

**MAXHUB**

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**- Network control protocol**

# MAXHUB

## 1、 The discovery service

Use Bonjour send to all of network card

key	value	Explain
Service Type	_maxhub-control_tcp	Agreed service type
Name	MAXHUB-XXX	Device name, Read the device name of the unit (Read through the system standard API)
Txt	As following table	
Txt (fields)	Explain	
sn	43210123456789,SN of device	

## 2、 API (HTTP)

- Port

Use the fixed port as: 10090

- Safety certification mechanism

When all of devices of control terminal need to control MAXHUB, it's necessary to know the SN of the controlled device(MAXHUB), all of requirements have to take two parameters:token and ts

Fields	Explain
ts	When request API's timestamp,MAXHUB is going to verify timestamp. If there is a huge amount of time between MAXHUB and timestamp,the request could be refused,unit:seconds
token	md5(SN of controlled device + ts + magic_code) SN,ts and magic_code,there're new character string that adopt string's concatenation,then calculate new character string's md5 to get token after concatenation magic_code is salt string (<=16 bytes)of MAXHUB,users or administrators can modify by MCI, but the magic_code of the device has to keep the same in the same deployment environment.Mean-while,magic_code is used to central control to generate 'token'. TOKEN generation method: SN:43210123456789 TS:1547192874 Magic_Code:738a6a85c51e2f92 Original character splicing: SN+TS+Magic_Code Debug order: > md5 -s 432101234567891547192874738a6a85c51e2f92 MD5 ("432101234567891547192874738a6a85c51e2f92") = fd0012d1bbd73ca7864e50379e829dfc get TOKEN=fd0012d1bbd73ca7864e50379e829dfc

# MAXHUB

- Access information interface

information interface request:

GET /infomations?token=TOKEN&ts=1542511182

back:

HTTP/1.1 200 OK

```
{  
  "wol_mac":"AA:BB:CC:DD:EE:FF",  
  "model":"C55MJ-GC8110A"  
}
```

- Power on/off

(1) Power on

Boot wake by WOL for power on

(2) Power off

Request:

POST /shutdown

token:TOKEN

ts:1542511182

Back:

HTTP/1.1 200 OK

- Light on/off for screen

(1) Acquire state

• Request:

GET /screen?token=TOKEN&ts=1542511182

• Back:

HTTP/1.1 200 OK

```
{  
  "state":true  
}
```

(2) Setting state

• Request:

POST /screen

token:TOKEN

ts:1542511182

```
{  
  "state":false  
}
```

• Back:

HTTP/1.1 200 OK

- Volume

The range of volume is [0.0f,1.0f]

(1) Acquire

• Request:

GET /volume?token=TOKEN&ts=1542511182

# MAXHUB

- Back:  
HTTP/1.1 200 OK

```
{  
  "volume":0.666  
}
```

(2) Setting

- Request:  
POST /volume  
token:TOKEN  
ts:1542511182

```
{  
  "volume":0.666  
}
```

- Back:  
HTTP/1.1 200 OK

- Brightness of backlight  
• The range of brightness of backlight is [0.0f,1.0f]

(1) Acquire

- Request:  
GET /brightness?token=TOKEN&ts=1542511182

- Back:  
HTTP/1.1 200 OK

```
{  
  "brightness":0.666  
}
```

(2) Setting

- Request:  
POST /brightness  
token:TOKEN  
ts:1542511182

```
{  
  "brightness":0.666  
}
```

- Back:  
HTTP/1.1 200 OK

- Signal channel  
(1) Acquire current channel

- Request:  
GET /input?token=TOKEN&ts=1542511182

# MAXHUB

• Back:

HTTP/1.1 200 OK

```
{
  "current_input_id ":0,
  "list":[
    {
      "id":0,
      "name":"MAXHUB-HOME"
    },
    {
      "id":1,
      "name":"MAXHUB-BACK"
    },
    {
      "id":2,
      "name":"HDMI1"
    },
    {
      "id":3,
      "name":"HDMI2"
    },
    {
      "id":4,
      "name":"VGA"
    }
  ]
}
```

(2) Switch channel

• Request:

POST /input

token:TOKEN

ts:1542511182

```
{
  "input_id":1
}
```

• Back:

HTTP/1.1 200 OK

• Return code

Success 200 OK

Url or parameter error 400 Bad Request

Run error 500 Internal Server Error