Pro Convert Audio DX

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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 Audio DX

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=xxxxxxxxx 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='{"username":"Admin", "password": "c1c224b03cd9bc7b6a86d77f5dace40191766c485cd55dc48caf9ac873335d6f"}' http://192.168.66.1/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='{"username":"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'{"username":"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 '{"username":"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/aoip/summary-info

Use the interface to obtain working status of the device.

Request Mode

```
POST /api/aoip/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
        }
    }
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
temperature	Temperature of the unit's processor.
card-address	The rotary switch number.
unbalance.in.linked	Whether the unbalanced input is plugged-in. true: connected; false: disconnected.
unbalance.in.depth	Sampling depth of unbalanced input includes L16, L24.
unbalance.in.channel-num	The number of unbalanced input channels.
unbalance.out.linked	Whether the unbalanced output is connected. True: connected; false: disconnected.

unbalance.out.depth	Sampling depth of unbalanced output includes L16, L24.
unbalance.out.channel-num	The number of unbalanced output channels.
balance.in.linked	Whether the balanced input is plugged-in. True: connected; false: disconnected.
balance.in.depth	Sampling depth of balanced input includes L16, L24.
balance.in.channel-num	The number of balanced input channels.
balance.out.linked	Whether the balanced output is plugged-in. True: connected; false: disconnected.
balance.out.depth	Sampling depth of balanced output includes L16, L24.
balance.out.channel-num	The number of balanced output channels.
uac.usb-connected	Whether the USB audio device is connected. True: connected; false: disconnected.
uac.in.linked	Whether the UAC input is connected. True: connected; false: disconnected.
uac.in.sample-rate	Sampling rate of UAC input.
uac.in.depth	Sampling depth of UAC input.
uac.in.channel-num	The number of UAC input channels.
uac.out.linked	Whether the unbalanced output is connected. True: connected; false: disconnected.
uac.out.sample-rate	Sampling rate of UAC output.
uac.out.depth	Sampling depth of UAC output.
uac.out.channel-num	The number of UAC output channels.

/api/aoip/general-range

Use the interface to obtain value ranges of general settings.

Request Mode

```
POST /api/aoip/general-range
```

Response Body

```
{
    "tx-sample-rate": [
        "44100",
        "48000",
        "88200",
        "96000"
    ],
    "unbld-in": [
        "+12dBu",
        "+4dBu",
        "0dBu",
        "-2dBu",
        "0dBV",
        "-10dBV"
    ],
    "unbld-out": [
        "+12dBu",
        "+4dBu",
        "0dBu",
        "-2dBu",
        "0dBV",
        "-10dBV"
    ],
    "bld-in": [
        "+24dBu",
        "+18dBu",
        "+4dBu",
        "0dBu",
        "-2dBV",
        "0dBV",
        "-10dBV"
    ],
    "bld-out": [
        "+18dBu",
        "+4dBu",
        "0dBu",
        "-2dBV",
        "0dBV",
        "-10dBV"
    ],
    "igmp": [
        "Auto",
        "IGMPv2",
        "IGMPv3"
    ],
    "audio-pattern": [
        "off",
        "input",
        "output"
    ],
    "uac-num-channels": [
        "4",
        "2"
    ],
    "status": 0
}
```

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

/api/aoip/general-info

Use the interface to obtain information about general settings.

Request Mode

```
POST /api/aoip/general-info
```

Response Body

```
{
    "status": 0,
    "device-lock": false,
    "tx-sample-rate": "48000",
    "unbld-in": "+12dBu",
    "unbld-out": "+12dBu",
    "bld-in": "+18dBu",
    "bld-out": "+18dBu",
    "igmp": "Auto",
    "micbias": true,
    "audio-pattern": "off",
    "uac-num-channels": 2
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
device.deivce-lock	True: lock dante settings; false: unlock dante settings.
tx-sample-rate	Sample rate of your device.
unbld-in	Adjust unbalanced input volume. Options are +12dBu(default), +4dBu, +OdBu, -2dBu, 0dBV,and -10dBV.
unbld-out	Adjust unbalanced output volume. Options are +12dBu(default), +4dBu, OdBu, -2dBu, 0dBV,and -10dBV.
bld-in	Adjust balanced input volume. Options are +24dBu(SMPTE), +18dBu(EBU)(default), +4dBu, +0dBu,-2dBu, 0dBV, and -10dBV.
bld-out	Adjust balanced output volume. Options are +18dBu(EBU)(default), +4dBu, OdBu, -2dBu, 0dBV, and -10dBV.
igmp	IGMP version. Options are Auto, IGMPv2, and IGMPv3.
micbias	True to enable MIC bias, false to disable MIC bias.
audio-pattern	Test tone, options are OFF (default), ON (Analog In) and ON (Analog Out).

/api/aoip/general-apply

Use the interface to set general parameters.

Request Mode

```
POST /api/aoip/general-apply
```

Name	Description
tx-sample-rate	Sample rate of your device.
unbld-in	Adjust unbalanced input volume. Options are +12dBu(default), +4dBu, +OdBu, -2dBu, 0dBV,and -10dBV.
unbld-out	Adjust unbalanced output volume. Options are +12dBu(default), +4dBu, OdBu, -2dBu, 0dBV,and -10dBV.
bld-in	Adjust balanced input volume. Options are +24dBu(SMPTE), +18dBu(EBU)(default), +4dBu, +0dBu,-2dBu, 0dBV, and -10dBV.
bld-out	Adjust balanced output volume. Options are +18dBu(EBU)(default), +4dBu, OdBu, -2dBu, 0dBV, and -10dBV.
igmp	IGMP version. Options are Auto, IGMPv2, and IGMPv3.
micbias	True to enable MIC bias, false to disable MIC bias.
audio-pattern	Test tone, options are OFF (default), ON (Analog In) and ON (Analog Out).

Response Body

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

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

/api/tx/live-info

Use the interface to get information of all TX streams.

Request Mode

```
POST /api/tx/live-info
```

Response Body

```
{
    "stream-no-max": 2,
    "streaming-count-max": 16,
    "streaming-count": 3,
    "streaming": [
        {
            "uid": 3,
            "enable": true,
            "name": "RTSP Server",
            "stream-no": "Stream1",
            "type": "rtsp",
            "rtsp": {
                "bind-port": 554,
                "max-client-num": 8,
                "key": "aud",
                "enable-auth": false,
                "username": "",
                "password": ""
            },
            "aac-bitrate-kbps": "128",
            "report": {
                "clients-status": [
                    {
                        "audio-lost-percent": 5847.757058208435,
                        "audio-lost-total": 16777215,
                        "bitrate-kbps": 125,
                        "living-time-ms": 65359,
                        "name": "10.10.14.202",
                        "peer-audio-port": 63398,
                        "peer-rtsp-port": 56881,
                        "peer-video-port": 0,
                        "transport": "udp",
                        "video-lost-percent": 0.0,
                        "video-lost-total": 0
                    }
                ],
                "living-time-ms": 143812,
                "module-name": "mws_rtsp_sink_0",
                "module-type": 98,
                "num-clients": 1
            }
        },
        {
            "uid": 11,
            "enable": true,
            "name": "NDI",
            "stream-no": "Stream1",
            "type": "ndi",
            "ndi": {
                "source-name": "test11",
                "group-name": "public",
                "enable-full": true,
                "audio-standard": "SMPTE",
                "enable-discovery": false,
                "discovery-server": "",
                "transport-mode": "tcp-unicast",
                "mcast-addr": "",
                "mcast-mask": "",
                "mcast-ttl": 4,
                "enable-fail-over": false,
                "fail-over-ndi-name": "",
                "fail-over-ip-addr": "",
                "enable-web-control": true
            },
            "aac-bitrate-kbps": "128",
            "report": {
                "module-name": "mws_ndi_sink_0",
                "module-type": 34,
                "ndi-name": "PRO-CONVERT-AES67 (test11)",
                "num-clients": 0
            }
        },
        {
            "uid": 9,
            "enable": false,
            "name": "TS over SRT",
            "stream-no": "Stream2",
            "type": "srt",
            "srt": {
                "mode": "listener",
                "dst-ip": "",
                "dst-port": 8000,
                "bind-port": 10000,
                "stream-id": "12/12",
                "connect-timeout": 3000,
                "retry-duration": 3000,
                "latency": 120,
                "bandwidth": 25,
                "mtu": 1500,
                "enc": "disable",
                "passphrase": "",
                "enable-logo": false
            },
            "aac-bitrate-kbps": "128",
            "report": {
                "mode": "listener",
                "module-name": "mws_srt_sink_0",
                "module-type": 114
            }
        }
    ],
    "discovery": [
        {
            "is-ndi": true,
            "ndi-name": "DESKTOP-KN2V7CQ (Intel UHD Graphics 630 1)",
            "ndi-url": "192.168.65.2:5961"
        }
    ],
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
stream-no-max	Concurrency streams.
streaming-count-max	Maximum number of concurrency streams.
streaming-count	Number of streams.
streaming[i].uid	Unique ID, must be greater than 0.
streaming[i].enable	True: enable the stream. False: disable the stream.
streaming[i].name	Stream name, the length of which should be within [1, 1023].
streaming[i].stream-no	The chosen stream includes Stream1, Stream2.
streaming[i].type	Streaming protocols include rtsp, srt, ndi.
streaming[i].rtsp.bind-port	Port for RTSP.
streaming[i].rtsp.max-client-num	Maximum number of RTSP connections.
streaming[i].rtsp.key	RTSP main stream key, the string length of which should be within [1, 63].

streaming[i].rtsp.enable-auth	True: enable RTSP authentication. False: disable RTSP authentication.
streaming[i].rtsp.username	Username for RTSP Authentication, the string length of which should be within [0, 63].
streaming[i].rtsp.password	Password for RTSP Authentication, the string length of which should be within [0, 63].
streaming[i].rtsp.report	Report of RTSP main stream .
streaming[i].srt.mode	Connection mode, Caller and listener.
streaming[i].srt.dst-ip	Destination IP address for TS over caller.
streaming[i].srt.dst-port	Destination port for TS over SRT caller, within [1,65535].
streaming[i].srt.bind-port	Binding port for TS over SRT listener, within [1,65535].
streaming[i].srt.stream-id	TS over SRT Stream ID, the string length of which should be within [0,63].
streaming[i].srt.connect-timeout	Connection timeout for TS over SRT, in milliseconds.
streaming[i].srt.retry-duration	Retry time for TS over SRT, in milliseconds.
streaming[i].srt.latency	Latency for TS over SRT, in milliseconds.
streaming[i].srt.bandwidth	Bandwidth for TS over SRT, in percents.
streaming[i].srt.mtu	MTU for TS over SRT within [228, 1500].
streaming[i].srt.enc	Encryption algorithms include 0: unencrypted, 16: aes-128, 24: aes-192, 32: aes-256.
streaming[i].srt.passphrase	Encryption passphrase, the string length should be within [1,79].
streaming[i].srt.enable-logo	True: display logo image. False: not to display logo image.
streaming[i].ndi.source-name	Source name, default value is device serial number.
streaming[i].ndi.group-name	NDI group name, default value is public.
streaming[i].ndi.enable-full	True: enable NDI FULL. False: disable NDI FULL.
streaming[i].ndi.audio-standard	Audio standards include SMPTE and EBU.
streaming[i].ndi.enable-discovery	True: enable discovery server. False: disable discovery server.
streaming[i].ndi.discovery-server	IP address of discovery server, the string length should be within [1,63].
streaming[i].ndi.transport-mode	Transmit modes include udp-unicast, udp-multicast, rudp-unicast, tcp-unicast, and tcp-multi.
streaming[i].ndi.mcast-addr	Multicast address.
streaming[i].ndi.mcast-mask	Multicast mask.
streaming[i].ndi.mcast-ttl	TTL within [1, 255].
streaming[i].ndi.enable-fail-over	True: enable failover; false: disable failover.
streaming[i].ndi.fail-over-ndi-name	Name of the chosen NDI TX for failover, the string length should be within [1,63].
streaming[i].ndi.fail-over-ip-addr	IP address of the chosen NDI TX for failover, the length should be within [1,63].
streaming[i].ndi.enable-web-control	True: enable web control. False: disable web control.
streaming[i].aac-bitrate-kbps	AAC bit rate of TX stream. Options are 128, 192, and 256.
discovery[i].is-ndi	True: enable auto-discovery NDI, false: disable auto-discovery NDI.
discovery[i].ndi-name	Auto-discovery NDI name.
discovery[i].ndi-url	Auto-discovery NDI address.

/api/tx/live-apply

Use the interface to set a TX stream.

Request Mode

```
POST /api/tx/live-apply
```

Name	Description
uid	Unique ID, should be greater than 0.
enable	True: enable the stream. False: disable the stream.
name	Stream name, the length of which should be within [1, 1023].
stream-no	The chosen stream includes Stream1, Stream2.
type	Streaming protocols include rtsp, srt, ndi.
rtsp.bind-port	Specify a port for RTSP.
rtsp.max-client-num	Maximum number of RTSP connections.
rtsp.key	RTSP main stream key, the string length of which should be within [1, 63].
rtsp.enable-auth	True: enable RTSP Authentication. False: disable RTSP Authentication.
rtsp.username	User name for RTSP Authentication, the string length of which should be within [0,63].
rtsp.password	Password for RTSP Authentication, the string length of which should be within [1, 63].
rtsp.report	Report of RTSP main stream.
srt.mode	Connection mode, Caller or listener.
srt.dst-ip	Target IP address for TS over caller.
srt.dst-port	Target port for TS over SRT caller, the port number should be within [1,65535].
srt.bind-port	Binding port for TS over SRT listener, the port number should be within [1,65535].
srt.stream-id	Stream ID for TS over SRT, the string length of which should be within [0,63].
srt.connect-timeout	Connection timeout for TS over SRT, in milliseconds.
srt.retry-duration	Retry time for TS over SRT, in milliseconds.
srt.latency	Latency for TS over SRT, in milliseconds.
srt.bandwidth	Bandwidth for TS over SRT, in percents.
srt.mtu	MTU for TS over SRT within [228, 1500].
srt.enc	Encryption algorithm for TS over SRT include disable, aes-128, aes-192, and aes-256.
srt.passphrase	Passphrase for TS over SRT, the string length of which should be within [1,79].
srt.enable-logo	True: display logo image. False: not to display logo image.
ndi.source-name	Source name, default value is device serial number.
ndi.group-name	group name, default value is public
ndi.enable-full	True: enable NDI FULL; false: disable NDI FULL.
ndi.audio-standard	Audio-standard. 0: SMPTE 1: EBU
ndi.enable-discovery	True: enable discovery service; false: disable discovery service.
ndi.discovery-server	IP address for discovery server.
ndi.transport-mode	Transport mode includes udp-unicast, udp-multicast, rudp-unicast, tcp-unicast, and tcp-multi.
ndi.mcast-addr	Multicast address.
ndi.mcast-mask	Multicast mask.
ndi.mcast-ttl	TTL within [1,255].
ndi.enable-fail-over	True: enable failover; false: disable failover.
ndi.fail-over-ndi-name	Name of the chosen NDI TX for failover, the string length should be within [1,63].
ndi.fail-over-ip-addr	IP address of the chosen NDI TX for failover. The string length should be within [1,63].
ndi.enable-web-control	True: enable web control. False: disable web control.

aac-bitrate-kbps	AAC bit rate. Options are 128, 192, and 256.

e.g.

```
// SRT
{
    "uid": 9,
    "enable": true,
    "name": "TS over SRT",
    "type": "srt",
    "srt": {
        "select": 0,
        "mode": "listener",
        "dst-ip": "",
        "dst-port": 8000,
        "bind-port": 10000,
        "stream-id": "12/12",
        "connect-timeout": 3000,
        "retry-duration": 3000,
        "latency": 120,
        "bandwidth": 25,
        "mtu": 1500,
        "enc": "disable",
        "passphrase": ""
    },
    "aac-bitrate-kbps": "128"
}

// NDI
{
    "uid": 11,
    "enable": true,
    "name": "NDI",
    "type":"ndi",
    "ndi": {
        "source-name": "test11",
        "group-name": "public",
        "enable-discovery": false,
        "discovery-server": "",
        "transport-mode": "tcp-unicast",
        "mcast-ttl": 4,
        "mcast-addr": "",
        "mcast-mask": "",
        "enable-fail-over": false,
        "fail-over-ndi-name": "",
        "fail-over-ip-addr": "",
        "enable-web-control": true
    },
    "aac-bitrate-kbps": "128"
}
```

Response Body

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

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

/api/tx/live-del

Use the interface to delete a TX stream.

Request Mode

```
POST /api/tx/live-del
```

Name	Description
uid	Unique ID, should be greater than 0.

Response Body

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

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

/api/rx/live-info

Use the interface to obtain information of all RX streams.

Request Mode

```
POST /api/rx/live-info
```

Response Body

```
{
    "stream-no-max": 2,
    "mw-buffer-duration-min": 1,
    "mw-buffer-duration-max": 3000,
    "mw-buffer-duration-def": 100,
    "gst-count-max": 16,
    "gst-count": 3,
    "gst": [
        {
            "uid": 9,
            "enable": false,
            "name": "TS over SRT",
            "stream-no": "Stream1",
            "url": "srt://10.10.11.54:10000?streamid=11&mode=caller&passphrase=111111111111&latency=100&mw-audio
-track=2&mw-buffer-duration=100&mw-headroom-db=0"
        },
        {
            "uid": 11,
            "enable": false,
            "name": "NDI",
            "stream-no": "Stream1",
            "url": "ntkndi://ndi?ndi-name=DESKTOP-KN2V7CQ (Intel UHD Graphics 630 1)&ndi-url=&mw-buffer-duration
=100&mw-headroom-db=0&mw-audio-standard=SMPTE"
        }
    ],
    "ndi-options": {
        "enable-discovery": false,
        "discovery-server": "",
        "group-name": "",
        "extra-ips": ""
    },
    "discovery": [],
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
stream-no-max	Concurrency streams.
mw-buffer-duration-min	Minimum cache time, in milliseconds.
mw-buffer-duration-max	Maximum cache time, in milliseconds.
mw-buffer-duration-def	Default cache time, in milliseconds.
gst-count-max	Maximum number of streams.
gst-count	Number of streams.
gst[i].uid	Unique ID, must be greater than 0.
gst[i].enable	True: enable the stream. False: disable the stream.
gst[i].name	Stream name, the string length of which should be within [1, 1023].
gst[i].stream-no	The chosen stream includes Stream1, Stream2.
gst[i].url	Stream URL.
gst[i].report	Report information.
ndi-options[i].enable-discovery	True: enable discovery service, false: disable discovery service.

ndi-options[i].discovery-server	The IP address of discovery server.
ndi-options[i].group-name	Group name, default value is public.
ndi-options[i].extra-ips	External NDI source.
discovery[i].is-ndi	True: enable auto-discovery NDI, false: disable auto-discovery NDI.
discovery[i].ndi-name	Auto-discovery NDI name.
discovery[i].ndi-url	Auto-discovery NDI address.

/api/rx/live-apply

Use the interface to set a RX stream.

Request Mode

```
POST /api/rx/live-apply
```

Name	Description
uid	Unique ID, greater than 0.
enable	True: enable live stream; false: disable live stream.
name	Stream name, a string of 1 to 63 characters.
stream-no	Stream number includes Stream1 and Stream2.
url	Stream URL.

1. SRT

```
// Caller
srt://ip:port?mode=caller&streamid=12323&passphrase=12345678914&latency=123&mw-audio-track=1&mw-buffer-duration=
100

// Listener
srt://0.0.0.0:port?mode=listener&streamid=12323&passphrase=12345678914&latency=123&mw-audio-track=1&mw-buffer-du
ration=100
```

URL element	Description
url	Listener: 0.0.0.0 Caller: legal IP address excludes 0.0.0.0.
port	Port number between 1 and 65535.
mode	SRT mode includes caller and listener.
streamid	Streamid
latency	Latency time between 20 and 8000 in milliseconds.
encryption	True: enable encryption. False: disable encryption.
passphrase	Encryption passphrase. Set the passphrase when encryption is enabled, the length of string is from 10 to 79.
mw-audio-track	The number of audio tracks between 1 and 8.
mw-buffer-duration	Buffer duration time in milliseconds. You can get the range using rx-live-info.
mw-headroom-db	Headroom in decibel.

2. NDI

```
ntkndi://ndi?ndi-name=DESKTOP-KN2V7CQ (Intel UHD Graphics 630 1)&ndi-url=&mw-buffer-duration=100&mw-headroom-db=
0&&mw-audio-standard=SMPTE
```

URL element	Description
ndi-name	NDI device name. The string length ranges from 0 to 127.
ndi-url	NDI URL. The string length ranges from 0 to 127.
mw-buffer-duration	Buffer duration time in milliseconds. You can get the range using rx-live-info.
mw-headroom-db	Headroom in decibel.
mw-audio-standard	Audio standard includes SMPTE and EBU.

Response Body

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

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

/api/rx/live-del

Use the interface to delete a RX stream.

Request Mode

```
POST /api/rx/live-del
```

Name	Description
uid	Unique ID, greater than 0.

Response Body

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

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

/api/rx/live-ndi-options-apply

Use the interface to set a RX NDI.

Request Mode

```
POST /api/rx/ndi-options-apply
```

Name	Description
enable-discovery	True: enable discovery service, false: disable discovery service.
discovery-server	IP address of discovery server.
group-name	Group name, default value is public.
extra-ips	External NDI source.

Response Body

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

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

/api/aoip/matrix-desc

Use the interface to obtain the matrix description.

Request Mode

```
POST /api/aoip/matrix-desc
```

Response Body

```
{
    "status": 0,
    "max-tx-channels": 32,
    "max-rx-channels": 32,
    "tx": [
        {
            "name": "Unbalance",
            "channel-count": 2,
            "channel-start": 0,
            "channel-end": 1,
            "show": true
        },
        {
            "name": "Balance",
            "channel-count": 2,
            "channel-start": 2,
            "channel-end": 3,
            "show": true
        },
        {
            "name": "UAC",
            "channel-count": 4,
            "channel-start": 4,
            "channel-end": 7,
            "show": true
        },
        {
            "name": "Dante",
            "channel-count": 8,
            "channel-start": 8,
            "channel-end": 15,
            "show": true
        },
        {
            "name": "Stream",
            "channel-count": 4,
            "channel-start": 16,
            "channel-end": 19,
            "show": true
        },
        {
            "name": "Stream",
            "channel-count": 4,
            "channel-start": 20,
            "channel-end": 23,
            "show": true
        },
        {
            "name": "Unused",
            "channel-count": 4,
            "channel-start": 24,
            "channel-end": 27,
            "show": false
        },
        {
            "name": "Unused",
            "channel-count": 4,
            "channel-start": 28,
            "channel-end": 31,
            "show": false
        }
    ],
    "rx": [
        {
            "name": "Unbalance",
            "channel-count": 2,
            "channel-start": 0,
            "channel-end": 1,
            "show": true
        },
        {
            "name": "Balance",
            "channel-count": 2,
            "channel-start": 2,
            "channel-end": 3,
            "show": true
        },
        {
            "name": "UAC",
            "channel-count": 4,
            "channel-start": 4,
            "channel-end": 7,
            "show": true
        },
        {
            "name": "Dante",
            "channel-count": 8,
            "channel-start": 8,
            "channel-end": 15,
            "show": true
        },
        {
            "name": "Stream",
            "channel-count": 4,
            "channel-start": 16,
            "channel-end": 19,
            "show": true
        },
        {
            "name": "Stream",
            "channel-count": 4,
            "channel-start": 20,
            "channel-end": 23,
            "show": true
        },
        {
            "name": "Unused",
            "channel-count": 4,
            "channel-start": 24,
            "channel-end": 27,
            "show": false
        },
        {
            "name": "Unused",
            "channel-count": 4,
            "channel-start": 28,
            "channel-end": 31,
            "show": false
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
max-tx-channels	Maximum number of TX channels.
max-rx-channels	Maximum number of RX channels.
tx[i].name	TX group name.
tx[i].channel-count	Number of TX group channels.

tx[i].channel-start	Start channel number for TX group.
tx[i].channel-end	End channels number for TX group.
tx[i].show	True: show the TX group, false: hide the TX group.
rx[i].name	RX group name.
rx[i].channel-count	Number of RX group channels.
rx[i].channel-start	Start channel number of a TX group.
rx[i].channel-end	End channel number of a RX group.
rx[i].show	True: show the RX group, false: hide the RX group.

/api/aoip/matrix-info

Use the interface to obtain the matrix information.

Request Mode

```
POST /api/aoip/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
    },
    "stream-rx": [
        {
            "stream-no": "Stream1",
            "stream-index": 4,
            "name": "NDI",
            "type": "ndi",
            "channel-num": 4
        }
    ],
    "uac-tx": {
        "channel-num": 4
    },
    "stream-tx": [
        {
            "stream-no": "Stream1",
            "stream-index": 4,
            "name": "ndi-01",
            "type": "ndi",
            "channel-num": 4
        }
    ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
max-tx-channels	Maximum number of TX channels.
max-rx-channels	Maximum number of RX channels.
matrix[i].tx-no	TX channel number.
matrix[i].tx-mute	True: mute TX, false: unmute TX.

matrix[i].tx-volume	TX volume within [-36, 36], in decibels.
matrix[i].mix-state	TX-RX connection status: 0: disconnected 1: connection successfully 2: connecting 3: connection failed
matrix[i].rx-mute	True: mute RX, false: unmute RX.
matrix[i].rx-volume	RX volume within [-36, 36], in decibels.
uac-rx.channel-num	Number of UAC RX channels.
live-rx[i].stream-no	The chosen RX stream number.
live-rx[i].stream-index	Stream index.
live-rx[i].name	Stream name.
live-rx[i].type	Stream protocols include srt and ndi.
live-rx[i].channel-num	Number of channels.
uac-tx.channel-num	Number of UAC TX channels.
live-tx[i].stream-no	The chosen TX stream number.
live-tx[i].stream-index	Stream index.
live-tx[i].name	Stream name.
live-tx[i].type	Streaming protocols include rtsp, srt and ndi.
live-tx[i].channel-num	Number of stream channels.

/api/aoip/audio-meter

Use the interface to obtain all volume of matrix.

Request Mode

```
POST /api/aoip/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 dBFs value.
rx-db	RX dBFs value.

/api/aoip/audio-meter-limit

Use the interface to obtain the volume of specific channel of the Matrix.

Request Mode

```
POST /api/aoip/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	dBFs value of TX channel.
tx-min-db	Minimum dBFs value of TX channel.
tx-min-db	Maximum dBFs value of TX channel.
rx-channels[i].rx_no	RX channel number.

rx-channels[i].dBFS	dBFs value of RX channel.
rx-channels[i].min-db	Minimum dBFs value of RX channel.
rx-channels[i].max-db	Maximum dBFs value of RX channel.

/api/aoip/matrix-settings

Use the interface to set cross-point of TX-RX for matrix.

Request Mode

```
POST /api/aoip/matrix-settings
```

Name	Description
matrix[i].tx-no	TX channel number.
matrix[i].rx-no	RX channel number.
matrix[i].mix	TX-RX status, 0: disconnected, 1: connected.

Response Body

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

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

/api/aoip/matrix-clear

Use the interface to clear all settings of matrix.

Request Mode

```
POST /api/aoip/matrix-clear
```

Response Body

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

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

/api/aoip/volume-tx

Use the interface to set volume for TX of matrix.

Request Mode

```
POST /api/aoip/volume-tx
```

Name	Description
volumes[i].tx-no	TX channel number.
volumes[i].tx-mute	True: mute the TX channel, false: unmute the channel.
volumes[i].db	Volume within [-36, 36], in decibels.

Response Body

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

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

/api/aoip/volume-mix

Use the interface to set volume of TX-RX for matrix.

Request Mode

```
POST /api/aoip/volume-tx
```

Name	Description
volumes[i].tx-no	TX channel number.
volumes[i].rx-no	RX channel number.
volumes[i].rx-mute	Mute the RX channel.
volumes[i].db	Volume within [-36, 36], in decibels.

Response Body

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

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

/api/dante/state

Use the interface to obtain running state of dante.

Request Mode

```
POST /api/dante/state
```

Response Body

```
{
    "device": {
        "deivce-lock": false
    },
    "clock-basic": {
        "uuid": "FE:30:38:71:E3:C7",
        "master-uuid": "00:1D:C1:50:B6:D8",
        "grandmaster-uuid": "00:1D:C1:50:B6:D8",
        "is-mute": false,
        "is-locked": true,
        "freq-ppm": 2
    },
    "clock-params": {
        "priority1": 254,
        "priority2": 116,
        "domain": 0,
        "sync-interval": 0,
        "announce-interval": 0,
        "ttl": 16
    },
    "audio-format": {
        "sample-rate": 48000,
        "encoding": "PCM24"
    },
    "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to API Status Codes.
device.deivce-lock	True: lock dante settings; false: unlock dante settings.
clock-basic.uuid	UUID
clock-basic.master-uuid	master UUID
clock-basic.grandmaster-uuid	grandmaster UUID
clock-basic.is-mute	True: muted; false: unmuted.
clock-basic.is-locked	True: lock clock; false: unlock clock, your device can regain sync with the leader clock.
clock-basic.freq-ppm	Frequency PPM
clock-params.priority1	PTP priority 1
clock-params.priority2	PTP priority 2
clock-params.domain	PTP domain
clock-params.sync-interval	Sync interval.
clock-params.announce-interval	Announce interval.
audio-format.sample-rate	Audio sample rate.
audio-format.encoding	Audio encoding.

/api/aoip/export-reports

Use the interface to export reports for dante.

Request Mode

```
POST /api/aoip/export-reports
```

/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'{"username":"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.