

# Control Hub API

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# Introduction

A rich set of APIs are provided for developers to interact with Control Hub, such as obtaining basic device information including device name, firmware version and etc., modifying device configurations and upgrading firmware. These APIs are based on the HTTP protocol and provide lightweight, connectionless services that return JSON data. With this document, you can acquire a thorough understanding of each API's functions and request method.

# API Agreement

## Overview

- Request protocol: HTTP/HTTPS.
- Request method: by default, GET is used to request and commit data, and POST is used to upload a file.
- Request URL: `http://ip[:port]/xxx?param1=value1&param2=value2....`
- Return data format: when the status code is 200, it returns JSON data, otherwise it returns HTTP status codes.
- Login authentication: carry `mwcloud-sid=xxxxxxx` and `mwcloud-uid=xxxxxxx` in cookies

## Example Response

The JSON formatted data is as follows. HTTP response status codes indicate whether a specific HTTP request has been successfully completed. The status 0 indicates a successful request, otherwise the request is failed.

```
{
  "remote-ip": "127.0.0.1:33172",
  "result": 0,
  "status": {
    "system-info": {
      "date-time": 1634882136,
      "cloud-version": "1.1.22535"
    }
  }
  ...
}
```

# Supported Devices

List supported devices for Control Hub.

## Product Family

Product Family Index	Product Family Name
0	All
1	Ultra Stream
2	Ultra Encode
3	Pro Convert Decoder
4	Pro Convert Encoder
5	Pro Convert Audio
6	USB Fusion
7	Director
8	Pro Convert Xmit
9	ModBox

## Product List

Hexadecimal numbers are used to represent product index.

Product Model Index	Product Family Index	Product Model Name
0x301	1	Ultra Stream HDMI
0x302	1	Ultra Stream SDI
0x304	2	Ultra Encode HDMI
0x305	2	Ultra Encode SDI
0x401	3	Pro Convert HDMI 4K Plus
0x402	3	Pro Convert HDMI Plus
0x403	3	Pro Convert SDI 4K Plus
0x404	3	Pro Convert SDI Plus
0x405	3	Pro Convert HDMI TX
0x406	3	Pro Convert SDI TX
0x409	3	Pro Convert 12G SDI 4K Plus
0x410	4	Pro Convert for NDI to HDMI
0x411	4	Pro Convert for NDI to HDMI 4K
0x413	4	Pro Convert H.26x to HDMI
0x414	4	Pro Convert H.26x to HDMI 4K
0x415	4	Pro Convert for NDI to SDI
0x417	4	Pro Convert H.26x to SDI
0x421	4	Pro Convert for NDI to AIO
0x424	5	Pro Convert AES67
0x424	5	Pro Convert DANTE
0x506	6	USB Fusion
0x511	7	Director mini
0x430	8	Pro Convert Xmit-L-CX
0x522	8	ModBox 2U



## API Status Code

```
{
  MW_STATUS_SUCCESS           = 0
  MW_STATUS_PENDING          = 1
  MW_STATUS_TIMEOUT          = 2
  MW_STATUS_INTERRUPTED      = 3
  MW_STATUS_TRY_AGAIN        = 4
  MW_STATUS_NOT_IMPLEMENTED  = 5
  MW_STATUS_UNKNOWN_ERROR    = 6
  MW_STATUS_INVALID_ARG      = 7
  MW_STATUS_NO_MEMORY        = 8
  MW_STATUS_UNSUPPORTED      = 9
  MW_STATUS_FILE_BUSY        = 10
  MW_STATUS_DEVICE_BUSY     = 11
  MW_STATUS_DEVICE_LOST     = 12
  MW_STATUS_IO_FAILED       = 13
  MW_STATUS_READ_FAILED     = 14
  MW_STATUS_WRITE_FAILED    = 15
  MW_STATUS_NOT_EXIST       = 16
  MW_STATUS_TOO_MANY        = 17
  MW_STATUS_TOO_LARGE       = 18
  MW_STATUS_OVERFLOW        = 19
  MW_STATUS_UNDERFLOW       = 20
  MW_STATUS_FORMAT_ERROR    = 21
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  MW_STATUS_DEVICE_TYPE_ERROR = 24
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  MW_STATUS_NO_SPACE        = 29
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  MW_STATUS_BAD_ADDRESS     = 32
  MW_STATUS_SEEK_ERROR      = 33
  MW_STATUS_CROSS_DEVICE_LINK = 34
  MW_STATUS_NOT_INITIALIED  = 35
  MW_STATUS_AUTH_FAILED     = 36
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  MW_STATUS_WRONG_STATE     = 38
  MW_STATUS_MISMATCH        = 39
  MW_STATUS_VERIFY_FAILED   = 40
  MW_STATUS_CONSTRAINT_VIOLATION = 41
  MW_STATUS_CANCELED        = 42
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  MW_STATUS_CONN_REFUSED    = 44
  MW_STATUS_CONN_RESET      = 45
  MW_STATUS_ADDR_IN_USE     = 46
  MW_STATUS_NO_RESPONSE     = 47
  MW_STATUS_INFO_CHANGED    = 48
  MW_STATUS_INVALID_DATA    = 49
  MW_STATUS_NEED_MORE_DATA  = 50
  MW_STATUS_NO_BUFFER       = 51
  MW_STATUS_BUFFER_TOO_SMALL = 52
  MW_STATUS_BUFFER_IS_EMPTY = 53
  MW_STATUS_BUFFER_IS_FULL  = 54
  MW_STATUS_PULL_KEY_EXIST  = 1001
  MW_STATUS_PUSH_KEY_EXIST  = 1002
  MW_STATUS_OBJECT_ALREADY_EXIST = 1003
  MW_STATUS_STATE_CHANGED   = 1004
  MW_STATUS_OBJECT_BUSY = 1005 = 1005
  MW_STATUS_LICENSE_LIMIT   = 1006
  MW_STATUS_PORT_OCCUPIED   = 1007
  MW_STATUS_USR_GROUP_NOT_EXIST = 1008
}
```





## Device Warning Status Mask

```
{  
  warningNoSignal    = 0x01 // No Signal  
  warningNoUSB       = 0x02 // USB flash disk is invalid  
  warningFullUSB     = 0x04 // USB flash disk is full.  
  warningFullMSD     = 0x08 // Local storage is full.  
  warningNoSD        = 0x10 // Local storage is invalid.  
}
```

# Device Information

You can perform the following operations to pending devices.

- [accept](#)
- [reject](#)
- [delete](#)

You can perform the following operations to rejected devices.

- [delete](#)

You can perform the following operations to approved devices for remote management.

- To [move](#) a device to a specified group
- To [upgrade](#), [reboot](#), or [delete](#) a device.
- To access to [WebGUI](#) of a device, for detailed configurations.

## Global Configurations for Device Connection

Parameter		Description
input		Global default configurations for input devices.
	protocol	Default protocol, refer to <a href="#">Protocol Type Definition</a> .
	latency	Available when the protocol is srt, used to configure the delay of srt.
	stream-index	Selection of mainstream or substream.
output		Global default configurations for output devices.
	protocol	Default protocol, refer to <a href="#">Protocol Type Definition</a> .
	latency	Available when the protocol is srt, used to configure the delay of srt.
	buffer-ms	Device buffer time, in milliseconds.

## Device

Parameter	Description
id	Global unique ID.
name	Device name.
apply-date	Registered/approved time.
catalog-id	<a href="#">Device Group ID</a>
config	Device configuration information. If not exist, represents the global configuration is used. Refer to the <a href="#">device connection configuration</a>
dev-warns	If the value is greater than 0, it indicates an abnormal device. Refer to <a href="#">Device Warning Status Mask</a> .
dir	Device <a href="#">Node Stream Direction</a>
firmware-ver	Firmware version
group-mask	The visible user group mask set, when selecting all visible, sets the value to 0xFFFFFFFF (4294967295).
hardware-ver	Hardware version
is-favorite	the user's ID of Favourites list, whether the device is added to Favourites by the current user, and use the value and user ID for binary AND operation.
is-inherit	Whether to inherit the visibility configuration, value, if not 0, indicating that the group and user mask configurations are inherited values.
module	<a href="#">Product Family Index</a>
module-name	Device model name, which can be found in the product model list via the product-id field, refer to <a href="#">Product model name</a> .
online-date	Device online time. Greater than 0: device online, less than or equal to 0: device offline.
owner-i	As the input, the array type stores the names of the associated channels, which are not fixed fields.
owner-o	String type, holds the name of the owning channel, non-fixed field
preview_id	Preview image ID, only exists on devices that support previews

pro-feature	Specific information for different types of devices, data structure varies based on the module
product-id	Device model ID, see <a href="#">Product Model Index</a>
reg-state	Registration status, see <a href="#">Registration Status</a>
sn	Serial number
status	Device <a href="#">Status Information</a>
type	<a href="#">Node Type</a>
usr-mask	The set of visible user group masks.
warns	The value greater than 0 indicates a problem with the device on ControlHub. Please refer to the section "Device Exception Definition on ControlHub Platform" for more details.

### Device Warning Definition on ControlHub

```
MH_DEV_WARN_UNSUPPORTED_VER = 0x01, // Unsupported device firmware version.
MH_DEV_WARN_VER_TOO_LOW     = 0x02, // Device version is too old.
```

### Config

Parameter	Description
input	As a configuration for input, if it does not exist, it adopts the global configuration, refer to <a href="#">Input Device Connection Configuration</a> .
output	As a configuration for output, if it does not exist, it adopts the global configuration, refer to <a href="#">Output Device Connection Configuration</a> .

### status

Parameter	Description
name	Device Name
cur-status	Device Status Mask, different devices have different processing, the definition of the value needs to refer to the interface document of the device.
eth	If exists, it indicates the Ethernet IP
firmware-ver	Firmware version.
hardware-ver	Hardware version
is-online	Boolean type, whether online.
module-name	<a href="#">Product model name</a> .
rndis	If exists, it indicates the USB RNDIS IP.
up-time	Power-on time of the device, unit: seconds.
wifi	If exists, it indicates the WI-FI IP.
upgrade-status	<a href="#">Device Upgrade Status</a>

### Device Upgrade Status

Parameter	Description
step	Current stage, refer to <a href="#">Device Upgrade Step</a>
percent	Progress of the current stage
ret	If failed, you can get the error code here

### Device Upgrade Process

Parameter	Description
-1	Failed
0	No upgrade task
1	Waiting for upgrade
2	Uploading file
3	Installing

**Device Information****UltraStream**

Parameter	Description
input	Input Signal 1920x1080p, 60.00 Hz
rec-sec	Recording Time (ms)
live-sec	Live Time (ms)
usb-option	0: not enabled; i.e., USB recording is off
usb-status	USB status
usb-used	Used size
usb-total	Total size
sd-status	SD status
sd-used	Used size
sd-total	Total size

**UltraEncoder**

Parameter	Description
input	Input signal

**ProConvertEncoder**

Parameter	Description
input	Input signal, for example: 1920x1080p, 60.00 Hz
output	Output signal. Product 0x405 and 0x406 have no output.
ndi-enabled	NDI <sup>®</sup> enable status
ndi-video-width	Video width
ndi-video-height	Video height
ndi-video-scan	Video scanning mode
ndi-video-field-rate	Video field frequency
ndi-audio-channels	Number of audio channels
ndi-audio-sample-rate	Audio sampling Rate
ndi-audio-bit-count	Audio bit rates, including 16, 20, 24, etc.

**ProConvertDecoder**

Parameter	Description
ndi-name	Signal source
ndi-connected	true: connected; false: disconnected
ndi-video-width	Video width
ndi-video-height	Video height
ndi-video-scan	Video scanning mode
ndi-video-field-rate	Video field frequency
ndi-audio-channels	Number of audio channels
ndi-audio-sample-rate	Audio sampling rate
ndi-audio-bit-count	Audio bit rates, including 16, 20, 24, etc.

# User Group Permission Definition

## Permission Definition List

```
MH_PERMISSION_FIRMWARE_VIEW           = (1UL << 0),
MH_PERMISSION_FIRMWARE_MANAGER        = (1UL << 1),
MH_PERMISSION_DEVICE_VIEW             = (1UL << 2),
MH_PERMISSION_DEVICE_CONTROL         = (1UL << 3),
MH_PERMISSION_DEVICE_ADV_CONTROL     = (1UL << 4),
MH_PERMISSION_DEVICE_SECURITY        = (1UL << 5),
MH_PERMISSION_DEVICE_GROUP_VIEW      = (1UL << 6),
MH_PERMISSION_DEVICE_GROUP_CONTROL   = (1UL << 7),
MH_PERMISSION_INPUT_OUTPUT_VIEW      = (1UL << 8),
MH_PERMISSION_INPUT_OUTPUT_EDIT      = (1UL << 9),
MH_PERMISSION_CHANNEL_VIEW           = (1UL << 10),
MH_PERMISSION_CHANNEL_CONTROL        = (1UL << 11),
MH_PERMISSION_CHANNEL_EDIT           = (1UL << 12),
MH_PERMISSION_USER_CONTROL           = (1UL << 13),
MH_PERMISSION_SYSTEM_CONFIG_VIEW     = (1UL << 14),
MH_PERMISSION_SYSTEM_CONFIG_EDIT     = (1UL << 15),
```

## Firmware viewing permissions

Definition	Description
MH_PERMISSION_FIRMWARE_VIEW	Firmware viewing permissions

## Firmware Management permissions

Definition	Description
MH_PERMISSION_FIRMWARE_MANAGER	Firmware management permissions, dependent on firmware viewing permissions.

## Device viewing permissions

Definition	Description
MH_PERMISSION_DEVICE_VIEW	Device viewing permissions

## Device Operation Permissions

Definition	Description
MH_PERMISSION_DEVICE_CONTROL	Device operation permission, device viewing permissions are needed, only for the control of approved devices.

## Device Advanced Control Permissions

Definition	Description
MH_PERMISSION_DEVICE_ADV_CONTROL	Device advanced control privileges, device operation privileges are needed, can delete devices, handle failed devices

## Device Security Permissions

Definition	Description
MH_PERMISSION_DEVICE_SECURITY	Device security privilege, administrator user group has this privilege, other user groups do not and cannot configure to have it.

## Group Viewing Permissions

Definition	Description
MH_PERMISSION_DEVICE_GROUP_VIEW	Device group view permissions, device viewing permissions are needed.

## Group Editing Permissions

Definition	Description
MH_PERMISSION_DEVICE_GROUP_CONTROL	Device group edit privilege, device group dependent view privilege, administrator user group has this privilege, other user groups don't and can't configure to have it

## Input/Output Viewing Permissions

Definition	Description
MH_PERMISSION_INPUT_OUTPUT_VIEW	Input/Output View privilege

## Input/Output Editing Permissions

Definition	Description
MH_PERMISSION_INPUT_OUTPUT_VIEW	Input/Output Edit Permission, Dependent Input/Output View Permission

## Channel Viewing Permissions

Definition	Description
MH_PERMISSION_CHANNEL_VIEW	Channel View permission

## Channel Control Permissions

Definition	Description
MH_PERMISSION_CHANNEL_CONTROL	Channel Control permission, dependent on Channel View permission, can turn channels on and off

## Channel Editing Permissions

Definition	Description
MH_PERMISSION_CHANNEL_EDIT	Channel Edit permission, depends on Channel Control permission to create, edit and delete channels

## User Management Permissions

Definition	Description
MH_PERMISSION_USER_CONTROL	User management privilege, not freely configurable, Administrators user group has this privilege, other user groups do not and cannot be configured to have this privilege

## System Configuration Viewing Permissions

Definition	Description
MH_PERMISSION_SYSTEM_CONFIG_VIEW	System Configuration View

## System Configuration Editing Permissions

Definition	Description
MH_PERMISSION_SYSTEM_CONFIG_EDIT	System Configuration Edit Permission, Dependent on System Configuration View Permission

# Public Definition

## Node Type Definition

Value	Description
257	Indicates this is an input device
258	Indicates that this is a custom input source (created in the input page) and that the attribute config is used to describe the source information
260	Indicates that this is a dynamically connected input source, the attribute config is used to describe the target protocol name, consistent with the node type 258
323	Indicates that this is a dynamically discovered NDI source, and the attribute config is used to describe the source information
513	Indicates that this is an output device
514	Indicates that this is a custom output object (created in the output page) and the attribute config is used to describe the destination protocol name
516	Indicates that this is a dynamically connected output object, the attribute config is used to describe the target protocol name, consistent with the node type 514
769	Reserved, indicates that this is a device which can be used as an IO device.

## Device Registration Status

value	Description
103	Pending
102	Rejected
101	Accepted

## Protocol Type Definition

Value	Protocol Type
1	RTMP
2	TS_OVER_SRT
4	TS_OVER_UDP
8	TS_OVER_RTP
16	RTSP
32	HTTP/HLS
64	NDI

## Node Stream Direction

Value	Protocol Type
0	Not an input or output, cannot be added to a channel, this is usually the case when a device only provides remote management
256	Can be used as the input device for a channel
512	Can be used as the output device for a channel
768	Can be used as an IO device

When the node stream direction is 256 or 768, the presence of the field preview means that the node contains a previewable image or video.

## Output Configurations

### RTMP output configuration

Field name	Definition
url	RTMP URL without key, for example: rtmp://xxx.xxx.xxx.xxx:port/live
key	Push-stream key
enable-auth	Enable login, optional, bool type



username	Username, optional, cannot be omitted when enable-auth is true
password	Password, optional, cannot be omitted when enable-auth is true

### RTSP Output ConfigurationS

Field name	Definition
port	Bind port, optional
key	Stream name
enable-auth	Authentication enable status, optional, bool type
username	Username, optional, cannot be omitted when enable-auth is true
password	Password, optional, cannot be omitted when enable-auth is true
max-client-num	Maximum number of clients, optional, default is 4

### TS over SRT output configurations

Field-name	Definition
mode	Indicates SRT mode. Options are caller, listener.
stream-id	Stream ID, optional, with max length 512 bytes
latency	Latency, optional, in milliseconds, default is 125, range is from 20 to 8000.
overhead	Redundancy bandwidth ratio, optional, range is from 0 to 100, default is 25
mtu	MTU, optional, default is 1500, range is from 232 to 1500
encryption	Encryption algorithms, optional, options are disable, aes-128, aes-192, aes-256
passphrase	Keyphrase, optional, cannot be omitted if encryption is enabled, max length is 80 bytes
dst-ip	Caller-specific, destination address
dst-port	Caller-specific, destination port
bind-port	Listener-specific, binding port
max-client-num	Listener-specific, optional, maximum number of clients

### TS over RTP/UDP Output Configurations

Field-name	Definition
dst-ip	Destination address
dst-port	Destination port
transport-type	Transport type, options are unicast, multicast
mtu	MTU, optional, default is 1496, range is 228 to 1500

### Node State Definition

Value	definition
1	Being added to a channel
2	Proper functioning
3	Failed to be added to a channel
4	Configuring a device
5	Failed to configure a device due to unsupported versions
6	Failed to configure device, insufficient space for device configuration, recommend upgrading firmware version or contacting the support team.
7	Configuration failed, the device is offline
8	Configuration failed, the device does not exist (internal debugging)

### Node Connection Status Definition

```
MH_CONN_STATE_WAIT = 0,
MH_CONN_STATE_CONNECTING = 1,
MH_CONN_STATE_WAIT_DATA = 2,
MH_CONN_STATE_CONNECTED = 10,
```

```
MH_CONN_STATE_CONNECT_FAILED = 20,  
MH_CONN_STATE_FAILED_BROKEN = 21,  
MH_CONN_STATE_FAILED_REJECT = 22,  
MH_CONN_STATE_FAILED_DNS_RESOLVE = 23,  
MH_CONN_STATE_FAILED_TCP_CONNECT = 24,  
MH_CONN_STATE_FAILED_HANDSHAKE = 25,  
MH_CONN_STATE_FAILED_CONNECT_STREAM = 26,  
MH_CONN_STATE_FAILED_AUTH = 27,  
MH_CONN_STATE_CREATE_FAILED = 28,
```

# DEMO: Node.js

This chapter introduces how to call the APIs in Node.js.

Download DEMO: [control-hub-api-demo-nodejs.zip](#).

DEMO Structure

```
control-hub-api-demo-nodejs
|
|-- httpUtils.js // encapsulates the get, post and upload method based on the HTTP module of Node.js.
|-- constant.js // constant
|-- xxxx.mwf // file uploaded by upload.js through invoking the /api/firmware/upload interface.
|-- get.js // requests data using GET
|-- upload.js // uploads file using POST
```

## Requirements

- Operating System: macOS, Linux, or Windows
- Node.js Runtime: LTS releases (8.x and later)

## Running Mode

1. Navigate into the DEMO directory in the terminal.

```
cd control-hub-api-demo-nodejs
```

2. Replace CONTROL\_HUB\_ADDRESS with the IP address of the Control Hub in constant.js.

3. Run get.js.

```
node get
```

4. Run upload.js.

```
node upload
```

## Accessing Registered Devices

When the device is online and the currently logged-in user has access permission to this device, the device's WEBGUI tool can be accessed for detailed parameter configuration. You can also call APIs of the device through Control Hub.

### Accessing the WebGUI of A Device

By using the '/socket/sc-remote/' interface, you can access the device's WebGUI page or other static resources.

```
<a href="http://ip[:port]/socket/sc-remote/D301210104248/" target="_blank">  
  WebGUI tool  
</a>
```

### Calling the APIs of A Device

You can call the APIs of the specified device by adding the API and its parameters after '/socket/', and specifying the 'sc-client-id' as the specified device's serial number.

Taking the example of calling the 'get-status' interface of the ultra encoder with the serial number B313220914001, the URL is:

```
http://controlhub.address/socket/usapi?sc-client-id=B313220914001&method=get-status
```

## /api/device/list

Use this interface to obtain a list of specified devices. It is used to query device information for a list of specified serial numbers in POST mode, refer to [Query devices with specified serial number list](#).

[Device viewing permissions](#) are required.

### Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/device/list
Content-Type	Response: Content-Type: application/json

You can specify the desired device list through parameters. Specifying multiple different parameters will get the intersection:

- reg-state: registration status, the default value is accepted if not specified, available values are as follows:
  - accepted: accepted devices
  - rejected: rejected devices
  - waiting: devices awaiting approval
- catalog: belonging group, only valid when reg-state is accepted.
- module: product family number
- sort: sorting method
- order: options are descending, ascending.
- is-favorite: Whether in the favorite list, 1 represents only getting devices from the favorite list, 0 represents no filtering
- dir: device-supported stream direction, leaving it empty means no-direction. Setting to input means can be added as a source to the channel, setting to output means can be added as an output to the channel.
- status: device status, select 1 or multiple of the following values separated by commas, resulting in the union of each condition:
  - dev-warns: device has warnings
  - offline: offline
  - warns: device has warnings in the ControlHub platform
- key: keyword, return devices with serial numbers or names containing key.

Refer to [Device Definition](#).

### Request URL parameters

Parameter	Description
reg-state	Registration status
catalog	Belonging group
module	Product family number
is-favorite	Whether it is in favourites list.
dir	Stream direction.
status	Device status
key	sn/keyword of device name
start	Starting number
count	Maximum number returned
sort	Sorting algorithms, options are online-state, sn, name, time, model-name. online-state (online or not) is used by default if not specified.

Sorting rule for online-stat is:

- First, put the online devices at the top.
- Among the online/offline devices, put the devices with the latest application/approval time at the top.
- Among the devices with the same time in the previous rule, put the devices with the smaller serial number in front.

### Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Example

Request for pending devices list.

```
GET /api/device/list?reg-state=waiting&start=0&count=1 HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
start	Starting number
total	Total number of devices.
global-config	Refer to <a href="#">Device Connection Global Configuraions</a>
list	<a href="#">Device list.</a>

## Response Example

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
{
  "list": [
    {
      "apply-date": 1686791151226,
      "catalog-id": 0,
      "config": null,
      "dev-type": 3329,
      "dev-warns": 0,
      "dir": 256,
      "firmware-ver": "1.5.248",
      "group-mask": 1,
      "hardware-ver": "A",
      "id": 605,
      "is-favorite": 0,
      "is-inherit": 1,
      "module": 1,
      "module-name": "Ultra Stream SDI",
      "name": "Ultra Stream A302190930002",
      "online-date": 0,
      "owner-i": [
        "Push"
      ],
      "private-id": 1658596456,
      "pro-feature": {
        "input": "",
        "live-ms": 0,
        "rec-ms": 0,
        "sd-option": 0,
        "sd-status": 0,
        "sd-total": 0,
        "sd-used": 0,
        "usb-option": 0,
        "usb-status": 0,
        "usb-total": 0,
        "usb-used": 0
      },
      "product-id": 770,
```

```
"push-key": "[MGDEV]-A302190930002-6f6d33cc",
"reg-state": 101,
"sn": "A302190930002",
"status": {
  "cur-status": 0,
  "eth": "",
  "firmware-ver": "1.5.248",
  "hardware-ver": "A",
  "is-online": false,
  "module-name": "Ultra Stream SDI",
  "name": "Ultra Stream A302190930002",
  "rndis": "",
  "up-time": 0,
  "upgrade-status": {
    "percent": 0,
    "ret": 0,
    "step": 0
  },
  "wifi": ""
},
"type": 257,
"usr-mask": 0,
"warns": 0
}
],
"result": 0,
"start": 0,
"total": 1
}
```

# /api/device/list

Use this interface to get a list of device information based on the specified serial number list.

[Channel viewing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/device/list
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

Refer to [Device Definition](#)

## Request Body

Parameter	Description
sn	Set of device serial numbers to be queried.

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Example

Request pending devices list:

```
POST /api/device/list?status=waiting&start=0&count=1 HTTP/1.1
Accept: application/json, text/plain, */*
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "sn":["A304200731001"]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
list	Refer to <a href="#">Device list</a> .
global-config	Refer to <a href="#">Device Connection Global Configuraions</a> .

## Response Example

Refer to [Response Example](#).



# /api/device/list-with-catalog

Use this interface to obtain device list by groups.

[Device group viewing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/device/list-with-catalog
Content-Type	Response: Content-Type: application/json

## Request URL parameters

Parameter	Description
catalogs	Optional parameter, comma-separated group IDs. If not specified, all groups will be returned.
count	The maximum number of groups returned
start	The starting index of the returned groups.
dev-count	The maximum number of devices returned.
dev-start	The starting index of the returned devices.

Sorting rules:

- First, put the online devices at the top.
- Among the online/offline devices, put the devices with the latest application/approval time at the top.
- Among the devices with the same time in the previous rule, put the devices with the smaller serial number at the top.

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Example

Request pending device list.

```
GET /api/device/list-with-catalog?count=10 HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
total	Total number of groups.
list	Returned <a href="#">Group List</a> .

### Device Group

Parameter	Description
id	Group ID

name	Group name
list	<a href="#">Device list</a>

## Response Example

```

HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
{
  "list": [
    {
      "group-mask": 1,
      "id": 30011,
      "is-inherit": 0,
      "list": [
        {
          "apply-date": 1685348793609,
          "catalog-id": 30011,
          "config": null,
          "dev-type": 2564,
          "dev-warns": 0,
          "dir": 512,
          "firmware-ver": "1.1.945",
          "group-mask": 11,
          "hardware-ver": "Z",
          "id": 10004,
          "is-favorite": 4,
          "is-inherit": 0,
          "is-upload-file": 0,
          "module": 4,
          "module-name": "NDI to HDMI",
          "name": "Channel-1-OUT",
          "online-date": 0,
          "owner-o": "testaaa",
          "owner-o-d": 100002,
          "private-id": 997059098,
          "pro-feature": {
            "ndi-audio-bit-count": 16,
            "ndi-audio-channels": 6,
            "ndi-audio-sample-rate": 48000,
            "ndi-connected": true,
            "ndi-name": "10",
            "ndi-video-field-rate": 24.0,
            "ndi-video-height": 1080,
            "ndi-video-scan": "progressive",
            "ndi-video-width": 1920
          },
          "product-id": 1040,
          "push-key": "[MGDEV]-Z410221102011-59264e98",
          "reg-state": 101,
          "sn": "Z410221102011",
          "status": {
            "cur-status": 0,
            "eth": "10.10.10.193",
            "firmware-ver": "1.1.945",
            "hardware-ver": "Z",
            "is-online": true,
            "module-name": "NDI to HDMI",
            "name": "Channel-1-OUT",
            "rndis": "192.168.66.1",
            "up-time": 85641,
            "upgrade-status": {
              "percent": 0,
              "ret": 0,
              "step": 0
            },
            "wifi": ""
          },
          "type": 513,
          "upload-file-pos": 0,
          "usr-mask": 18,
          "warns": 0
        }
      ]
    }
  ]
}

```

```

    }
  ],
  "name": "dds",
  "total": 3,
  "usr-mask": 0
},
{
  "group-mask": 1,
  "id": 30009,
  "is-inherit": 1,
  "list": [
    {
      "apply-date": 1687923494490,
      "catalog-id": 30009,
      "config": null,
      "dev-type": 2564,
      "dev-warns": 0,
      "dir": 512,
      "firmware-ver": "1.1.916",
      "group-mask": 1,
      "hardware-ver": "Z",
      "id": 10001,
      "is-favorite": 0,
      "is-inherit": 1,
      "is-upload-file": 0,
      "module": 4,
      "module-name": "NDI to HDMI",
      "name": "Pro Convert",
      "online-date": 0,
      "owner-o": "Channel-1",
      "owner-o-d": 100051,
      "private-id": 365273358,
      "pro-feature": {
        "ndi-audio-bit-count": 0,
        "ndi-audio-channels": 0,
        "ndi-audio-sample-rate": 0,
        "ndi-connected": false,
        "ndi-name": "",
        "ndi-video-field-rate": 0.0,
        "ndi-video-height": 0,
        "ndi-video-scan": "",
        "ndi-video-width": 0
      },
      "product-id": 1040,
      "push-key": "[MGDEV]-Z410221102013-0f615f1c",
      "reg-state": 101,
      "sn": "Z410221102013",
      "status": {
        "cur-status": 0,
        "eth": "",
        "firmware-ver": "1.1.916",
        "hardware-ver": "Z",
        "is-online": false,
        "module-name": "NDI to HDMI",
        "name": "Pro Convert",
        "rndis": "",
        "up-time": 0,
        "upgrade-status": {
          "percent": 0,
          "ret": 0,
          "step": 0
        },
        "wifi": ""
      },
      "type": 513,
      "upload-file-pos": 0,
      "usr-mask": 0,
      "warns": 0
    }
  ],
  "name": "        6666s        ",
  "total": 1,
  "usr-mask": 0

```

```

},
{
  "group-mask": 1,
  "id": 30008,
  "is-inherit": 1,
  "list": [
    {
      "apply-date": 1680746411260,
      "catalog-id": 30008,
      "config": null,
      "dev-type": 3330,
      "dev-warns": 0,
      "dir": 256,
      "firmware-ver": "2.2.81",
      "group-mask": 1,
      "hardware-ver": "B",
      "id": 40,
      "is-favorite": 0,
      "is-inherit": 1,
      "is-upload-file": 0,
      "module": 2,
      "module-name": "Ultra Encode AIO",
      "name": "Ultra Encode B313221116072",
      "online-date": 0,
      "private-id": 630485446,
      "pro-feature": {
        "input": ""
      },
      "product-id": 787,
      "push-key": "[MGDEV]-B313221116072-68bc5ca4",
      "reg-state": 101,
      "sn": "B313221116072",
      "status": {
        "cur-status": 0,
        "eth": "",
        "firmware-ver": "2.2.81",
        "hardware-ver": "B",
        "is-online": false,
        "module-name": "Ultra Encode AIO",
        "name": "Ultra Encode B313221116072",
        "rndis": "",
        "up-time": 0,
        "upgrade-status": {
          "percent": 0,
          "ret": 0,
          "step": 0
        },
        "wifi": ""
      },
      "type": 257,
      "upload-file-pos": 0,
      "usr-mask": 0,
      "warns": 0
    }
  ],
  "name": "sss",
  "total": 1,
  "usr-mask": 0
}
],
"result": 0,
"total": 33
}

```

# /api/device/query

Use this interface to obtain detailed information of a specified device.

[Channel viewing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/device/query?sn=xxx
Content-Type	Response: Content-Type: application/json

## Request URL parameters

Parameter	Description
sn	Device serial number
global-config	Setting to non-zero will provide global default configuration information in the returned information.

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Example

```
GET /api/device/query?sn=B313220914001&global-config=1 HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	Refer to <a href="#">Result Code</a>
dev	Refer to <a href="#">Device</a>
global-config	The presence of this field is determined by the request parameters. Refer to <a href="#">Device Connection Global Configurations</a>

## Response Example

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
{
  "dev": {
    "apply-date": 1693897360680,
    "catalog-id": 0,
    "config": null,
    "dev-type": 3330,
    "dev-warns": 0,
    "dir": 256,
    "firmware-ver": "2.3.43",
    "group-mask": 1,
    "hardware-ver": "B",
```

```
"id": 12,
"is-favorite": 1,
"is-inherit": 1,
"is-upload-file": 0,
"module": 2,
"module-name": "Ultra Encode AIO",
"name": "Ultra Encode B313220914001s",
"online-date": 0,
"preview-id": "DEV-B313220914001",
"private-id": 229751960,
"pro-feature": {
  "input": "1920x1080p, 60.00 Hz"
},
"product-id": 787,
"push-key": "[MGDEV]-B313220914001-6c688667",
"reg-state": 101,
"sn": "B313220914001",
"status": {
  "cpu": [
    34,
    34,
    33,
    34,
    34,
    32,
    34,
    32,
    33,
    33,
    33,
    33,
    34,
    34,
    35,
    34,
    34,
    34,
    34,
    34,
    34,
    35,
    34,
    35,
    36
  ],
  "cur-status": 68,
  "eth": "10.10.15.204",
  "eth-rx": [
    395848,
    383768,
    399376,
    387616,
    378160,
    373432,
    384216,
    374376,
    372192,
    374968,
    367544,
    371136,
    351600,
    366376,
    379584,
    364200,
    369984,
    387728,
    396368,
    363656,
    377944,
    396136,
    358792,
    387280
  ],
  "eth-tx": [
```



```
    0,
    0,
    0,
    0,
    0,
    0
  ],
  "mobile-tx": [
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0,
    0
  ],
  "module-name": "Ultra Encode AIO",
  "name": "Ultra Encode B313220914001s",
  "rndis": "",
  "up-time": 3955,
  "upgrade-status": {
    "percent": 0,
    "ret": 0,
    "step": 0
  },
  "wifi": "192.168.123.59",
  "wlan-rx": [
    11872,
    14192,
    14328,
    6128,
    0,
    5536,
    5536,
    7304,
    8768,
    27728,
    14208,
    8512,
    8768,
    14376,
    19944,
    15392,
    8176,
    10192,
    6144,
    24384,
    0,
    15736,
    9104,
    6128
  ],
  "wlan-tx": [
    30960,
    5536,
    2888,
```



```
        2888,  
        21464,  
        2888,  
        2888,  
        13480,  
        10832,  
        5576,  
        5536,  
        16128,  
        16128,  
        10832,  
        5576,  
        12112,  
        9464,  
        17408,  
        2888,  
        2888,  
        5576,  
        5536,  
        2888,  
        5536  
    ]  
},  
"type": 257,  
"upload-file-pos": 0,  
"usr-mask": 0,  
"warns": 0  
},  
"global-config": {  
    "input": {  
        "protocol": 1,  
        "stream-index": 0  
    },  
    "output": {  
        "buffer-ms": 120,  
        "protocol": 1  
    }  
},  
"result": 0  
}
```

# /api/device/accept

Use this interface to agree to the device pending application.

[Advanced control permissions for devices](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/device/accept
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
sn	Specify serial numbers set of devices that have been approved.

## Request Example

```
POST /api/device/accept HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: 24
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "sn":["B401190213050"]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/device/reject

Use this interface to reject pending devices.

[Advanced control permissions for devices](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/device/reject
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
sn	Specified set of rejected devices serial numbers

## Request Example

```
POST /api/device/reject HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: 24
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "sn":["A305200908004"]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/device/del

Use this interface to remove devices from Control Hub, including unapproved devices, approved devices, and rejected devices.

[Advanced control permissions for devices](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/device/del
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
sn	Specifies the set of device serial numbers to be deleted.

## Request Example

```
POST /api/device/del HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "sn":["A304200731001"]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/device/favorite/add

Use this interface to add devices to Favorites.

[Channel viewing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/device/favorite/add
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
sn	SN list.

## Request Example

```
POST /api/device/favorite/add HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "sn": [
    "A305200908004",
    "A304200731001"
  ]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0,
}
```



# /api/device/favorite/del

Use this interface to remove devices from Favourites.

[Channel viewing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/device/favorite/del
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
sn	SN list

## Request Example

```
POST /api/device/favorite/del HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "sn": [
    "A305200908004",
    "A304200731001"
  ]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0,
}
```





# /api/device/upgrade

Use this interface to set device upgrade.

[Device operating permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/device/upgrade
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
sn	Specified set of device serial numbers that have been approved.
firmware-id	Firmware ID.

## Request Example

```
POST /api/device/upgrade HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: 24
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "sn":["A304200731003"],
  "firmware-id":21
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
details	<a href="#">Device Upgrade Status</a>

### Device Upgrade Status

Parameter	Description
sn	Device serial number
result	<a href="#">Upgrading result status code</a>

Possible device upgrade results:

Error Code	Description
MW_STATUS_DEVICE_TYPE_ERROR	Firmware does not match the device type

MW_STATUS_NOT_EXIST	The device does not exist.
MW_STATUS_DEVICE_LOST	The device is offline.
MW_STATUS_DEVICE_BUSY	The device is currently being upgraded.

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "details":[
    {
      "result":0,
      "sn":"A304200731003"
    }
  ],
  "result":0
}
```

# /api/device/config

Use this interface to set your device.

[Device operating permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/device/config
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Secondary Parameter	Description
sn		Specified set of device serial numbers that have been approved.
config		Configurations.
	input	Input configurations. If this field does not exist, the configurations on the corresponding device will be cleared. Refer to <a href="#">Input Device Configuration</a> .
	output	Output configurations. If this field does not exist, the configurations on the corresponding device will be cleared. Refer to <a href="#">Output Device Configuration</a> .

## Input Device Configuration

Parameter	Description
protocol	Set the connection protocol for channel and its connected devices. Enumeration types including 0, 1 (rtmp), and 2 (srt). When the value is 0, it represents using the global default configuration. For the value list, refer to the <a href="#">Protocol Type Definition</a> .
stream-index	Stream index, 0 represents the main stream, 1 represents the sub stream.
latency	SRT delay. Only supported by device type node when "protocol" is set to 2 (ts over srt). The default value is 120.

## Output Device Configuration

Parameter	Description
protocol	Set the connection protocol for channel and its connected devices. Enumeration types including 0, 1 (rtmp), and 2 (srt). When the value is 0, it represents using the global default configuration. For the value list, refer to the <a href="#">Protocol Type Definition</a> .
latency	SRT delay in milliseconds. Only supported by device type node when "protocol" is set to 2 (ts over srt). The default value is 120.
buffer-ms	Buffer time for device received stream data in milliseconds. Only supported by output device of a channel.

## Request Example

```
POST /api/device/config HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: 24
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "sn": "A304200731003",
  "config": {
    "input": {
      "protocol": 1,
      "latency": 325,
```

```
    "stream-index": 0
  }
}
```

### Response Parameters

#### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

#### Response Body

Parameter	Description
result	<a href="#">Result code</a>

### Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/device/security/set

Use this interface to configuration interface for device security.

Only available for the administrative group.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/device/security/set
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
sn	Specify serial numbers of devices to be set.
security	<a href="#">Security settings</a>

## Request Example

```
POST /api/device/security/set HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "sn": "A304200731001",
  "security": {
    "is-inherit": 1,
    "group-mask": 2,
    "usr-mask": 1
  }
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

}

# /api/device/global/get

Use this interface to Get the global default security configuration of the device.

[view system configuration permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/device/global/get
Content-Type	Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Example

```
GET /api/device/global/get HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
security	<a href="#">Device global default security configuration</a>

### Device global default security configuration

Parameter	Description
group-mask	The visible user group mask set, when selecting visible to all groups, you can set the value to 0xFFFFFFFF (4294967295).
usr-mask	The set of visible user group masks.

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0,
  "security": {
    "group-mask": 1,
    "usr-mask": 0
  }
}
```





# /api/device/global/set

Use this interface to set device global default security configuration.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/device/global/set
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
security	Refer to <a href="#">Device Global Default Security Configuration</a> .

## Device Global Default Security Configuration

Parameter	Description
group-mask	Visible user group mask set, when selecting visible to all groups, set this value to 0xFFFFFFFF(4294967295).
usr-mask	The set of visible user group masks.

## Request Example

```
POST /api/device/global/set HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "security": {
    "group-mask": 7,
    "usr-mask": 0
  }
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
```

```
content-length: xx
{
  "result": 0
}
```

# /api/catalog/add

Use this interface to create device groups up to a maximum of 32 groups.

Only available for the administrative group.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/catalog/add
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
param	Group name

## Request Example

```
POST /api/catalog/add HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "param": "decoders",
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	Result code

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



# /api/catalog/del

Use this interface to delete device groups.

Only available for the administrative group.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/catalog/del
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	Group ID list

## Request Example

```
POST /api/catalog/del HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": [1, 2, 3],
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	Result code

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0,
}
```



# /api/catalog/list

Use this interface to obtain the list of device groups.

[Group viewing permissions](#) is required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/catalog/list
Content-Type	Response: Content-Type: application/json

## Request URL Parameters

## Request Example

```
GET /api/catalog/list HTTP/1.1
Accept: application/json, text/plain, */*
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
total	Total number.
list	List of returned <a href="#">Device Group</a> .

### Device Group

Parameter	Description
id	Group ID. 0 represents a global device, not belonging to any group.
name	Group name.
is-inherit	Whether to inherit the visibility configuration. Boolean value, if true, indicates that the mask configuration for user groups and users is inherited.
group-mask	The set of visible user group masks. 0xFFFFFFFF(4294967295) indicates that it is visible to all user groups.
usr-mask	The set of visible user group masks.
create-time	Device group creation time.

## Response Example

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
{
  "list": [
    {
      "create-time": 1694053658821,
      "group-mask": 1,
      "id": 30012,
      "is-inherit": 1,
      "name": "11",
      "usr-mask": 0
    }
  ]
}
```

```
    },
    {
      "create-time": 1689673549462,
      "group-mask": 1,
      "id": 30011,
      "is-inherit": 0,
      "name": "dds",
      "usr-mask": 0
    },
    {
      "create-time": 1685523384343,
      "group-mask": 1,
      "id": 30009,
      "is-inherit": 1,
      "name": "        6666s        ",
      "usr-mask": 0
    }
  ],
  "result": 0,
  "total": 3
}
```



# /api/catalog/rename

Use this interface to rename a device group.

Only available for the administrative group.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/catalog/rename
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	id
param	New name

## Request Example

```
POST /api/catalog/rename HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": 7,
  "param": "decoders",
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0,
}
```



## /api/catalog/set

Use this interface to configure device group, which can assign devices into groups, or set security configurations for groups.

Only available for the administrative group.

### Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/catalog/set
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

### Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

### Request Body

Parameter	Description
id	Device group ID, 0 indicates that the device is removed from the custom device group.
devices	Optional, serial numbers of devices moved to this group.
security	Optional, <a href="#">Security Configuration</a> . When id is 0, indicates configuration of visibility for global default device.

### Safety Configuration

Parameter	Description
is-inherit	Whether the visibility configuration is inherited. A value of non-zero indicates that the mask configuration is inherited for user groups and users. This field is not displayed when global default device visibility is configured.
group-mask	The set of visible user group masks. Configuring this value to 0xFFFFFFFF (4294967295) indicates that all visible devices are selected.
usr-mask	The set of visible user group masks.

### Request Example

```
POST /api/catalog/set HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": 2,
  "devices": [
    "A305200908004",
    "A304200731001"
  ]
}
```

### Response Parameters

#### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

#### Response Body

Parameter	Description
-----------	-------------

result

[Result code](#)

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0,
}
```

# /api/input/source/list

Use this interface to obtain input list.

[Input/output viewing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/input/source/list
Content-Type	Response: Content-Type: application/json

## Request URL parameters

Parameter	Description
start	Starting number
count	Maximum number returned
key	Keyword
sort	Sorting algorithms, by name is supported. By default, the devices are sorted by register time.
order	Available when 'sort' = name, options are descending, and ascending.

## Request Example

```
GET /api/input/source/list?start=0&count=2 HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
start	The starting number
total	Total number of inputs.
list	Refer to <a href="#">input list</a> .

### input

Parameter	Description
name	Name
id	ID
type	<a href="#">Node type definition</a>
dir	Node stream direction. Refer to <a href="#">node stream direction</a>
owner-i	Nodes are added to channels as inputs and outputs. The value of the field is an array, each element of the array is the channel name.
config	Source configuration, refer to <a href="#">Source configurations</a>
protocol	<a href="#">Protocol types</a>

## Response Example

```
{
  "list":[
    {
      "config":{
        "type":1,
        "url":"rtmp://10.10.10.10/live/test"
      },
      "dir":256,
      "id":1038,
      "name":"test1",
      "protocol":1,
      "type":258
    },
    {
      "config":{
        "type":1,
        "url":"rtmp://sfs.ll/sfs.ff/fff/fsfsf"
      },
      "dir":256,
      "id":1037,
      "name":"sff",
      "owner-i":[
        "testaaa"
      ],
      "owner-i-d":[
        100002
      ],
      "protocol":1,
      "type":258
    }
  ],
  "result":0,
  "start":0,
  "total":38
}
```

# /api/input/source/del

Use this interface to delete input for a channel.

[Input/output editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/input/source/del
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	ID, can be a number or an array.
force	Optional parameter, set it to true to delete the input occupied by a channel.

## Request Example

```
POST /api/input/source/del HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": [ 111 ]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```





# /api/input/source/add

Use this interface to add an input for a channel.

[Input/Output editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/input/source/add
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
name	Name
config	Refer to Source configuration section.

## Source configuration

Parameter	Description
type	Configuration type, 1 represents URL type, source information is configured through the url field.
url	Source address

Supported protocols include RTMP, RTSP, and TS OVER SRT/UDP/RTP.

### RTSP

Support for standard RTSP addresses

```
rtsp://192.168.1.58:899/stream
```

### RTMP

Support for standard RTMP addresses

```
rtmp://192.168.1.58/live/key
```

### MPEG-TS over UDP

Support for standard UDP addresses

```
// Multicast  
udp://ip:port  
  
// Unicast  
udp://0.0.0.0:port
```

### MPEG-TS over SRT

Support for ffmpeg srt url

```
// Caller  
srt://ip:port?mode=caller&latency=125&streamid=test&passphrase=1234567890  
  
// Listener
```

```
srt://0.0.0.0:port?mode=listener&latency=125&streamid=test
```

URL	Description
ip	Listener: 0.0.0.0 caller: legal IP address (cannot be:0.0.0.0)
port	Port number, range is from 1 to 65535.
mode	Mode, options are caller and listener.
latency	latency time, range is from 20 to 8000.
passphrase	Encrypted password, optional, set it only when encryption is enabled.
streamid	Stream ID, length is from 0 to 256.

## MPEG-TS over RTP

Support for standard RTP addresses

```
// Multicast  
rtp://ip:port  
  
// Unicast  
rtp://0.0.0.0:port
```

## Request Example

```
POST /api/input/source/add HTTP/1.1  
Accept: application/json, text/plain, */*  
Content-Type: application/json; charset=utf-8  
Content-Length: xx  
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;  
{  
  "name": "srt test",  
  "config": {  
    "type": 1,  
    "url": "srt://10.10.11.117:9000?mode=caller"  
  }  
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK  
content-type: application/json; charset=utf-8  
content-length: 12  
{  
  "result": 0  
}
```

# /api/input/source/set

Use this interface to set input.

[input/output editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/input/source/set
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
name	The name of input to be modified.
config	Source configurations, refer to <a href="#">Source configurations</a>

## Request Example

```
POST /api/input/source/set HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "name": "rtsp",
  "config": {
    "type": 1,
    "url": "xx"
  }
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



# /api/output/list

Use this interface to obtain output list.

[Input/output viewing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/output/list
Content-Type	Response: Content-Type: application/json

## Request URL parameters

Parameter	Description
start	Starting number
count	Maximum number returned
key	List the outputs containing the keyword
sort	Sorting algorithms, by name is supported. By default, the devices are sorted by register time.
order	Available when 'sort' = name, options are descending, and ascending.

## Request Example

```
GET /api/output/list?start=0&count=1 HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
start	The starting number
total	Total number of outputs.
list	Refer to <a href="#">output list</a> .

### Output Object Definition

Parameter	Description
name	Name
id	ID
protocol	<a href="#">Protocol types</a>
type	<a href="#">Node type definition</a>
dir	Node stream direction. Refer to <a href="#">node stream direction</a>
owner-o	Owner name
config	Output configuration, refer to <a href="#">outputs configurations</a>

## Response Example

```
{
  "list": [
    {
      "config": {
        "enable-auth": true,
        "key": "1",
        "max-client-num": 30,
        "password": "1",
        "port": 554,
        "type": 0,
        "username": "1"
      },
      "dir": 512,
      "id": 11089,
      "name": "rtsp_test",
      "owner-o": "#1s",
      "owner-o-d": 100053,
      "protocol": 16,
      "type": 514
    },
    {
      "config": {
        "enable-auth": false,
        "key": "dd",
        "max-client-num": 2,
        "port": 554,
        "type": 0
      },
      "dir": 512,
      "id": 11088,
      "name": "ddds",
      "owner-o": "Push",
      "owner-o-d": 100006,
      "protocol": 16,
      "type": 514
    }
  ],
  "result": 0,
  "start": 0,
  "total": 89
}
```

# /api/output/del

Use this interface to delete outputs for a channel.

[Input/output editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/output/del
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	id, can be a number or an array.
force	Optional parameter, use it to delete the output occupied by a channel.

## Request Example

```
POST /api/output/del HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": 111
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```





# /api/output/add

Use this interface to add an output for a channel.

[Input/Output editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/output/add
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
name	Name
protocol	Protocol type, refer to <a href="#">Protocol type</a>
config	Output configurations, refer to <a href="#">Different protocol output configurations</a>

## Request Example

```
POST /api/output/add HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": 27874787,
  "name": "srt-listener2",
  "protocol": 2,
  "config": {
    "mode": "listener",
    "bind-port": 18001
  }
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
```

```
"result": 0  
}
```

# /api/output/set

Use this interface to set output.

[input/output editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/output/set
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
name	The name of output to be modified.
protocol	<a href="#">Protocol types</a>
config	Output configurations, refer to <a href="#">Source configurations</a>

## Request Example

```
POST /api/output/set HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "name": "rtsp server",
  "config": {
    "type": 1,
    "url": "xx"
  }
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



# /api/channel/add

Use this interface to add a channel.

[Channels editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/channel/add
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
name	Name.
config	<a href="#">Channel configurations</a>

## Channel Configurations

Parameter	Description
play-key	Playback key, globally unique, maximum length 256 bytes.
push-key	Push stream key, can't be the same as play key, and globally unique, max length 256 bytes

## Request Example

```
POST /api/channel/add HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "name": "test",
  "config": {
    "play-key": "test",
    "push-key": "push_test"
  }
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/channel/del

Use this interface to delete a channel.

[Channel editing permissions](#) is required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/channel/del
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	Channel ID or list

## Request Example

```
POST /api/channel/del HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": [1]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/channel/dashboard

Use this interface to obtain global or a specified channel statistics information.

[Channel viewing Permissions](#) is required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/channel/dashboard
Content-Type	Response: Content-Type: application/json

## Request URL parameters

Parameter	Description
start	Start number
count	Maximum value returned.
live	Set to 1 to get only the current live channels.
output-start	Optional parameter, used to set the start index of the output in the channel, and the default value is 0.
output-count	Optional parameter, used to set the number of outputs returned in the channel, if not configured the default is 10
client-start	Optional parameter, used to set the start index of client in the channel, and the default value is 0.
client-count	Optional parameter, used to set the number of client returns in the channel, if not configured the default is 10
history	Optional parameter, set to 1 will return the history of the total traffic of all channels.
sort	Sorting algorithms, by name is supported. By default, the devices are sorted by register time.
order	Available when 'sort' = name, options are descending, and ascending.

## Request Example

```
GET /api/channel/dashboard?count=3&history=0&output-count=2&start=0 HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
info	<a href="#">Global statistics of channel</a>
channels	Refer to <a href="#">Channel list</a>

### Global Statistics for Channels

Parameter	Description
date-time	Current system time of the server, in seconds
channel	Global channel statistics information, refer to <a href="#">Global channel count information</a>
data-in	Total received data statistics for all channels, refer to <a href="#">Network Data Statistics</a>
data-out	Total transmitted data statistics for all channels, refer to <a href="#">network data statistics</a>

### Global Channel Count Information



Parameter	Description
enable-num	Number of channels currently enabled
limit-num	Current maximum number of channels that can be enabled
live-num	Number of channels which are streaming
limit-create-num	Maximum number of channels supported
used-num	Number of channels currently created.

### Network Data Statistics

Parameter	Description
mbps-s	Data traffic per second in Mb.
mbps-m	Average bit rate statistics for the past minute in Mb.
mbps-h	Average bit rate statistics for the past hour in Mb.
hist-s	Historical data traffic for the last 60 seconds in Mb. only present if request parameter history is set to 1.
hist-m	Historical data traffic for the last 60 minutes in Mb. only present if request parameter history is set to 1.

### Channel List

Parameter	Description
list	Detailed information about the channels in the form of a list, refer to <a href="#">Channel Statistics</a> for the data structure of each channel.
start	The start count of the channel corresponds to call start
total	Total number of channels on the server.

### Response Example

```
{
  "channels": {
    "list": [
      {
        "config": {
          "enable": true,
          "play-key": "PULL-69A8534C-0619-4745-A882-1C6951C24D66",
          "protocol": {
            "prefer": 1,
            "rtmp": true,
            "srt": true
          }
        },
        "push-key": "PUSH-29CACFC0-DFAF-45FF-9200-BA6A53708986"
      },
      {
        "id": 100054,
        "input": {
          "addr": "",
          "conn-state": 10,
          "device": {
            "is-online": true,
            "product-id": 790,
            "sn": "C316230601002",
            "warn": 0
          }
        },
        "id": 20,
        "kbps": 33647,
        "name": "Ultra Encode C316230601002",
        "protocol": 1,
        "state": 2,
        "type": 257
      }
    ],
    "name": "%9",
    "preview": {
      "img-url": "998190d3-c8a6-486f-bd1c-e6731ca46895",
      "video-url": {
        "flv": "PULL-69A8534C-0619-4745-A882-1C6951C24D66"
      }
    }
  },
  "state": 2,
  "status": {
```

```

    "in-kbps": 33647,
    "living-time-s": 103076,
    "num-client": 0,
    "out-kbps": 0
  },
  "url": {
    "rtmp": {
      "app": "live",
      "play": "PULL-69A8534C-0619-4745-A882-1C6951C24D66",
      "port": 1935,
      "push": "PUSH-29CACFC0-DFAF-45FF-9200-BA6A53708986"
    },
    "srt": {
      "passphrase": "1234567890",
      "play": "PULL-69A8534C-0619-4745-A882-1C6951C24D66",
      "port": 80,
      "push": "PUSH-29CACFC0-DFAF-45FF-9200-BA6A53708986"
    }
  }
},
{
  "config": {
    "enable": true,
    "play-key": "PULL-6346FFC8-5AC5-45B3-AA5C-886F56C54676",
    "protocol": {
      "prefer": 1,
      "rtmp": true,
      "srt": true
    },
    "push-key": "PUSH-29D40DE2-EDED-4C28-A364-C4FE5C8ACFC7"
  },
  "id": 100053,
  "name": "#1s",
  "outputs": {
    "list": [
      {
        "conn-state": 2,
        "id": 11089,
        "is-serv": true,
        "kbps": 0,
        "living-time-s": 0,
        "name": "rtsp_test",
        "num-clients": 0,
        "protocol": 16,
        "state": 2,
        "type": 514
      }
    ],
    "start": 0,
    "total": 1
  },
  "preview": {
    "img-url": "43e6edba-b2e6-4041-b442-5a0d610970af"
  },
  "state": 2,
  "status": {
    "in-kbps": 0,
    "num-client": 0,
    "out-kbps": 0
  },
  "url": {
    "rtmp": {
      "app": "live",
      "play": "PULL-6346FFC8-5AC5-45B3-AA5C-886F56C54676",
      "port": 1935,
      "push": "PUSH-29D40DE2-EDED-4C28-A364-C4FE5C8ACFC7"
    },
    "srt": {
      "passphrase": "1234567890",
      "play": "PULL-6346FFC8-5AC5-45B3-AA5C-886F56C54676",
      "port": 80,
      "push": "PUSH-29D40DE2-EDED-4C28-A364-C4FE5C8ACFC7"
    }
  }
}

```

```

    },
    {
      "config": {
        "enable": false,
        "play-key": "%",
        "protocol": {
          "prefer": 1,
          "rtmp": true,
          "srt": true
        },
        "push-key": "@"
      },
      "id": 100052,
      "input": {
        "addr": "",
        "conn-state": 0,
        "device": {
          "is-online": false,
          "product-id": 787,
          "sn": "A313220727002",
          "warn": 0
        },
        "id": 1,
        "kbps": 0,
        "name": "ultra encode AIO 7002",
        "protocol": 0,
        "state": 0,
        "type": 257
      },
      "name": "change2",
      "outputs": {
        "list": [
          {
            "conn-state": 0,
            "id": 11082,
            "kbps": 0,
            "living-time-s": 0,
            "mode": "caller",
            "name": "srt-233-mediahub-47",
            "protocol": 2,
            "report": {
              "pkt-drop": 0,
              "pkt-drop-total": 0,
              "pkt-loss": 0.0
            },
            "state": 0,
            "type": 514
          },
          {
            "conn-state": 0,
            "id": 11081,
            "kbps": 0,
            "living-time-s": 0,
            "mode": "caller",
            "name": "srt-233-mediahub-46",
            "protocol": 2,
            "report": {
              "pkt-drop": 0,
              "pkt-drop-total": 0,
              "pkt-loss": 0.0
            },
            "state": 0,
            "type": 514
          }
        ],
        "start": 0,
        "total": 3
      },
      "state": 1,
      "url": {
        "rtmp": {
          "app": "live",

```

```

        "play": "%",
        "port": 1935,
        "push": "@"
    },
    "srt": {
        "passphrase": "1234567890",
        "play": "%",
        "port": 80,
        "push": "@"
    }
}
],
"start": 0,
"total": 53
},
"clients": {
    "current-num": 0,
    "limit-num": 30
},
"info": {
    "channel": {
        "enable-num": 2,
        "limit-create-num": 1000,
        "limit-num": 1000,
        "live-num": 1,
        "used-num": 53
    },
    "data-in": {
        "mbps-h": 32.996239700734286,
        "mbps-m": 33.01496862192623,
        "mbps-s": 33.2822265625
    },
    "data-out": {
        "mbps-h": 0.0,
        "mbps-m": 0.0,
        "mbps-s": 0.0
    },
    "date-time": 0
},
"result": 0
}

```

# /api/channel/input/set

Use this interface to set input of a channel.

[Channel editing permissions](#) is required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/channel/input/set
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	Channel ID
input	Input ID

## Request Example

```
POST /api/channel/input/set HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": 1,
  "input": 1
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



# /api/channel/input/del

Use this interface to delete input of the channel.

[Channel editing permissions](#) is required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/channel/input/del
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	Channel ID
input	ID of the input to be deleted.

## Request Example

```
POST /api/channel/input/del HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": 1,
  "input": 1
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```





# /api/channel/output/edit

Use this interface to edit input of a channel.

[Channel editing permissions](#) is required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/channel/output/edit
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	Channel ID
add	Output nodes to be added.
del	Output nodes to be deleted.

## Request Example

```
POST /api/channel/output/edit HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": 1,
  "add": [11001],
  "del": [11002]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



# /api/channel/enable

Use the interface to enable/disable channels.

[Channel Control Permissions](#) is required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/channel/enable
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	Channel ID.
enable	Boolean type, true represents enable the channel, false represents disable the channel.

## Request Example

```
POST /api/channel/enable HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id":1,
  "enable": true
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



# /api/channel/set

Use this interface to set a channel.

[Channel editing permissions](#) is required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/channel/set
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
name	Channel name.
config	<a href="#">Channel Configurations</a>

## Channel Configurations

Parameter	Description
play-key	Playback key, globally unique, maximum length 256 bytes.
push-key	Push stream key, can't be the same as play key, and globally unique, max length 256 bytes

## Request Example

```
POST /api/channel/set HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "name": "test",
  "config": {
    "play-key": "test",
    "push-key": "push_test"
  }
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/channel/query

Use this interface to obtain detailed information of a channel.

[Channel viewing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/channel/query
Content-Type	Response: Content-Type: application/json

## Request URL parameters

Parameter	Description
id	Channel ID
output-start	Optional parameter, used to set the starting index of the output in the channel. The default is 0 if not configured.
output-count	Optional parameter, used to set the number of outputs returned in the channel. The default is 10 if not configured.
client-start	Optional parameter, used to set the starting index of the client in the channel. The default is 0 if not configured.
client-count	Optional parameter, used to set the number of clients returned in the channel. The default is 10 if not configured.

## Request Example

```
GET /api/channel/query?id=xxx&output-count=5&client-count=10 HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
Remaining fields	Refer to <a href="#">Channel statistical information</a>

## Response Example

```
{
  "config": {
    "enable": false,
    "play-key": "PULL-B6C5FBB1-7476-48A4-B591-5B69E3FD0849",
    "protocol": {
      "ndihx": true,
      "prefer": 1,
      "rtmp": true,
      "srt": true
    },
    "push-key": "PUSH-19D9753A-1D68-49E0-94BF-1965276A71C2"
  },
  "id": 100033,
  "input": {
    "addr": "",
    "conn-state": 0,
    "id": 1038,
    "kbps": 0,

```

```

    "name": "test1",
    "protocol": 1,
    "state": 1,
    "type": 258
  },
  "name": "222",
  "outputs": {
    "list": [
      {
        "conn-state": 0,
        "id": 11077,
        "kbps": 0,
        "living-time-s": 0,
        "mode": "caller",
        "name": "srt-233-mediahub-42",
        "protocol": 2,
        "report": {
          "pkt-drop": 0,
          "pkt-drop-total": 0,
          "pkt-loss": 0.0
        },
        "state": 0,
        "type": 514
      },
      {
        "conn-state": 0,
        "id": 11076,
        "kbps": 0,
        "living-time-s": 0,
        "mode": "caller",
        "name": "srt-233-mediahub-41",
        "protocol": 2,
        "report": {
          "pkt-drop": 0,
          "pkt-drop-total": 0,
          "pkt-loss": 0.0
        },
        "state": 0,
        "type": 514
      }
    ],
    "start": 0,
    "total": 2
  },
  "result": 0,
  "state": 1,
  "url": {
    "rtmp": {
      "app": "live",
      "play": "PULL-B6C5FBB1-7476-48A4-B591-5B69E3FD0849",
      "port": 1935,
      "push": "PUSH-19D9753A-1D68-49E0-94BF-1965276A71C2"
    },
    "srt": {
      "passphrase": "1234567890",
      "play": "PULL-B6C5FBB1-7476-48A4-B591-5B69E3FD0849",
      "port": 80,
      "push": "PUSH-19D9753A-1D68-49E0-94BF-1965276A71C2"
    }
  }
}

```



# /api/login

Use this interface to login.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/login
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Body

Parameter	Description
id	Username
pass	MD5 Password

## Request Example

```
POST /api/login HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
{
  "id": "test",
  "pass": "c4ca4238a0b923820dcc509a6f75849b"
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
is-hardware	Whether it is a hardware version
token	The key value pointed to by mwcloud-sid
user	<a href="#">User information</a>

### User Information

Parameter	Description
name	User name
id	User ID
group-name	Group name
permission	Permission mask
type	Group type, 1 represents admin, 2 represents usr, 4 represents viewer, 8 represents custom

### Error Codes

Error Codes	Description
MW_STATUS_NOT_EXIST	User does not exist.
MW_STATUS_MISMATCH	Password incorrect.

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "is-hardware": false,
  "result": 0,
  "token": "xxxx",
  "user": {
    "group-name": "Admin",
    "id": 1,
    "name": "Admin",
    "permission": 4294967295,
    "type": 1
  }
}
```

# /api/logout

Use this interface to logout.

## Prototype

Protocol	HTTP/HTTPS POST/GET
URL	ip[:port]/api/logout
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Null

## Request Example

```
POST /api/logout HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/system/status

Use this interface to get system status.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/system/status
Content-Type	Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request URL parameters

Parameter	Description
global-config	Setting to non-zero will provide global default configuration information in the returned information.

## Request Example

```
GET /api/system/status HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
status	Server status, refer to <a href="#">server status</a>

### Server Status

Parameter	Description
system	Server status, refer to <a href="#">Server status</a> .
license-reg	License status, refer to <a href="#">license status</a> .
cur-license	Current license, refer to <a href="#">license information</a>
pwd-rule	<a href="#">Password settings</a>
global-config	When the parameter global-config is not 0, the field device is provided, which refers to the <a href="#">Device Connection Global Configurations</a> .

### Status Statistics Information

Parameter	Description
channel	Channel global statistics, see <a href="#">channel global statistics</a>
client	Client global statistics, see <a href="#">client global statistics</a>
device	device global statistics, refer to <a href="#">device global statistics</a>

info	system info, refer to <a href="#">system info</a>
output	Output node global statistics, refer to <a href="#">Output Node Global Statistics</a>
status	System status statistics, refer to <a href="#">System Status Statistics</a>

### System Information

Parameter	Description
date-time	Current server system time, in seconds.
cloud-version	ControlHub version number.
hardware-ver	ControlHub hardware version. If the field is not included, it represents the software version.
expired-time	Session timeout for users, in minutes.

### System Status Statistics

Parameter	Description
cpu	Current CPU usage
disk-info	Storage space information, refer to <a href="#">Storage Space Information</a>
mem	Current memory usage ratio
net-tx	Current network transmission traffic, in Mbps
net-rx	Current network reception traffic, in Mbps
status-code	Running status mask, refer to <a href="#">Status Codes</a>

### Running Status Code

Code	Description
0	Idle
0x1000	There is a new version available
0x2000	System is rebooting
0x4000	SRT service startup failed
0x8000	System is updating
0x10000	System is resetting all settings
0x20000	System is importing configurations

The running status code will bitwise OR operator with [updating service status code](#).

### Storage space information

Parameter	Description
total	Total storage space, in MB.
free	Free storage space size, in MB

### Device Global Statistics

Parameter	Description
num-all	Total number of devices
num-online	Number of online devices
num-pending	Number of devices pending approval
num-warn	Number of devices with warnings

### Channel Global Statistics

Parameter	Description
num-all	Current channel count
num-enable	Current enabled channel count

### Output Node Global Statistics

Parameter	Description
-----------	-------------

num-enable	Current total number of outputs in use
------------	--

### Clients Global Statistical

Parameter	Description
num-all	Current total number of clients

### License Status

Parameter	Description
status	<a href="#">License Certificate Status Code</a>
user-name	Certificate Title.
sn	Certificate Serial Number.
license	Licensed certificate permissions, refer to <a href="#">License Information</a> .

### License Status

Value	Description
0	normal
-10	Invalid
-14	Not exists
-20	No license
-107	expired
-109	error
-110	terminated
-111	occupied by other device

### License

Parameter	Description
limited-date	Expiry time of the license, precision to the second.
max-dev-count	Maximum number of devices allowed
max-channel-count	Maximum number of channels that can be created
max-stream-count	Maximum total number of output streams that can be added to a channel (output nodes)

In addition to the license restrictions, there are the following limitations:

- Channel creation limit: 100 (reference value)
- Global output node enabled limit: 50 (reference value)
- Input node creation limit: 100 maximum
- Output node creation limit: 100 maximum

### Response Example

```
{
  "result": 0,
  "status": {
    "cur-license": {
      "limited-date": 1842912000,
      "max-channel-count": 1000,
      "max-dev-count": 1000,
      "max-stream-count": 1000
    },
    "global-config": {
      "device": {
        "input": {
          "protocol": 1,
          "stream-index": 0
        },
        "output": {
          "buffer-ms": 120,
          "protocol": 1
        }
      }
    }
  }
}
```

```

    }
  },
  "license-reg": {
    "license": {
      "limited-date": 1842912000,
      "max-channel-count": 1000,
      "max-dev-count": 1000,
      "max-stream-count": 1000
    },
    "sn": "5222*****1345",
    "status": 0,
    "user-name": "test-ag5"
  },
  "pwd-rule": {
    "chk-name": 0,
    "length": 0,
    "number": 0,
    "special": 0,
    "uppercase": 0
  },
  "system": {
    "channel": {
      "num-all": 54,
      "num-enable": 2
    },
    "client": {
      "num-all": 0
    },
    "device": {
      "num-all": 47,
      "num-online": 20,
      "num-pending": 2,
      "num-warn": 27
    },
    "info": {
      "cloud-version": "2.1.28",
      "date-time": 1694400221,
      "expired-time": 30
    },
    "output": {
      "num-enable": 28
    },
    "status": {
      "cpu": 9,
      "disk-info": {
        "free": 13298,
        "total": 31114
      },
      "mem": 65,
      "net-rx": 8.4591809216443,
      "net-tx": 0.10232094887856606,
      "status-code": 0
    }
  }
}

```

# /api/system/reboot

Use this interface to reboot.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET/POST
URL	ip[:port]/api/system/reboot
Content-Type	Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request URL parameters

## Request Example

```
GET /api/system/reboot HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
{
  "result": 0
}
```



# /api/operator/get

Use this interface to obtain operation logs.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/operator/get
Content-Type	Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request URL parameters

Parameter	Description
start	Start number.
count	Maximum number of returns.

## Request Example

```
GET /api/operator/get?start=0&count=5 HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
total	Total number of operation logs.
list	Arrays of <a href="#">Operation Logs</a>

### Operation Logs

Parameter	Description
addr	The IP address of the operator
args	set of arguments for the operation
date	time of execution
desc-id	operation-id
result	operation result
Usr	the name of the user who performed the operation.

The correspondence between the operation ID and the parameter set is as follows.

```
{
  'catalog add': 'add catalog {name}',
  'catalog del': 'delete catalog(s) {name}',
```

```

'catalog del multiple ex': 'delete catalog(s) {name}, total {num}, with {left} hidden',
'catalog move in': 'move device(s) {device} to catalog {name}',
'catalog move in multiple ex': 'move device(s) {device} to catalog {name}, total {num}, with {left} hidden',
'catalog move out': 'move device(s) {device} out of catalog',
'catalog move out multiple ex': 'move device(s) {device} out of catalog, total {num}, with {left} hidden',
'catalog rename': 'rename catalog to {name}',
'catalog set security': 'change catalog {name} security settings',
'channel create': 'create channel {name}',
'channel destroy': 'delete channel(s) {name}',
'channel destroy multiple ex': 'delete channel(s) {name}, total {num}, with {left} hidden',
'channel disable': 'disable channel {name}',
'channel enable': 'enable channel {name}',
'channel input del': 'delete channel {name} input {input}',
'channel input set': 'set channel {name} input to {input}',
'channel output add': 'add output {output} to channel {name}',
'channel output del': 'delete output {output} from channel {name}',
'channel outputs add': 'add output(s) {output} to channel {name}',
'channel outputs add multiple ex': 'add output(s) {output} to channel {name}, total {num}, with {left} hidden',
'channel outputs del': 'delete output(s) {output} from channel {name}',
'channel outputs del multiple ex': 'delete output(s) {output} from channel {name}, total {num}, with {left} hidden',
'channel set': 'change channel {name} settings',
'device accept': 'approval device(s) {name}',
'device accept multiple ex': 'approval device(s) {name}, total {num}, with {left} hidden',
'device config input': 'configure device {name} input parameter',
'device config output': 'configure device {name} output parameter',
'device delete': 'delete device(s) {name}',
'device delete multiple ex': 'delete device(s) {name}, total {num}, with {left} hidden',
'device fav add': 'add device(s) {name} to favorite',
'device fav add multiple ex': 'add device(s) {name} to favorite, total {num}, with {left} hidden',
'device fav del': 'delete device(s) {name} from favorite',
'device fav del multiple ex': 'delete device(s) {name} from favorite, total {num}, with {left} hidden',
'device global set': 'change device global default security',
'device reject': 'reject device(s) {name}',
'device reject multiple ex': 'reject device(s) {name}, total {num}, with {left} hidden',
'device security set': 'setup device {name} security',
'device upgrade': 'upgrade device(s) {name} to version {version}',
'device upgrade multiple ex': 'upgrade device(s) {name} to version {version}, total {num}, with {left} hidden',
'firmware add': 'add {name} firmware version {version}',
'firmware del': 'delete firmware(s) {name}',
'firmware del multiple ex': 'delete firmware(s) {name}, total {num}, with {left} hidden',
'input add': 'add input {name} url {url}',
'input del': 'delete input(s) {name}',
'input del multiple ex': 'delete input(s) {name}, total {num}, with {left} hidden',
'input set': 'set input {name} url {url}',
'login': 'login',
'logout': 'logout',
'output add': 'add output {name} config {config}',
'output del': 'delete output(s) {name}',
'output del multiple ex': 'delete output(s) {name}, total {num}, with {left} hidden',
'output set': 'set output {name} config {config}',
'reboot': 'reboot system',
'system upgrade': 'system upgrade to version {version}',
'factory reset': 'factory reset',
'settings code enable': 'enable security code {code}',
'settings code disable': 'disable security code',
'settings srt set': 'setup srt server port to {port} and disable encryption',
'settings srt set and enable ssl': 'setup srt server port to {port} and enable encryption',
'settings pwd rule set': 'change password rule',
'settings expired set': 'set expired time to {time} minute',
'settings export': 'export settings',
'user add': 'add user {name} to group {group}',
'user del': 'delete user(s) {name}',
'user del multiple ex': 'delete user(s) {name}, total {num}, with {left} hidden',
'user group create 1': 'create group {name} and add user(s) {user}',
'user group create 1 multiple ex': 'create group {name} and add user(s) {user}, total {num}, with {left} hidden',
'user group create 2': 'create group {name}',
'user group del': 'delete group {name}',
'user group set': 'change group {name} settings',
'user set group': 'move user(s) {name} to group {group}',

```

```
'user set group multiple ex': 'move user(s) {name} to group {group}, total {num}, with {left} hidden'  
}
```

## Response Example

```
{  
  "list": [  
    {  
      "action": 50331681,  
      "addr": "10.10.4.120",  
      "args": {  
        "name": "ultraencoder srt server"  
      },  
      "date": 1698895668780,  
      "desc-id": "input del",  
      "index": 57,  
      "result": 0,  
      "usr": "admin"  
    },  
    {  
      "action": 50331681,  
      "addr": "10.10.4.120",  
      "args": {  
        "name": "rtmp-pull-10.0.1.32"  
      },  
      "date": 1698895666519,  
      "desc-id": "input del",  
      "index": 56,  
      "result": 0,  
      "usr": "admin"  
    },  
    {  
      "action": 50331681,  
      "addr": "10.10.4.120",  
      "args": {  
        "name": "srt_listener"  
      },  
      "date": 1698895637948,  
      "desc-id": "input del",  
      "index": 55,  
      "result": 0,  
      "usr": "admin"  
    },  
    {  
      "action": 201326653,  
      "addr": "10.10.4.120",  
      "args": {  
        "name": "long-key"  
      },  
      "date": 1698895633465,  
      "desc-id": "channel enable",  
      "index": 54,  
      "result": 0,  
      "usr": "admin"  
    },  
    {  
      "action": 201326653,  
      "addr": "10.10.4.120",  
      "args": {  
        "name": "srt"  
      },  
      "date": 1698895631644,  
      "desc-id": "channel enable",  
      "index": 53,  
      "result": 0,  
      "usr": "admin"  
    }  
  ],  
  "result": 0,  
  "total": 58  
}
```



# /api/operator/clear

Use this interface to clear operation logs.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/operator/clear
Content-Type	Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request URL parameters

## Request Example

```
POST /api/operator/clear HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
{
  "result": 0,
}
```

# /api/system/reset

Use this interface to restore factory settings, the system will automatically restart.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET/POST
URL	ip[:port]/api/system/reset
Content-Type	Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request URL parameters

## Request Example

```
GET /api/system/reset HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
{
  "result": 0
}
```

# /api/update/status

Use this interface to get the current status of the upgrade service.

[view system configuration permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/update/status
Content-Type	Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request URL parameters

Parameter	Description
start	Optionally, you can set the starting sequence number of the historical versions.
count	Optionally, you can set the number of historical versions.

## Request Example

```
GET /api/update/status HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
status	Update service status, refer to <a href="#">Update Service Status</a>

### Update Service Status

Parameter	Description
state	Status, refer to <a href="#">Update Service Status Codes</a>
progress	When the state is MH_UPDATE_STATE_PULLING, it is valid, indicating the progress of downloading the firmware, with a value ranging from 0 to 100.
enable-update	Upgrade enable status, including both online and manual
version	Current firmware version
online-status	Online upgrade information, refer to <a href="#">Online Upgrade Information</a>

### Update Service Status Codes

Value	Description
-------	-------------

0	Idle
0x1	Checking local information
0x2	Checking online version
0x4	Pulling firmware
0x8	Verifying firmware
0x10	Uploading firmware
0x20	Canceling current operation
0x40	Upgrade completed, restarting
0x100	Upgrade service unavailable
0x200	Upgrade failed, error code stored in update-result

### Online Upgrade Information

Value	Description
date	Last check time
check-result	Last check result
update-result	Current update status error code
is-newest	Whether it is the latest version
newest-version	Latest <a href="#">version information</a>
enable	Whether to enable online upgrade detection
enable-expr	Whether to include pre-release versions when checking online versions
versions	Online version list information, refer to <a href="#">Online version list information</a>

### Online Version List Information

Parameter	Description
start	Starting number
total	Total number of historical versions
list	Online version list information, which may be an empty array, see <a href="#">version information</a> for the structure.

### Version

Parameter	Description
version	Version number
is-expr	Pre-release version
date	Release date

### Response Example

```
{
  "result": 0,
  "status": {
    "state": 0,
    "version": "2.1.28",
    "progress": 0,
    "enable-update": true,
    "os-name": "Debian GNU/Linux 11 (bullseye)",
    "online-status": {
      "date": 1694400871,
      "check-result": 0,
      "update-result": 0,
      "is-newest": true,
      "newest-version": {
        "version": "2.1.28",
        "digest": "a487eef9d3e5a81ef9ff8deb143e61a086bc01196d1dce8ff1a1424aff9e44b3",
        "is-expr": true,
        "date": 1693884985
      }
    },
    "enable": true,
  }
}
```



```
    "enable-expr": true,
    "versions": {
      "list": [
        {
          "version": "2.1.27",
          "digest": "7cd2737135b7e826d44fa9ceae65c72bd84520b0899bafef7f912cd6bda5385e5",
          "is-expr": true,
          "date": 1693788867
        },
        {
          "version": "2.1.26",
          "digest": "550c2abaa1453ddb912ebc6d7b5233a046006b6c1c546115507e2084c8258bca",
          "is-expr": true,
          "date": 1693381926
        },
        {
          "version": "2.1.25",
          "digest": "53ecb3892f3090591012dfb1387dcf0562ebe5f41589a8a75151da556e56dc40",
          "is-expr": true,
          "date": 1693373940
        }
      ],
      "start": 1,
      "total": 50
    }
  },
  "info": ""
}
```

# /api/update/online-check

Use this interface to Check new version online.

[view system configuration permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/update/online-check
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

## Request Example

```
POST /api/update/online-check HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/update/online-update

Use this interface to start to update the specified online version.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/update/online-update
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request URL parameters

Parameter	Description
version	Version number.

## Request Body

## Request Example

```
POST /api/update/online-update?version=2.0.1 HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/update/cancel

Use this interface to cancel the current operation.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/update/cancel
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

## Request Example

```
GET /api/update/cancel HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/update/config/set

Use this interface to set update.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/update/config/set
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
enable-online-check	Whether to enable online update
enable-online-expr	Whether to include pre-release versions

## Request Example

```
POST /api/update/config/set HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "enable-online-check": false,
  "enable-online-expr": true
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



# /api/usr/list

Use this interface to list users and groups.

Only available for the administrative group.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/usr/list
Content-Type	Response: Content-Type: application/json

## Request URL parameters

Parameter	Description
type	Optional, specify the parameter to usr to get the user list, to group to get the user group list, to get all information without specifying the parameter.
id	Optional, when type is group, you can specify the id to get the group information with the specified id.
more	Optional, when set to 1, you can get more detailed information about the group member.

## Request Example

```
GET /api/usr/list HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
groups	User group list, see <a href="#">Groups List</a>
users	User list, refer to <a href="#">User Info</a>

### User Group

Parameter	Description
name	User group name.
id	User group id.
desc	User group description.
permission	Permission mask.
users	An arraylist of user names. If more is 1 in the request URL, then the user name and id will be contained in the result.
type	User group type, options are 1 for admin, 2 for usr, 4 for viewer, 8 for custom.

### User Info

Parameter	Description
name	User name.
id	User ID.
group-name	User group name

group-id	User group ID
permission	Permission mask.

## Response Example

```
{
  "groups": [
    {
      "desc": "Administrator group",
      "id": 1,
      "name": "Admin",
      "permission": 4294967295,
      "type": 1,
      "users": [
        "Admin"
      ]
    },
    {
      "desc": "User groups",
      "id": 2,
      "name": "User",
      "permission": 57183,
      "type": 2,
      "users": [
        "10"
      ]
    },
    {
      "desc": "Viewer group",
      "id": 4,
      "name": "Viewer",
      "permission": 57183,
      "type": 4
    }
  ],
  "result": 0,
  "users": [
    {
      "group-id": 1,
      "group-name": "Admin",
      "id": 1,
      "name": "Admin",
      "permission": 4294967295
    },
    {
      "group-id": 2,
      "group-name": "User",
      "id": 4194304,
      "name": "10",
      "permission": 57183
    }
  ]
}
```



# /api/usr/add

Use this interface to add users.

Only available for the administrative group.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/usr/add
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
name	Name
passwd	MD5 processed password
group-id	User Group ID

## Request Example

```
POST /api/usr/add HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "name": "test",
  "passwd": "c4ca4238a0b923820dcc509a6f75849b"
  "group": 1
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



# /api/usr/del

Use this interface to delete users.

Only available for the administrative group.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/usr/del
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
name	Name, can be string or array.

## Request Example

```
POST /api/usr/del HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "name": ["test"]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



# /api/usr/update

Use this interface to Change user password.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/usr/update
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
name	User name, optional, use the one from cookies if not provided
old-passwd	MD5-processed old password, not required for Admin group
passwd	MD5 processed password

## Request Example

```
POST /api/usr/update HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "name": "test",
  "passwd": "c4ca4238a0b923820dcc509a6f75849b"
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

### Possible Error Codes

Error Code	Description
MW_STATUS_NOT_EXIST	User does not exist
MW_STATUS_MISMATCH	Incorrect old password

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
```

```
{  
  "result": 0  
}
```

# /api/usr-group/add

Use this interface to add user groups.

Only available for the administrative group.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/usr-group/add
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
name	Name
permissions	Set permissions for user groups, refer to <a href="#">Permission definition</a>
users	Optional, array of user names
desc	Optional, description

## Request Example

```
POST /api/usr-group/add HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "name": "test",
  "permissions": 1348,
  "users": ["usr1", "usr2"],
  "desc": "test"
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
id	If the addition is successful, the response will contain the field representing the user group's ID.

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
```

```
content-length: xx
{
  "result": 0,
  "id": 1
}
```



# /api/usr-group/del

Use this interface to delete groups.

Only available for the administrative group.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/usr-group/del
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	User Group ID

## Request Example

```
POST /api/usr-group/del HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": 8
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	Result code

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



# /api/usr-group/set

Use this interface to set user groups.

Only available for the administrative group.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/usr-group/set
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	Group ID
permissions	Optional, can be left empty if there are no changes, reference <a href="#">permission definition</a>
users	Optional, can be left empty if there are no changes, an array of user names
desc	Optional, can be left empty if there are no changes, a description

## Request Example

```
POST /api/usr-group/set HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "name": "Users",
  "id": 16,
  "permissions": 57183,
  "desc": "Users"
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
```

```
"result": 0  
}
```

# /api/settings/get

Use this interface to get configuration information.

[System configuration viewing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/settings/get
Content-Type	Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request URL parameters

None.

## Request Example

```
GET /api/settings/get
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	Refer to <a href="#">Result code</a>
security	Refer to <a href="#">Security Settings</a>
web	Refer to <a href="#">Web Settings</a>
rtmp	Refer to <a href="#">RTMP Settings</a>
srt	Refer to <a href="#">SRT Settings</a>
pwd-rule	Refer to <a href="#">Password policy rules</a>
expired-time	Session timeout for user login in minutes.

### Security Settings

Parameter	Description
enable-code	Whether to enable invitation code.
code-value	Invitation code

### Web Settings

Parameter	Description
http-port	http port

enable-https	Whether to enable https.
https-port	https port
is-cert-valid	Validity of CA certificate
is-cert-key-valid	Validity of CA private key

#### RTMP Settings

Parameter	Description
port	Port

#### SRT Settings

Parameter	Description
port	Port
pb-key-len	Refer to <a href="#">Cipher Settings</a> , Obtaining configuration will not return the key field.

#### Cipher Settings

Parameter	Description
0	unencrypted
16	AES-128
24	AES-192
32	AES-256

## Response Example

```

HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "cert-key-path": "/data/cert/control-hub.pem",
  "cert-path": "/data/cert/control-hub.crt",
  "expired-time": 30,
  "pwd-rule": {
    "chk-name": 0,
    "length": 0,
    "number": 0,
    "special": 0,
    "uppercase": 0
  },
  "result": 0,
  "rtmp": {
    "port": 1935
  },
  "security": {
    "code-value": "0165",
    "enable-code": false
  },
  "srt": {
    "passphrase": "1234567890",
    "pb-key-len": 16,
    "port": 80
  },
  "web": {
    "enable-https": true,
    "http-port": 80,
    "https-port": 443,
    "is-cert-key-valid": true,
    "is-cert-valid": true
  }
}

```



# /api/settings/set

Use this interface to set parameters for Control Hub.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/settings/set
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Only one of the following configuration fields can be configured for a single call:

Parameter	Description
security	Security configurations, refer to <a href="#">Security Configurations</a>
web	Web service configurations, refer to <a href="#">Web Service Configurations</a>
rtmp	RTMP service configurations, refer to <a href="#">RTMP Configurations</a>
srt	SRT service configurations, refer to <a href="#">SRT configurations</a>
pwd-rule	<a href="#">Password configurations</a>
expired-time	User login session timeout in minutes, ranging from -1 to 1440. Set to -1 to never expire.

## Web Service Configurations

Parameter	Description
http-port	Http port
enable-https	HTTPS enable status
https-port	Https port
cert-filename	CA certificate name, obtained from the upload interface, if not available, do not provide the field.
cert-key-filename	Whether the CA private key is valid, obtained using the upload interface. If not, do not provide the field.

## SRT Configurations

Caution!!! Any configuration changes to srt will cause the system to restart, please warn the user.

Parameter	Description
port	SRT port
pb-key-len	<a href="#">Encryption Options</a> , if encryption is already enabled, you don't need to fill in the passphrase again, leaving the passphrase field blank means the password remains unchanged.
passphrase	Key

## Encryption

Parameter	Description
chk-name	Check if the password and username are consistent, field does not exist or is 0 means do not check, 1 means check the password cannot be consistent with the username.
length	The minimum password length, if the field does not exist or is 0, represents no requirement.
number	The number of digits required, if the field does not exist or is 0, it represents that there is no requirement.
special	The number of special characters required to be included, with no field or 0 representing no requirement, and the special



special	character set refers to <a href="#">Special Character Set</a> .
uppercase	The number of uppercase letters required. Field does not exist or is 0 represents no requirement.
lowercase	The number of lowercase letters required. Field does not exist or is 0 represents no requirement.

### Special Character Set

~!@#%&\* \_-+=

## Request Example

```
POST /api/settings/set HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "security": {
    "enable-code" : 1,
    "code-value" : "1111",
  }
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```

# /api/cert/upload

Use this interface to upload a certificate.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/cert/upload
Content-Type	Request: Content-Type: multipart/form-data Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

The form method uses the multipart/form-data type to encapsulate and submit the certificate file.

## Request Example

```
POST /api/cert/upload HTTP/1.1
Content-Type: multipart/form-data; boundary=-----42288931224667793852045763104
Content-Length: xxx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;

-----42288931224667793852045763104
Content-Disposition: form-data; name="file"; filename="xxx.crt"
Content-Type: application/x-x509-ca-cert

-----BEGIN CERTIFICATE-----
MIIDezCCAmOgAwIBAgIUQbp2VyDbpm0m7+hI07YzHX9+fQAwdQYJKoZIhvcNAQEL
BQAwVTElMAkGA1UEBhMCQ04xCzAJBgNVBAGMAkpTMQswCQYDVQQHDAJOSjERMA8G
...
YBTqm8X2bFJgDh069AtJsPSBsnlHJvODMzyhtuCIg==
-----END CERTIFICATE-----

-----42288931224667793852045763104
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
filename	File name

## Response Example

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
```

Content-Length: xxx

```
{  
  "result": 0,  
}
```

# /api/cert/upload-key

Use this interface to upload certificate private key.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/cert/upload-key
Content-Type	Request: Content-Type: multipart/form-data Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

The form method uses the multipart/form-data type to encapsulate and submit the certificate file.

## Request Example

```
POST /api/cert/upload-key HTTP/1.1
Content-Type: multipart/form-data; boundary=-----22383205084807890342375037721
Content-Length: 1920
Cookie: mwcloud-sid=OCXWUMGEYPGIAWVOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;

-----22383205084807890342375037721
Content-Disposition: form-data; name="file"; filename="cloudserver.pem"
Content-Type: application/octet-stream

-----BEGIN RSA PRIVATE KEY-----
MIIEpAIBAAKCAQEAXuYuD0+i1XNHvTRV+2HL1tNUNuiA15gh+OAGwJ7yhsXLrtEg
EMCbETTvTzMEgEfh1ya3fPKyWDe084VT6/RIId60tZY6RC/pDayRenQhABgQQe2l6
...
aoMgVhx+L+FFm9wgKHnZrLVRjN+Z26GLXWkkkSGaoJAAIMxPPy44Jg==
-----END RSA PRIVATE KEY-----

-----22383205084807890342375037721--
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>
filename	File name

## Response Example

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Content-Length: xxx
{
```

```
"result": 0,  
}
```

# /api/cert/clear

Use this interface to remove a certificate with the private key.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST/GET
URL	ip[:port]/api/cert/clear
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

A binary file.

## Request Example

```
GET /api/cert/clear HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Content-Length: xxx
{
  "result": 0,
}
```

# /api/license/activate

Use this interface to activate your license.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/license/activate
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
user-name	Use the user name as certificate title.
sn	Certificate serial number.

## Request Example

```
POST /api/license/activate HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: 56
Connection: keep-alive
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "sn": "9C4E*****F769",
  "user-name": "magewell-ltd"
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```





# /api/license/deactivate

Use this interface to deactivate your license.

[System configuration editing permissions](#) are required.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/license/deactivate
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
user-name	Use the user name as certificate title.

## Request Example

```
POST /api/license/deactivate HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json; charset=utf-8
Content-Length: 56
Connection: keep-alive
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "user-name": "magewell-ltd"
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



## /api/preview/open

Use this interface to open the channel for the image preview.

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/preview/open
Content-Type	Response: Content-Type: multipart/x-mixed-replace

### Request URL parameters

A persistent connection is used to get a stream of application/octet-stream type. The connection ID can be obtained from the response header, with the header name being handle-id.

### Request Example

```
GET /api/preview/open HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
```

### Response Parameters

#### Response Header

Parameter	Description
Content-Type	Value: 'application/octet-stream'
handle-id	Connection ID, which is used to set the image ID received by this connection. Refer to <a href="#">setup</a> .

# /api/preview/setup

Use this interface to setup for images reception.

## Prototype

Protocol	HTTP/HTTPS POST
URL	ip[:port]/api/preview/setup
Content-Type	Request: Content-Type: application/json Response: Content-Type: application/json

## Request Cookies

Parameter	Description
mwcloud-sid	A string that is used to identify current logged-in user.
mwcloud-uid	Current logged-in username.

## Request Body

Parameter	Description
id	Connection id
add	An array of image IDs to be added in a persistent connection.
del	An array of image IDs to be deleted in a persistent connection.

## Request Example

```
POST /api/channel/add HTTP/1.1
Accept: application/json, text/plain, */*
Content-Type: application/json;charset=utf-8
Content-Length: xx
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYXPNMVHDZIAZJP; mwcloud-uid=Admin;
{
  "id": "1231232",
  "add": [1,3]
}
```

## Response Parameters

### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

### Response Body

Parameter	Description
result	<a href="#">Result code</a>

## Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```



## /api/preview/clear

Use this interface to delete all images subscribed for preview.

Protocol	HTTP/HTTPS GET
URL	ip[:port]/api/preview/clear
Content-Type	Response: Content-Type: multipart/x-mixed-replace

### Request URL parameters

Parameter	Description
id	Connection ID.

### Request Example

```
GET /api/preview/clear?id=123456 HTTP/1.1
Accept: application/json, text/plain, */*
Cookie: mwcloud-sid=OCXWUMGEYPGIAWWOETYPNMVHDZIAZJP; mwcloud-uid=Admin;
```

### Response Parameters

#### Response Header

Parameter	Description
Content-Type	Value: 'application/json; charset=UTF-8'

#### Response Body

Parameter	Description
result	<a href="#">Result code</a>

### Response Example

```
HTTP/1.1 200 OK
content-type: application/json; charset=utf-8
content-length: xx
{
  "result": 0
}
```