Pro Convert AES67

Overview

Introduction 1.1
API Agreement 1.2
API Status Codes 1.3
DEMO: Command Line Tool 1.4

Universal Interfaces

ping 2.1
reboot 2.2
factory-reset-permission 2.3
factory-reset 2.4

Dashboard

summary-info 3.1

Global Settings

general-info 4.1
general-settings 4.2

PTP

ptp-info 5.1
ptp-settings 5.2
ptp-default 5.3
ptp-state 5.4

AES67 TX

source-info 6.1
source-apply 6.2
source-del 6.3

AES67 RX

sink-info 7.1
sink-apply 7.2
sink-del 7.3
sink-statistics 7.4
sink-statistics-clear 7.5
sdp-parse 7.6

Stream Global Settings

ices-receiver-select 8.1

Stream NDI TX

ndi-sender-info 9.1
ndi-sender-apply 9.2
ndi-sender-del 9.3
ndi-sender-find 9.4
ndi-sender-options 9.5

Stream NDI RX

ndi-receiver-info 10.1
ndi-receiver-apply 10.2
ndi-receiver-del 10.3
ndi-receiver-find 10.4
ndi-receiver-options 10.5

Stream SRT TX

srt-sender-info 11.1
srt-sender-apply 11.2
srt-sender-del 11.3

Stream SRT RX

srt-receiver-info 12.1
srt-receiver-apply 12.2
srt-receiver-del 12.3

Stream Icecast TX

ices-sender-info 13.1
ices-sender-apply 13.2
ices-sender-del 13.3

Stream Icecast RX

ices-receiver-info 14.1
ices-receiver-apply 14.2
ices-receiver-del 14.3
ices-list-streams 14.4

Matrix

matrix-info 15.1
audio-meter 15.2
audio-meter-limit 15.3
matrix-meter 15.4
matrix-settings 15.5
matrix-clear 15.6
volume-tx 15.7
volume-mix 15.8

System Settings

device-info	16.1
info	16.2
set-device-name	16.3
set-date-time	16.4
timezone-set	16.5

Network

if-info	17.1
if-set	17.2
if-route	17.3
get-dns	17.4
set-dns	17.5
usb-config	17.6

User Admin

login	18.1
logout	18.2
get-all	18.3
add	18.4
del	18.5
ch-password	18.6
set-password	18.7

Firmware

online-check	19.1
online-check-result	19.2
upload-fw	19.3
update	19.4
state	19.5
clear	19.6

System Logs

clear	20.1
filter	20.2
export	20.3

Introduction

We have rich APIs for developers to interact with products such as obtaining basic information about the device (device name, firmware version and etc.), modifying device configuration and upgrading firmware. These APIs are based on the HTTP protocol and are lightweight, connectionless interfaces that respond to data in JSON format. This document gives you a detailed understanding of each API's functions and request method.

APIs in this document apply to the following product:

- Pro Convert AES67

API Agreement

Overview

- Request protocol: HTTP
- Request mode: by default, GET and PUT are used to request data and commit, and POST is used to upload a file.
- Return data format: when the HTTP status code is 200, it returns JSON data, otherwise it returns HTTP error codes.
- Login authentication: carry sid=xxxxxxxx in the Cookie.

Response Example

The JSON formatted data is as follows. The attribute of status refers to API Status Codes. The status 0 indicates successful requests, otherwise the request is failed.

```
{
  status: 0,
  enable: true,
  enable-web-control: true
  ...
}
```

API Status Codes

```
{
  0: MW_STATUS_SUCCESS,
  1: MW_STATUS_PENDING,
  2: MW_STATUS_TIMEOUT,
  3: MW_STATUS_INTERRUPTED,
  4: MW_STATUS_TRY_AGAIN,
  5: MW_STATUS_NOT_IMPLEMENTED,
  6: MW_STATUS_UNKNOWN_ERROR,
  7: MW_STATUS_INVALID_ARG,
  8: MW_STATUS_NO_MEMORY,
  9: MW_STATUS_UNSUPPORTED,
  10: MW_STATUS_FILE_BUSY,
  11: MW_STATUS_DEVICE_BUSY,
  12: MW_STATUS_DEVICE_LOST,
  13: MW_STATUS_IO_FAILED,
  14: MW_STATUS_READ_FAILED,
  15: MW_STATUS_WRITE_FAILED,
  16: MW_STATUS_NOT_EXIST,
  17: MW_STATUS_TOO_MANY,
  18: MW_STATUS_TOO_LARGE,
  19: MW_STATUS_OVERFLOW,
  20: MW_STATUS_UNDERFLOW,
  21: MW_STATUS_FORMAT_ERROR,
  22: MW_STATUS_FILE_EXISTS,
  23: MW_STATUS_FILE_TYPE_ERROR,
  24: MW_STATUS_DEVICE_TYPE_ERROR,
  25: MW_STATUS_IS_DIRECTORY,
  26: MW_STATUS_READ_ONLY,
  27: MW_STATUS_RANGE_ERROR,
  28: MW_STATUS_BROKEN_PIPE,
  29: MW_STATUS_NO_SPACE,
  30: MW_STATUS_NOT_DIRECTORY,
  31: MW_STATUS_NOT_PERMITTED,
  32: MW_STATUS_BAD_ADDRESS,
  33: MW_STATUS_SEEK_ERROR,
  34: MW_STATUS_CROSS_DEVICE_LINK,
  35: MW_STATUS_NOT_INITIALIED,
  36: MW_STATUS_AUTH_FAILED,
  37: MW_STATUS_NOT_LOGGED_IN,
  38: MW_STATUS_WRONG_STATE,
  39: MW_STATUS_MISMATCH,
  40: MW_STATUS_VERIFY_FAILED,
  41: MW_STATUS_CONSTRAINT_VIOLATION
  42: MW_STATUS_CANCELED,
    43: MW_STATUS_IN_PROGRESS,
    44: MW_STATUS_CONN_REFUSED,
    45: MW_STATUS_CONN_RESET,
    46: MW_STATUS_ADDR_IN_USE,
    47: MW_STATUS_NO_RESPONSE,
    48: MW_STATUS_INFO_CHANGED,
    49: MW_STATUS_INVALID_DATA,
    50: MW_STATUS_NEED_MORE_DATA,
    51: MW_STATUS_NO_BUFFER,
    52: MW_STATUS_BUFFER_TOO_SMALL,
    53: MW_STATUS_BUFFER_IS_EMPTY,
    54: MW_STATUS_BUFFER_IS_FULL
}
```

DEMO: Command Line Tool

To call USB Fusion API, wget and curl are supported in Linux, Windows, and Mac OS.

The location of cookie files varies according to the OS. Adjust the file path for your situation. The following examples are for Linux.

wget

1. Save your login information on cookies.

```
wget --save-cookies=sid.txt --keep-session-cookies --header="Content-Type: application/json" --post-data='{"user
name":"Admin", "password": "c1c224b03cd9bc7b6a86d77f5dace40191766c485cd55dc48caf9ac873335d6f"}' http://192.168.6
6.1/api/user/login -d -q -O -
```

1. List all users.

```
wget --load-cookies=sid.txt --keep-session-cookies --header="Content-Type: application/json" --post-data='' http
://192.168.66.1/api/user/get-all -d -q -O -
```

1. Add a new user.

```
wget --load-cookies=sid.txt --keep-session-cookies --header="Content-Type: application/json" --post-data='{"user
name":"test","password":"9f86d081884c7d659a2feaa0c55ad015a3bf4f1b2b0b822cd15d6c15b0f00a08"}' http://192.168.66.1
/api/user/add -d -q -O -
```

curl

1. Save your login information on cookies.

```
curl --cookie-jar sid.txt http://192.168.66.1/api/user/login -X POST -H 'Content-Type: application/json' -d'{"us
ername":"Admin", "password": "c1c224b03cd9bc7b6a86d77f5dace40191766c485cd55dc48caf9ac873335d6f"}'
```

1. List all users.

```
curl --cookie sid.txt http://192.168.66.1/api/user/get-all -X POST -H 'Content-Type: application/json' -d ''
```

1. Add a new user.

```
curl --cookie sid.txt http://192.168.66.1/api/user/add -X POST -H 'Content-Type: application/json' -d '{"usernam
e":"test","password":"9f86d081884c7d659a2feaa0c55ad015a3bf4f1b2b0b822cd15d6c15b0f00a08"}'
```

ping

Use the interface to detect whether the device is accessible without login.

This function is used to ensure that the device has restarted completely after `firmware update`, `reset all settings` or `change IP address`.

Request Mode

```
GET/POST /api/ping
```

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

reboot

Use the interface to reboot the device as administrator and log in again after rebooting.

The reboot process may take a few minutes. You can use ping to determine whether the reboot is finished.

Request Mode

```
GET/POST /api/reboot
```

Response Body

```
{
  "status": 0,
  "delay": 5,
  "estimate-sec": 15
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
delay	Implement reboot after the delay, in seconds
estimate-sec	Estimated time for reboot, in seconds

factory-reset-permission

Use the interface to detect whether the device is allowed to be reset without login.

Request Mode

```
GET/POST /api/factory-reset-permission
```

Response Body

```
{
  "status": 0
  "reset-enable": true
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
reset-enable	Whether to support reset. If yes, it returns true; otherwise, it returns false.

factory-reset

Use the interface to reset the device to default settings.

Request Mode

```
GET/POST /api/factory-reset
```

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/api/aes67/summary-info

Use the interface to obtain running information of AES67 device.

Request Mode

```
POST /api/aes67/summary-info
```

Response Body

```
{
    "status": 0,
    "temperature": "79.61°C",
    "card-address": 0,
    "unbalance": {
        "in": {
            "linked": true,
            "depth": "L24",
            "channel-num": 2
        },
        "out": {
            "linked": false,
            "depth": "L24",
            "channel-num": 2
        }
    },
    "balance": {
        "in": {
            "linked": false,
            "depth": "L24",
            "channel-num": 2
        },
        "out": {
            "linked": false,
            "depth": "L24",
            "channel-num": 2
        }
    },
    "uac": {
        "usb-connected": true,
        "in": {
            "linked": false,
            "sample-rate": 48000,
            "depth": "L24",
            "channel-num": 4
        },
        "out": {
            "linked": false,
            "sample-rate": 48000,
            "depth": "L24",
            "channel-num": 4
        }
    },
    "sources": [
        {
            "name": "Pro_Convert_AES67_7005_0_01",
            "depth": "L24",
            "channel-num": 2,
            "sample-rate": 48000,
            "ptime": "1ms"
        }
    ],
    "sinks": [
        {
            "name": "Pro_Convert_AES67_1015_0_01",
            "depth": "L24",
            "channel-num": 2,
            "sample-rate": "48000",
```

```
            "ptime": "1ms",
            "qos": 2
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
temperature	Current temperature of the unit's processor.
card-address	Board index, shows the rotary switch number.
unbalance.in.linked	True indicates an unbalance input is connected, otherwise it is false.
unbalance.in.depth	Sampling bit depth of unbalance input. Options are L16 and L24.
unbalance.in.channel-num	Number of unbalance input channels.
unbalance.out.linked	True indicates an unbalance output is connected, otherwise it is false.
unbalance.out.depth	Sampling bit depth of unbalance output. Options are L16 and L24.
unbalance.out.channel-num	Number of unbalance output channels.
balance.in.linked	True indicates a balanced input is connected, otherwise it is false.
balance.in.depth	Sampling bit depth of balanced input. Options are L16 and L24.
balance.in.channel-num	Number of balanced input channels.
balance.out.linked	True indicates a balanced output is connected, otherwise it is false.
balance.out.depth	Sampling bit depth of balanced output. Options are L16 and L24.
balance.out.channel-num	Number of balanced output channels.
uac.usb-connected	True indicates a USB Audio class is connected, otherwise it is false.
uac.in.linked	True indicates UAC input works, otherwise it is false.
uac.in.sample-rate	Sample rate of UAC input.
uac.in.depth	Sampling bit depth of UAC input.
uac.in.channel-num	Number of UAC input channels.
uac.out.linked	True indicates UAC output works, otherwise it is false.
uac.out.sample-rate	Sample rate of UAC output.
uac.out.depth	Sampling bit depth of UAC output.
uac.out.channel-num	Number of UAC output channels.
sources[i].name	AES67 source name.
sources[i].sample-rate	Sample rate of AES67 source. Options are 44100, 48000, and 96000.
sources[i].depth	Sampling bit depth of AES67 source. Options are L16, and L24.
sources[i].channel-num	Number of AES67 source channels.
sources[i].ptime	AES67 packet time. Options are 0.125ms, 0.250ms, 0.333ms, 1ms, and 4ms.
sinks[i].name	AES67 sink connected source name.
sinks[i].sample-rate	Sample rate of AES67 sink. Options are 44100, 48000, and 96000.
sinks[i].depth	Sampling bit depth of AES67 sink. Options are L16, and L24.
sinks[i].channel-num	Number of AES67 sink channels.
sinks[i].ptime	AES67 packet time. Options are 0.125ms, 0.250ms, 0.333ms, 1ms, and 4ms.
sinks[i].qos	Qos of AES67 sink. 0x0001: sync 0x0002: not sync 0x0004: Underflow 0x0008: Overflow 0x0010: Late 0x0020: unmute 0x0040: mute

/api/aes67/general-info

Use the interface to obtain general information of AES67.

Request Mode

```
POST /api/aes67/general-info
```

Response Body

```
{
    "status": 0,
    "tx-sample-rate": 48000,
    "tx-ptime": "1ms",
    "unbld-in": 2,
    "unbld-out": 2,
    "bld-in": 1,
    "bld-out": 0,
    "micbias": true,
    "st2110": false,
    "igmp": 0,
    "aac-bitrate-kbps": 128,
    "uac-num-channels": 4
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
tx-sample-rate	Sample rate of AES67 source sample rate. Options are 44100, 48000, and 96000.
tx-ptime	Packet time of AES67 source packet time. Options are 0.125ms, 0.250ms, 0.333ms, 1ms, and 4ms.
unbld-in	0: +12dBu(default) 1: +4dBu(SMPTE) 2: +0dBu 3: -2dBu(EBU) 4: 0dBV 5: -10dBV
unbld-out	0: +12dBu(default) 1: +4dBu(SMPTE) 2: +0dBu 3: -2dBu(EBU) 4: 0dBV 5: -10dBV
bld-in	0: +24dBu 1: +18dBu(default) 2: +4dBu(SMPTE) 3: +0dBu 4: -2dBu(EBU) 5: 0dBV 6: -10dBV
bld-out	0: +18dBu(default) 1: +4dBu(SMPTE) 2: +0dBu 3: -2dBu(EBU) 4: 0dBV 5: -10dBV
micbias	True indicates MIC bias is enabled, false indicates MIC bias is disabled.
igmp	IGMP version. 0: auto; 2: IGMPv2; 3: IGMPv3.
aac-bitrate-kbps	AAC bit rate of TX stream. Options are 128, 192, and 256.
uac-num-channels	Number of UAC channels. You can use /system/uac-format interface to set it.

/api/aes67/general-settings

Use the interface to obtain general settings of AES67.

Request Mode

```
POST /api/aes67/general-settings
```

Name	Description
tx-sample-rate	Source sample rate. Options are 44100, 48000, and 96000.
tx-ptime	Source packet time. Options are 0.125ms, 0.250ms, 0.333ms, 1ms, and 4ms.
unbld-in	0: +12dBu(default) 1: +4dBu(SMPTE) 2: +0dBu 3: -2dBu(EBU) 4: 0dBV 5: -10dBV
unbld-out	0: +12dBu(default) 1: +4dBu(SMPTE) 2: +0dBu 3: -2dBu(EBU) 4: 0dBV 5: -10dBV
bld-in	0: +24dBu 1: +18dBu(default) 2: +4dBu(SMPTE) 3: +0dBu 4: -2dBu(EBU) 5: 0dBV 6: -10dBV
bld-out	0: +18dBu(default) 1: +4dBu(SMPTE) 2: +0dBu 3: -2dBu(EBU) 4: 0dBV 5: -10dBV
micbias	True indicates MIC bias is enabled, false indicates MIC bias is disabled.
igmp	IGMP version. 0: auto; 2: IGMPv2; 3: IGMPv3.
aac-bitrate-kbps	Stream TX AAC bit rate. Options are 128, 192, and 256.
uac-num-channels	Number of UAC channels. You can use interface (/system/uac-format) to set it.

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/aes67/ptp-info

Use the interface to obtain PTP service running information.

Request Mode

```
POST /api/aes67/ptp-info
```

Response Body

```
{
    "status": 0,
    "version": "PTPV2",
    "priority1": 255,
    "priority2": 255,
    "domain": 0,
    "gmid": "D0-C8-57-FF-FE-80-BD-5A",
    "role": "Slaver",
    "delay-mech": "E2E",
    "announce": -2,
    "sync": -1
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
version	PTP version, options are PTPV1, and PTPV2.
priority1	Priority 1
priority2	Priority 2
domain	PTP domain range is [0,127]
gmid	master's gmid
role	PTP role can be master or slaver. Options are Auto, and Slaver.
delay-mech	Delay mechanism. Options are E2E, and P2P.
announce	Value range is [-3,1].
sync	Value range is [-3,1].

/api/aes67/ptp-settings

Use the interface to set PTP service.

Request Mode

```
POST /api/aes67/ptp-settings
```

Name	Description
version	PTP version, options are PTPV1, and PTPV2.
priority1	Priority 1
priority2	Priority 2
domain	PTP domain range is [0,127]
role	PTP role can be master or slaver. Options are Auto, and Slaver.
delay-mech	Delay mechanism. Options are E2E, and P2P.
announce	Value range is [-3,1].
sync	Value range is [-3,1].

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/aes67/ptp-default

Use the interface to restore PTP service parameters to defaults.

Request Mode

```
POST /api/aes67/ptp-default
```

Response Body

```
{
    "status": 0,
    "version": "PTPV2",
    "priority1": 255,
    "priority2": 255,
    "domain": 0,
    "role": "Slaver",
    "delay-mech": "E2E",
    "announce": -2,
    "sync": -1
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
version	PTP version, options are PTPV1, and PTPV2.
priority1	Priority 1
priority2	Priority 2
domain	PTP domain range is [0,127]
role	PTP role can be master or slaver. Options are Auto, and Slaver.
delay-mech	Delay mechanism. Options are E2E, and P2P.
announce	Value range is [-3,1].
sync	Value range is [-3,1].

/api/aes67/ptp-state

Use the interface to obtain PTP running state.

Request Mode

```
POST /api/aes67/ptp-state
```

Response Body

```
{
    "status": 0,
    "is-sync": true,
    "is-master": false,
    "lock-to": "D0-C8-57-FF-FE-80-DF-9D",
    "statistics": {
        "datetime": "2022-10-14 14:26:03",
        "interval": 2000,
        "delay": [
            -81,
            286,
            -182,
            -70,
            -84,
            -143,
            -393,
            -35,
            516,
            6,
            -772,
            -382,
            -269,
            -83,
            -23
        ]
    }
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
is-sync	indicates this device has synchronized with its master.
is-master	true: master, false: slaver
lock-to	GMID of current master clock.
statistics.datetime	current time of your device.
statistics.interval	Statistics interval, in ms.
statistics.delay	Statistics delay, in ns.

/api/aes67/source-info

Use the interface to obtain AES67 source information.

Request Mode

```
POST /api/aes67/source-info
```

Response Body

```
{
    "status": 0,
    "sources": [
        {
            "uid": 7734,
            "name": "Pro_Convert_AES67_7005_0_01",
            "enable": true,
            "state": 1,
            "dst-ip": "239.129.83.91",
            "depth": "L24",
            "channel-num": 2,
            "ttl": 15,
            "dscp": "EF",
            "sdp": "v=0\r\no=- 0 200 IN IP4 10.10.10.202\r\ns=Pro_Convert_AES67_7005_0_01\r\nc=IN IP4 239.129.83
.91/15\r\nt=0 0\r\na=keywds:Magewell\r\nm=audio 5004 RTP/AVP 97\r\ni=2 channels: Left, Right\r\na=recvonly\r\na=
rtpmap:97 L24/48000/2\r\na=ptime:1\r\na=ts-refclk:ptp=IEEE1588-2008:D0-C8-57-FF-FE-80-BD-5A:0\r\na=mediaclk:dire
ct=0\r\na=ssrc:0\r\n"
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
sources[i].uid	Unique ID.
sources[i].name	AES67 source name.
sources[i].enable	True: enable AES67 source; False: disable AES67 source.
sources[i].state	Send state. 0: pending 1: sending 2: fail 3: unicast address is not available.
sources[i].dst-ip	Destination IP address.
sources[i].depth	Sampling bit depth, options are L16, and L24.
sources[i].channel-num	Number of channels.
sources[i].ttl	TTL within [0, 255].
sources[i].dscp	DSCP value, options are BE, AF31, AF41, EF
sources[i].sdp	SDP.

/api/aes67/source-apply

Use the interface to apply AES67 source configuration.

Request Mode

```
POST /api/aes67/source-apply
```

Name	Description
uid	Unique ID.
name	AES67 source name.
enable	True: enable AES67 source; False: disable AES67 source.
dst-ip	Source destination IP address.
depth	Sampling bit depth, options are L16, and L24.
channel-num	Number of channels.
ttl	TTL within [0, 255].
dscp	DSCP value, options are BE, AF31, AF41, EF

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/aes67/source-del

Use the interface to delete AES67 source.

Request Mode

```
POST /api/aes67/source-del
```

Name	Description
uid	Unique ID.

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/aes67/sink-info

Use the interface to obtain AES67 sink information.

Request Mode

```
POST /api/aes67/sink-info
```

Response Body

```
{
    "status": 0,
    "sinks": [
        {
            "sink-idx": 0,
            "state": 2,
            "name": "Pro_Convert_AES67_1015_0_01",
            "is-manual": false,
            "source-name": "Pro_Convert_AES67_1015_0_01",
            "source-src-ip": "10.10.4.195",
            "source-src-mac": "d0:c8:57:80:df:9d",
            "source-dst-ip": "239.178.203.32",
            "source-dst-port": 5004,
            "ssrc": 425112524,
            "depth": "L24",
            "channel-num": 2,
            "sample-rate": "48000",
            "ptime": "1ms",
            "mediaclk-offset": 0,
            "max-delay": 0,
            "max-buffer": 6,
            "ttl": 15,
            "sdp": ""
        }
    ],
    "sources": [
        {
            "source-name": "Pro_Convert_AES67_1015_0_01",
            "source-src-ip": "10.10.4.195",
            "source-src-mac": "d0:c8:57:80:df:9d",
            "source-dst-ip": "239.178.203.32",
            "source-dst-port": 5004,
            "ssrc": 425112524,
            "depth": "L24",
            "channel-num": 2,
            "sample-rate": "48000",
            "ptime": "1ms",
            "mediaclk-offset": 0,
            "ttl": 15,
            "sdp": ""
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
sinks[i].sink-idx	Sink index, value range is [0,3].
sinks[i].state	AES67 sink work state. 0: idle 1: success 2: connecting 3: lost 4: format error
sinks[i].name	Sink name.
sinks[i].is-manual	Manually add a sink.

sinks[i].source-name	Source name.
sinks[i].source-src-ip	Source IP address.
sinks[i].source-src-mac	Source Mac address.
sinks[i].source-dst-ip	Destination IP address.
sinks[i].source-dst-port	Destination port.
sinks[i].ssrc	Source RTP SSRC
sinks[i].sample-rate	Set sample rate. Options are 44100, 48000, and 96000.
sinks[i].depth	Sample depth. Options are L16, and L24.
sinks[i].channel-num	Number of device channels.
sinks[i].ptime	Packet time, options are 0.125ms, 0.250ms, 0.333ms, 1ms, and 4ms.
sinks[i].mediaclk-offset	RTP offset.
sinks[i].max-delay	Max delay, value range is [0, 50], in ms. 0 indicates delay is ignored.
sinks[i].max-buffer	Max number of ptime, value range is [1, 16].
sinks[i].ttl	TTL, value range is [1, 255].
sinks[i].sdp	SDP information.
sources[i].source-src-ip	Source IP address.
sources[i].source-src-mac	Source Mac address.
sources[i].source-dst-ip	Source destination IP address.
sources[i].source-dst-port	Source destination port.
sources[i].ssrc	Source RTP SSRC
sources[i].sample-rate	Source sample rate. Options are 44100, 48000, and 96000.
sources[i].ptime	Packet time, options are 0.125ms, 0.250ms, 0.333ms, 1ms, and 4ms.
sources[i].depth	Sample depth. Options are L16, and L24.
sources[i].channel-num	Number of device channels.
sources[i].mediaclk-offset	RTP offset.
sources[i].ttl	TTL, value range is [1, 255].
sources[[i].sdp	SDP information.

/api/aes67/sink-apply

Use the interface to set AES67 sink.

Request Mode

```
POST /api/aes67/sink-apply
```

Name	Description
sinks[i].sink-idx	Sink index, range is [0,3].
sinks[i].name	Sink name.
sinks[i].is-manual	Manually add a source.
sinks[i].source-name	Source name.
sinks[i].source-src-ip	Source IP.
sinks[i].source-src-mac	Source Mac.
sinks[i].source-dst-ip	Destination address.
sinks[i].source-dst-port	Destination port.
sinks[i].ssrc	Source RTP SSRC
sinks[i].sample-rate	Set sample rate. Options are 44100, 48000, and 96000.
sinks[i].depth	Sample depth. Options are L16, and L24.
sinks[i].channel-num	Number of device channels.
sinks[i].ptime	packet time, options are 0.125ms, 0.250ms, 0.333ms, 1ms, and 4ms.
sinks[i].mediaclk-offset	RTP offset.
sinks[i].max-delay	Max delay, value range is [0, 50], in ms. 0 indicates delay is ignored.
sinks[i].max-buffer	Max number of ptime, value range is [1, 16].

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/aes67/sink-del

Use the interface to delete an AES67 sink.

Request Mode

```
POST /api/aes67/sink-del
```

Name	Description
sinks[i].sink-idx	Sink index, value range is [0,3].

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/aes67/sink-statistics

Use the interface to obtain AES67 sink information.

Request Mode

```
POST /api/aes67/sink-statistics
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
sink-idx	Sink index, value range is [0,3].

Response Body

```
{
    "status": 0,
    "qos": 2,
    "duration": 4690,
    "peak": 0,
    "average": 0,
    "late": 0,
    "lost": 0,
    "buff-count": 0,
    "buff-underflow": 0,
    "buff-overflow": 0,
    "statistics": [
        {
            "x-us": 5000,
            "y-count": 0
        },
        {
            "x-us": 10000,
            "y-count": 0
        },
        {
            "x-us": 15000,
            "y-count": 0
        },
        {
            "x-us": 20000,
            "y-count": 0
        },
        {
            "x-us": 25000,
            "y-count": 0
        },
        {
            "x-us": 30000,
            "y-count": 0
        },
        {
            "x-us": 35000,
            "y-count": 0
        },
        {
            "x-us": 40000,
            "y-count": 0
        },
        {
            "x-us": 45000,
            "y-count": 0
        }
    ]
}
```

Name	Description

status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
qos	Qos of AES67 sink. 0x0001: sync 0x0002: not sync 0x0004: Underflow 0x0008: Overflow 0x0010: Late 0x0020: unmute 0x0040: mute
duration	Sink running time, in seconds.
peak	Sink maximum delay, in us.
average	Sink average delay, in us.
late	The number of received packets exceeds max delay.
lost	Number of lost packets.
buff-count	Number of buffer times.
buff-underflow	Number of underflow times.
buff-overflow	Number of overflow times.
statistics[i].x-us	X-coordinate of time (us).
statistics[i].y-count	Y-coordinate of count number.

/api/aes67/sink-statistics-clear

Use the interface to clear sink statistics.

Request Mode

```
POST /api/aes67/sink-statistics-clear
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
sink-idx	Sink index, value range is [0,3].

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/aes67/sdp-parse

Use the interface to parse SDP information.

Request Mode

```
POST /api/aes67/sdp-parse
```

Name	Description
sdp	SDP information.

Response Body

```
{
    "status": 0
    ...
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
source-src-ip	Source IP information.
source-src-mac	Source Mac information.
source-dst-ip	Source destination IP address.
source-dst-port	Source destination port.
ssrc	Source RTP SSRC.
sample-rate	Set sample rate, options are 44100, 48000, and 96000.
ptime	Packet time, options are 0.125ms, 0.250ms, 0.333ms, 1ms, and 4ms.
depth	Sample depth, options are L16, and L24.
channel-num	Number of device channels.
mediaclk-offset	RTP offset information.
ttl	TTL, value range is [1, 255].

/api/ices/receiver-select

Use the interface to select a RX stream.

Request Mode

```
POST /api/ices/receiver-select
```

Name	Description
type	0: NDI 1:SRT 2:icecast

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ndi/sender-info

Use the interface to obtain NDI TX information.

Request Mode

```
POST /api/ndi/sender-info
```

Response Body

```
{
    "status": 0,
    "discovery-server": "",
    "ndi": [
        {
            "uid": 1,
            "enable": true,
            "ndi-name": "D424211217005_0_01",
            "group": "public",
            "enable-full": true,
            "discovery-server-enable": true,
            "audio-standard": 0,
            "mode": 3,
            "multicast-ttl": 0,
            "multicast-net-prefix": "",
            "multicast-netmask": "",
            "failover-enable": false,
            "failover-ndi-name": "",
            "failover-url": "",
            "web-control": true,
            "report": {
                "module-name": "mws_ndi_sink_0",
                "module-type": 34,
                "ndi-name": "PRO-CONVERT-AES67 (D424211217005_0_01)",
                "num-clients": 0
            }
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
discovery-server	NDI discovery server address.
ndi[i].uid	Unique ID, non-0 value.
ndi[i].enable	True: enable NDI TX; false: disable NDI TX.
ndi[i].ndi-name	NDI name.
ndi[i].group	NDI group name.
ndi[i].enable-full	True: enable NDI FULL; false: disable NDI FULL.By default, NDI FULL is enabled.
ndi[i].discovery-server-enable	True: enable discovery server; false: disable discovery server.
audio-standard	Audio-standard. 0: SMPTE 1: EBU
ndi[i].mode	Transport mode. 0: UDP (Unicast) 1: UDP (Multicast) 2: RUDP (Unicast) 3: TCP (Uni-Connection) 4: TCP (Multi-Connection)
ndi[i].multicast-ttl	UDP multicast packet TTL.
ndi[i].multicast-net-prefix	UDP multicast IP address.
ndi[i].multicast-netmask	UDP multicast subnet mask.
ndi[i].failover-enable	True: enable failover; false: disable failover.

ndi[i].failover-ndi-name	NDI TX name for failover.
ndi[i].failover-url	NDI TX URL for failover.
ndi[i].web-control	true: web control is enabled; false: web control is disabled.
ndi[i].report	Running report.

/api/ndi/sender-apply

Use the interface to set NDI TX.

Request Mode

```
POST /api/ndi/sender-apply
```

Name	Description
uid	Unique ID, non-0 value.
enable	True: enable NDI TX; False: disable NDI TX.
ndi-name	NDI name.
group	NDI group name.
enable-full	Whether to enable NDI FULL. By default, NDI HX is enabled.
discovery-server-enable	Whether to enable discovery server.
mode	Transport mode. 0: UDP (Unicast) 1: UDP (Multicast) 2: RUDP (Unicast) 3: TCP (Uni-Connection) 4: TCP (Multi-Connection)
audio-standard	Audio-standard. 0: SMPTE 1: EBU
multicast-ttl	UDP multicast packet TTL.
multicast-net-prefix	UDP multicast IP address.
multicast-netmask	UDP multicast subnet mask.
failover-enable	Whether to enable failover.
failover-ndi-name	Name of NDI TX for failover.
failover-url	URL of NDI TX for failover.
web-control	Whether to enable web control. True: enable web control; False: disable web control.

Response Body

```
{
    "status": 0
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ndi/sender-del

Use the interface to delete a NDI TX.

Request Mode

```
POST /api/ndi/sender-del
```

Name	Description
uid	Unique ID, non-0 value.

Response Body

```
{
    "status": 0
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ndi/sender-find

Use the interface to find NDI TX.

Request Mode

```
POST /api/ndi/sender-find
```

Response Body

```
{
    "status": 0,
    "sources": [
        {
            "ndi-name": "DESKTOP-KN2V7CQ (Intel UHD Graphics 630 1)",
            "url": "10.10.14.202:5961"
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
ndi[i].ndi-name	NDI name.
ndi[i].url	NDI device URL.

/api/ndi/sender-options

Use the interface to set NDI TX general settings.

Request Mode

```
POST /api/ndi/sender-options
```

Name	Description
discovery-server	Formate as sever1, server2...

Response Body

```
{
    "status": 0
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ndi/receiver-info

Use the interface to obtain NDI RX information.

Request Mode

```
POST /api/ndi/receiver-info
```

Response Body


```
{
    "status": 0,
    "discovery-server": "",
    "group": "",
    "extra-ips": "",
    "ndi": [
        {
            "uid": 1,
            "enable": true,
            "is-find": true,
            "alias": "DESKTOP-KN2V7CQ (Intel UHD Graphics 630 1)",
            "ndi-name": "DESKTOP-KN2V7CQ (Intel UHD Graphics 630 1)",
            "url": "10.10.14.202:5961",
            "audio-standard": 0,
            "buffer-duration": 60,
            "headroom-db": -20,
            "format": {
                "sample-rate": 48000,
                "channel-num": 2,
                "bit-depth": 32
            },
            "report": {
                "audio-jitter": 22222,
                "audio-kbps": 3000,
                "is-connected": true,
                "living-time-ms": 6442306,
                "module-name": "mws_ndi_src_0",
                "module-type": 33,
                "video-jitter": 0,
                "video-kbps": 0
            }
        }
    ]
}
```


Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
discovery-server	Discovery Server.
group	NDI group.
extra-ips	IP address of extra sources.
ndi[i].uid	Unique ID, non-0 value.
ndi[i].enable	True: enable NDI RX; False: disable NDI RX.
ndi[i].is-find	True indicates NDI source is found via discovery server, otherwise it is false.
ndi[i].alias	Alias.
ndi[i].ndi-name	NDI name.
ndi[i].url	NDI device URL.
ndi[i].audio-standard	Audio-standard. 0: SMPTE 1: EBU
ndi[i].buffer-duration	Buffer time within [1,120], in milliseconds.
ndi[i].headroom-db	Headroom, in decibels
ndi[i].format.sample-rate	Sample rate.

ndi[i].format.channel-num	Number of channels.
ndi[i].format.bit-depth	Bit depth.
ndi[i].report	Running report.

/api/ndi/receiver-apply

Use the interface to set NDI RX.

Request Mode

```
POST /api/ndi/receiver-apply
```

Name	Description
uid	Unique ID, non-0 value.
enable	True: enable NDI RX. False: disable NDI RX.
is-find	True indicates NDI source is found via discovery server, otherwise it is false.
alias	Alias.
ndi-name	NDI name.
audio-standard	Audio-standard. 0: SMPTE 1: EBU
url	NDI device URL.
buffer-duration	Buffer time within [1,120], in milliseconds.
headroom-db	Headroom, in decibels.

Response Body

```
{
    "status": 0
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ndi/receiver-del

Use the interface to delete a NDI RX.

Request Mode

```
POST /api/ndi/receiver-del
```

Name	Description
uid	Unique ID, non-0 value.

Response Body

```
{
    "status": 0
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ndi/receiver-find

Use the interface to find NDI RX.

Request Mode

```
POST /api/ndi/receiver-find
```

Response Body

```
{
    "status": 0,
    "sources": [
        {
            "ndi-name": "DESKTOP-KN2V7CQ (Intel UHD Graphics 630 1)",
            "url": "10.10.14.202:5961"
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
ndi[i].ndi-name	NDI name.
ndi[i].url	NDI device URL.

/api/ndi/receiver-options

Use the interface to set NDI RX general settings.

Request Mode

```
POST /api/ndi/receiver-options
```

Name	Description
discovery-server	Format as sever1, server2...
group	Group information.
extra-ips	IP address of extra sources.

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/srt/sender-info

Use the interface to obtain SRT TX.

Request Mode

```
POST /api/srt/sender-info
```

Response Body

```
{
    "status": 0,
    "srt": [
        {
            "uid": 1,
            "enable": true,
            "name": "srt_01",
            "mode": 1,
            "remote-ip": "",
            "remote-port": 8000,
            "bind-port": 10000,
            "stream-id": "1",
            "connect-timeout": 3000,
            "retry-duration": 3000,
            "latency": 120,
            "bandwidth": 25,
            "mtu": 1500,
            "enc": 0,
            "passphrase": "",
            "report": {
                "living-time-ms": 8970,
                "mode": "listener",
                "module-name": "mws_srt_sink_0",
                "module-type": 114,
                "num-clients": 0
            }
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
srt[i].uid	Unique ID, non-0 value.
srt[i].enable	True: enable SRT TX; False: disable SRT TX.
srt[i].name	SRT TX name.
srt[i].mode	SRT mode. 0: caller 1: listener
srt[i].remote-ip	Caller IP address.
srt[i].remote-port	Caller port.
srt[i].bind-port	Listener port.
srt[i].stream-id	Stream ID
srt[i].connect-timeout	Connect timeout, in ms.
srt[i].retry-duration	Retry duration, in ms.
srt[i].latency	Latency, in ms.
srt[i].bandwidth	Portion of the total bandwidth of a stream required for the exchange of SRT control and recovered packets.
srt[i].mtu	MTU within [0.1500].
srt[i].enc	Encryption mode. 0: not encrypted; 16: aes-128; 24: aes-192; 32: aes-256
srt[i].passphrase	Passphrase

srt[i].report	Running report.

/api/srt/sender-apply

Use the interface to set SRT TX.

Request Mode

```
POST /api/srt/sender-apply
```

Name	Description
uid	Unique ID, non-0 value.
enable	True: enable SRT TX; False: disable SRT TX.
name	SRT TX name.
mode	SRT mode. 0: caller 1: listener
remote-ip	Caller IP address.
remote-port	Caller port.
bind-port	Listener port.
stream-id	Stream ID
connect-timeout	Connect timeout, in ms.
retry-duration	Retry duration, in ms.
latency	Latency, in ms.
bandwidth	Portion of the total bandwidth of a stream required for the exchange of SRT control and recovered packets.
mtu	MTU within [0,1500].
enc	Encryption mode. 0: not encrypted; 16: aes-128; 24: aes-192; 32: aes-256
passphrase	Passphrase

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/srt/sender-del

Use the interface to delete an SRT TX.

Request Mode

```
POST /api/srt/sender-del
```

Name	Description
uid	Unique ID, non-0 value.

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/srt/receiver-info

Use the interface to obtain SRT RX information.

Request Mode

```
POST /api/srt/receiver-info
```

Response Body

```
{
    "status": 0,
    "srt": [
        {
            "uid": 1,
            "enable": true,
            "name": "srt_01",
            "mode": 1,
            "remote-ip": "",
            "remote-port": 8000,
            "bind-port": 8000,
            "stream-id": "1",
            "latency": 120,
            "is-encrypted": false,
            "passphrase": "",
            "buffer-duration": 120,
            "headroom-db": 0,
            "format": {
                "sample-rate": 0,
                "channel-num": 0,
                "bit-depth": 0
            },
            "report": {}
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
srt[i].uid	Unique ID, non-0 value.
srt[i].enable	True: enable SRT RX; False: disable SRT RX.
srt[i].name	SRT RX name.
srt[i].mode	SRT mode. 0: caller 1: listener
srt[i].remote-ip	Caller IP address.
srt[i].remote-port	Caller port.
srt[i].bind-port	Listener port.
srt[i].stream-id	Stream ID
srt[i].latency	Latency, in ms.
srt[i].mtu	MTU within [0,1500].
srt[i].is-encrypted	True: encrypted; False: not encrypted.
srt[i].passphrase	Passphrase
srt[i].buffer-duration	Buffer time within [1,120], in ms.
srt[i].headroom-db	Headroom, in decibels.
srt[i].format.sample-rate	Sample rate.
srt[i].format.channel-num	Number of channels.
srt[i].format.bit-depth	Bit depth.
srt[i].report	Running report.

/api/srt/receiver-apply

Use the interface to set SRT RX.

Request Mode

```
POST /api/srt/receiver-apply
```

Name	Description
uid	Unique ID, non-0 value.
enable	True: enable SRT RX; False: disable SRT RX.
name	SRT RX name.
mode	SRT mode. 0: caller 1: listener
remote-ip	Caller IP address.
remote-port	Caller port.
bind-port	Listener port.
stream-id	Stream ID
latency	Latency, in ms.
mtu	MTU within [0,1500].
is-encrypted	True: encrypted; False: not encrypted.
passphrase	Passphrase
buffer-duration	Buffer time within [1,1000], in ms.
headroom-db	Headroom, in decibels

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/srt/receiver-del

Use the interface to delete an SRT RX.

Request Mode

```
POST /api/srt/receiver-del
```

Name	Description
uid	Unique ID, non-0 value.

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ices/sender-info

Use the interface to obtain icecast TX information.

Request Mode

```
POST /api/ices/sender-info
```

Response Body

```
{
    "status": 0,
    "ices": [
        {
            "uid": 1,
            "enable": true,
            "name": "test1",
            "service-url": "http://110.40.192.158:8000",
            "username": "source",
            "password": "hackme",
            "state": "success"
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
uid	Unique ID, non-0 value.
enable	Enable transmit.
name	Icecast stream name
service-url	Icecast server URL.
username	Username of icecast server.
password	Password of icecast server.

/api/ices/sender-apply

Use the interface to set icecast TX.

Request Mode

```
POST /api/ices/sender-apply
```

Name	Description
uid	Unique ID, non-0 value.
enable	Enable transmit.
name	Icecast stream name.
service-url	Icecast server URL.
username	Username of icecast server.
password	Password of icecast server.

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ices/sender-del

Use the interface to delete an icecast TX.

Request Mode

```
POST /api/ices/sender-del
```

Name	Description
uid	Unique ID, non-0 value.

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ices/receiver-info

Use the interface to obtain icecast RX information.

Request Mode

```
POST /api/ices/receiver-info
```

Response Body

```
{
    "status": 0,
    "ices": [
        {
            "uid": 1,
            "enable": true,
            "name": "icecast_01",
            "service-url": "http://ec5.yesstreaming.net:1930",
            "room": "stream",
            "buffer-duration": 500,
            "headroom-db": 0,
            "state": "fail",
            "format": {
                "sample-rate": 0,
                "channel-num": 0,
                "bit-depth": 0,
                "coding-format": "NONE"
            }
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
ices[i].uid	Unique ID, non-0 value.
ices[i].enable	Enable receiving.
ices[i].name	Icecast RX name.
ices[i].service-url	Icecast server URL.
ices[i].room	Icecast stream name.
ices[i].buffer-duration	Buffer time within [1,1000], in milliseconds.
ices[i].headroom	Headroom, in decibels.
ices[i].state	Connection state: idle, connecting, success, connect-fail, auth-fail, recv-fail, and fail.
ices[i].format.sample-rate	Sample rate.
ices[i].format.channel-num	Number of channels.
ices[i].format.bit-depth	Bit depth.
ices[i].format.codeing-format	Icecast formats include NONE, PCM, AAC, and MP3.

/api/ices/receiver-apply

Use the interface to set icecast RX.

Request Mode

```
POST /api/ices/receiver-apply
```

Name	Description
uid	Unique ID, non-0 value.
enable	Enable receiving.
name	Icecast RX name.
service-url	Icecast server URL.
room	Icecast stream name.
buffer-duration	Buffer time within [1,1000], in milliseconds.
headroom	Headroom, in decibels.

Response Body

```
{
    "status": 0
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ices/receiver-del

Use the interface to delete an icecast RX.

Request Mode

```
POST /api/ices/receiver-del
```

Name	Description
uid	Unique ID, non-0 value.

Response Body

```
{
    "status": 0
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/ices/list-streams

Use the interface to list all icecast streams.

Request Mode

```
POST /api/ices/list-streams
```

Response Body

```
{
    "streams": [
        {
            "room": "icecast_02",
            "content-type": "audio/aac",
            "is-magewell": true
        },
        {
            "room": "test1",
            "content-type": "audio/aac",
            "is-magewell": true
        }
    ],
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
streams[i].room	Stream name.
streams[i].content-type	Stream type.
streams[i].is-magewell	True: the stream is a Magewell stream. False: the stream is not a Magewell stream.

/api/aes67/matrix-info

Use the interface to obtain audio matrix information.

Request Mode

```
POST /api/aes67/matrix-info
```

Response Body


```
{
    "status": 0,
    "max-tx-channels": 22,
    "max-rx-channels": 46,
    "matrix": [
        {
            "tx-no": 0,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 1,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 2,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 3,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [
```

```
            ]
        },
        {
            "tx-no": 4,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 5,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 6,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 7,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 8,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
```

```
        {
            "tx-no": 9,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 10,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 11,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 12,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 13,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 14,
            "tx-mute": false,
```

```
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 15,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 16,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 17,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 18,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 19,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [
```

```
            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 20,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        },
        {
            "tx-no": 21,
            "tx-mute": false,
            "tx-volume": 0,
            "mix-state": [

            ],
            "rx-mute": [

            ],
            "rx-volume": [

            ]
        }
    ],
    "uac-rx": {
        "channel-num": 4
    },
    "live-rx": {
        "type": 0,
        "lives": [
            {
                "type": 0,
                "name": "DESKTOP-KN2V7CQ (Intel UHD Graphics 630 1)",
                "channel-num": 2
            }
        ]
    },
    "aes67-rx": [
        {
            "sink-idx": 0,
            "name": "Pro_Convert_AES67_1015_0_01",
            "channel-num": 2
        }
    ],
    "uac-tx": {
        "channel-num": 4
    },
    "live-tx": {
        "ndi": [
            "D424211217005_0_01"
        ],
        "srt": [],
        "ices": []
    },
    "aes67-tx": [
        {
            "name": "Pro_Convert_AES67_7005_0_01",
            "channel-num": 2
        }
    ]
```

```
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
max-tx-channels	Maximum number of TX channels supported by the device.
max-rx-channels	Maximum number of RX channels supported by the device.
matrix[i].tx-no	TX channel index.
matrix[i].tx-mute	True: TX muted; false: TX unmuted.
matrix[i].tx-volume	TX volume within [-36, 36], unit: dB.
matrix[i].mix-state	Connection state of TX-RX cross point. 0: not connected 1: connection successful 2: connecting 3: connection failed
matrix[i].rx-mute	True: TX-RX cross point is muted; false: TX-RX cross point is unmuted.
matrix[i].rx-volume	Volume of TX-RX cross point within [-36, 36], unit: dB.
uac-rx.channel-num	Number of UAC RX channels.
live-rx.type	Stream type. 0: NDI; 1:SRT; 2: icecast
live-rx.lives[i].type	Stream type. 0: NDI; 1:SRT; 2:icecast
live-rx.lives[i].name	Stream name.
live-rx.lives[i].channel-num	Number of stream channels.
aes67-rx.sink-idx	AES67 sink ID.
aes67-rx.name	AES67 sink name.
uac-tx.channel-num	Number of UAC TX channels.
live-tx.ndi	NDI TX name list.
live-tx.srt	SRT TX name list.
live-tx.icecast	Icecast TX name list.
aes67-rx.channel-num	Number of aes67 sink channels.
aes67-tx.name	Aes67 source name
aes67-tx.channel-num	Number of aes67 source channels.

/api/aes67/audio-meter

Use the interface to obtain all information of AES67 matrix.

Request Mode

```
POST /api/aes67/audio-meter
```

Response Body

```
{
    "tx-db": [
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -81,
        -81,
        -81,
        -81,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100
    ],
    "rx-db": [
        -88,
        -83,
        -95,
        -91,
        -100,
        -100,
        -100,
        -100,
        -26,
        -26,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
        -100,
```

```
            -100,
            -100,
            -100,
            -100,
            -100,
            -100,
            -100,
            -100,
            -100,
            -100,
            -100,
            -100,
            -100,
            -100
        ],
        "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
tx-db	TX channel level (dBFS).
rx-db	RX channel level (dBFS).

/api/aes67/audio-meter-limit

Use the interface to obtain specific information of AES67 audio matrix.

Request Mode

```
POST /api/aes67/audio-meter-limit
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
tx-no	TX channel number.
rx-no	RX channel number.

e.g.

```
{
    "tx-no": 1,
    "rx-no": [1, 2, 3, 4]
}
```

Response Body

```
{
    "tx-dBFS": -100,
    "tx-min-db": -100,
    "tx-max-db": 40,
    "rx-channels": [
        {
            "rx-no": 1,
            "dBFS": -87,
            "min-db": -100,
            "max-db": 40
        },
        {
            "rx-no": 2,
            "dBFS": -91,
            "min-db": -100,
            "max-db": 40
        },
        {
            "rx-no": 3,
            "dBFS": -88,
            "min-db": -100,
            "max-db": 40
        },
        {
            "rx-no": 4,
            "dBFS": -100,
            "min-db": -100,
            "max-db": 40
        }
    ],
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
tx-dBFS	TX channel level (dBFS).
tx-min-db	Minimum TX channel level (dBFS).
tx-min-db	Maximum TX channel level (dBFS).
rx-channels[i].rx_no	RX channel number.

rx-channels[i].dBFS	RX channel level (dBFS).
rx-channels[i].min-db	Minimum RX channel level (dBFS).
rx-channels[i].max-db	Maximum RX channel level (dBFS).

/api/aes67/matrix-meter

Use the interface to obtain volume information of specific channel in AES67 matrix.

Request Mode

```
POST /api/aes67/matrix-meter
```

Name	Description
tx-no	TX channel number.
rx-no	RX channel number.

Response Body

```
{
    "status": 0,
    "dBFS": -100,
    "min-db": -100,
    "max-db": 40
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
dbfs	dBFS value.
min-db	dBFS minimum value.
max-db	dBFS maximum value.

/api/aes67/matrix-settings

Use the interface to set audio matrix.

Request Mode

```
POST /api/aes67/matrix-settings
```

Name	Description
matrix[i].tx-no	TX channel number.
matrix[i].rx-no	RX channel number.
matrix[i].mix	Connection state of TX-RX cross point, 0: unconnected, 1: connected.

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/aes67/matrix-clear

Use the interface to clear all AES67 matrix settings.

Request Mode

```
POST /api/aes67/matrix-clear
```

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/aes67/volume-tx

Use the interface to set TX volume of audio matrix.

Request Mode

```
POST /api/aes67/volume-tx
```

Name	Description
volumes[i].tx-no	TX channel number.
volumes[i].tx-mute	True: TX muted; false: TX unmuted.
volumes[i].db	Volume within [-36, 36], unit: dB.

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/api/aes67/volume-mix

Use the interface to set volume for TX-RX cross point in audio matrix.

Request Mode

```
POST /api/aes67/volume-tx
```

Name	Description
volumes[i].tx-no	TX channel number.
volumes[i].rx-no	RX channel number.
volumes[i].rx-mute	Muted.
volumes[i].db	Volume within [-36, 36], unit: dB.

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.

/system/device-info

Use the interface to obtain the device information. Please check whether each sub-item of capability is true, and only when it is true, the corresponding API can be accessed.

Request Mode

```
POST /api/system/device-info
```

Response Body

```
{
    "device-name": "USB Fusion",
    "product-id": "0x506",
    "product-name": "USB Fusion",
    "hardware-rev": "A",
    "serial-number": "A506210323002",
    "firmware-ver": "1.1.202",
    "firmware-name": "Development",
    "build-time": "2021-12-17 01:07:22",
    "capability": {
        "support-timezone": true,
        "support-ntp": true,
        "support-4g": false,
        "support-station": true,
        "support-ap": true,
        "support-online-upgrade": true,
        "support-sc-control": true,
        "support-ipv6": false
    },
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
product-id	The device's id
product-name	The device's name
hardware-rev	The hardware version
serial-number	The device's serial number
firmware-ver	The device's firmware version
firmware-name	The device's firmware name
build-time	The device's firmware build time
capability.support-timezone	The supported timezone
capability.support-ntp	The device supports NTP.
capability.support-4g	The device supports 4G modules.
capability.support-station	WIFI supports STA mode.
capability.support-ap	WIFI supports AP mode.
capability.support-online-upgrade	The device supports online upgrade.
capability.support-sc-control	The device supports cloud management.
capability.support-ipv6	The device supports IPv6.

/system/info

Use the interface to obtain CPU and memory information.

Request Mode

```
POST /api/system/info
```

Response Body

```
{
    "device-name": "USB Fusion",
    "uptime": 8410,
    "cpu": {
        "total": 1624896,
        "idle": 1281701,
        "usage": 2110
    },
    "mem": {
        "total": 8069612,
        "avail": 7171768
    },
    "datetime": {
        "cur-time": "2021-12-20 13:25:57",
        "zonename": "Asia/Shanghai",
        "ntp-enable": true,
        "ntp-server1": "0.pool.ntp.org",
        "ntp-server2": "1.pool.ntp.org"
    },
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
device-name	The device's name
uptime	The uptime, in seconds
cpu.total	The total time of CPU
cpu.idle	The idle time of CPU
cpu.usage	The CPU usage x 100
mem.total	The system's total memory, in KB
mem.avail	The system's available memory, in KB
datetime.cur-time	The system time Time format: yyyy-MM-dd HH:mm:ss
datetime.zonename	The timezone name
datetime.ntp-enable	Enables NTP.
datetime.ntp-server1	The NTP server 1
datetime.ntp-server2	The NTP server 2

/system/set-device-name

Use the interface to set the device name.

Request Mode

```
POST /api/system/set-device-name
```

Parameter	Description
name	The device name

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/system/set-date-time

Use the interface to set the NTP function.

Request Mode

```
POST /api/system/set-date-time
```

Parameter	Description
ntp-enable	Whether to enable NTP
ntp-server1	The NTP server 1
ntp-server2	The NTP server 2
time	Local time Time format: yyyy-MM-dd HH:mm:ss

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/system/timezone-set

Use the interface to set timezone.

Request Mode

```
POST /api/system/timezone-set
```

Parameter	Description
zonename	The timezone name

Response Body

```
{
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/network/if-info

Use the interface to obtain network card information.

Request Mode

```
POST /api/network/if-info
```

Response Body


```
{
    "device-name": "USB Fusion yxy1",
    "net": [
        {
            "enable": true,
            "iface": "eth0",
            "type": 0,
            "use-dhcp": true,
            "ipaddr": "10.10.12.166",
            "netmask": "255.255.240.0",
            "gateway": "10.10.0.1",
            "mac": "84:85:86:87:88:2e",
            "link-speed": 1000,
            "link-state": 2,
            "tx-speed-kbps": 0,
            "rx-speed-kbps": 107
        },
        {
            "enable": true,
            "iface": "wlan0",
            "type": 1,
            "mode": 1,
            "ssid": "USB-Fusion_yx_5G",
            "use-dhcp": true,
            "ipaddr": "192.168.67.1",
            "netmask": "255.255.255.0",
            "gateway": "",
            "mac": "10:2c:6b:fd:9b:78",
            "link-speed": -1,
            "link-state": 2,
            "tx-speed-kbps": 3,
            "rx-speed-kbps": 0
        },
        {
            "enable": true,
            "iface": "usb0",
            "type": 3,
            "use-dhcp": true,
            "ipaddr": "192.168.66.1",
            "netmask": "255.255.255.0",
            "gateway": "192.168.66.1",
            "mac": "8e:40:df:be:7c:fa",
            "link-speed": 480,
            "link-state": 2,
            "tx-speed-kbps": 0,
            "rx-speed-kbps": 0
        }
    ],
    "status": 0
}
```


Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
device-name	The device name
net[i].enable	Whether the network card service is enabled

net[i].iface	The network card name
net[i].type	The network card type 0: Ethernet 1: WiFi 2: 4G module 3: USB
net[i].mode	The working mode of WiFi When net[i].type == 1 exists, 0: STA mode 1: AP mode
net[i].ssid	The WIFI ssid
net[i].reboot-require	WiFi reboots and takes effect.
net[i].use-dhcp	True: use DHCP to get the IP False: use the static network configuration
net[i].ipaddr	The IP address
net[i].netmask	The subnet mask
net[i].ipv6addr	The IPv6 address
net[i].gateway	The gateway address
net[i].mac	The MAC address
net[i].link-speed	The link speed 10: 10Mbps, 100: 100Mbps, 1000: 1Gbps, 2500: 2.5Gbps, 10000: 10Gbps The speed supported by USB 12: full-speed, 480: high-speed, 5000: super-speed-5g, 10000: super-speed-10g
net[i].link-state	The link state 0: down 1: disconnected 2: connected
net[i].vendor	The vendor of the 4G module
net[i].product	The product information of the 4G module
net[i].tx-speed-kbps	The sending speed (Kbps)
net[i]. rx-speed-kbps	The receiving speed (Kbps)

/network/if-set

Use the interface to configure the network card.

Request Mode

```
POST /api/network/if-set
```

Parameter	Description
iface	The network card name
use-dhcp	True: use DHCP to get the IP False: Use the static network configuration
ipaddr	The IP address, which must be filled in when use-dhcp is false
netmask	The subnet mask, which must be filled in when use-dhcp is false
gateway	The gateway address, which must be filled in when use-dhcp is false

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/network/if-route

Use the interface to obtain the default route.

Request Mode

```
POST /api/network/if-route
```

Response Body

```
{
    "iface": "",
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
ifname	The network card that the default route goes through If iface is null, it indicates that there is no route.

/network/get-dns

Use the interface to get the DNS.

Request Mode

```
POST /api/network/get-dns
```

Response Body

```
{
    "is-manual": false,
    "dns1": "10.0.1.3",
    "dns2": "",
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
is-manual	Whether to set the DNS manually
dns1	DNS Null character indicates that it is not set.
dns2	DNS Null character indicates that it is not set.

/network/set-dns

Use the interface to set DNS.

Request Mode

```
POST /api/network/set-dns
```

Parameter	Description
is-manual	Whether to set DNS manually
dns1	DNS Null character indicates that it is not set.
dns2	DNS Null character indicates that it is not set.

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/network/usb-config

Use the interface to configure the USB network card

Request Mode

```
POST /api/network/usb-config
```

Parameter	Description
iface	The network card name
ipaddr	The IP address

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/user/login

Use the interface to log in. After the user logs in successfully, the Session ID is stored in the Cookie (Cookie: sid=t2i704wbvoy51y408p588bpji010ibp0).

Request Mode

```
POST /api/user/login
```

Parameter	Description
username	The username
password	The password which is encrypted with SHA256

Response Body

```
{
    "status": 0,
    "sid": "t2i704wbvoy51y408p588bpji010ibp0"
}
```

Name	Description
status	0 indicates that the request was accepted successfully. 36 indicates that the username or password is incorrect. Refer to API Status Codes to find specific description for other values.

Interface Example

```
// login (username: Admin, password=Admin)
curl --cookie-jar sid.txt http://192.168.66.1/api/user/login -X POST -H 'Content-Type: application/json' -d'{"us
ername":"Admin", "password": "c1c224b03cd9bc7b6a86d77f5dace40191766c485cd55dc48caf9ac873335d6f"}'
```

/user/logout

Use the interface to log out and return to the login screen.

Request Mode

```
POST /api/user/logout
```

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/user/get-all

Use the interface to obtain the user list of the system, and only the administrator has the rights.

Request Mode

```
POST /api/user/get-all
```

Response Body

```
{
    "users": [
        {
            "username": "Admin",
            "group": "Admin"
        }
    ],
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
users	The user group arrays Username: user name Group: user group

/user/add

Use the interface to add a user, and only the administrator has the rights.

Request Mode

```
POST /api/user/add
```

Parameter	Description
username	The username
password	The password which is encrypted with SHA256

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/user/del

Use the interface to delete a user, and only the administrator has the rights.

Request Mode

```
POST /api/user/del
```

Parameter	Description
username	The user login name

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/user/ch-password

Use the interface to change the user's login password. The current password must be input when changing the password.

Request Mode

```
POST /api/user/ch-password
```

Parameter	Description
password	The current password which is encrypted with SHA256
new-password	The new password which is encrypted with SHA256

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/user/set-password

Use the interface to reset the password, and it does not need to input the current password. Only the administrator has the rights.

Request Mode

```
POST /api/user/set-password
```

Parameter	Description
username	The user login name
password	The new password which is encrypted with SHA256

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

upgrade/online-check

Use the interface to enable online upgrade check.

Request Mode

```
POST /api/upgrade/online-check
```

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

upgrade/online-check-result

Use the interface to obtain online check results.

Request Mode

```
POST /api/upgrade/online-check-result
```

Response Body

```
{
    "up-to-date": true,
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
up-to-date	True indicates the current firmware is up to date, otherwise it is false.
version	The latest version
size	The size of the latest version
md5	The MD5 value of the latest version
changeLog	The upgrade content of the latest version

/upgrade/upload-fw

Use the interface to upload firmware. The upload file format should be .mwf, and you should use POST multipart/form-data to upload files.

Request Mode

```
POST /upgrade/upload-fw
```

Response Body

```
{
  "status": 0,
  "up-to-date": true,
  "version": "1.1.72"
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
up-to-date	Whether the firmware is the latest version
version	The firmware version to upload

/upgrade/update

Use the interface to update firmware. During the update process you can use the /upgrade/state interface to retrieve the current status.

Request Mode

```
POST /api/upgrade/update
```

Parameter	Description
is-online	False: offline upgrade True: online upgrade
mode	The upgrade mode 0: Auto, which automatically selects Upgrade/Factory/FactoryClear mode 1: Upgrade 2: Factory 3: FactoryClear
timeout	Upgrade fails with timeout (upgrade progress keeps unchanged), in seconds

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/upgrade/state

Use the interface to obtain the current firmware version and upgrade status, and only the administrator has the rights.

Request Mode

```
POST /api/upgrade/state
```

Response Body

```
{
  "status": 0,
  "state": "updating",
  "cur-ver": "1.1.72",
  "update-version": "1.1.72",
  "num-steps": 4,
  "step": 2,
  "step-name": "Erasing image",
  "step-progress": 28
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
state	The task execution status 0: idle 1: initialize and upgrade 2: upgrading 3: upgraded 4: online firmware downloading
cur-ver	The current firmware version
update-version	The latest firmware version
step	The current step number, only available when state is 2
num-steps	The total number of steps for update, only available when state is 2
step-name	The name of the current step, only available when state is 2
step-progress	The progress of the current step, only available when state is 2 Value range: 0 - 100, Unit: %
download-percent	The percentage of online download

/upgrade/clear

Use the interface to clear the upgrade status.

Request Mode

```
POST /upgrade/clear
```

Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/log/clear

Use the interface to clear all the system logs, and only the administrator has the rights.

Request Mode

```
POST /api/log/clear
```

Response Body

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.

/log/filter

Use the interface to filter logs.

Request Mode

```
POST /api/log/filter
```

Parameter	Description
types	Log types, including all, info, warn and error, which can be separated by commas if multiple types are requested.
key	The key word for filtering, which can be an empty string

Response Body

```
{
    "status": 0,
    "logs": [
        {
            "no": 0,
            "time": "2022/09/09 16:11:07.920",
            "type": "info",
            "message": "xxxxxx"
        },
        {
            "no": 1,
            "time": "2022/09/09 16:11:04.721",
            "type": "info",
            "message": "xxxxxx"
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes to find specific description for other values.
logs[i].no	The log number
logs[i].time	The log time
logs[i].type	The log type, including info, warn, and error
logs[i].message	The log content

/log/export

Use the interface to export the current system log of the device as a .html file, and only the administrator has the rights.

Request Mode

```
POST /api/log/export
```

Parameter	Description
filename	The exported filename

Request Result

The log is downloaded as a .html file and saved to a local folder.