/…</Name><!—base64 encoded UTF-16 LE string -->*

*<Error>Not exist</Error><!—optional-->*

*</Message>*

## SetDepartment

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>SetDepartment</Response>*

*<DeptNo>0~29</DeptNo>*

*<Data>839A/…</Data><!— base64 encoded UTF-16 LE string-->*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetDepartment </Response>*

*<Result>OK/Fail/Invalid Param</ Result>*

*</Message>*

## GetProxyDept

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetProxyDept</Response>*

*<ProxyNo>0~6</ProxyNo>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetProxyDept </Response>*

*<ProxyNo>0~6</ProxyNo>*

*<Name>839A/…</Name><!—base64 encoded UTF-16 LE string -->*

*<Error>Not exist</Error><!—optional-->*

*</Message>*

## SetProxyDept

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>SetProxyDept</Response>*

*<ProxyNo>0~6</ProxyNo>*

*<Data>839A/…</Data><!—base64 encoded UTF-16 LE string-->*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>SetProxyDept</Response>*

*<Result>OK/Fail/Invalid Param</ Result>*

*</Message>*

## GetAutoAttendance

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetAutoAttendance</Response>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetAutoAttendance </Response>*

*<TimeSection\_0>0, 0, 0</TimeSection\_0> <!—start, end, tr status -->*

*<TimeSection\_1>0, 0, 0</TimeSection\_1><!—start = hour \* 60 + minute -->*

*<TimeSection\_2>0, 0, 0</TimeSection\_2><!—end= hour \* 60 + minute -->*

*<TimeSection\_3>0, 0, 0</TimeSection\_3>*

*<TimeSection\_4>0, 0, 0</TimeSection\_4>*

*<TimeSection\_5>0, 0, 0</TimeSection\_5>*

*<TimeSection\_6>0, 0, 0</TimeSection\_6>*

*<TimeSection\_7>0, 0, 0</TimeSection\_7>*

*<TimeSection\_8>0, 0, 0</TimeSection\_8>*

*<TimeSection\_9>0, 0, 0</TimeSection\_9>*

*</Message>*

## SetAutoAttendance

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>SetAutoAttendance</Request>*

*<TimeSection\_0>0, 0, 0</TimeSection\_0> <!—start, end, tr status -->*

*<TimeSection\_1>0, 0, 0</TimeSection\_1><!—start = hour \* 60 + minute -->*

*<TimeSection\_2>0, 0, 0</TimeSection\_2><!—end= hour \* 60 + minute -->*

*<TimeSection\_3>0, 0, 0</TimeSection\_3>*

*<TimeSection\_4>0, 0, 0</TimeSection\_4>*

*<TimeSection\_5>0, 0, 0</TimeSection\_5>*

*<TimeSection\_6>0, 0, 0</TimeSection\_6>*

*<TimeSection\_7>0, 0, 0</TimeSection\_7>*

*<TimeSection\_8>0, 0, 0</TimeSection\_8>*

*<TimeSection\_9>0, 0, 0</TimeSection\_9>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>SetAutoAttendance</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetAccessTimeZone

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetAccessTimeZone</Response>*

*<TimeZoneNo>0~49</TimeZoneNo>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetAccessTimeZone </Response>*

*<TimeZoneNo>0~49</TimeZoneNo>*

*<TimeSection\_0>0, 0</TimeSection\_0> <!—start, end -->*

*<TimeSection\_1>0, 0</TimeSection\_1><!—start = hour \* 60 + minute -->*

*<TimeSection\_2>0, 0</TimeSection\_2><!—end= hour \* 60 + minute -->*

*<TimeSection\_3>0, 0</TimeSection\_3>*

*<TimeSection\_4>0, 0</TimeSection\_4>*

*<TimeSection\_5>0, 0</TimeSection\_5>*

*<TimeSection\_6>0, 0</TimeSection\_6>*

*</Message>*

## SetAccessTimeZone

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>SetAccessTimeZone</Request>*

*<TimeZoneNo>0~49</TimeZoneNo>*

*<TimeSection\_0>0, 0</TimeSection\_0> <!—start, end -->*

*<TimeSection\_1>0, 0</TimeSection\_1><!—start = hour \* 60 + minute -->*

*<TimeSection\_2>0, 0</TimeSection\_2><!—end= hour \* 60 + minute -->*

*<TimeSection\_3>0, 0</TimeSection\_3>*

*<TimeSection\_4>0, 0</TimeSection\_4>*

*<TimeSection\_5>0, 0</TimeSection\_5>*

*<TimeSection\_6>0, 0</TimeSection\_6>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetAccessTimeZone </Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetBellTime

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetBellTime </Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetBellTime </Response>*

*<BellRingTimes>10</BellRingTimes><BellCount>24</BellCount><Bell\_0>0, 0, 0, 0</Bell\_0> <!-- valid, type, hour, minute --><Bell\_1>0, 0, 0, 0</Bell\_1><Bell\_2>0, 0, 0, 0</Bell\_2><Bell\_3>0, 0, 0, 0</Bell\_3><Bell\_4>0, 0, 0, 0</Bell\_4>...*

*<Bell\_22>0, 0, 0, 0</Bell\_22><Bell\_23>0, 0, 0, 0</Bell\_23>*

*</Message>*

## SetBellTime

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> SetBellTime</Request>*

*<BellRingTimes>3</BellRingTimes>*

*<BellCount>24</BellCount><Bell\_0>0, 0, 0, 0</Bell\_0> <!-- valid, type, hour, minute --><Bell\_1>0, 0, 0, 0</Bell\_1><Bell\_2>0, 0, 0, 0</Bell\_2><Bell\_3>0, 0, 0, 0</Bell\_3><Bell\_4>0, 0, 0, 0</Bell\_4>...*

*<Bell\_22>0, 0, 0, 0</Bell\_22><Bell\_23>0, 0, 0, 0</Bell\_23>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetBellTime</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetTime

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetTime </Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>GetTime</Response>*

*<Time>2013-4-11-T11:28:54Z</Time>*

*</Message>*

## SetTime

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> SetTime </Request>*

*<Time>2013-4-11-T11:28:54Z</Time>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>SetTime</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetDeviceStatus

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetDeviceStatus </Request>*

*<ParamName>xxx</ParamName>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetDeviceStatus</Response>*

*<ParamName>xxx</ParamName>*

*<Value>xxx</Value>*

*</Message>*

|  |  |
| --- | --- |
| Available Param Name | Description |
| ManagerCount | Count of managers registered |
| UserCount | Count of users registered |
| FaceCount | Count of faces registered |
| FpCount | Count of fingers registered |
| CardCount | Count of card registered |
| PwdCount | Count of password registered |
| QRCount | Count of QR code registered |
| DoorStatus | 1: Door opened, 0: Door closed |
| AlarmStatus | bit-1: Door is not closed.  bit-2: Illegal Open  bit-3: Duress alarm  bit-4: Tamper alarm |

## GetDeviceStatusAll

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetDeviceStatusAll </Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetDeviceStatusAll </Response>*

*< ManagerCount >xxx</ ManagerCount >*

*< UserCount >xxx</ UserCount >*

*< FaceCount >xxx</ FaceCount >*

*< FpCount>xxx</ FpCount>*

*< CardCount>xxx</ CardCount>*

*< PwdCount>xxx</ PwdCount>*

*< QRCount>xxx</ QRCount>*

*< DoorStatus>xxx</ DoorStatus>*

*< AlarmStatus>xxx</ AlarmStatus>*

*(refer to the parameters of GetDeviceStatus )*

*</Message>*

## GetDeviceInfo

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetDeviceInfo </Request>*

*<ParamName>xxx</ParamName>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetDeviceInfo</Response>*

*<ParamName>xxx</ParamName>*

*<Value>xxx</Value>*

*</Message>*

|  |  |
| --- | --- |
| Available Param Name | Description |
| ManagersNumber | Maximum number of managers |
| MachineID | Machine ID for OCX |
| Language | Device language |
| LockReleaseTime | Lock release time in seconds |
| SLogWarning | Management Log warning count |
| GLogWarning | Time log warning count |
| ReverifyTime | Re-verification detect time in minutes |
| Baudrate | Baud rate for serial port |
| IdentifyMode | Device default identification mode |
| LockMode | Lock control mode |
| DoorSensorType | Door sensor type |
| DoorOpenTimeout | Door open timeout in seconds |
| AutoSleepTime | Auto idle sleep time in minutes |
| EventSendType | Real time event send type |
| WiegandFormat | Wiegand output format |
| CommPassword | Communication password for OCX |
| UseProxyInput | Use of proxy setting |
| ProxyDlgTimeout | Use of proxy setting dialog timeout |
| SoundVolume | Device speaker volume setting |
| ShowRealtimeCamera | Photo display setting |
| UseFailLog | Setting of verify failure logging |
| FaceEngineThreshold | Face recognition security level |
| FaceEngineUseAntispoofing | Use of antispoofing function |
| NeedWearingMask | Use of mask wearing check |
| SuggestWearingMask | Use of suggestion for mask wearing |
| UseMeasureTemperature | Use of temperature measuring function |
| UseVisitorMode | Use of visitor mode |
| ShowRealtimeTemperature | Show measured temperature in realtime |
| AbnormalTempDisableDoorOpen | Setting of door control when high temperature is detected |
| MeasuringDurationType | Temperature measuring time |
| MeasuringDistanceType | Temperature measuring distance |
| TemperatureUnit | Unit of temperature |
| AbnormalTempThreshold\_Celsius | High temperature threshold in Celsius degrees |
| AbnormalTempThreshold\_Fahrenheit | High temperature threshold in Fahrenheit degrees |

## GetDeviceInfoAll

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetDeviceInfoAll </Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetDeviceInfoAll </Response>*

*<ManagersNumber>xxx</ManagersNumber>*

*<MachineID>xxx</MachineID>*

*<Language>xxx</Language>*

*… (refer to the parameters of GetDeviceInfo )*

*</Message>*

## SetDeviceInfo

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> SetDeviceInfo </Request>*

*<ParamName>xxx</ParamName>*

*<Value>5</Value>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetDeviceInfo</Response>*

*<ParamName>xxx</ParamName>(refer to the parameters of GetDeviceInfo ) <Result>OK/Fail</Result>*

*</Message>*

## EnableDevice

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> EnableDevice </Request>*

*<Enable>Yes/No</Enable>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> EnableDevice </Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## LockControlStatus

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>LockControlStatus</Response>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> LockControlStatus</Response>*

*<Mode>1~7</Mode>*

*</Message>*

|  |  |
| --- | --- |
| Available Mode | Description |
| 1 | Forcedly open state |
| 2 | Forcedly close state |
| 3 | Normal open state |
| 4 | Auto recover state |
| 5 | Close state |
| 6 | Watching close state |
| 7 | Illegal open state |

## LockControl

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>LockControl</Response>*

*<Mode>1~6</Mode>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> LockControl</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

|  |  |
| --- | --- |
| Available Mode | Description |
| 1 | Forcedly open |
| 2 | Forcedly close |
| 3 | Normal open |
| 4 | Auto recover (Close door) |
| 5 | Reboot device |
| 6 | Cancel warning. |

## TakeOffManager

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> TakeOffManager </Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> TakeOffManager </Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## EmptyTimeLog

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request >EmptyTimeLog</ Request >*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>EmptyTimeLog</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## EmptyManageLog

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request >EmptyManageLog</ Request >*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>EmptyManageLog</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## EmptyAllData

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>EmptyAllData</Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>EmptyAllData</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## EmptyUserEnrollmentData

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> EmptyUserEnrollmentData </Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> EmptyUserEnrollmentData </Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetEthernetSetting

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetEthernetSetting</Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetEthernetSetting</Response>*

*<DHCP>Yes/No</DHCP>*

*<IP>192.168.1.102</IP>*

*< Subnet >255.255.255.0</Subnet>*

*<DefaultGateway>192.168.1.1</ DefaultGateway >*

*<Port>5005</Port>*

*<MacAddress>00:10:dd:01:08:81</MacAddress>*

*<IP\_from\_dhcp>192.168.1.15</IP\_from\_dhcp>*

*<Subnet\_from\_dhcp>255.255.255.0</Subnet\_from\_dhcp>*

*<DefaultGateway\_from\_dhcp>0.0.0.0</DefaultGateway\_from\_dhcp></Message>*

## SetEthernet

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>SetEthernet</Request>*

*<DHCP>Yes/No</DHCP>*

*<IP>192.168.1.102</IP>*

*< Subnet >255.255.255.0</Subnet>*

*<DefaultGateway>192.168.1.1</ DefaultGateway >*

*<Port>5005</Port>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetEthernet </Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetWiFiSetting

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetWiFiSetting</Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetWiFiSetting</Response>*

*<Use>Yes/No</Use>*

*<SSID>xxxx</SSID>*

*<Key>xxxxxx</Key>*

*<DHCP>Yes/No</DHCP>*

*<IP>192.168.2.225</IP>*

*< Subnet >255.255.255.0</Subnet>*

*<DefaultGateway>192.168.2.1</ DefaultGateway >*

*<Port>5005</Port>*

*<IP\_from\_dhcp>192.168.1.15</IP\_from\_dhcp>*

*<Subnet\_from\_dhcp>255.255.255.0</Subnet\_from\_dhcp>*

*<DefaultGateway\_from\_dhcp>0.0.0.0</DefaultGateway\_from\_dhcp><Result>OK</Result>*

*</Message>*

## SetWiFi

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>SetWiFi</Request>*

*<Use>Yes/No</Use>*

*<SSID>xxxx</SSID>*

*<Key>xxxxxx</Key>*

*<DHCP>Yes/No</DHCP>*

*<IP>192.168.2.225</IP>*

*< Subnet >255.255.255.0</Subnet>*

*<DefaultGateway>192.168.2.1</ DefaultGateway >*

*<Port>5005</Port>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetWiFi </Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetDeviceInfoExt

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> GetDeviceInfoExt</Request>*

*<ParamName>xxx</ParamName>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetDeviceInfoExt</Response>*

*<ParamName>xxx</ParamName> <Value1>xxx</Value1>*

*<Value2>xxx</Value2>*

*<Value3>xxx</Value3>*

*<Value4>xxx</Value4>*

*<Value5>xxx</Value5>*

*</Message>*

|  |  |
| --- | --- |
| Available Param Name | Description |
| MobileNetwork | Mobile network setting |
| NTPServer | NTP server setting |
| VPNServer | VPN server setting |
| WebServerUrl | Web server/websocket server url |
| SendLogUrl | Log server url |
| DeviceName | Device name |
| GPS | GPS information |

## SetDeviceInfoExt

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> SetDeviceInfoExt</Request>*

*<ParamName>xxx</ParamName>*

*<Value1>5</Value1>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetDeviceInfoExt</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

|  |  |
| --- | --- |
| Available Param Name | Description |
| MobileNetwork | Mobile network setting |
| NTPServer | NTP server setting |
| VPNServer | VPN server setting |
| WebServerUrl | Web server/websocket server url |
| SendLogUrl | Log server url |
| DeviceName | Device name |
| GPS | GPS information |

## GetPowerSetting

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetPowerSetting</Request>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response>GetPowerSetting</Response>*

*<wakeup\_delay>0</wakeup\_delay>*

*<idle\_time\_for\_sleep>0</idle\_time\_for\_sleep>*

*<RestartInfoCount>12</RestartInfoCount>*

*<no\_0>0, 0, 0, 0</no\_0>*

*<no\_1>0, 0, 0, 0</no\_1>*

*<no\_2>0, 0, 0, 0</no\_2>*

*<no\_3>0, 0, 0, 0</no\_3>*

*<no\_4>0, 0, 0, 0</no\_4>*

*...*

*<no\_11>0, 0, 0, 0</no\_11></Message>*

## SetPowerSetting

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>SetPowerSetting</Request>*

*<wakeup\_delay>0</wakeup\_delay>*

*<idle\_time\_for\_sleep>0</idle\_time\_for\_sleep>*

*<RestartInfoCount>12</RestartInfoCount>*

*<no\_0>0, 0, 0, 0</no\_0>*

*<no\_1>0, 0, 0, 0</no\_1>*

*<no\_2>0, 0, 0, 0</no\_2>*

*<no\_3>0, 0, 0, 0</no\_3>*

*<no\_4>0, 0, 0, 0</no\_4>*

*...*

*<no\_11>0, 0, 0, 0</no\_11>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> SetPowerSetting</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## TimeLog (deprecated)

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Event> TimeLog</Event>*

*<LogID>24</LogID>*

*<Time>2013-05-06-T11:09:30Z</Time>*

*<UserID>1~99999999</UserID>*

*<Action>FP</Action>*

*<AttendStat>Duty On</AttendStat>*

*<APStat>None</APStat>*

*<JobCode>0</JobCode>*

*<Photo>Yes/No</Photo>*

*<LogImage>Photo data in base64 encoding</LogImage>*

*</Message>*

|  |  |
| --- | --- |
| *Available Attend Status* | *Description* |
| "Duty On" |  |
| "Duty Off" |  |
| "Overtime On" |  |
| "Overtime Off" |  |
| "Go Out On" |  |
| "Go Out Off" |  |
| "In" |  |
| "Out" |  |

|  |  |
| --- | --- |
| *Available Action* | *Description* |
| "Tamper" |  |
| "FP" |  |
| "PWD" |  |
| "CD" |  |
| "HandLock" |  |
| "ProgLock" |  |
| "ProgOpen" |  |
| "ProgClose" |  |
| "AutoRecover" |  |
| "LockOver" |  |
| "IlgOpen" |  |
| "FP+CD" |  |
| "FP+PWD" |  |
| "CD+PWD" |  |
| "FP+CD+PWD" |  |
| "Duress" |  |
| "InvalidTZ" |  |
| "VerifyFail" |  |
| "FACE" |  |
| "CD+FACE" |  |
| "FACE+PWD" |  |
| "FACE+CD+PWD" |  |
| "FP+FACE" |  |
| "FACE+FP+CD" |  |
| "QR" |  |
| "FACE+QR" |  |
| "FP+QR" |  |
| "CD+QR" |  |
| "QR+PWD" |  |
| "FACE+FP+QR" |  |
| "FACE+QR+PWD" |  |
| "FACE+CD+QR" |  |
| "FP+CD+QR" |  |
| "FP+QR+PWD" |  |

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Response> TimeLog </Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## TimeLog\_v2

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Event> TimeLog\_v2</Event>*

*<LogID>24</LogID>*

*<UtcTimezoneMinutes>480</UtcTimezoneMinutes>*

*<Time>2013-05-06-T11:09:30Z</Time>*

*<UserID>1~99999999</UserID>*

*<Action>FP</Action>*

*<AttendStat>Duty On</AttendStat>*

*<APStat>None</APStat>*

*<JobCode>0</JobCode>*

*<Photo>Yes/No</Photo>*

*<LogImage>Photo data in base64 encoding</LogImage>*

*<Latitude>XXXX</Latitude>*

*<Longitude>XXXX</Longitude>*

*<TransID>xxx</TransID>*

*</Message>*

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Response> TimeLog\_v2 </Response>*

*<TransID>xxx</TransID>*

*<Result>OK/Fail</Result>*

*</Message>*

## AdminLog (deprecated)

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Event> AdminLog </Event>*

*<LogID>24</LogID>*

*<Time>2013-05-06-T11:09:30Z</Time>*

*<AdminID>1~99999999</AdminID>*

*<UserID>1~99999999</UserID>*

*<Action>EnterMenu</Action>*

*<Stat>0~255</Stat>*

*</Message>*

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Response>AdminLog</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

|  |  |
| --- | --- |
| *Available actions* | *Description* |
| "Unknown" |  |
| "EnrollUserFP" |  |
| "EnrollUserPWD" |  |
| "EnrollUserCard" |  |
| "EnrollMgrFP" |  |
| "EnrollMgrPWD" |  |
| "EnrollMgrCard" |  |
| "DeleteFP" |  |
| "DeletePWD" |  |
| "DeleteCard" |  |
| "DeleteAll" |  |
| "SettingChanged" |  |
| "SetTime" |  |
| "TZSet" |  |
| "DeleteUser" |  |
| "DeleteAllEnoll" |  |
| "Restore" |  |
| "ModifyPeriod" |  |
| "EnrollPhoto" |  |
| "DeletePhoto" |  |
| "EnrollMsg" |  |
| "DeleteMsg" |  |
| "EnrollFace" |  |
| "DeleteFace" |  |
| "AbnormalBodyTemperatureAlarm" |  |
| "EnrollQRcode" |  |
| "DeleteQRcode" |  |
| "TurnOn" |  |
| "TurnOff" |  |

## AdminLog\_v2

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Event> AdminLog\_v2 </Event>*

*<LogID>24</LogID>*

*<Time>2013-05-06-T11:09:30Z</Time>*

*<AdminID>1~99999999</AdminID>*

*<UserID>1~99999999</UserID>*

*<Action>EnterMenu</Action>*

*<Stat>0~255</Stat>*

*<TransID>xxx</TransID>*

*</Message>*

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Response>AdminLog\_v2</Response>*

*<TransID>xxx</TransID>*

*<Result>OK/Fail</Result>*

*</Message>*

## KeepAlive

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Event>KeepAlive</Event>*

*<DevTime>2022-12-28-T20:02:42Z</DevTime>*

*</Message>*

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Response>KeepAlive</Response>*

*<Result>OK</Result>*

*<DevTime>2022-12-28-T20:02:42Z</DevTime>*

*<ServerTime>2022-12-28-T20:02:43Z</ServerTime>*

*</Message>*

## GetFirstGlog

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetFirstGlog</Request>*

*<BeginLogPos>0</ BeginLogPos >*

*<UserID>xxx</UserID > <!-- optional -->*

*<StartTime>2013-4-11-T11:28:54Z</ StartTime > <!-- optional -->*

*<EndTime>2013-4-11-T11:28:54Z</ EndTime > <!-- optional -->*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetFirstGlog </Response>*

*<LogID>24</LogID>*

*<Time>2013-05-06-T11:09:30Z</Time>*

*<UserID>1~99999999</UserID>*

*<Action>FP</Action>*

*<AttendStat>Duty On</AttendStat>*

*<APStat>None</APStat>*

*<JobCode>0</JobCode>*

*<Photo>Yes/No</Photo>*

*<LogImage>Photo data in base64 encoding</LogImage>*

*(refer to TimeLog Command)*

*<Result>OK/Fail</Result> (Fail means no more log left)*

*</Message>*

## GetNextGlog

* + - **server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetNextGlog</Request>*

*< BeginLogPos >xxx</ BeginLogPos > <!—(*prev*<LogID> + 1)-->*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetNextGlog </Response>*

*<LogID>24</LogID>*

*<Time>2013-05-06-T11:09:30Z</Time>*

*<UserID>1~99999999</UserID>*

*<Action>FP</Action>*

*<AttendStat>Duty On</AttendStat>*

*<APStat>None</APStat>*

*<JobCode>0</JobCode>*

*<Photo>Yes/No</Photo>*

*<LogImage>Photo data in base64 encoding</LogImage>*

*(refer to TimeLog Command)*

*<Result>OK/Fail</Result>(Fail means no more log left)*

*</Message>*

## GetFirmwareVersion

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>GetFirmwareVersion</Response>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetFirmwareVersion </Response>*

*<Version>F500 v3.3.0</Version> <!— string -->*

*<BuildNumber>0x20160530</ BuildNumber > <!—dword-->*

*</Message>*

## FirmwareUpgradeHttp

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request> FirmwareUpgradeHttp</Response>*

*<Size> xxx</Size> <!— Download URL string length -->*

*<Data> http://... </Data> <!— Download URL string in base64-->*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> FirmwareUpgradeHttp</Response>*

*<Result>OK/Fail</Result>*

*</Message>*

*After response, the device will start to download and upgrade the firmware automatically.*

## DeleteGlogWithPos

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>* *DeleteGlogWithPos</Response>*

*< EndPos> xxx</ EndPos> <!— count to delete-->*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> DeleteGlogWithPos </Response>*

*<Result>OK/Fail</Result>*

*</Message>*

## GetGlogPosInfo

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>* *GetGlogPosInfo</Response>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<DeviceSerialNo>F500-0001</DeviceSerialNo>*

*<Response> GetGlogPosInfo</Response>*

*<LogCount> 5</LogCount> <!— count of logs in device-->*

*<MaxCount> 500000</MaxCount><!— max log count, fixed value-->*

*<Result>OK/Fail</Result>*

*</Message>*

## GetVideoStreamSetting

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>* *GetVideoStreamSetting</Response>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<ProductName>123</ProductName>*

*<DeviceSerialNo>M91-1234</DeviceSerialNo>*

*<DeviceUID>9B0FFFEE-17A970B7</DeviceUID>*

*<Response>GetVideoStreamSetting</Response>*

*<rtsp\_enable>0</rtsp\_enable>*

*<rtsp\_resolution>0</rtsp\_resolution>*

*<rtsp\_bitrate\_mbps>0</rtsp\_bitrate\_mbps>*

*</Message>*

## SetVideoStreamSetting

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>* *SetVideoStreamSetting</Response>*

*<rtsp\_enable>0</rtsp\_enable>*

*<rtsp\_resolution>0</rtsp\_resolution>*

*<rtsp\_bitrate\_mbps>0</rtsp\_bitrate\_mbps>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<ProductName>123</ProductName>*

*<DeviceSerialNo>M91-1235</DeviceSerialNo>*

*<DeviceUID>9B0FFFEE-17A970B7</DeviceUID>*

*<Response>SetVideoStreamSetting</Response>*

*<Result>OK</Result>*

*</Message>*

## GetCenterScreenMessage

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>* *GetCenterScreenMessage</Response>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<ProductName>123</ProductName>*

*<DeviceSerialNo>M91-1235</DeviceSerialNo>*

*<DeviceUID>9B0FFFEE-17A970B7</DeviceUID>*

*<Response>GetCenterScreenMessage</Response>*

*<center\_screen\_message>Message in base64 encoding</center\_screen\_message>*

*<center\_screen\_message\_color>FF04B248</center\_screen\_message\_color>*

*<center\_screen\_message\_border\_color>FFFFFFFF</center\_screen\_message\_border\_color>*

*<verify\_disable>0</verify\_disable>*

*</Message>*

## SetCenterScreenMessage

* + - **Server**

*<?xml version="1.0"?>*

*<Message>*

*<Request>* *SetCenterScreenMessage </Response>*

*<center\_screen\_message>Message in base64 encoding</center\_screen\_message>*

*<center\_screen\_message\_color>FF04B248</center\_screen\_message\_color>*

*<center\_screen\_message\_border\_color>FFFFFFFF</center\_screen\_message\_border\_color>*

*<verify\_disable>0</verify\_disable>*

*</Message>*

* + - **Device**

*<?xml version="1.0"?>*

*<Message>*

*<TerminalType>F500</TerminalType>*

*<TerminalID>1</TerminalID>*

*<ProductName>123</ProductName>*

*<DeviceSerialNo>M91-1235</DeviceSerialNo>*

*<DeviceUID>9B0FFFEE-17A970B7</DeviceUID>*

*<Response>SetCenterScreenMessage</Response>*

*<Result>OK</Result>*

*</Message>*