Goodview Dynamic Detection Display Communication Protocol Usage Guide

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About this document

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The purpose may differ from the specific product, please refer to the actual product.

Release notes

Version	Description	Date
V1.0	Created	2020-03-24
V1.1	Modify the face registration, modification, logo interface fields, removed report. Added callback interface settings, added fan interface	2020-03-27
V1.2	Add feedback interface for picture verification results	2020-04-03
V1.3	Add interface reply instructions, add personnel query, parameter query, start up Self-starting, application guarding, shutdown interface	2020-04-09

Content

Protocol usage guide

Protocol Description

Interface specification

- Use the netty framework to establish socket connections to maintain communication and long connections

- Provide services by means of general requests.

Protocol field description

General instructions for using the interface:

```
public class Command {
private String method;//Method name
private Long timestamp;//Timestamp for this operation
private Object body;//The business data of the protocol method, can be numeric type, string
or set, etc.}
```

For the interface return examples mentioned in the documentation, the return data of individual interfaces will be slightly adjusted, and the actual return result shall prevail.

Protocol Reply Instructions

In order to ensure that the protocol is communicated correctly, define the following reply instructions:

The reply field includes the "method" and "timestamp" issued by the protocol, and the "body" field contains "mac" and whether it is successfully marked.

```
"body": {
        "mac": " AADDD1254HH ", //mac address
 "success": true //Whether the operation was successful, success is true, failure is false}
```

Examples of replies are as follows

```
{
    "method": "setConfig", //Reply to received "method"
    "timestamp": 1584518232928,
    "body": {
        "mac": " AADDD1254HH ", //mac address
        "success": true //Whether the operation was successful, success is true, failure is false}
```

Protocol list

1. **Device Registration**

Method：deviceReg

Method：client->server

Sample Data

```
{
    "method": "deviceReg",
     "timestamp": 1584518232928,
    "body": {
        "ip": "192.9.51.45",
        "mac": "8CFCA0036225",
        "time": 1584518232928,
        "version": "1.5.0.22.0.01"
    }
}
```

2. HeartBeat

Method：heartBeat

Method：client->server

Description: send heartbeat every 10s

Sample data

```
{
    "body": {
        "ip": "192.9.51.214",
        "mac": "8CFCA0036138",
        "time": 1585207755586,
        "version": "1.6.0.7"
    },
    "method": "heartBeat",
    "timestamp": 1585207755588
}
```

3. Parameter configuration

Method: setConfig

Method：server -> client

Data Description

"body" request parameter is in json format, the example is as follows (please adjust according to the actual situation)

```
{
    "method": "setConfig",
    "timestamp": 1584518232928,
    "body": {
        " tricolorLamp ": 2,
        " idCardNo ": 2,
        " icNo ": 2, "deviceId": 86,
        "diplayCustom":
        "{name}", "displayMode":
        1,
        "id": 1,
        "liveIdentiLevel": 1,
        "passType": false,
        "password": "123456",
        "recoDistance": "1.5",
        "recoInterval": "2000",
        "relayDelay": 5,
        "relayMode": 0,
        "serialCustomize": "#{idcardNum}#",
        "serialMode": 2,
        "similarity": 80,
        "strangerVoiceCustom": "moshengren",
        "strangerVoiceMode": 2,
        "voiceCustom": "name",
        "voiceMode": 1,
        "wg": 0
    }
}
```

Field description

Field	Type	Description
companyName	String	Company Name
deviceId	int	Associated equipment (id)
diplayCustom	String	Display customization, the default is {name}
displayMode	int	Display mode, 1: display name, 100: custom
id	int	
liveIdentiLevel	int	Living body recognition level, default fast mode, 0: no living body, 1: fast mode cannot reject photos, 2: can reject some photos, 3: can reject photos and adapt
passType	boolean	Access Type: false: in, true:out
password	String	Passcode

recoDistance	String	Recognition distance（0.5~3）
recoInterval	String	Recognition interval（2000 ~10000）
relayDelay	Int	Relay automatically closes after a delay of x seconds（5~63）
relayMode	Int	Relay mode, 0: indicates the automatic closing mode, that is, it will automatically close after a delay of X seconds after opening the relay; 1: indicates that the mode is not automatically closed, that is, it will not automatically close after opening the relay
serialCustomize	String	Serial output definition, the default is "# {idcardNum} #", unlimited length
serialMode	int	Serial port mode: 1: Open the door, 2: No output, 3: Output personnel ID, 4: Output ID / IC card number, 100: Custom output
similarity	Int	Similarity, default: 80, 30~100 :adjustment
strangerVoiceCustom	String	Stranger voice customization, default for stranger recognition, within 32 characters
strangerVoiceMode	Int	Stranger voice mode, the default stranger alarm, 1: does not require voice broadcast, 2:stranger alarm, 100:custom
voiceCustom	String	Voice customization, default is "name", within 32 characters
voiceMode	Int	Voice mode, 1:no broadcast, 2:broadcast name, 100: custom
wg	Int	Wiegand 26 or 34 output mode, 0: output card number WG26, 1: output personnel ID WG26, 2: output card number WG34, 3: output personnel ID WG34
icNO	int	IC Card, 1: Card Swipe 2: Human& card comparison
idCardNo	int	ID Card 2: Human& card comparison 1: Close 3: Human& card comparison (Visitor mode)
tricolorLamp	int	Red light, 1:Off，2: On

4. Personnel registration

Method：person/create

Method：server -> client

Interface Description:

- Staff photos only support JPG and PNG
- Photo address only supports pictures stored in http protocol
- Can be placed in "body" as batches, in the form of an array

Field description

Field	Type	Description
age	int	Age
imgUrl	String	Photo download address
name	String	Name
prescription	String	Pass period (start time and end time separated by comma)yyyy-MM-dd HH:mm,yyyy-MM-dd HH:mm
sex	int	sex
type	Int	Types: The default is 1, 1 as visitors, 2 as blacklists, and 3 as employees
vipID	Int	Create a person's id, find the person's editor based on the id
welCome	String	Reserved, can be left blank
icCard	String	ic card information
card	String	Id number
wn	String	Reserved, can be left blank

```json
{
    "method": "person/create",
    "timestamp": 1585207755588,
    "body": [{
        "age": 40,
        "name": "hyc",
        " imgUrl ": "http://.........png",
        "prescription": "2020-03-21 00:00,2030-12-13 00:00",
        "sex": 1,
        "type": 1,
        "vipID": 1,
        "welCome": "helloworld"
    }]
}
```

5. Personnel information editing

Method： person/update

Method： server -> client

Interface Description:

Staff photos only support JPG and PNG

Photo address only supports pictures stored in http protocol

Field description

Field	Type	Description
age	int	Age
imgUrl	String	Photo download address
name	String	Name
prescription	String	Pass period (start time and end time separated by comma)yyyy-MM-dd HH:mm,yyyy-MM-dd HH:mm
sex	int	sex
type	Int	Types: The default is 1, 1 as visitors, 2 as blacklists, and 3 as employees
vipID	Int	Create a person's id, find the person's editor based on the id
welCome	String	Reserved, can be left blank
icCard	String	ic card information
card	String	Id number
wn	String	Reserved, can be left blank

```
{
    "method": "person/ update",
    "timestamp": 1585207755588,
    "body": [{
        "age": 40,
        "name": "hyc1",
        " imgUrl ": "http://.........png",
        "prescription": "2020-03-21 00:00,2030-12-13 00:00",
        "sex": 1,
        "type": 1,
        "vipID": 1,
        "welCome": "helloworld"
    }]
}
```

6. Delete personnel

Method：person/delete

Method：server -> client

Data：

Field	Type	Required	Description
deleteId	String	Y	Deleted person id, multiple persons are separated by (,)

```
{
    "method": "person/delete",
    "timestamp": 1584518232928,
    "body": {
        " deleteId ": "1,2"
    }
}
```

7. Identification record upload address setting

Method：setIdentifyCallback

Method：server -> client

Data：

Field	Type	Required	Description
url	String	Y	Identify the callback address and implement field analysis according to the callback document

For detail field, please reference: Goodview EZ-PASS Callback Interface Document

```
{
    "method": "setIdentifyCallback",
    "timestamp": 1585212192898,
    "body": {
        "callbackUrl": ""
    }
}
```

8. Modify LOGO

Method：changeLogo

Method：server -> client

Data:

Field	Type	Required	Description
logoUrl	String	Y	Logo icon download address, only supports png, jpg

Change to url download, deprecate base64

Data description:

Staff photos only support JPG and PNG

```
{
    "method": "changeLogo",
    "timestamp": 1585212192898,
    "body":
        { "logoUrl":
        ""
    }
}
```

9. Body temperature and mask parameter configuration

Method：tempAndMaskSetting

Method：server -> client

The protocol parameters are in json format, the examples are as follows (please adjust according to the actual situation)

```
{
    "method": "tempAndMaskSetting",
    "timestamp": 1584518232928,
    "body": {
        "isBodyTempAlarm": 1,
        "isBodyTempStart": 1,
        "isHighFeverAdopt": 0,
        "isLowFeverAdopt": 0,
        "isLowTempAdopt": 0,
        "isStandardTempAdopt": 1,
        "isWearingMask": 0,
        "standardBodyTemp": "37.3",
        "isStrangerRecord":0,
        "tempCompensation":0.3,
        "isFan":0
    }
}
```

config field description

Field	Type	Description
isBodyTempAlarm	int	1: Turn on the body temperature alarm 0: Turn off body temperature alarm
isBodyTempStart	Int	1: Turn on body temperature detection 0: Turn off body temperature detection
standardBodyTemp	String	Body temperature threshold 37.3 (accurate to one decimal place), after opening the body temperature detection and body temperature alarm, it detects that the body temperature exceeds the threshold and plays a sound alarm
isHighFeverAdopt	int	Whether high fever passes (0: not passed 1: passed) is used to open the door (range 38.5-43.0)
isLowFeverAdopt	int	Whether low fever passes (0: not passed 1: passed) for opening the door (range 37.3-38.5)
isLowTempAdopt	int	Whether the low temperature is passes (0: not passed 1: passed) for door opening (range 30.0-below)
isStandardTempAdopt	int	Whether the normal body temperature is passed (0: not passed 1: passed) for opening the door (range 36.1-37.2)
isWearingMask	int	Wear mask detection switch (0: No 1: Yes)
isStrangerRecord	int	Stranger identification record storage switch (0: No, 1: Yes)
isFan	int	Fan switch (0: No, 1: Yes)
tempCompensation	float	Temperature compensation, range (-1 ~ 1), positive number means upward compensation, negative number downward compensation

10. Device initialization

Method：initialization

Method：server -> client

Description:
Delete all identification records, personnel data, characteristics and other data on the device, and clear all databases

Delete the attributes set through the device configuration interface

11. Version upgrade

Method：   updateApp

Method：server -> client

Data：

Field	Type	Required	Description
apkUrl	String	Y	Apk download address
md5	String	Y	Apk file md5 value

```
{
    "method": "updateApp",
    "timestamp": 1584518232928,
    "body": {
        "apkUrl": "",
        "md5": ""
    }
}
```

12. Remote door opening

Method：   remoteOpendoor

Method：server -> client

13. Remote restart

Method：   reboot

Method: server -> client

14. Test results of personnel photos

Method：person/picVerify

Method：client -> server

Data：

Field	Type	Description
vipID	Int	Create a person's id, find the person's editor based on the id

mac	String	Terminal mac address
result	Int	Photo verification result, 0 means success, <0 means failure, see the verification instructions below for details
message	String	Wrong description

Picture verification failure description:

0	int	Picture verification successful
-1	int	Failed to get image bitmap
-2	int	SDK extraction feature tool anomaly
-3	int	The set vipId parameter is less than 0
-4	int	Image conversion failed
-5	int	The resolution of the picture exceeds the requirement 4096 * 2688
-6	int	SDK Face Detector Abnormal
-7	int	No face detected
-8	int	Face detection failed
-9	int	Add face operation failed
-10	int	Maximum number of faces exceeded 20000
-11	int	Face size is smaller than the preset pixel threshold
-12	int	Face score is too low
-13	int	Face tilt angle exceeds threshold
-14	int	Face horizontal angle exceeds threshold
-15	int	Face pitch angle exceeds threshold
-201	int	Image download link is invalid

Return example:

```
{
    "method": "person/picVerify",
    "timestamp": 1584518232928,
    "body": {
        "message": "Successfully added to face library,"
        "mac":"8CFCA0038A46",
        "result":0,
        "vipID ":1
    }
}
```

15. Inquiry of personnel information

Method：person/find

Method：server -> client

Data:

Field	Type	Required	Description
vipId	String	Y	Person ID specifies that multiple persons to be queried are separated by commas. For example, "100,101,102", the maximum number is 50;

Find instructions according to vipId:

```
{
        "body": {
              "vipId": "100,101,102"


        },
     "method": "person/find",
     "timestamp": 1585212192898
     }
```

16. Query personnel information results

Method：person/find/result

Method：client -> server

Return data description:

In addition to the mac and faceID fields, please refer to Interface 4 Personnel Registration for other detailed field descriptions

Example

```
{
    "body": {
            "mac": " AADDD1254HH ",  //mac address
          "data": [{
              "age": 40,
              "name": "hyc",
              "prescription": "2020-03-21 00:00,2030-12-13 00:00",
              "sex": 1,
              "type": 1,
              "vipID": 1,
              "faceID": 1, //If it is less than 0, it means that the picture inspection failed, and
              if it is greater than or equal to 0, it means success. For the reason of failure,
              please refer to the interface 14 personnel test result return instructions.
              "icCard":"",  //ic card no.
              "card":"",  //id no.
              }]
        },
    "method": "person/find/ result",
    "timestamp": 1585207755588,
}
```

17. Query personnel information

Method：person/findByPage

Method：server -> client

Data：

Field	Type	Required	Description
index	int	Y	Page number, starting from 0
length	Int	Y	Maximum number per page, <= 50, if> 50, only 50 can be found

Pagination search instructions:

```
{
    "body": {
        "index": 0,
        "length":10
    },
    "method": "person/findByPage",
    "timestamp": 1585212192898
}
```

18. Pagination query results of personnel information

Method：person/findByPage/result

Method：client -> server

Data description:

In addition to the mac, faceID, and pageInfo fields, please refer to Interface 4 for the detailed field descriptions.

Return example:

```
{
    "body": {
        "data": [
            {
                "name": "bbb",
                "prescription": "2020-03-21 00:00,2030-12-13 00:00",
                "age": 0,
                "card": "",
                "faceID": 57367, //If it is less than 0, it means that the picture inspection failed,
                and if it is greater than or equal to 0, it means success. For the reason of failure,
                please refer to the interface 14 personnel test result return instructions.
                "icCard": "",
                "sex": 1,
                "type": 3,
```

```
                    "vipID": 57367

                }

        ],

        "mac": "8CFCA0064F9C",

        "pageInfo": {

            "index": 2,     //Page number

            "length": 5,    //Number per page

            "size": 5,      //Number of searches

            "total": 79     //Total number of equipment personnel

        }

    },

    "method": "person/findByPage/result",

    "timestamp": 1586403020783

}
```

19. Parameter configuration query

Method：getConfig
Method：server -> client

20. Parameter configuration query results

Method :   getConfig /result
Method：client -> server

Return data description:

In addition to the mac field, please refer to the interface 3 parameter configuration for other detailed field descriptions.

Return data

```
{
    "body": {
        "tricolorLamp": 1,
        "idCardNo": 2,
         "icNO": 2,
        "companyName": "smdt",
        "deviceId": 86,
        "diplayCustom": "{name}",
        "displayMode": 1,
        "id": 1,
```

```
            "liveIdentiLevel": 1,
            "mac": " AADDD1254HH ",//Terminal mac address
            "passType": false,
            "password": "123456",
            "recoDistance": "1.5",
            "recoInterval": "2000",
            "relayDelay": 5,
            "relayMode": 0,
            "serialCustomize": "#{idcardNum}#",
            "serialMode": 2,
            "similarity": 80,
            "strangerVoiceCustom": "moshengren",
            "strangerVoiceMode": 2,
            "voiceCustom": "name",
            "voiceMode": 1,
            "wg": 0
        },
        "method": "getConfig/result ",
        "timestamp": 1584518232928
}
```

21. Body temperature parameter configuration query

Method：getTempConfig
Method：server -> client

22. Query Results of Body Temperature Parameter Configuration

Method：getTempConfig/result
Method：client -> server

Return data description:

In addition to the mac field, please refer to Interface 9 Body Temperature Parameter Settings for other detailed field descriptions

Return data:

```
    {
        "body": {
            "tempCompensation": 0.1,
            "isBodyTempAlarm": 1,  //1:Turn on body temperature alarm,
            0: Turn off body temperature alarm
"isBodyTempStart": 1,                 //1: Turn on body temperature detection
                                0: Turn off body temperature detection
            "isFan": 0,                //1:Turn on the fan, 0: Turn off the fan
            "isHighFeverAdopt": 0,
            "isLowFeverAdopt": 0,
```

```
            "isLowTempAdopt": 0,
            "isStandardTempAdopt": 1,
            "isStrangerRecord": 0,    //1: Open stranger record, 0: close
            "isWearingMask": 0,
            "mac": "8CFCA0064F9C", //Terminal mac address
            "standardBodyTemp": "37.3" //Alarm threshold
        },
        "method": "getTempConfig/result",
        "timestamp": 1586336014026
    }
```

23. Shutdown

Method：shutdown
Method：server -> client

24. Application Guard

Method：application/guardian
Method：server -> client

Data:

Field	Type	Required	Description
onoff	int	Y	1: on 0: off

Data description:

```
{
        "body": {
            "onoff":1    //1: On   0: Off
         },
        "method": "application/guardian",
        "timestamp": 1585212192898
}
```

25. Power on

Method：application/boot
Method：server -> client

Data:

Field	Type	Required	Description
onoff	int	Y	1: On 0: Off

Data Description:

```
{
    "body": {
        "onoff": 1   //1: On  0: Off
    },
    "method": "application/boot",
    "timestamp": 1585212192898
}
```