

# Matrix API

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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:

- Hybrid NDI Matrix

## Common Error Codes

Status	Definition	Code	Description
0	MW_STATUS_SUCCESS	Success	Successful operation
1	MW_STATUS_PENDING	Pending	Operation is pending
2	MW_STATUS_TIMEOUT	Timeout	Operation timed out
3	MW_STATUS_INTERRUPTED	Interrupted	Operation was interrupted
4	MW_STATUS_TRY_AGAIN	TryAgain	Operation should be retried
5	MW_STATUS_NOT_IMPLEMENTED	NotImplemented	The operation is not implemented
6	MW_STATUS_UNKNOWN_ERROR	UnknownError	An unknown error occurred
7	MW_STATUS_INVALID_ARG	InvalidArgument	Invalid argument provided
8	MW_STATUS_NO_MEMORY	OutOfmemory	Insufficient memory
9	MW_STATUS_UNSUPPORTED	Unsupported	The operation is not supported
10	MW_STATUS_FILE_BUSY	FileBusy	File system is busy
11	MW_STATUS_DEVICE_BUSY	DeviceBusy	Device is busy
12	MW_STATUS_DEVICE_LOST	DeviceLost	Device is lost
13	MW_STATUS_IO_FAILED	IOError	An IO error occurred
14	MW_STATUS_READ_FAILED	ReadError	IO read failed
15	MW_STATUS_WRITE_FAILED	WriteError	IO write failed
16	MW_STATUS_NOT_EXIST	NotExist	The content does not exist
17	MW_STATUS_TOO_MANY	TooMany	Exceeded the limit of count
18	MW_STATUS_TOO_LARGE	TooLarge	Exceeded the size limit
19	MW_STATUS_OVERFLOW	Overflow	Overflow (up)
20	MW_STATUS_UNDERFLOW	Underflow	Overflow (down)
21	MW_STATUS_FORMAT_ERROR	FormatError	Format error occurred
22	MW_STATUS_FILE_EXISTS	FileExists	File already exists
23	MW_STATUS_FILE_TYPE_ERROR	FileTypeError	Incorrect file type
24	MW_STATUS_DEVICE_TYPE_ERROR	DeviceTypeError	Incorrect device type
25	MW_STATUS_IS_DIRECTORY	IsDirectory	The content is a directory
26	MW_STATUS_READ_ONLY	ReadOnly	Read-only restriction
27	MW_STATUS_RANGE_ERROR	OutOfRange	Range error occurred
28	MW_STATUS_BROKEN_PIPE	BrokenPipe	Pipe connection was interrupted
29	MW_STATUS_NO_SPACE	NoSpace	Insufficient space
30	MW_STATUS_NOT_DIRECTORY	NotDirectory	Not a directory
31	MW_STATUS_NOT_PERMITTED	NotPermitted	Forbidden operation
32	MW_STATUS_BAD_ADDRESS	BadAddress	Invalid address
33	MW_STATUS_SEEK_ERROR	SeekError	Seek error occurred
34	MW_STATUS_CROSS_DEVICE_LINK	CrossDeviceLink	Cross-device link error
35	MW_STATUS_NOT_INITIALIZED	NotInitialized	Not initialized
36	MW_STATUS_AUTH_FAILED	AuthFailed	Authentication failed
37	MW_STATUS_NOT_LOGGED_IN	NotLoggedIn	Not logged in
38	MW_STATUS_WRONG_STATE	WrongState	Incorrect state
39	MW_STATUS_MISMATCH	Mismatch	Mismatch error
40	MW_STATUS_VERIFY_FAILED	VerifyFailed	Verification failed
41	MW_STATUS_CONSTRAINT_VIOLATION	ConstraintViolatin	Constraint violation
42	MW_STATUS_CANCELED	Canceled	Operation was canceled
43	MW_STATUS_IN_PROGRESS	InProgress	Operation is in progress

44	MW_STATUS_CONN_REFUSED	ConnectionRefused	Connection refused
45	MW_STATUS_CONN_RESET	ConnectionReset	Connection reset
46	MW_STATUS_ADDR_IN_USE	AddressInUse	Address is in use
47	MW_STATUS_NO_RESPONSE	NoResponse	No response
48	MW_STATUS_INFO_CHANGED	InfoChanged	Information has changed
49	MW_STATUS_INVALID_DATA	InvalidData	Invalid data
50	MW_STATUS_NEED_MORE_DATA	NeedMoreData	More data is needed
51	MW_STATUS_NO_BUFFER	NoBuffer	Buffer is exhausted
52	MW_STATUS_BUFFER_TOO_SMALL	BufferTooSmall	Buffer is too small
53	MW_STATUS_BUFFER_IS_EMPTY	BufferIsEmpty	Buffer is empty
54	MW_STATUS_BUFFER_IS_FULL	BufferIsFull	Buffer is full
1000	MW_STATUS_IDLE	-	Idle
1001	MW_STATUS_RUNNING	-	Running
1002	MW_STATUS_CONNECTING	-	Connecting
1003	MW_STATUS_CONNECTED	-	Connected
1004	MW_STATUS_WAITING	-	Waiting
1005	MW_STATUS_NAME_IS_SAME	-	Name existed

# Release Notes

## V1.2

### Screen cast

Add

- [desc](#)
- [info](#)
- [set](#)
- [status](#)

### Multiview

Add

- [desc](#)
- [info](#)
- [enable](#)
- [set-layout](#)
- [set-volume](#)

## V1.1

### Preface

Update

- [Common Error Codes](#)
  - Add codes 1000 to 1005

### Stream

Update

- [add-sink](#)
  - Delete input parameter: groups
- [set-sink](#)
  - Delete input parameter: groups
- [sink-info](#)
  - Delete output parameter: groups

### Audio

Update

- [volume-tx](#)
  - Modify input parameter from vol to gain
- [volume-mix](#)
  - Modify input parameter from vol to gain

### Matrix

Add

- [desc](#)
- [matrix-info](#)
- [set-matrix](#)

### Record

Add

- [desc](#)

- [disk-status](#)
- [disk-format](#)
- [disk-test-start](#)
- [disk-test-stop](#)
- [get-media-files](#)
- [del-media-files](#)
- [channel-info](#)
- [channel-set](#)
- [channel-enable](#)
- [channel-status](#)
- [do-snapshot](#)

## Upload

### Add

- [desc](#)
- [server-info](#)
- [server-set](#)
- [server-status](#)
- [server-test-start](#)
- [server-test-stop](#)
- [set-auto-add-file](#)
- [add-files](#)
- [del-files](#)
- [get-files](#)

## Export

### Add

- [status](#)
- [set-auto-add-file](#)
- [add-files](#)
- [del-files](#)
- [get-files](#)

## Annotation

### Add

- [bound-devices](#)
- [scanned-devices](#)
- [paired-devices](#)
- [detail-info](#)
- [pair-device](#)
- [add-device](#)
- [del-device](#)
- [bind-device](#)
- [select-device](#)
- [start](#)
- [stop](#)
- [enable-draw](#)
- [enable-zoom](#)

## WebSocket

### Add

- [notify](#)

## V1.0

## Audio

## Update

- [matrix-info](#)
  - Add alias

# Obtain HDMI input information

## 1. API Description

This API is used to obtain the number of HDMI input ports, etc.

Request mode: GET/POST [ip]/api/hdmi-rx/desc

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
channel-num	Int	Number of ports

## 4. Example

Obtaining number of HDMI input ports.

### Input Example

None

### Output Example

```
{
  "channel-num": 3,
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain HDMI input port information

## 1. API Description

This API is used to obtain the HDMI input port name, signal status, etc.

Request mode: GET/POST [ip]/api/hdmi-rx/info

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
index	No	Int	Port index, range is [0,3); if not specified, get all port information

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
hdmi-rx	Array of <a href="#">HDMI RX Info</a>	HDMI input port information

### HDMI RX Info

Name	Type	Description
index	Int	Port index
name	String	Port name
input-signal	<a href="#">Input Signal</a>	Input signal status

### Input Signal

Name	Type	Description
locked	Boolean	Whether the input signal is locked or not
signal-info-types	[Array]	Input signal information contained hdmi-info video-info audio-info
hdmi-info	<a href="#">HDMI Info</a>	HDMI signal status
video-info	<a href="#">Video Info</a>	Video signal status
audio-info	<a href="#">Audio Info</a>	Audio signal status

### HDMI Info

Name	Type	Description
mode	String	Modes, including hdmi, dvi, etc.
vic	Int	Video identification code
hdcp	Boolean	HDCP encrypted or not
it-content	Boolean	IT content mark
3d-struct	Boolean	3D structure
pixel-rate	Float	Pixel clock frequency
timing-h-total	Int	Timing, total horizontal pixels
timing-h-active	Int	Timing, horizontal effective pixels
timing-h-frontporch	Int	Timing, horizontal front porch pixels
timing-h-syncwidth	Int	Timing, horizontal sync pixels
timing-h-backporch	Int	Timing, horizontal back porch pixels
timing-f0v-totalheight	Int	Timing, total vertical pixels

timing-f0v-active	Int	Timing, vertical effective pixels
timing-f0v-frontporch	Int	Timing, vertical front porch pixels
timing-f0v-syncwidth	Int	Timing, vertical sync pixels
timing-f0v-backproch	Int	Timing, vertical back porch pixels

#### Video Info

Name	Type	Description
codec	String	Encoding types, including uncompressed, dsc, mpeg2, etc.
width	Int	Video width pixels
height	Int	Video height pixels
scan	String	Scan mode, rms: progressive, interlaced, psf
field-rate	Float	Frame rate
color-depth	Int	Colour depth, including 8, 10, 12
aspect-ratio	String	Aspect ratios, including 16:9, 4:3, etc.
sampling	String	Sampling modes, including 4:2:0, 4:2:2, 4:4:4, 4:4:4:4
colospace	String	Colour space, including rgb, bt.601, bt.709, bt.2020
quant-range	String	Quantation range, including limited, full
frame-struct	String	Frame structure, including 2d, 3d-left-right, 3d-top-bottom, 3d-left-right-half, 3d-top-bottom-half

#### Audio Info

Name	Type	Description
codec	String	Encoding types, including lpcm, ac3, aac, etc.
num-channels	Int	Number of channels, including 1, 2, .. 16
sample-rate	Int	Sample rate, including 32000, 44100, etc.
bit-depth	Int	Bit depth, including 16, 20, 24, etc.

## 4. Example

Obtaining information of HDMI input port 1.

#### Input Example

```
{
  "index": 0
}
```

#### Output Example

```
{
  "hdmi-rx": [
    {
      "index": 0,
      "name": "HDMI1",
      "input-signal": {
        "locked": true,
        "signal-info-types": [
          "video-info",
          "audio-info",
          "hdmi-info"
        ],
      },
      "hdmi-info": {
        "mode": "hdmi",
        "vic": 16,
        "hdcv": false,
        "it-content": false,
        "3d-struct": false,
        "pixel-rate": 148.5,
        "timing-h-total": 2200,
        "timing-h-active": 1920,
      }
    }
  ]
}
```

```

        "timing-h-frontporch": 88,
        "timing-h-syncwidth": 44,
        "timing-h-backporch": 148,
        "timing-f0v-syncwidth": 5,
        "timing-f0v-frontporch": 4,
        "timing-f0v-backproch": 36,
        "timing-f0v-active": 1080,
        "timing-f0v-totalheight": 1125
    },
    "audio-info": {
        "codec": "lpcm",
        "num-channels": 2,
        "sample-rate": 48000,
        "bit-count": 16,
        "cs-size": 0,
        "cs-data": []
    },
    "video-info": {
        "codec": "uncompressed",
        "width": 1920,
        "height": 1080,
        "scan": "progressive",
        "field-rate": 60.00,
        "color-depth": 8,
        "aspect-ratio": "16:9",
        "sampling": "4:4:4",
        "colorspace": "bt.709",
        "quant-range": "limited",
        "frame-struct": "2d"
    }
}
}
],
"status": 0
}

```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Set HDMI input port name

## 1. API Description

This API is used to set HDMI input port name.

Request mode: POST [ip]/api/hdmi-rx/set-name

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
index	Yes	Int	Port index
name	Yes	String	Port name

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Setting the name of HDMI input port 2 to 'HDMI-Input2'.

### Input Example

```
{
  "index": 1,
  "name": "HDMI-Input2s"
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Obtain HDMI output information

## 1. API Description

This API is used to obtain HDMI output profile.

Request mode: GET/POST [ip]/api/hdmi-tx/desc

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
channel-num	Int	Number of ports

## 4. Example

Obtaining number of HDMI output ports.

### Input Example

None

### Output Example

```
{
  "channel-num": 2,
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain HDMI output port information

## 1. API Description

This API is used to obtain HDMI output port name and list of monitor supported resolutions, etc.

Request mode: GET/POST [ip]/api/hdmi-tx/info

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
index	No	Int	Port index, range is [0,2); obtain all interface information if not specified

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
hdmi-tx	Array of <a href="#">HDMI TX Info</a>	HDMI output port information

### HDMI TX Info

Name	Type	Description
index	Int	Port index
name	String	Port name
modes	Array of <a href="#">HDMI TX Mode</a>	List of resolutions supported by the monitor

### HDMI TX Mode

Name	Type	Description
width	Int	Video width pixels
height	Int	Video height pixels
interlaced	Boolean	Whether interlaced or not
field-rate	Int	Frame rate
aspect-ratio	String	Aspect ratio
pref-mode	Boolean	Preffered or not
curr-mode	Boolean	Current value or not

## 4. Example

Obtaining information of HDMI output port 1.

### Input Example

```
{
  "index": 0
}
```

### Output Example

```
{
  "hdmi-tx": [
    {
      "index": 0,
      "name": "HDMI Output0",
      "modes": [
        {
```

```
        "width": 3840,  
        "height": 2160,  
        "interlaced": false,  
        "field-rate": 6000,  
        "aspect-ratio": 1.77777779,  
        "pref-mode": true,  
        "curr-mode": false  
    },  
    ...  
]  
}  
],  
"status": 0  
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Set HDMI output port name

## 1. API Description

This API is used to set HDMI output port name.

Request mode: POST [ip]/api/hdmi-tx/set-name

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
index	Yes	Int	Port index
name	Yes	String	Port name

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Setting the name of HDMI output port 1 to 'HDMI-Output1'.

### Input Example

```
{
  "index": 0,
  "name": "HDMI-Output1"
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Set HDMI output resolutions

## 1. API Description

This API is used to set HDMI output resolutions within the list of [hdmi-tx/info](#).

Request mode: POST [ip]/api/hdmi-tx/set-video-mode

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
index	Yes	Int	Port index
mode	Yes	<a href="#">HDMI TX Info</a>	Port name

### HDMI TX Mode

Name	Type	Description
width	Int	Video width pixels
height	Int	Video height pixels
interlaced	Boolean	Interlaced or not
field-rate	Int	Frame rate
aspect-ratio	String	Aspect ratio

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Setting the output resolution of HDMI output port 1 to 1920x1080p60.

### Input Example

```
{
  "index": 0,
  "mode": {
    "width": 1920,
    "height": 1080,
    "interlaced": false,
    "field-rate": 6000,
    "aspect-ratio": 1.77777779
  }
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect



# Obtain streaming profile

## 1. API Description

This API is used to obtain supported stream types, receive and transmit tasks, etc.

Request mode: GET/POST [ip]/api/stream/desc

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
type	Array of <a href="#">Stream Type</a>	List of supported stream types
rx	Array of <a href="#">Stream RX</a>	List of names and indices of stream receiving tasks
tx	Array of <a href="#">Stream TX</a>	List of names and indices of stream transmitting tasks
buffer-duration	<a href="#">Buffer Duration</a>	Buffer duration for stream receiving tasks in milliseconds
ndi	<a href="#">NDI</a>	NDI configuration information

### Stream Type

Name	Type	Description
name	String	Name of stream type
value	Int	Value of a type

### Stream RX

Name	Type	Description
name	String	Name of stream receive task
value	Int	Value of a name

### Stream TX

Name	Type	Description
name	String	Name of stream transmit task
value	Int	Value of a name

### Buffer Duration

Name	Type	Description
min	Int	Maximum buffer time
max	Int	Minimum buffer time
def	Int	Default value of buffer time

### NDI Info

Name	Type	Description
transport-mode	<a href="#">Transport Mode</a>	Specified Transmission mode for sending NDI streams

### Transport Mode

Name	Type	Description
name	String	Name of stream transmit mode

value	Int	Value of a name
-------	-----	-----------------

## 4. Example

Obtaining the supported stream types, and the configuration of streams to receive and transmit.

### Input Example

None

### Output Example

```
{
  "type": [
    {
      "name": "NDI|HX2",
      "value": 0
    }
  ],
  "rx": [
    {
      "name": "Stream1",
      "value": 0
    },
    {
      "name": "Stream2",
      "value": 1
    },
    {
      "name": "Stream3",
      "value": 2
    },
    {
      "name": "Stream4",
      "value": 3
    },
    {
      "name": "Stream5",
      "value": 4
    },
    {
      "name": "Stream6",
      "value": 5
    },
    {
      "name": "Annotation",
      "value": 6
    }
  ],
  "tx": [
    {
      "name": "Stream1",
      "value": 0
    },
    {
      "name": "Stream2",
      "value": 1
    },
    {
      "name": "Stream3",
      "value": 2
    },
    {
      "name": "Stream4",
      "value": 3
    },
    {
      "name": "Stream5",
      "value": 4
    }
  ]
}
```

```

        "name": "Stream6",
        "value": 5
    }
],
"buffer-duration": {
    "min": 60,
    "max": 200,
    "def": 60
},
"ndi": {
    "transport-mode": [
        {
            "name": "UDP (Unicast)",
            "value": 0
        },
        {
            "name": "UDP (Multicast)",
            "value": 1
        },
        {
            "name": "RUDP (Unicast)",
            "value": 2
        },
        {
            "name": "TCP (Uni-Connection)",
            "value": 3
        },
        {
            "name": "TCP (Multi-Connection)",
            "value": 4
        }
    ]
},
"status": 0
}

```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain NDI sources

## 1. API Description

This API is used to obtain list of available NDI sources.

Request mode: GET/POST [ip]/api/stream/get-ndi-sources

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
ndi-sources	Array of <a href="#">NDI Source</a>	List of NDI sources

### NDI Source

Name	Type	Description
ndi-name	String	Source name
ip-addr	String	Source IP address and port

## 4. Example

Obtaining list of available NDI sources.

### Input Example

None

### Output Example

```
{
  "ndi-sources": [
    {
      "ndi-name": "HYBRID NDI MATRIX (Stream1-A325240712004)",
      "ip-addr": "10.10.4.129:5964"
    },
    {
      "ndi-name": "HYBRID NDI MATRIX (Stream2-A325240712004)",
      "ip-addr": "10.10.4.129:5965"
    },
    ...
  ],
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Set NDI

## 1. API Description

This API is used to set the NDI group name and discovery server address.

Request mode: POST [ip]/api/stream/set-ndi-config

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
groups	Yes	String	The group that your device is multicasted to, separated by commas if there are multiple groups
enable-discovery	No	Int	Whether the NDI discovery service is enabled. 1: enabled 0: disabled
discovery-server	No	String	The server IP address which discovery server is enabled. Multiple IP addresses should be separated with commas.

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Setting name of the NDI group to 'Public,BIC', and the discovery server address to '10.10.9.122,10.10.13.181'.

### Input Example

```
{
  "groups": "Public,BIC",
  "enable-discovery": 1,
  "discovery-server": "10.10.9.122,10.10.13.181"
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Obtain NDI settings

## 1. API Description

This API is used to Obtain NDI group name and discovery server address.

Request mode: GET/POST [ip]/api/stream/get-ndi-config

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
groups	String	The group that your device is multicasted to, separated by commas if there are multiple groups
enable-discovery	Int	Whether the NDI discovery service is enabled. 1: enabled 0: disabled
discovery-server	String	The server IP address which discovery server is enabled. Multiple IP addresses should be separated with commas.

## 4. Example

Obtaining NDI settings.

### Input Example

None

### Output Example

```
{
  "groups": "Public,BIC",
  "enable-discovery": 1,
  "discovery-server": "10.10.9.122,10.10.13.181",
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain streaming destinations

## 1. API Description

This API is used to obtain streaming destinations.

Request mode: GET/POST [ip]/api/stream/sink-info

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
id	No	Int	ID. Obtain all settings if not specified.

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
sink	Array of <a href="#">Sink Info</a>	List of stream transmit service profile

### Sink Info

Name	Type	Description
id	Int	ID
type	Int	Type
name	String	Name
is-use	Int	Whether to enable the service. 1: enabled 0: disabled
stream-idx	Int	Index
ndi-hx	<a href="#">NDI TX Info</a>	NDI settings

### NDI TX Info

Name	Required	Type	Description
machine-name	No	String	Host name
source-name	No	String	Video source name, default is the device serial number
transport-mode	No	Int	Transport mode, obtained using <a href="#">Obtain Streaming Profile</a> . Required for multicast settings.
mcast-addr	No	String	Multicast address
mcast-mask	No	String	Multicast mask
mcast-ttl	No	String	Time to live ranges from 1 to 255.
enable-failover	No	Int	Whether failover function is enabled
failover-name	No	String	The backup NDI channel name.
failover-addr	No	String	IP Address of the backup NDI channel.
enable-web-ctrl	No	Int	Whether you can open the Web UI by clicking the gear icon in the NDI Studio Monitor.

## 4. Example

Obtaining ID = 0 of NDI transmit service settings.

### Input Example

```
{
  "id": 0
}
```

## Output Example

```
{
  "sink": [
    {
      "id": 0,
      "type": 0,
      "name": "NDI TX",
      "is-use": 1,
      "stream-idx": 0,
      "ndi-hx": {
        "machine-name": "Hybrid NDI Matrix",
        "groups": "Public",
        "source-name": "Stream1-#serial-no#",
        "transport-mode": 3,
        "mcast-addr": "239.255.0.0",
        "mcast-mask": "255.255.0.0",
        "mcast-ttl": 1,
        "enable-failover": 0,
        "failover-name": "",
        "failover-addr": "",
        "enable-web-ctrl": 0
      }
    }
  ],
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain streaming destination status

## 1. API Description

This API is used to obtain streaming destination status.

Request mode: GET/POST [ip]/api/stream/sink-status

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
sink	Array of <a href="#">Sink Status</a>	List of stream transmit service status

### Sink Info

Name	Type	Description
id	Int	ID
type	Int	Type
name	String	Name
stream-idx	Int	Index
state	Int	Status code
run-ms	Int	Up time in milliseconds
ndi-hx	<a href="#">NDI TX Status</a>	NDI status

### NDI TX Status

Name	Type	Description
num-clients	Int	Number of clients

## 4. Example

Obtaining status of transmit streaming.

### Input Example

None

### Output Example

```
{
  "sink": [
    {
      "id": 0,
      "type": 0,
      "name": "NDI TX",
      "stream-idx": 0,
      "state": 1003,
      "run-ms": 5688684,
      "ndi-hx": {
        "num-clients": 1
      }
    }
  ],
  ...
}
```

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

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Add streaming destinations

## 1. API Description

This API is used to add streaming destinations, up to 16 tasks can be added at most.

Request mode: POST [ip]/api/stream/add-sink

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
type	Yes	String	Type, obtained using <a href="#">Obtain Streaming Profile</a>
name	Yes	String	Name, character including 1. 1 - 32 characters 2. Composed of A-Z, a-z, 0-9, space . _-+', and cannot start or end with a space.
stream-idx	Yes	String	Stream index, obtained using <a href="#">Obtain Streaming Profile</a>
ndi-hx	Yes	<a href="#">NDI TX Info</a>	NDI configuration information

### NDI TX Info

Name	Required	Type	Description
machine-name	No	String	Host Name
source-name	Yes	String	Video source name, default is the device serial number
transport-mode	No	Int	Transport mode, obtained using <a href="#">Obtain Streaming Profile</a> , multicast related settings required
mcast-addr	No	String	Multicast address
mcast-mask	No	String	Multicast mask
mcast-ttl	No	String	Time to live within 1 to 255
enable-failover	No	Int	Whether to enable fail over
failover-name	No	String	Fail over source name
failover-addr	No	String	Fail over IP address
enable-web-ctrl	No	Int	Whether to enable Web control

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Adding a new transmit service for video sources with the name 'NDI CAM 6'.

### Input Example

```
{
  "type": 0,
  "name": "NDI TX(6)",
  "stream-idx": 5,
  "ndi-hx": {
    "machine-name": "BIC",
    "source-name": "NDI CAM 6",
    "transport-mode": 3,
    "mcast-addr": "",
    "mcast-mask": "",
    "mcast-ttl": 0,
    "enable-failover": 0,
    "failover-name": ""
  }
}
```

```
"failover-addr": "",
"enable-web-ctrl": 0
}
}
```

#### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
29	MW_STATUS_NO_SPACE	Maximum number of supported services
46	MW_STATUS_ADDR_IN_USE	The video source name already in use
1005	MW_STATUS_NAME_IS_SAME	Name already in use

# Delete streaming destinations

## 1. API Description

This API is used to delete streaming destinations.

Request mode: POST [ip]/api/stream/del-sink

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
id	Yes	Int	ID, get the range of parameters via <a href="#">Get configuration information of the stream sending service</a> .

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Removing the service task with ID 1.

### Input Example

```
{
  "id": 1
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	Service configuration does not exist

# Set streaming destinations

## 1. API Description

This API is used to modify streaming destinations including name, index, NDI settings.

Request mode: POST [ip]/api/stream/set-sink

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
id	Yes	Int	ID, parameters ranges obtained using <a href="#">Obtain stream Transmit service profile</a> .
name	No	String	Name ranges from 1 to 32 characters which contains A-Z, a-z, 0-9, spaces and special characters like . _ - +'. It can not start or end with spaces.
stream-idx	No	String	Index obtained using <a href="#">Stream basic info</a> .
ndi-hx	No	<a href="#">NDI TX Info</a>	NDI settings

### NDI TX Info

Name	Required	Type	Description
machine-name	No	String	Host name
source-name	No	String	Video source name, default is the device serial number
transport-mode	No	Int	Transport mode, obtained using <a href="#">Obtain Streaming Profile</a> . Required for multicast settings.
mcast-addr	No	String	Multicast address
mcast-mask	No	String	Multicast mask
mcast-ttl	No	String	Time to live ranges from 1 to 255.
enable-failover	No	Int	Whether failover function is enabled
failover-name	No	String	The backup NDI channel name.
failover-addr	No	String	IP Address of the backup NDI channel.
enable-web-ctrl	No	Int	Whether you can open the Web UI by clicking the gear icon in the NDI Studio Monitor.

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Modifying the ID of service configuration index from 1 to 1.

### Input Example

```
{
  "id": 1,
  "stream-idx": 1
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
11	MW_STATUS_DEVICE_BUSY	Index is already taken by other service
16	MW_STATUS_NOT_EXIST	Service configuration does not exist
46	MW_STATUS_ADDR_IN_USE	Source name is in use
1005	MW_STATUS_NAME_IS_SAME	Name already in use

# Enabling sending streaming

## 1. API Description

This API is used to start sending streaming. The service is disabled by default.

Request mode: POST [ip]/api/stream/enable-sink

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
id	Yes	Int	Stream ID, you can obtain value range via <a href="#">Obtain stream transmit service</a> .
is-use	Yes	Int	Whether to enable a task 1: enabled 0: disabled

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Disabling task with ID 1.

### Input Example

```
{
  "id": 1,
  "is-use": 0
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
11	MW_STATUS_DEVICE_BUSY	Index is already taken by other service
16	MW_STATUS_NOT_EXIST	Configuration does not exist
38	MW_STATUS_WRONG_STATE	Service is enabled

# Obtain streaming sources

## 1. API Description

This API is used to obtain streaming sources.

Request mode: GET/POST [ip]/api/stream/source-info

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
id	No	Int	ID. Obtain all settings if not specified.

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
source	Array of <a href="#">Source Info</a>	List of receiver profile

### Source Info

Name	Type	Description
id	Int	ID
type	Int	Type
name	String	Name
is-use	Int	Whether to enable the service. 1: enabled 0: disabled
stream-idx	Int	Index
buffer-duration	Int	Buffer time in ms
ndi-hx	<a href="#">NDI RX Info</a>	NDI settings

### NDI RX Info

Name	Type	Description
source	<a href="#">NDI Source Info</a>	NDI source info

### NDI Source Info

Name	Type	Description
ndi-name	String	Source name
ip-addr	String	Source IP address and port

## 4. Example

Obtaining receivers profile

### Input Example

```
{
  "id": 0
}
```

### Output Example

```
{
```

```
"source": [  
  {  
    "id": 0,  
    "type": 0,  
    "name": "Annotation Decoder",  
    "is-use": 1,  
    "stream-idx": 6,  
    "buffer-duration": 60,  
    "ndi-hx": {  
      "source": {  
        "ndi-name": "HYBRID NDI MATRIX (Stream4-A325240712001)",  
        "ip-addr": "10.10.9.73:5964"  
      },  
      "audio-standard": 0  
    }  
  },  
  ...  
],  
"status": 0  
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain streaming sources status

## 1. API Description

This API is used to obtain streaming sources status.

Request mode: GET/POST [ip]/api/stream/source-status

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
source	Array of <a href="#">Source Status</a>	List of receivers status

### Source Info

Name	Type	Description
id	Int	ID
type	Int	Type
name	String	Name
stream-idx	Int	Index
state	Int	Status code
run-ms	Int	Up time in milliseconds
ndi-hx	<a href="#">NDI RX Status</a>	NDI status

### NDI RX Status

Name	Type	Description
video-kbps	Int	Video encoding speed (Kbps)
video-jitter	Int	Video jitter
video-fourcc	String	Video encoding format including H.264, and HEVC
audio-kbps	Int	Audio encoding speed (Kbps)
audio-jitter	Int	Audio jitter
audio-fourcc	String	Audio encoding format including AAC
video-format	<a href="#">Video Format</a>	Video format info
audio-format	<a href="#">Audio Format</a>	Audio format info

### Video Format

Name	Type	Description
width	Int	Video width pixels
height	Int	Video height pixels
scan	String	Scanning mode, including progressive, interlaced, and psf
field-rate	Float	Frame rate
color-depth	Int	Color bit depth, including 8, 10, and 12
aspect-ratio	String	Aspect ratio, including 16:9, 4:3, etc.
sampling	String	Chrome sampling, including 4:2:0, 4:2:2, 4:4:4, and 4:4:4:4
colorspace	String	Color space, including rgb, bt.601, bt.709, and bt.2020

quant-range	String	Quantation rang including limited, full
frame-struct	String	Frame structure, including 2d, 3d-left-right, 3d-top-bottom, 3d-left-right-half, and 3d-top-bottom-half

#### Audio Format

Name	Type	Description
num-channels	Int	Number of channels, from 1 to 16
sample-rate	Int	Sample rate including 32000, 44100, etc.
bit-depth	Int	Bit depth, including 16, 20, 24, etc.

## 4. Example

Obtaining stream receiver status.

#### Input Example

None

#### Output Example

```
{
  "source": [
    {
      "id": 0,
      "type": 0,
      "name": "Annotation Decoder",
      "stream-idx": 6,
      "state": 1003,
      "run-ms": 624595,
      "ndi-hx": {
        "state": 1003,
        "uptime-ms": 547339905680,
        "video-kbps": 7897,
        "video-jitter": 58859,
        "video-fourcc": "H264",
        "audio-kbps": 125,
        "audio-jitter": 6758,
        "audio-fourcc": "AAC",
        "video-format": {
          "width": 1920,
          "height": 1080,
          "aspect-ratio": "16:9",
          "scan": "progressive",
          "field-rate": 59.99,
          "color-depth": 8,
          "sampling": "4:2:0",
          "colorspace": "bt.709",
          "quant-range": "limited",
          "frame-struct": "2d"
        },
        "audio-format": {
          "num-channels": 2,
          "sample-rate": 48000,
          "bit-count": 16
        }
      }
    },
    ...
  ],
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Add streaming sources

## 1. API Description

This API is used to add streaming sources, up to 16 tasks can be added at most.

Request mode: POST [ip]/api/stream/add-source

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
type	Yes	String	Type, get the value range of the parameters by <a href="#">Obtain Streaming Profile</a>
name	Yes	String	Name, character including 1. 1 - 32 characters 2. Composed of A-Z, a-z, 0-9, space . _-+', and cannot start or end with a space.
stream-idx	Yes	String	Stream index, get the range of relevant parameters by <a href="#">Obtain Streaming Profile</a>
ndi-hx	Yes	<a href="#">NDI RX Info</a>	NDI configuration information

### NDI RX Info

Name	Required	Type	Description
source	No	<a href="#">NDI Source Info</a>	NDI source information

### NDI Source Info

Name	Required	Type	Description
ndi-name	No	String	Source name
ip-addr	No	String	IP Address and port of the source

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Adding the video source name 'ULTRA ENCODE (C316230601002-3)' to a receiving task.

### Input Example

```
{
  "type": 0,
  "name": "NDI CAM 3",
  "stream-idx": 0,
  "buffer-duration": 60,
  "ndi-hx": {
    "source": {
      "ndi-name": "ULTRA ENCODE (C316230601002-3)",
      "ip-addr": ""
    }
  }
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
29	MW_STATUS_NO_SPACE	Reached the upper limits of the number of supported sessions
1005	MW_STATUS_NAME_IS_SAME	Name already in use

# Delete streaming sources

## 1. API Description

This API is used to delete streaming sources.

Request mode: POST [ip]/api/stream/del-source

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
id	Yes	Int	ID, Obtain range of parameters via <a href="#">Get Configuration Information for Stream Receiving Service</a> .

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Removing the service task with ID 1.

### Input Example

```
{
  "id": 1
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	Service configuration does not exist

# Set streaming sources

## 1. API Description

This API is used to modify streaming sources including name, index, NDI settings.

Request mode: POST [ip]/api/stream/set-source

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
id	Yes	Int	ID obtained using <a href="#">Obtain Stream Receive Service Profile</a> .
name	No	String	Name ranges from 1 to 32 characters which contains A-Z, a-z, 0-9, spaces and special characters like . _ - +'. It can not start or end with spaces.
stream-idx	No	String	Index obtained using <a href="#">Stream basic info</a> .
buffer-duration	No	Int	Buffer time in ms
ndi-hx	No	<a href="#">NDI RX Info</a>	NDI settings

### NDI RX Info

Name	Required	Type	Description
source	No	<a href="#">NDI Source Info</a>	NDI source info

### NDI Source Info

Name	Required	Type	Description
ndi-name	No	String	Source name
ip-addr	No	String	Source IP address and port

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Modifying the ID of service configuration index from 1 to 1

### Input Example

```
{
  "id": 1,
  "stream-idx": 1
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

<b>Status</b>	<b>Definition</b>	<b>Description</b>
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
11	MW_STATUS_DEVICE_BUSY	Index is already taken by other service
16	MW_STATUS_NOT_EXIST	Service configuration does not exist
1005	MW_STATUS_NAME_IS_SAME	Name already in use

# Enabling streaming sources

## 1. API Description

This API is used to enable receiving streaming. The service is disabled by default.

Request mode: POST [ip]/api/stream/enable-source

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
id	Yes	Int	Stream ID, you can obtain it using <a href="#">Obtain stream receive service</a> .
is-use	Yes	Int	Whether to enable a task 1: enabled 0: disabled

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Disabling task with ID 1.

### Input Example

```
{
  "id": 1,
  "is-use": 0
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
11	MW_STATUS_DEVICE_BUSY	Index is already taken by other service
16	MW_STATUS_NOT_EXIST	Configuration does not exist
38	MW_STATUS_WRONG_STATE	Service is enabled

# Wireless screencast basic information

## 1. Interface Description

This API is used to get the number of supported wireless screencast channels and security types.

Request mode: GET/POST [ip]/api/screencast/desc

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
channel-num	Int	Number of supported wireless screencast devices
aes	Array of <a href="#">Aes</a>	Supported security types

### Aes

Name	Type	Description
name	String	Security type name
value	Int	Value corresponding to the type

## 4. Example

Getting the number of supported wireless screencast channels and security types.

### Input Example

None

### Output Example

```
{
  "channel-num": 2,
  "aes": [
    {
      "name": "None",
      "value": 0
    },
    {
      "name": "Password",
      "value": 2
    }
  ],
  "status": 0
}
```

## 5. Error Codes

No error codes related to the business logic of the interface. For other error codes, see [Common Error Codes](#).

# Get wireless screencast configuration

## 1. Interface Description

This API is used to get the configuration information of wireless screencast.

Request mode: GET/POST [ip]/api/screencast/info

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
config	<a href="#">Config</a>	Wireless screencast configuration information

### Config

Name	Type	Description
aes	Int	Security type, 0: None 2: Password
aes-word	String	Password

## 4. Example

Getting the configuration information of wireless screencast.

### Input Example

None

### Output Example

```
{
  "config": {
    "aes": 2,
    "aes-word": "5236"
  },
  "status": 0
}
```

## 5. Error Codes

No error codes related to the business logic of the interface. For other error codes, see [Common Error Codes](#).

# Modify wireless screencast configuration

## 1. Interface Description

This API is used to modify the security type and other configuration information for wireless screencast.

Request mode:POST [ip]/api/screencast/set

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
config	Yes	<a href="#">Config</a>	Wireless screencast configuration information

### Config

Name	Required	Type	Description
aes	Yes	Int	Security type, 0: None 2: Password
aes-word	Yes	String	Password

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Modifying the wireless screencast security type to password, and the password to '2345'.

### Input Example

```
{
  "aes": 2,
  "aes-word": "2345"
}
```

### Output Example

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

## 5. Error Codes

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Missing or incorrect parameter

# Get wireless screencast status

## 1. Interface Description

This API is used to get the status information of wireless screencast.

Request mode: GET/POST [ip]/api/screencast/status

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
source	Array of <a href="#">Screencast Status</a>	List of wireless screencast status information

### Screencast Status

Name	Type	Description
index	Int	Index
screencast	<a href="#">Screencast RX Status</a>	Wireless screencast end status information

### Screencast RX Status

Name	Type	Description
name	String	Name
ip-addr	String	Address
state	Int	Status code
uptime-ms	Int	Runtime, unit: milliseconds
video-kbps	Int	Video encoding rate (Kbps)
video-jitter	Int	Video jitter
video-fourcc	String	Video encoding format, including: H.264, HEVC, etc.
audio-kbps	Int	Audio encoding rate (Kbps)
audio-jitter	Int	Audio jitter
audio-fourcc	String	Audio encoding format, including: AAC, etc.
video-format	<a href="#">Video Format</a>	Video format information
audio-format	<a href="#">Audio Format</a>	Audio format information

### Video Format

Name	Type	Description
width	Int	Video width, in pixels
height	Int	Video height, in pixels
scan	String	Scanning method, valid values: progressive, interlaced, psf
field-rate	Float	Frame rate
color-depth	Int	Color depth, including 8, 10, 12
aspect-ratio	String	Aspect ratio, including 16:9, 4:3, etc.
sampling	String	Sampling method, including 4:2:0, 4:2:2, 4:4:4, 4:4:4:4
colorspace	String	Color space, valid values: rgb, bt.601, bt.709, bt.2020
quant-range	String	Quantization range, valid values: limited, full

frame-struct	String	Frame structure, valid values: 2d, 3d-left-right, 3d-top-bottom, 3d-left-right-half, 3d-top-bottom-half
--------------	--------	---

#### Audio Format

Name	Type	Description
num-channels	Int	Number of channels, including 1, 2, ..., 16
sample-rate	Int	Sampling rate, including 32000, 44100, etc.
bit-count	Int	Bit depth, including 16, 20, 24, etc.

## 4. Example

Getting the status information of wireless screencast.

#### Input Example

None

#### Output Example

```
"source": [
  {
    "index": 0,
    "screencast": {
      "name": "lee's iPhone",
      "ip-addr": "192.168.10.208",
      "state": 1003,
      "uptime-ms": 3951,
      "video-kbps": 0,
      "video-jitter": 529574,
      "video-fourcc": "H264",
      "audio-kbps": 0,
      "audio-jitter": 0,
      "audio-fourcc": "",
      "video-format": {
        "width": 500,
        "height": 1080,
        "aspect-ratio": "25:54",
        "scan": "progressive",
        "field-rate": 0.00,
        "color-depth": 8,
        "sampling": "4:2:0",
        "colorspace": "bt.709",
        "quant-range": "full",
        "frame-struct": "2d"
      },
      "audio-format": {
        "num-channels": 0,
        "sample-rate": 0,
        "bit-count": 0
      }
    }
  },
  {
    "index": 1,
    "screencast": {
      "name": "",
      "ip-addr": "",
      "state": 1000,
      "uptime-ms": 0,
      "video-kbps": 0,
      "video-jitter": 0,
      "video-fourcc": "",
      "audio-kbps": 0,
      "audio-jitter": 0,
      "audio-fourcc": "",
      "video-format": {
        "width": 0,
        "height": 0,
        "aspect-ratio": "0:0",

```

```
    "scan": "progressive",
    "field-rate": 0.00,
    "color-depth": 0,
    "sampling": "4:2:0",
    "colorspace": "unknown",
    "quant-range": "unknown",
    "frame-struct": "2d"
  },
  "audio-format": {
    "num-channels": 0,
    "sample-rate": 0,
    "bit-count": 0
  }
},
],
"status": 0
}
```

## 5. Error Codes

No error codes related to the business logic of the interface. For other error codes, see [Common Error Codes](#).

# Multiview basic information

## 1. Interface Description

This API is used to obtain the layout information of multiview, etc.

Request mode:GET/POST [ip]/api/multiview/desc

Administrator Privilege	Login Authentication
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
layout	Array of <a href="#">Layout</a>	List of supported layouts

### Layout

Name	Type	Description
name	String	Name of the layout type
value	Int	Value corresponding to the type

## 4. Example

Obtaining the layout information of multiview.

### Input Example

None

### Output Example

```
{
  "layout": [
    {
      "name": "One",
      "value": 0
    },
    {
      "name": "One Half",
      "value": 1
    },
    {
      "name": "One Third",
      "value": 2
    },
    {
      "name": "One Fourth",
      "value": 3
    }
  ],
  "status": 0
}
```

## 5. Error Codes

There are no error codes related to the interface business logic. For other error codes, please refer to [Common Error Codes](#).

# Get multi-view configuration

## 1. Interface Description

This API is used to get the configuration information of multi-view.

Request mode: GET/POST [ip]/api/multiview/info

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
multiview	<a href="#">Config</a>	Multi-view configuration information

### Config

Name	Type	Description
enable	Int	Whether to enable multi-view, 0: Disable 1: Enable
layout	Int	Layout
volume	Array of <a href="#">Volume</a>	Multi-view audio configuration

### Volume

Name	Type	Description
mute	Int	Whether to mute, 0: Unmuted 1: Muted

## 4. Example

Getting the configuration information of multi-view.

### Input Example

None

### Output Example

```
{
  "multiview": {
    "enable": 1,
    "layout": 3,
    "volume": [
      {
        "mute": 0
      },
      {
        "mute": 1
      },
      {
        "mute": 1
      },
      {
        "mute": 1
      }
    ]
  }
}
```

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

## 5. Error Codes

No error codes related to the business logic of the interface. For other error codes, see [Common Error Codes](#).

# Enable multi-view

## 1. Interface Description

This API is used to enable multi-view. Changes to this configuration require a device restart to take effect.

Request mode:POST [ip]/api/multiview/enable

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
enable	Yes	Int	Whether to enable multi-view, 0: Disable 1: Enable

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Enabling multi-view.

### Input Example

```
{
  "enable": 1
}
```

### Output Example

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

## 5. Error Codes

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Missing or incorrect parameter

# Modify multi-view layout

## 1. Interface Description

This API is used to modify the layout configuration of multi-view.

Request mode:POST [ip]/api/multiview/set-layout

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
layout	Yes	Int	Layout, obtain the value range of related parameters through <a href="#">Multi-view Basic Information</a>

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Modifying the layout of multi-view to 'Layout 3'.

### Input Example

```
{
  "layout": 2
}
```

### Output Example

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

## 5. Error Codes

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Missing or incorrect parameter

# Modify multi-view audio

## 1. Interface Description

This API is used to modify the audio configuration of multi-view.

Request mode:POST [ip]/api/multiview/set-volume

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
index	Yes	Int	Index of the view to be modified
mute	Yes	Int	Whether to mute the audio, 0: Unmuted 1: Muted

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Modifying the audio configuration of the view with index 0 to mute.

### Input Example

```
{
  "index": 0,
  "mute": 1
}
```

### Output Example

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

## 5. Error Codes

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Missing or incorrect parameter

# Obtain audio matrix info

## 1. API Description

This API is used to obtain the number of input and output channels and the corresponding channel information, etc.

Request mode: GET/POST [ip]/api/matrix/audio-desc

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
max-tx-channels	Int	Supported maximum number of output channels
tx	Array of <a href="#">Channel Info</a>	List of output channel information
max-rx-channels	Int	Supported maximum number of input channels
rx	Array of <a href="#">Channel Info</a>	List of input channel information

### Channel Info

Name	Type	Description
name	String	Stream name
channel-count	Int	Channel counts
channel-start	Int	Channel start index
channel-end	Int	Channel end index
show	Boolean	Whether to display the channel

## 4. Example

Obtaining the number of input and output channels and the corresponding channel information.

### Input Example

None

### Output Example

```
{
  "max-tx-channels": 12,
  "tx": [
    {
      "name": "Stream1",
      "channel-count": 2,
      "channel-start": 0,
      "channel-end": 1,
      "show": true
    },
    {
      "name": "Stream2",
      "channel-count": 2,
      "channel-start": 2,
      "channel-end": 3,
      "show": true
    }
  ],
  "max-rx-channels": 12,
  "rx": [
    {
      "name": "Stream1",
      "channel-count": 2,
      "channel-start": 0,
      "channel-end": 1,
      "show": true
    },
    {
      "name": "Stream2",
      "channel-count": 2,
      "channel-start": 2,
      "channel-end": 3,
      "show": true
    }
  ]
}
```

```
    "name": "Stream3",
    "channel-count": 2,
    "channel-start": 4,
    "channel-end": 5,
    "show": true
  },
  {
    "name": "Stream4",
    "channel-count": 2,
    "channel-start": 6,
    "channel-end": 7,
    "show": true
  },
  {
    "name": "Stream5",
    "channel-count": 2,
    "channel-start": 8,
    "channel-end": 9,
    "show": true
  },
  {
    "name": "Stream6",
    "channel-count": 2,
    "channel-start": 10,
    "channel-end": 11,
    "show": true
  }
],
"max-rx-channels": 16,
"rx": [
  {
    "name": "Dante",
    "channel-count": 16,
    "channel-start": 0,
    "channel-end": 15,
    "show": true
  }
],
"status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain audio matrix configurations

## 1. API Description

This API is used to obtain the configuration of the audio matrix.

Request mode: GET/POST [ip]/api/matrix/audio-matrix

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
matrix	Array of <a href="#">Matrix Info</a>	Matrix information
tx-channels	Array of <a href="#">Channel Info</a>	Output channel information
rx-channels	Array of <a href="#">Channel Info</a>	Input channel information

### Matrix Info

Name	Type	Description
tx-channel	<a href="#">Gain Info</a>	Audio gain for output channels
mask	Int	Mask, binary summation of selected input channel(s) indices to decimal value. For example, 3 means that the input channels with indexes 0 and 1 are selected.
rx-channels	Array of <a href="#">Gain Info</a>	Audio gain for input channels

### Gain Info

Name	Type	Description
idx	Int	Stream index
mute	Int	0: unmuted 1: muted
gain	Int	Gain

### Channel Info

Name	Type	Description
stream-idx	Int	Stream index
name	String	Stream name
alias	String	Custom name

## 4. Example

Obtaining audio matrix configuration profile.

### Input Example

None

### Output Example

```
{  
  "matrix": [  

```

```
{
  "tx-channel": {
    "idx": 0,
    "mute": 0,
    "gain": 0
  },
  "mask": 4,
  "rx-channels": [
    {
      "idx": 0,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 1,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 2,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 3,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 4,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 5,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 6,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 7,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 8,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 9,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 10,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 11,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 12,
      "mute": 0,
      "gain": 0
    },
  ],
}
```

```

    {
      "idx": 13,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 14,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 15,
      "mute": 0,
      "gain": 0
    }
  ]
},
{
  "tx-channel": {
    "idx": 1,
    "mute": 0,
    "gain": 0
  },
  "mask": 8,
  "rx-channels": [
    {
      "idx": 0,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 1,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 2,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 3,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 4,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 5,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 6,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 7,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 8,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 9,
      "mute": 0,

```

```

    "gain": 0
  },
  {
    "idx": 10,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 11,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 12,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 13,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 14,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 15,
    "mute": 0,
    "gain": 0
  }
]
},
{
  "tx-channel": {
    "idx": 2,
    "mute": 0,
    "gain": 0
  },
  "mask": 4,
  "rx-channels": [
    {
      "idx": 0,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 1,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 2,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 3,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 4,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 5,
      "mute": 0,
      "gain": 0
    }
  ]
}

```

```

        "idx": 6,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 7,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 8,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 9,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 10,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 11,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 12,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 13,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 14,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 15,
        "mute": 0,
        "gain": 0
    }
}
],
},
{
    "tx-channel": {
        "idx": 3,
        "mute": 0,
        "gain": 0
    },
    "mask": 8,
    "rx-channels": [
        {
            "idx": 0,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 1,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 2,
            "mute": 0,
            "gain": 0
        }
    ]
}

```

```

    },
    {
      "idx": 3,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 4,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 5,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 6,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 7,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 8,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 9,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 10,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 11,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 12,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 13,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 14,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 15,
      "mute": 0,
      "gain": 0
    }
  ]
},
{
  "tx-channel": {
    "idx": 4,
    "mute": 0,
    "gain": 0
  }
}

```

```
},
"mask": 16,
"rx-channels": [
  {
    "idx": 0,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 1,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 2,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 3,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 4,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 5,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 6,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 7,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 8,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 9,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 10,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 11,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 12,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 13,
    "mute": 0,
    "gain": 0
  },
  },
```

```

    {
      "idx": 14,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 15,
      "mute": 0,
      "gain": 0
    }
  ]
},
{
  "tx-channel": {
    "idx": 5,
    "mute": 0,
    "gain": 0
  },
  "mask": 32,
  "rx-channels": [
    {
      "idx": 0,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 1,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 2,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 3,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 4,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 5,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 6,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 7,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 8,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 9,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 10,
      "mute": 0,

```

```

    "gain": 0
  },
  {
    "idx": 11,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 12,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 13,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 14,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 15,
    "mute": 0,
    "gain": 0
  }
]
},
{
  "tx-channel": {
    "idx": 6,
    "mute": 0,
    "gain": 0
  },
  "mask": 64,
  "rx-channels": [
    {
      "idx": 0,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 1,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 2,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 3,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 4,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 5,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 6,
      "mute": 0,
      "gain": 0
    }
  ],
  {

```

```

        "idx": 7,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 8,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 9,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 10,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 11,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 12,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 13,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 14,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 15,
        "mute": 0,
        "gain": 0
    }
}
],
},
{
    "tx-channel": {
        "idx": 7,
        "mute": 0,
        "gain": 0
    },
    "mask": 128,
    "rx-channels": [
        {
            "idx": 0,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 1,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 2,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 3,
            "mute": 0,
            "gain": 0
        }
    ]
}

```

```

    },
    {
      "idx": 4,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 5,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 6,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 7,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 8,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 9,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 10,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 11,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 12,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 13,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 14,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 15,
      "mute": 0,
      "gain": 0
    }
  ]
},
{
  "tx-channel": {
    "idx": 8,
    "mute": 0,
    "gain": 0
  },
  "mask": 256,
  "rx-channels": [
    {
      "idx": 0,

```

```
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 1,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 2,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 3,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 4,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 5,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 6,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 7,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 8,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 9,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 10,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 11,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 12,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 13,  
    "mute": 0,  
    "gain": 0  
  },  
  {  
    "idx": 14,  
    "mute": 0,  
    "gain": 0  
  },  
}
```

```

        {
            "idx": 15,
            "mute": 0,
            "gain": 0
        }
    ]
},
{
    "tx-channel": {
        "idx": 9,
        "mute": 0,
        "gain": 0
    },
    "mask": 512,
    "rx-channels": [
        {
            "idx": 0,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 1,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 2,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 3,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 4,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 5,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 6,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 7,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 8,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 9,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 10,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 11,
            "mute": 0,

```

```

    "gain": 0
  },
  {
    "idx": 12,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 13,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 14,
    "mute": 0,
    "gain": 0
  },
  {
    "idx": 15,
    "mute": 0,
    "gain": 0
  }
]
},
{
  "tx-channel": {
    "idx": 10,
    "mute": 0,
    "gain": 0
  },
  "mask": 1024,
  "rx-channels": [
    {
      "idx": 0,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 1,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 2,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 3,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 4,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 5,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 6,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 7,
      "mute": 0,
      "gain": 0
    }
  ]
}

```

```

        "idx": 8,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 9,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 10,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 11,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 12,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 13,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 14,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 15,
        "mute": 0,
        "gain": 0
    }
]
},
{
    "tx-channel": {
        "idx": 11,
        "mute": 0,
        "gain": 0
    },
    "mask": 2048,
    "rx-channels": [
        {
            "idx": 0,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 1,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 2,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 3,
            "mute": 0,
            "gain": 0
        },
        {
            "idx": 4,
            "mute": 0,
            "gain": 0
        }
    ]
}

```

```

    },
    {
      "idx": 5,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 6,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 7,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 8,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 9,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 10,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 11,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 12,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 13,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 14,
      "mute": 0,
      "gain": 0
    },
    {
      "idx": 15,
      "mute": 0,
      "gain": 0
    }
  ]
}
],
"tx-channels": [
  {
    "stream-idx": 0,
    "name": "Stream1",
    "alias": "RX Stream1"
  },
  {
    "stream-idx": 1,
    "name": "Stream2",
    "alias": ""
  },
  {
    "stream-idx": 2,
    "name": "Stream3",

```

```
    "alias": ""
  },
  {
    "stream-idx": 3,
    "name": "Stream4",
    "alias": ""
  },
  {
    "stream-idx": 4,
    "name": "Stream5",
    "alias": ""
  },
  {
    "stream-idx": 5,
    "name": "Stream6",
    "alias": ""
  }
],
"rx-channels": [
  {
    "stream-idx": 0,
    "name": "Dante",
    "alias": ""
  }
],
"status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Modify audio matrix configuration

## 1. API Description

This API is used to set up one or more input channels for audio output channels, etc.

Request mode: POST [ip]/api/matrix/set-audio-matrix

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
matrix	Yes	Array of <a href="#">Matrix Info</a>	-

### Matrix Info

Name	Required	Type	Description
is-use	Yes	Int	Whether to pair input and output channels, 0: no pairing 1: pairing
tx-idx	Yes	Int	Output stream index
rx-idx	Yes	Int	Input stream index

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Adding audio channels with indexes 6 and 7 to the output channel index 4.

### Input Example

```
{
  "matrix": [
    {
      "is-use": 1,
      "tx-idx": 4,
      "rx-idx": 6
    },
    {
      "is-use": 1,
      "tx-idx": 4,
      "rx-idx": 7
    }
  ]
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
--------	------------	-------------



# Obtain volumes of the I/O channels

## 1. API Description

This API is used to obtain volumes of all input and output channels.

Request mode: GET/POST [ip]/api/matrix/audio-meter

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
rx	Array of [Int]	Volumes of all input channels
tx	Array of [Int]	Volumes of all output channels

## 4. Example

Obtaining volumes of all input and output channels.

### Input Example

None

### Output Example

```
{
  "rx": [
    -100,
    -100,
    -83,
    -83,
    -95,
    -95,
    -95,
    -95,
    -83,
    -83,
    -83,
    -83,
    -95,
    -95,
    -95,
    -95
  ],
  "tx": [
    -83,
    -83,
    -83,
    -83,
    -96,
    -95,
    -96,
    -95,
    -84,
    -83,
    -83,
    -83
  ],
}
```

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

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain output dBFs

## 1. API Description

This API is used to obtain the audio dBFs value of the output channel and that of the corresponding input channel, etc.

Request mode: POST [ip]/api/audio/audio-meter-limit

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
tx-idx	Yes	Int	Output stream index

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
tx-channel	<a href="#">Meter Info</a>	Audio dBFs value for output channels
mask	Int	Mask, binary summation of selected input channel(s) indices to decimal value. For example, 3 means that the input channels with indexes 0 and 1 are selected.
rx-channels	Array of <a href="#">Meter Info</a>	List of dBFs values for input channels

### Meter Info

Name	Type	Description
idx	Int	Stream index
vol	Int	dBFs value
max	Int	Max dBFs value
min	Int	Min dBFs value
mute	Int	0: unmuted 1: muted
gain	Int	Gain

## 4. Example

Obtaining the dBFs value for the output stream index = 1.

### Input Example

```
{
  "tx-idx": 1
}
```

### Output Example

```
{
  "tx-channel": {
    "idx": 0,
    "vol": -73,
    "max": 40,
    "min": -100,
    "mute": 0,
    "gain": 0
  },
  "mask": 16,
  "rx-channels": [
```

```
{
  "idx": 0,
  "vol": -100,
  "max": 40,
  "min": -100,
  "mute": 0,
  "gain": 0
},
{
  "idx": 1,
  "vol": -100,
  "max": 40,
  "min": -100,
  "mute": 0,
  "gain": 0
},
{
  "idx": 2,
  "vol": -100,
  "max": 40,
  "min": -100,
  "mute": 0,
  "gain": 0
},
{
  "idx": 3,
  "vol": -100,
  "max": 40,
  "min": -100,
  "mute": 0,
  "gain": 0
},
{
  "idx": 4,
  "vol": -73,
  "max": 40,
  "min": -100,
  "mute": 0,
  "gain": 0
},
{
  "idx": 5,
  "vol": -100,
  "max": 40,
  "min": -100,
  "mute": 0,
  "gain": 0
},
{
  "idx": 6,
  "vol": -100,
  "max": 40,
  "min": -100,
  "mute": 0,
  "gain": 0
},
{
  "idx": 7,
  "vol": -100,
  "max": 40,
  "min": -100,
  "mute": 0,
  "gain": 0
},
{
  "idx": 8,
  "vol": -100,
  "max": 40,
  "min": -100,
  "mute": 0,
  "gain": 0
},
{
```

```

        "idx": 9,
        "vol": -100,
        "max": 40,
        "min": -100,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 10,
        "vol": -100,
        "max": 40,
        "min": -100,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 11,
        "vol": -100,
        "max": 40,
        "min": -100,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 12,
        "vol": -100,
        "max": 40,
        "min": -100,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 13,
        "vol": -100,
        "max": 40,
        "min": -100,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 14,
        "vol": -100,
        "max": 40,
        "min": -100,
        "mute": 0,
        "gain": 0
    },
    {
        "idx": 15,
        "vol": -100,
        "max": 40,
        "min": -100,
        "mute": 0,
        "gain": 0
    }
    ],
    "status": 0
}

```

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Sets output channel volume

## 1. API Description

This API is used to set the output channel volume.

Request mode: POST [ip]/api/matrix/volume-tx

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
tx-channels	Yes	Array of <a href="#">Meter Info</a>	List of output channel volume information

### Meter Info

Name	Required	Type	Description
idx	Int	Yes	Stream index
mute	Int	Yes	0: unmuted 1: muted
gain	Int	Yes	Gain

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Setting the volume for output stream indexes 4 and 5.

### Input Example

```
{
  "tx-channels": [
    {
      "idx": 4,
      "mute": 0,
      "gain": 1
    },
    {
      "idx": 5,
      "mute": 0,
      "gain": 1
    }
  ]
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Set volume for input channel

## 1. API Description

This API is used to set the volume of the input channel(s) corresponding to the output channel.

Request mode: POST [ip]/api/matrix/volume-mix

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
tx-idx	Yes	Int	Output stream index
rx-channels	Yes	Array of <a href="#">Meter Info</a>	List of input channel volume info

### Meter Info

Name	Required	Type	Description
idx	Int	Yes	Stream index
mute	Int	Yes	0: unmuted 1: muted
gain	Int	Yes	Gain

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Setting the volume for output stream index 4 corresponding to input stream index 5.

### Input Example

```
{
  "tx-idx": 4,
  "rx-channels": [
    {
      "idx": 5,
      "mute": 0,
      "gain": 10
    }
  ]
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Video matrix basic info

## 1. API Description

This API is used to obtain the number of video input and output channels and the corresponding channel information, etc.

Request mode: GET/POST [ip]/api/matrix/io-desc

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
max-tx-channels	Int	Maximum number of output channels supported
tx	Array of <a href="#">Channel Info</a>	List of output channel information
max-rx-channels	Int	Maximum number of input channels supported
rx	Array of <a href="#">Channel Info</a>	List of input channel information

### Channel Info

Name	Type	Description
name	String	Channel name
type	Int	Channel type. Input channel: 0 - streaming input; 1 - HDMI input Output channel: 0 - Streaming output; 1 - HDMI output; 2 - USB output
idx	Int	Channel index
show	Boolean	Whether to show channels

## 4. Example

Obtaining the number of video in and out channels and the corresponding channel information, etc.

### Input Example

None

### Output Example

```
{
  "max-tx-channels": 12,
  "tx": [
    {
      "name": "HDMI1",
      "type": 1,
      "idx": 0,
      "show": true
    },
    {
      "name": "HDMI2",
      "type": 1,
      "idx": 1,
      "show": true
    },
    {
      "name": "Stream1",
      "type": 0,

```

```

    "idx": 0,
    "show": true
  },
  {
    "name": "Stream2",
    "type": 0,
    "idx": 1,
    "show": true
  },
  {
    "name": "Stream3",
    "type": 0,
    "idx": 2,
    "show": true
  },
  {
    "name": "Stream4",
    "type": 0,
    "idx": 3,
    "show": true
  },
  {
    "name": "Stream5",
    "type": 0,
    "idx": 4,
    "show": true
  },
  {
    "name": "Stream6",
    "type": 0,
    "idx": 5,
    "show": true
  },
  {
    "name": "Channel1",
    "type": 2,
    "idx": 0,
    "show": true
  },
  {
    "name": "Channel2",
    "type": 2,
    "idx": 1,
    "show": true
  },
  {
    "name": "Channel3",
    "type": 2,
    "idx": 2,
    "show": true
  },
  {
    "name": "Channel4",
    "type": 2,
    "idx": 3,
    "show": true
  }
],
"max-rx-channels": 10,
"rx": [
  {
    "name": "HDMI1",
    "type": 1,
    "idx": 0,
    "show": true
  },
  {
    "name": "HDMI2",
    "type": 1,
    "idx": 1,
    "show": true
  },
  {

```

```

    "name": "HDMI3",
    "type": 1,
    "idx": 2,
    "show": true
  },
  {
    "name": "Stream1",
    "type": 0,
    "idx": 0,
    "show": true
  },
  {
    "name": "Stream2",
    "type": 0,
    "idx": 1,
    "show": true
  },
  {
    "name": "Stream3",
    "type": 0,
    "idx": 2,
    "show": true
  },
  {
    "name": "Stream4",
    "type": 0,
    "idx": 3,
    "show": true
  },
  {
    "name": "Stream5",
    "type": 0,
    "idx": 4,
    "show": true
  },
  {
    "name": "Stream6",
    "type": 0,
    "idx": 5,
    "show": true
  },
  {
    "name": "Annotation",
    "type": 0,
    "idx": 6,
    "show": true
  }
],
"status": 0
}

```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain the video matrix profile

## 1. API Description

This API is used to obtain the video matrix profile.

Request mode: GET/POST [ip]/api/matrix/io-matrix

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
matrix	Array of <a href="#">Matrix Info</a>	Matrix info
tx-channels	Array of <a href="#">Channel Info</a>	Output channel info
rx-channels	Array of <a href="#">Channel Info</a>	Input channel info

### Matrix Info

Name	Type	Description
is-use	Int	Whether the output and input channels are paired, 0: not paired 1: paired
rx-type	Int	Input channel type
rx-idx	Int	Input channel index
tx-type	Int	Output channel type
tx-idx	Int	Output channel index

### Channe Info

Name	Type	Description
type	Int	Channel type
idx	String	Channel index
name	String	Channel name
alias	String	Channel alias

## 4. Example

Obtaining the the video matrix profile.

### Input Example

None

### Output Example

```
{
  "matrix": [
    {
      "is-use": 1,
      "rx-type": 1,
      "rx-idx": 0,
      "tx-type": 1,
      "tx-idx": 0
    }
  ]
}
```

```
},
{
  "is-use": 1,
  "rx-type": 1,
  "rx-idx": 1,
  "tx-type": 1,
  "tx-idx": 1
},
{
  "is-use": 1,
  "rx-type": 0,
  "rx-idx": 0,
  "tx-type": 0,
  "tx-idx": 0
},
{
  "is-use": 1,
  "rx-type": 0,
  "rx-idx": 1,
  "tx-type": 0,
  "tx-idx": 1
},
{
  "is-use": 1,
  "rx-type": 0,
  "rx-idx": 2,
  "tx-type": 0,
  "tx-idx": 2
},
{
  "is-use": 1,
  "rx-type": 0,
  "rx-idx": 3,
  "tx-type": 0,
  "tx-idx": 3
},
{
  "is-use": 1,
  "rx-type": 0,
  "rx-idx": 4,
  "tx-type": 0,
  "tx-idx": 4
},
{
  "is-use": 1,
  "rx-type": 0,
  "rx-idx": 5,
  "tx-type": 0,
  "tx-idx": 5
},
{
  "is-use": 1,
  "rx-type": 0,
  "rx-idx": 6,
  "tx-type": 2,
  "tx-idx": 0
},
{
  "is-use": 1,
  "rx-type": 1,
  "rx-idx": 2,
  "tx-type": 2,
  "tx-idx": 1
},
{
  "is-use": 1,
  "rx-type": 0,
  "rx-idx": 0,
  "tx-type": 2,
  "tx-idx": 2
},
{
  "is-use": 1,
```

```

        "rx-type": 0,
        "rx-idx": 1,
        "tx-type": 2,
        "tx-idx": 3
    }
],
"tx-channels": [
    {
        "type": 1,
        "idx": 0,
        "name": "HDMI1",
        "alias": "HDMI1"
    },
    {
        "type": 1,
        "idx": 1,
        "name": "HDMI2",
        "alias": "HDMI2"
    },
    {
        "type": 0,
        "idx": 0,
        "name": "Stream1",
        "alias": "NDI"
    },
    {
        "type": 0,
        "idx": 1,
        "name": "Stream2",
        "alias": "NDI2"
    },
    {
        "type": 0,
        "idx": 2,
        "name": "Stream3",
        "alias": "NDI3"
    },
    {
        "type": 0,
        "idx": 3,
        "name": "Stream4",
        "alias": "NDI4"
    },
    {
        "type": 0,
        "idx": 4,
        "name": "Stream5",
        "alias": "NDI5"
    },
    {
        "type": 0,
        "idx": 5,
        "name": "Stream6",
        "alias": "NDI6"
    },
    {
        "type": 2,
        "idx": 0,
        "name": "Channel1",
        "alias": "Hybrid NDI Matrix 0"
    },
    {
        "type": 2,
        "idx": 1,
        "name": "Channel2",
        "alias": "Hybrid NDI Matrix 1"
    },
    {
        "type": 2,
        "idx": 2,
        "name": "Channel3",
        "alias": "Hybrid NDI Matrix 2"
    },
    },

```

```

    {
      "type": 2,
      "idx": 3,
      "name": "Channel4",
      "alias": "Hybrid NDI Matrix 3"
    }
  ],
  "rx-channels": [
    {
      "type": 1,
      "idx": 0,
      "name": "HDMI1",
      "alias": "HDMI1"
    },
    {
      "type": 1,
      "idx": 1,
      "name": "HDMI2",
      "alias": "HDMI2"
    },
    {
      "type": 1,
      "idx": 2,
      "name": "HDMI3",
      "alias": "HDMI3"
    },
    {
      "type": 0,
      "idx": 0,
      "name": "Stream1",
      "alias": "CAM1"
    },
    {
      "type": 0,
      "idx": 1,
      "name": "Stream2",
      "alias": "CAM2"
    },
    {
      "type": 0,
      "idx": 2,
      "name": "Stream3",
      "alias": "CAM3"
    },
    {
      "type": 0,
      "idx": 3,
      "name": "Stream4",
      "alias": "CAM4"
    },
    {
      "type": 0,
      "idx": 4,
      "name": "Stream5",
      "alias": "CAM5"
    },
    {
      "type": 0,
      "idx": 5,
      "name": "Stream6",
      "alias": "CAM6"
    },
    {
      "type": 0,
      "idx": 6,
      "name": "Annotation",
      "alias": "Ananotation"
    }
  ],
  "status": 0
}

```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Modify the video matrix settings

## 1. API Description

This API is used to set input channels for video output channels, etc.

Request mode: POST [ip]/api/matrix/set-io-matrix

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
matrix	Yes	Array of <a href="#">Matrix Info</a>	Matrix info

### Matrix Info

Name	Required	Type	Description
is-use	Yes	Int	Whether to pair the output with the input channel 0: no paired 1: paired
rx-type	Yes	Int	Input channel type
rx-idx	Yes	Int	Input channel index
tx-type	Yes	Int	Output channel type
tx-idx	Yes	Int	Output channel index

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Connecting output channel (USB Channel1) to the input channel (HDMI3).

### Input Example

```
{
  "matrix": [
    {
      "is-use": 1,
      "rx-type": 1,
      "rx-idx": 2,
      "tx-type": 2,
      "tx-idx": 0
    }
  ]
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
--------	------------	-------------



# Basic info of recordings

## 1. API Description

This API is used to obtain basic information of recorded files.

Request mode: GET/POST [ip]/api/record/desc

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
mode	Array of <a href="#">Mode Info</a>	Recording modes
file-prefix	Array of <a href="#">File Prefix Info</a>	Recorded file name prefix type
file-suffix	Array of <a href="#">File Suffix Info</a>	Recorded video format
time-unit	Array of <a href="#">Time Unit Info</a>	Recording unit in minutes. A vfat file should not exceed 4GB.

### Mode Info

Name	Type	Description
name	String	Name
value	Int	Recording modes 0: Normal recording 1: Loop recording

### File Prefix Info

Name	Type	Description
name	String	Name
value	Int	Recorded file name prefix type, 0: customized 1: named after file creation time

### File Suffix Info

Name	Type	Description
name	String	Name
value	Int	Recorded video format 0: mp4 1: mov 2: ts

### Time Unit Info

Name	Type	Description
name	String	Name
value	Int	Recording unit in minutes. Value 0 is only valid if the video format is ts.

## 4. Example

Obtaining basic information about recording.

### Input Example

None

### Output Example

```
{
  "mode": [
    {
      "name": "Ordinary recording",
      "value": 0
    },
    {
      "name": "Loop recording",
      "value": 1
    }
  ],
  "file-prefix": [
    {
      "name": "Custom prefix",
      "value": 0
    },
    {
      "name": "Creation time",
      "value": 1
    }
  ],
  "file-suffix": [
    {
      "name": "mp4",
      "value": 0
    },
    {
      "name": "mov",
      "value": 1
    },
    {
      "name": "ts",
      "value": 2
    }
  ],
  "time-unit": [
    {
      "name": "5 minutes",
      "value": 5
    },
    {
      "name": "10 minutes",
      "value": 10
    },
    {
      "name": "30 minutes",
      "value": 30
    },
    {
      "name": "60 minutes",
      "value": 60
    },
    {
      "name": "90 minutes",
      "value": 90
    },
    {
      "name": "120 minutes",
      "value": 120
    },
    {
      "name": "180 minutes",
      "value": 180
    },
    {
      "name": "240 minutes",
      "value": 240
    }
  ],
}
```

```
{
  {
    "name": "No time limit",
    "value": 0
  }
],
"status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Disk status

## 1. API Description

This API is used to obtain basic disk information, including disk formatting and performance testing process status.

Request mode: GET/POST [ip]/api/record/disk-status

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
info	Array of <a href="#">Disk Info</a>	Basic disk information
format	<a href="#">Disk Format Status</a>	Disk formatting process status
test	<a href="#">Disk Test Status</a>	Disk performance test process status

### Disk Info

Name	Type	Description
disk-status	Int	Disk Status 0: Disk not detected 1: Disk is valid 3: Disk space is full 4: Disk has no write permission 5: The remaining space on the disk is insufficient, and the remaining recording time is less than 10 minutes. 6: The disk is invalid
disk-type	Int	Disk type 0: USB flash drive 1: Local storage
total-size	Int64	Total disk space in bytes
used-size	Int64	Used disk space in bytes
free-size	Int64	Remaining disk space in bytes
resv-size	Int64	Reserved disk space in bytes
block-size	Int	Block size in bytes
usage	Int	Disk usage
sys-path	String	Disk System Path
mouth-path	String	Disk mounting path
fs-type	String	File system format
fs-label	String	File system label
write-bps	Int	Disk write speed, in bps
read-bps	Int	Disk read speed, in bps
free-sec	Int	Remaining recording time, in seconds
file-count	Int	Number of recorded files
begin-time	String	The time when the first file starts recording
end-time	String	The time when the last file stop recording
total-cache-time	Int	Total recording time, in seconds

### Disk Format Status

Name	Type	Description
------	------	-------------

state	Int	Status refers to <a href="#">Common Error Codes</a>
disk-type	Int	Disk type 0: USB flash drive 1: Local storage
percent	Int	Percentage ranging from 0 to 100.

#### Disk Test Status

Name	Type	Description
state	Int	Status refers to <a href="#">Common Error Codes</a>
disk-type	Int	Disk type 0: USB flash drive 1: Local storage
write-bps	Int	Disk write speed, in bps
read-bps	Int	Disk write speed, in bps
percent	Int	Percentage ranging from 0 to 100.

## 4. Example

Obtaining basic disk information, including disk formatting and performance test status.

#### Input Example

None

#### Output Example

```
{
  "info": [
    {
      "disk-status": 0,
      "disk-type": 0,
      "total-size": 0,
      "used-size": 0,
      "free-size": 0,
      "resv-size": 0,
      "block-size": 0,
      "usage": 0,
      "sys-path": "",
      "fs-type": "",
      "mount-path": "",
      "fs-label": "",
      "write-bps": 0,
      "read-bps": 0,
      "free-sec": 0,
      "file-count": 0,
      "beign-time": "",
      "end-time": "",
      "total-cache-time": 0
    },
    {
      "disk-status": 1,
      "disk-type": 1,
      "total-size": 1000171241472,
      "used-size": 319386943488,
      "free-size": 679710556160,
      "resv-size": 1073741824,
      "block-size": 131072,
      "usage": 31,
      "sys-path": "/dev/nvme0n1p1",
      "fs-type": "exfat",
      "mount-path": "/usr/share/web-ui-convert/media/disk0",
      "fs-label": "android",
      "write-bps": 72019484,
      "read-bps": 0,
      "free-sec": 638249,
      "file-count": 68,
      "beign-time": "2024-09-25 14:13:32",

```

```
        "end-time": "2024-09-27 09:13:13",
        "total-cache-time": 939163
    }
],
"format": {
    "state": 1000,
    "disk-type": 0,
    "percent": 0
},
"test": {
    "state": 1000,
    "disk-type": 0,
    "write-bps": 0,
    "read-bps": 0,
    "percent": 0
},
"status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Format a disk

## 1. API Description

This API is used to format a disk. And the data can not be recovered after formatting.

Request mode: POST [ip]/api/record/disk-format

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
disk-type	Yes	Int	Disk type 0: USB flash drive 1: Local storage

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Formatting a USB flash drive, and get the status of the disk formatting process through the [disk-status.md] interface.

### Input Example

```
{  
  "disk-type": 0  
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
11	MW_STATUS_DEVICE_BUSY	Device is busy, recording or performance testing, etc.
12	MW_STATUS_DEVICE_LOST	Disk invalid or not detected
43	MW_STATUS_IN_PROGRESS	Formatting

# Start disk performance test

## 1. API Description

This API is used to test the read and write performance of a disk to determine if it meets the requirements. The test can be canceled by calling the [stop disk test](#) interface.

Request mode: POST [ip]/api/record/disk-test-start

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
disk-type	Yes	Int	Disk type 0: USB flash drive 1: Local storage

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

To perform a performance test on a USB flash disk, you can get the status of the disk performance test process through the [disk-status](#) interface.

### Input Example

```
{
  "disk-type": 0
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
11	MW_STATUS_DEVICE_BUSY	Device is busy, recording or formatting, etc.
12	MW_STATUS_DEVICE_LOST	Disk not detected or invalid
29	MW_STATUS_NO_SPACE	Insufficient space left on disk, need more than 200MB of space left
35	MW_STATUS_NOT_INITIALIED	Failed to initialize Disk Performance Test Module
43	MW_STATUS_IN_PROGRESS	The disk performance test is in progress

# Stop disk performance test

## 1. API Description

This API is used to stop disk performance test and you can call the [start disk performance test](#) to start it.

Request mode: POST [ip]/api/record/disk-test-stop

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
disk-type	Yes	Int	Disk type 0: USB flash drive 1: Local storage

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Cancelling the USB flash drive performance test.

### Input Example

```
{  
  "disk-type": 0  
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Obtain media files

## 1. API Description

This API is used to obtain media files recorded and screenshots in disk.

Request mode: GET/POST [ip]/api/record/get-media-files

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
disk-type	Yes	Int	Disk type 0: USB flash drive 1: Local storage
start	Yes	Int	Index starting with zero
count	Yes	Int	Obtain the number of media files

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
download-path	String	Download path for media files
total-count	Int	Total number of media files
start	Int	Index starting with zero
count	Int	Obtain the number of media files
media-files	Array of <a href="#">Media File</a>	Media file details

### Media File

Name	Type	Description
name	String	File name
status	Int	File status 0: recording 1: normal 2: corrupt 3: not existed
create-time	String	File creation time
size-bytes	Int64	File size
duration	Int	File length
width	Int	Image width
height	Int	Image length
interval	Int	Image encoding interval
codec	Int	Image formats, including: H.264, HEVC, JPEG, etc.
send-status	Int	File upload status, refers to <a href="#">public error code</a>
send-add-time	String	Time to add to the upload list
send-last-time	String	Last upload time
expt-status	Int	File export status refers to <a href="#">Common Error Codes</a>
expt-add-time	String	Time to add to the export list
expt-last-time	String	Last export time

## 4. Example

Obtaining the 16 media files starting from index 0 from the USB flash disk.

### Input Example

```
{
  "disk-type": 0,
  "start": 0,
  "count": 16
}
```

### Output Example

```
{
  "path": "media/disk0/REC_Folder",
  "download-path": "media/disk0/REC_Folder",
  "total-count": 68,
  "start": 0,
  "count": 16,
  "media-files": [
    {
      "name": "VID_8_29.mp4",
      "status": 1,
      "create-time": "2024-09-27 08:44:43",
      "size-bytes": 1798438912,
      "duration": 1710954,
      "width": 1920,
      "height": 1080,
      "interval": 166667,
      "codec": "H264",
      "send-status": 1000,
      "send-add-time": "1970-01-01 08:00:00",
      "send-last-time": "1970-01-01 08:00:00",
      "expt-status": 1000,
      "expt-add-time": "1970-01-01 08:00:00",
      "expt-last-time": "1970-01-01 08:00:00"
    },
    ...
  ],
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Delete media files

## 1. API Description

This API is used to delete recorded files and screenshots from a specified disk.

Request mode: GET/POST [ip]/api/record/del-media-files

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
disk-type	Yes	Int	Disk type 0: USB flash drive 1: Local storage
media-files	Yes	Array of [String]	List of media file names

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Deleting the VID\_8\_29.mp4 file from the USB flash drive.

### Input Example

```
{
  "disk-type": 0,
  "media-files": ["VID_8_29.mp4"]
}
```

### Output Example

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

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain recording channel profile

## 1. API Description

This API is used to obtain recording channel profile.

Request mode: GET/POST [ip]/api/record/channel-info

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
record	Array of <a href="#">Record Config</a>	Recording channel profile

### Record Config

Name	Type	Description
disk-type	Int	Disk type 0: USB flash drive 1: Local storage
mode	Int	Recording modes, 0: Normal recording 1: Loop recording
file-prefix	Int	Recording file name prefix type, 0: customized 1: named after file creation time
prefix-name	Sting	Recording file name prefix, the default value is VID, character requirement: consist of A-Z, a-z, 0-9, space . _-+', and cannot start or end with a space.
file-suffix	Int	Recording Video Format 0: mp4 1: mov 2: ts
time-unit	Int	Recording unit in minutes.

## 4. Example

Obtaining recording channel profile.

### Input Example

None

### Output Example

```
{
  "record": [
    {
      "disk-type": 0,
      "is-use": 0,
      "mode": 0,
      "file-prefix": 0,
      "prefix-name": "VID",
      "file-suffix": 0,
      "time-unit": 30
    },
    {
      "disk-type": 1,
```

```
        "is-use": 0,  
        "mode": 0,  
        "file-prefix": 0,  
        "prefix-name": "VID",  
        "file-suffix": 0,  
        "time-unit": 30  
    }  
],  
"status": 0  
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Modify recording channel profile

## 1. API Description

This API is used to modify recording channel profile.

Request mode: POST [ip]/api/record/channel-set

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
disk-type	Yes	Int	Disk type, 0: USB flash drive 1: Local storage
mode	No	Int	Recording modes 0: Normal recording 1: Loop recording
file-prefix	No	Int	Recording file name prefix type 0: customized 1: named after file creation time
prefix-name	No	String	Record file name prefix, default value is VID, character requirement: consist of A-Z, a-z, 0-9, space . _-+', and cannot start or end with a space.
file-suffix	No	Int	Recording video formats. 0: mp4 1: mov 2: ts
time-unit	No	Int	Recording unit in minutes. Obtain the value range using the <a href="#">Recording Basic Information</a> interface.

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Modifying the local memory recording mode to loop recording.

### Input Example

```
{
  "disk-type": 1,
  "mode": 1
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Start or stop recording

## 1. API Description

This API is used to start or stop recording.

Request mode: POST [ip]/api/record/channel-enable

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
is-use	Yes	Int	Whether to enable recording, 1: enable 0: disable

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Starting recording.

### Input Example

```
{  
  "is-use": 1  
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
11	MW_STATUS_DEVICE_BUSY	Device is busy, being formatted or being performance tested, etc.
12	MW_STATUS_DEVICE_LOST	No disk detected or invalid disk
29	MW_STATUS_NO_SPACE	Disk full
31	MW_STATUS_NOT_PERMITTED	No write access to the disk
43	MW_STATUS_IN_PROGRESS	Recording
51	MW_STATUS_NO_BUFFER	Annotation stream not available

# Recording status

## 1. API Description

This API is used to obtain the recording process status.

Request mode: GET/POST [ip]/api/record/channel-status

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
reocrd	Array of <a href="#">Record Status</a>	Recording status

### Record Status

Name	Type	Description
state	Int	Recording state refers to <a href="#">Common Error Codes</a>
disk-type	Int	Disk type 0: USB flash drive 1: Local storage
run-ms	Int	Run time in milliseconds
uptime-ms	Int	Reserved
size-bytes	Int	File size

## 4. Example

Obtaining the status of the memory storage recording process.

### Input Example

None

### Output Example

```
{
  "record": [
    {
      "state": 1001,
      "disk-type": 1,
      "run-ms": 181214,
      "uptime-ms": 0,
      "size-bytes": 180021280
    }
  ],
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Take screenshots

## 1. API Description

This API is used to take screenshots.

Request mode: POST [ip]/api/record/do-snapshot

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Taking screenshots.

### Input Example

None

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
11	MW_STATUS_DEVICE_BUSY	The device is busy, being formatted or under performance test, etc.
12	MW_STATUS_DEVICE_LOST	Disk invalid or not detected
29	MW_STATUS_NO_SPACE	Disk space is full
31	MW_STATUS_NOT_PERMITTED	Disk no write access

# Basic information for file upload

## 1. API Description

This API is used to obtain basic information for file upload.

Request mode: GET/POST [ip]/api/upload/desc

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
type	Array of <a href="#">Server Type</a>	Server type
ftp	<a href="#">FTP Info</a>	FTP service information

### Server Type

Name	Type	Description
name	String	Name
value	Int	Server types 0: FTP

### FTP Info

Name	Type	Description
protocol	Array of <a href="#">FTP Protocol</a>	Protocol type
encryption	Array of <a href="#">FTP Encryption</a>	Encryption type
transfer-mode	Array of <a href="#">FTP Transfer Mode</a>	Transfer mode

### FTP Protocol

Name	Type	Description
name	String	Name
value	Int	Protocol type 0: FTP 1: SFTP

### FTP Encryption

Name	Type	Description
name	String	Name
value	Int	Encryption type 0: Use explicit FTP only 1: Require explicit FTP over TLS 2: Require implicit FTP over TLS

### Server Type

Name	Type	Description
name	String	Name
value	Int	Transmission mode, 0: Active 1: Passive

## 4. Example

Obtaining basic information about file upload.

### Input Example

None

### Output Example

```
{
  "type": [
    {
      "name": "FTP Server",
      "value": 0
    }
  ],
  "ftp": {
    "protocol": [
      {
        "name": "FTP - File Transfer Protocol",
        "value": 0
      },
      {
        "name": "SFTP - SSH File Transfer Protocol",
        "value": 1
      }
    ],
    "encryption": [
      {
        "name": "Only use plain FTP (insecure)",
        "value": 0
      },
      {
        "name": "Require explicit FTP over TLS",
        "value": 1
      },
      {
        "name": "Require implicit FTP over TLS",
        "value": 2
      }
    ],
    "transfer-mode": [
      {
        "name": "Active",
        "value": 0
      },
      {
        "name": "Passive",
        "value": 1
      }
    ]
  },
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain file upload profile

## 1. API Description

This API is used to obtain file upload profile.

Request mode: GET/POST [ip]/api/upload/server-info

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
is-auto-add-file	Int	Whether or not the recording is automatically added to the file upload list. 0: Not 1: Yes
send-file	<a href="#">Send File</a>	File upload profile

### Send File

Name	Type	Description
type	Int	Server type 0: FTP
ftp	<a href="#">FTP Server</a>	FTP server profile

### FTP Server

Name	Required	Type	Description
proto	No	Int	Protocol Type 0: FTP 1: SFTP
url	No	String	Server address
port	No	Int	Server port
dir-name	No	String	Directory name
encryption	No	Int	Encryption type. 0: Use plaintext FTP only; 1: Requires explicit FTP over TLS; 2: Requires implicit FTP over TLS
login-type	No	Int	Login Type, 0: Anonymous 1: Normal
user-name	No	String	User name
passwd	No	String	Password
mode	No	Int	Transmission mode, 0: Active 1: Passive

## 4. Example

Obtaining file upload profile.

### Input Example

None
------

### Output Example

```
{
  "is-auto-add-file": 0,
  "send-file": {
    "type": 0,
    "ftp": {
      "proto": 0,
      "url": "",
      "port": 21,
      "dir-name": "",
      "encryption": 0,
      "login-type": 0,
      "user-name": "",
      "passwd": "",
      "mode": 0
    }
  },
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Modify file upload server profile

## 1. API Description

This API is used to modify file upload server profile.

Request mode: POST [ip]/api/upload/server-set

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
type	Yes	Int	Server type 0: FTP
ftp	Yes	<a href="#">FTP Server</a>	FTP service configuration information

### FTP Server

Name	Required	Type	Description
proto	No	Int	Protocol Type 0: FTP 1: SFTP
url	No	String	Server address
port	No	Int	Server port
dir-name	No	String	Directory name
encryption	No	Int	Encryption type. 0: Use plaintext FTP only; 1: Requires explicit FTP over TLS; 2: Requires implicit FTP over TLS
login-type	No	Int	Login Type, 0: Anonymous 1: Normal
user-name	No	String	User name
passwd	No	String	Password
mode	No	Int	Transmission mode, 0: Active 1: Passive

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Modifying file upload server profile.

### Input Example

```
{
  "type": 0,
  "ftp": {
    "proto": 0,
    "url": "10.10.9.122",
    "port": 2021,
    "dir-name": "",
    "encryption": 1,
    "login-type": 1,
    "user-name": "abc",
    "passwd": "abc",
    "mode": 0
  }
}
```

```
}  
}
```

#### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
21	MW_STATUS_FORMAT_ERROR	Directory name not valid

# File upload status

## 1. API Description

This API is used to obtain the file upload status.

Request mode: GET/POST [ip]/api/upload/server-status

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
send-file	Array of <a href="#">Server Status</a>	File upload status
send-file-test	Array of <a href="#">Server Test Status</a>	Test status of file uploading

### Server Status

Name	Type	Description
state	Int	Status refers to <a href="#">Common Error Codes</a>
message	String	Error message
disk-type	Int	Disk type 0: USB flash drive 1: Local storage
name	String	File Name
left-time	Int	Estimated remaining upload time
size-bytes	Int	Uploaded file size
speed	Int	Upload speed in bps
percet	Int	Percentage

### Server Test Status

Name	Type	Description
state	Int	Status refers to <a href="#">Common Error Codes</a>
client-id	String	Client ID

## 4. Example

Obtaining the upload status of file VIDDD\_1.jpg.

### Input Example

None

### Output Example

```
{
  "send-file": {
    "state": 44,
    "message": "Error(7)",
    "disk-type": 1,
    "name": "VIDDD_1.jpg",
    "size-bytes": 0,
    "left-time": 0,
```

```
    "speed": 0,  
    "percent": 0  
  },  
  "send-file-test": {  
    "state": 1000,  
    "client-id": ""  
  },  
  "status": 0  
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Start file upload server test

## 1. API Description

This API is used to test the file upload to the specified server, and the test process can be called [stop file upload server test](#) interface to cancel.

Request mode: POST [ip]/api/upload/server-test-start

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
type	Yes	Int	Server type, 0: FTP
ftp	Yes	<a href="#">FTP Server</a>	FTP service profile
client-id	Yes	String	Client ID

### FTP Server

Name	Required	Type	Description
proto	No	Int	Protocol Type 0: FTP 1: SFTP
url	No	String	Server address
port	No	Int	Server port
dir-name	No	String	Directory name
encryption	No	Int	Encryption type 0: Plaintext FTP only 1: Requires explicit FTP over TLS 2: Requires implicit FTP over TLS
login-type	No	Int	Login Type, 0: Anonymous 1: Normal
user-name	No	String	User name
passwd	No	String	Password
mode	No	Int	Transmission mode 0: Active 1: Passive

## 3. Output Parameters

Name	Type	Description
status	Int	Status

## 4. Example

Performing a file upload server test, and get the file upload test status using the [file-upload-status](#) interface.

### Input Example

```
{
  "type": 0,
  "ftp": {
    "proto": 0,
    "url": "10.10.9.122",
    "port": 2021,
    "dir-name": "",
    "encryption": 1,
    "login-type": 1,
    "user-name": "abc",
```

```
    "passwd": "abc",
    "mode": 0
  },
  "client-id": "cli-229900"
}
```

#### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
43	MW_STATUS_IN_PROGRESS	File upload test in progress

# Stop file upload server test

## 1. API Description

This API is used to cancel the test using [Start file upload server test](#) interface.

Request mode: POST [ip]/api/upload/server-test-stop

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status

## 4. Example

Cancelling the file upload server test.

### Input Example

None

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Automatically add files to the upload list

## 1. API Description

This API is used to whether to automatically add files recorded in the built-in storage to the file upload list, the default way is by manual.

Request mode: POST [ip]/api/upload/set-auto-add-file

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
is-auto	Yes	Int	Whether to automatically add files to the upload list. 1: Automatically 0: Manually

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Automatically adding files recorded on the built-in storage to the file upload list.

### Input Example

```
{  
  "is-auto": 1  
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Add files to the upload list

## 1. API Description

This API is used to add recorded files and screenshots in the built-in storage to the upload list.

Request mode: POST [ip]/api/upload/add-files

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
media-files	Yes	Array of [String]	List of media file names

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Adding the VID\_8\_29.mp4 to the upload list.

### Input Example

```
{
  "media-files": ["VID_8_29.mp4"]
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
29	MW_STATUS_NO_SPACE	The upload list is full

# Delete files from the upload list

## 1. API Description

This API is used to delete files from the upload list.

Request mode: POST [ip]/api/upload/del-files

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
media-files	Yes	Array of [String]	List of media file names

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Deleting the VID\_8\_29.mp4 from the upload list.

### Input Example

```
{
  "media-files": ["VID_8_29.mp4"]
}
```

### Output Example

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

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain the upload list

## 1. API Description

This API is used to obtain the files in the upload list.

Request mode: GET/POST [ip]/api/upload/get-files

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
start	Yes	Int	Index starting with zero
count	Yes	Int	Obtain the number of media files

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
total-count-ongoing	Int	Total number of files to be uploaded
total-count-done	Int	Total number of files uploaded
start	Int	Index starting with zero
count	Int	Obtain the number of media files
media-files	Array of <a href="#">Media File</a>	Media file details

### Media File

Name	Type	Description
name	String	File name
status	Int	File Status 0: Recording 1: File normal 2: File corrupted 3: File not exist
create-time	String	File creation time
size-bytes	Int64	File size
duration	Int	File length
width	Int	Image width
height	Int	Image length
interval	Int	Frame
codec	Int	Codec including H.264, HEVC and JPEG
send-status	Int	File upload status, refers to <a href="#">public error code</a>
send-add-time	String	Time added to upload list
send-last-time	String	The last time an upload was made
expt-status	Int	File export status refers to <a href="#">Common Error Codes</a>
expt-add-time	String	Time added to the export list
expt-last-time	String	The last time an export was made

## 4. Example

Obtaining the files starting from 0 in the file upload list.

### Input Example

```
{
  "start": 0,
  "count": 16
}
```

#### Output Example

```
{
  "total-count-ongoing": 1,
  "total-count-done": 0,
  "start": 0,
  "count": 1,
  "media-files": [
    {
      "name": "VIDD_1.jpg",
      "status": 1,
      "create-time": "2024-09-23 14:28:11",
      "size-bytes": 297314,
      "duration": 0,
      "width": 1920,
      "height": 1080,
      "interval": 166666,
      "codec": "JPEG",
      "send-status": 44,
      "send-add-time": "2024-09-29 15:12:01",
      "send-last-time": "2024-09-29 15:47:13",
      "expt-status": 3,
      "expt-add-time": "2024-09-23 14:28:11",
      "expt-last-time": "2024-09-23 14:28:11"
    },
    ...
  ],
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# File export status

## 1. API Description

This API is used to obtain the file export status.

Request mode: GET/POST [ip]/api/export/status

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
is-auto-add-file	Int	Whether or not the recording is automatically added to the file export list after recording, 0: not added 1: added
export-file	Array of <a href="#">Export Status</a>	File export status

### Export Status

Name	Type	Description
state	Int	State, refers to <a href="#">Common Error Codes</a>
name	String	File name
left-time	Int	Estimated remaining time for export
size-bytes	Int	Exported file size
speed	Int	Export rate in bps
percent	Int	percentage

## 4. Example

Getting the file export status.

### Input Example

None

### Output Example

```
{
  "is-auto-add-file": 0,
  "export-file": {
    "state": 1000,
    "name": "",
    "size-bytes": 0,
    "left-time": 0,
    "speed": 0,
    "percent": 0
  },
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Automatically add files to export list

## 1. API Description

This API is used to set whether to automatically add files recorded in the built-in storage to the file export list, the default value is to add them manually.

Request mode: POST [ip]/api/export/set-auto-add-file

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
is-auto	Yes	Int	Whether to automatically add files to the export list, 1: Automatically 0: Manually

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Automatically adding files recorded on the built-in storage to the file export list.

### Input Example

```
{  
  "is-auto": 1  
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect

# Add files to export list

## 1. API Description

This API is used to add recorded files and screenshots from built-in storage to export list.

Request mode: POST [ip]/api/export/add-files

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
media-files	Yes	Array of [String]	List of media file names

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Adding the VID\_8\_29.mp4 file to the export list.

### Input Example

```
{
  "media-files": ["VID_8_29.mp4"]
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
29	MW_STATUS_NO_SPACE	File export list is full

# Delete files from export list

## 1. API Description

This API is used to delete files from export list.

Request mode: POST [ip]/api/export/del-files

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
media-files	Yes	Array of [String]	List of media file names

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Deleting the VID\_8\_29.mp4 file from the export list.

### Input Example

```
{
  "media-files": ["VID_8_29.mp4"]
}
```

### Output Example

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

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain files included in export list

## 1. API Description

This API is used to obtain files included in export list.

Request mode: GET/POST [ip]/api/export/get-files

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
start	Yes	Int	Index starting with zero
count	Yes	Int	Obtain the number of media files

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
total-count-ongoing	Int	Total number of files to be exported
total-count-done	Int	Total number of files exported
start	Int	Index starting with zero
count	Int	Obtain the number of media files
media-files	Array of <a href="#">Media File</a>	Media file details

### Media File

Name	Type	Description
name	String	File name
status	Int	File status, 0: recording; 1: file normal; 2: file corrupted; 3: file not existed
create-time	String	File creation time
size-bytes	Int64	File size
duration	Int	File length
width	Int	Image width
height	Int	Image length
interval	Int	Encoding frame
codec	Int	Codec including H.264, HEVC, JPEG
send-status	Int	File upload status, refers to <a href="#">Common Error Codes</a>
send-add-time	String	Time added to upload list
send-last-time	String	Last upload time
expt-status	Int	File export status, refers to <a href="#">Common Error Codes</a>
expt-add-time	String	Time added to export list
expt-last-time	String	Last exported time

## 4. Example

Getting the 16 media files starting from 0 in the file upload list.

### Input Example

```
{
  "start": 0,
  "count": 16
}
```

```
}
```

### Output Example

```
{
  "total-count-ongoing": 1,
  "total-count-done": 0,
  "start": 0,
  "count": 1,
  "media-files": [
    {
      "name": "VIDD_1.jpg",
      "status": 1,
      "create-time": "2024-09-23 14:28:11",
      "size-bytes": 297314,
      "duration": 0,
      "width": 1920,
      "height": 1080,
      "interval": 166666,
      "codec": "JPEG",
      "send-status": 44,
      "send-add-time": "2024-09-29 15:12:01",
      "send-last-time": "2024-09-29 15:47:13",
      "expt-status": 3,
      "expt-add-time": "2024-09-23 14:28:11",
      "expt-last-time": "2024-09-23 14:28:11"
    },
    ...
  ],
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain the list of devices bound to the output streams

## 1. API Description

This API is used to obtain the list of devices bound to the output streams.

Request mode: GET/POST [ip]/api/annotation/bound-devices

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
device	Array of <a href="#">Annotation Device</a>	Device list

### Annotation Device

Name	Type	Description
stream	<a href="#">Stream Info</a>	Output stream info
info	<a href="#">Device Info</a>	Device info

### Stream Info

Name	Type	Description
idx	Int	Index
name	String	Name
alias	String	Alias

### Device Info

Name	Type	Description
serial-number	String	Serial number
device-name	String	Device name
is-annotator	Boolean	Whether to select the current device as an annotation device
state	Int	Device Status 0: Idle 1: Pairing in progress 2: Pairing failed 3: Online 4: Offline
annotation	<a href="#">Annotation Info</a>	Annotation status

### Annotation Info

Name	Type	Description
config	<a href="#">Annotation Config</a>	Configurations
state	Int	Annotation Status 0: Quitted 1: Entering annotation 2: Annotating 3: Quitting

### Annotation Config

Name	Type	Description
------	------	-------------

enable-draw	Boolean	Whether to enable annotations
enable-zoom	Boolean	Whether to use magnifier

## 4. Example

Obtaining the list of devices bound to the output streams.

### Input Example

None

### Output Example

```
{
  "device": [
    {
      "stream": {
        "idx": 0,
        "name": "Stream1",
        "alias": "NDI"
      }
    },
    {
      "stream": {
        "idx": 1,
        "name": "Stream2",
        "alias": "NDI 2"
      },
      "info": {
        "serial-number": "A450240805004",
        "device-name": "Pro Convert BIC NDI to HDMI",
        "is-annotator": false,
        "state": 3,
        "annotation": {
          "config": {
            "enable-draw": true,
            "enable-zoom": true
          },
          "state": 0
        }
      }
    },
    {
      "stream": {
        "idx": 2,
        "name": "Stream3",
        "alias": "NDI 3"
      }
    },
    {
      "stream": {
        "idx": 3,
        "name": "Stream4",
        "alias": "NDI 4"
      }
    },
    {
      "stream": {
        "idx": 4,
        "name": "Stream5",
        "alias": "NDI 5"
      }
    },
    {
      "stream": {
        "idx": 5,
        "name": "Stream6",
        "alias": "NDI 6"
      }
    }
  ],
}
```

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

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain the list of devices scanned automatically

## 1. API Description

This API is used to obtain the list of devices automatically scanned.

Request mode: GET/POST [ip]/api/annotation/scanned-devices

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
device	Array of <a href="#">Annotation Device</a>	Device list

### Annotation Device

Name	Type	Description
info	<a href="#">Device Info</a>	Device info

### Device Info

Name	Type	Description
sn	String	Serial number
name	String	Device name
host	String	Host name
port	Int	Port number

## 4. Example

Obtaining the list of devices automatically scanned.

### Input Example

None

### Output Example

```
{
  "device": [
    {
      "info": {
        "name": "Pro Convert BIC NDI to HDMI233",
        "sn": "A450240805003",
        "host": "10.10.13.98",
        "port": 80
      }
    },
    ...
  ],
  "status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Obtain the list of paired devices

## 1. API Description

This API is used to obtain the list of paired devices scanned through the SSDP discovery service.

Request mode: GET/POST [ip]/api/annotation/paired-devices

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
device	Array of <a href="#">Annotation Device</a>	Device list

### Annotation Device

Name	Type	Description
info	<a href="#">Device Info</a>	Device info
state	Int	Device Status 0: Idle 1: Pairing 2: Failed 3: Online 4: Offline

### Device Info

Name	Type	Description
sn	String	Serial number
name	String	Device name
host	String	Host name
port	Int	Port number
username	String	User name
password	String	Password
stream-idx	Int	The index that has been bound to the output stream, -1 means not bound to any output streams.
is-annotator	Boolean	Whether to select the current device as an annotation device
pair-time	Int	Paired time

## 4. Example

Obtaining the list of paired devices.

### Input Example

None

### Output Example

```
{
  "device": [
    {
      "info": {
        "name": "Pro Convert BIC NDI to HDMI",
```

```
    "sn": "A450240805004",
    "host": "10.10.13.206",
    "port": 80,
    "username": "Admin",
    "password": "*****",
    "stream-idx": -1,
    "is-annotator": false,
    "paired-time": 1727595464
  },
  "state": 3
},
{
  "info": {
    "name": "A450240805002-1h",
    "sn": "A450240805002",
    "host": "10.10.7.16",
    "port": 80,
    "username": "Admin",
    "password": "*****",
    "stream-idx": -1,
    "is-annotator": false,
    "paired-time": 1727594288
  },
  "state": 3
},
...
],
"status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Get device details

## 1. API Description

This API is used to get device details.

Request mode: POST [ip]/api/annotation/detail-info

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
serial-number	Yes	String	Serial number

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
detail-info	<a href="#">Detail Info</a>	Device info

### Device Info

Name	Type	Description
product-id	String	Device ID
product-name	String	Product family name
device-name	String	Device name
serial-number	String	Serial number
hardware-rev	String	Hardware version
firmware-ver	String	Firmware version
cpu	<a href="#">CPUInfo</a>	CPU info
mem	<a href="#">MemInfo</a>	Memory info
core-temp	Int	Core temp
fan-speed	Int	Fan speed
uptime	Int	Up time in seconds
net	Array of <a href="#">NetData</a>	Network card list
annotation	<a href="#">Annotation Info</a>	Annotation status

### CPUInfo

Name	Type	Description
total	Int	CPU total time
idle	Int	CPU idle time
usage	Int	CPU usage x 100

### MemInfo

Name	Type	Description
total	Int	Total memory in KB
avail	Int	Available memory in KB

### NetData

Name	Type	Description
enable	Boolean	Whether to enable the network card

enable	Boolean	true: enable the network card; false: disable the network card
prio	Int	Network card priority 0: Not to specify the priority, usually refers to USB, ETH CONSOLE ranging from 1 to 99
iface	String	Network card name
type	Int	Network card type 0: Ethernet 1: Wireless card (Wi-Fi/AP) 2: USB Sharing 3: USB NET 4: Built-in 4G/5G 5: Bridge
use-dhcp	Boolean	Whether to enable DHCP true: enable DHCP; false: disable DHCP
ipaddr	String	IP address
netmask	String	Subnet mask
gateway	String	Gateway address
mac	String	MAC address
link-speed	Int	Speed 10: 10Mbps 100: 100Mbps 1000: 1Gbps 2500: 2.5Gbps 10000: 10Gbps 12: full-speed 480: high-speed 5000: super-speed-5g 10000: super-speed-10g
link-state	Int	Connection Status 0: Abnormal 1: Not connected 2: Connected
tx-speed-kbps	Int	sending speed (Kbps)
rx-speed-kbps	Int	receiving speed (Kbps)

#### Annotation Info

Name	Type	Description
config	<a href="#">Annotation Config</a>	Name
state	Int	Annotation Status 0: quit 1: entering annotation 2: Annotating 3: quitting

#### Annotation Config

Name	Type	Description
enable-draw	Int	Whether to enable annotations
enable-zoom	Int	Whether to enable magnifier

## 4. Example

Obtaining detailed info of device with A450240805002.

#### Input Example

```
{
  "serial-number": "A450240805002"
}
```

#### Output Example

```
{
  "detail-info": {
    "product-id": "0x450",
    "product-name": "Pro Convert BIC NDI to HDMI",
  }
}
```

```

"device-name": "A450240805002-1h",
"serial-number": "A450240805002",
"hardware-rev": "A",
"firmware-ver": "0.9.725",
"cpu": {
  "idle": 109566865,
  "total": 131137960,
  "usage": 1979
},
"mem": {
  "avail": 614560,
  "total": 2021648
},
"fan-speed": 0,
"core-temp": 61,
"uptime": 335827,
"net": [
  {
    "enable": true,
    "gateway": "192.168.66.1",
    "iface": "usb0",
    "ipaddr": "192.168.66.1",
    "link-speed": 0,
    "link-state": 1,
    "mac": "8e:40:2e:5c:b9:74",
    "netmask": "255.255.255.0",
    "prio": 0,
    "rx-speed-kbps": 0,
    "support-enable": false,
    "tx-speed-kbps": 0,
    "type": 3,
    "use-dhcp": true
  },
  {
    "enable": true,
    "gateway": "10.10.0.1",
    "iface": "eth0",
    "ipaddr": "10.10.7.16",
    "link-speed": 1000,
    "link-state": 2,
    "mac": "d0:c8:57:82:1f:e3",
    "netmask": "255.255.240.0",
    "prio": 34,
    "rx-speed-kbps": 6624,
    "support-enable": false,
    "tx-speed-kbps": 10928,
    "type": 0,
    "use-dhcp": true
  }
],
"annotation": {
  "config": {
    "enable-draw": true,
    "enable-zoom": true
  },
  "state": 0
},
"status": 0
}

```

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	The device is not existed.

# Pairing device

## 1. API Description

This API is used to add devices to matrix list for binding to the output streams.

Request mode: POST [ip]/api/annotation/pair-device

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
serial-number	Yes	String	Serial number
username	Yes	String	User name
password	Yes	String	Password

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Adding the device (A450240805002) to matrix list.

### Input Example

```
{
  "serial-number": "A450240805002",
  "username": "Admin",
  "password": "c1c224b03cd9bc7b6a86d77f5dace40191766c485cd55dc48caf9ac873335d6f"
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	The device is not existed.
29	MW_STATUS_NO_SPACE	List of paired devices is full

# Add devices manually

## 1. API Description

This API is used to manually add the device to the list of paired devices.

Request mode: POST [ip]/api/annotation/add-device

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
host	Yes	String	Host name
port	Yes	Int	Port number
username	Yes	String	User name
password	Yes	String	Password

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Adding the device with host address 10.10.7.19 manually.

### Input Example

```
{
  "host": "10.10.7.19",
  "port": 80,
  "username": "Admin",
  "password": "c1c224b03cd9bc7b6a86d77f5dace40191766c485cd55dc48caf9ac873335d6f"
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	The device is not existed.
29	MW_STATUS_NO_SPACE	List of paired devices is full
46	MW_STATUS_ADDR_IN_USE	The device is being used.

# Delete device

## 1. API Description

This API is used to delete paired device from the list, either by host address or serial number.

Request mode: POST [ip]/api/annotation/del-device

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
key	Yes	String	Keyword: Host Serial-number
host	Yes	String	Required when key is host
serial-number	Yes	String	Required when key is serial-number

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Deleting the device with host address 10.10.7.19.

### Input Example

```
{
  "key": "host",
  "host": "10.10.7.19"
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	The device is not existed.

# Bind device with a stream

## 1. API Description

This API is used to bind device with a specific output stream.

Request mode: POST [ip]/api/annotation/bind-device

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
serial-number	Yes	String	Serial number
stream-idx	Yes	Int	Index of the output stream, -1 means unbound

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Binding the device with serial number A450240805002 to the stream (index=1).

### Input Example

```
{
  "serial-number": "A450240805002",
  "stream-idx": 1
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	The device is not existed
46	MW_STATUS_ADDR_IN_USE	The device has been bound to another stream

# Select a device for annotation

## 1. API Description

This API is used to select a device for annotation When it is bound to an output stream.

Request mode: POST [ip]/api/annotation/select-device

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
serial-number	Yes	String	Serial number
is-annotator	Yes	Boolean	Whether to select the current device as an annotation device

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Selecting the device (A450240805002) for annotation.

### Input Example

```
{
  "serial-number": "A450240805002",
  "is-annotator": true
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	The device is not existed.

# Turn on annotation

## 1. API Description

This API is used to turn on annotation and call [stop annotation](#) to quit.

Request mode: POST [ip]/api/annotation/start

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
serial-number	Yes	String	Serial number

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Turning on annotation for A450240805002.

### Input Example

```
{
  "serial-number": "A450240805002"
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	The device is not existed.

# Turn off annotation

## 1. API Description

This API is used to turn off annotation and call [Turn on annotation](#) to start.

Request mode: POST [ip]/api/annotation/stop

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
serial-number	Yes	String	Serial number

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Turning off annotation for A450240805002.

### Input Example

```
{
  "serial-number": "A450240805002"
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	The device is not existed.

# Enable annotation

## 1. API Description

This API is used to enable/disable annotation.

Request mode: POST [ip]/api/annotation/enable-draw

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
serial-number	Yes	String	Serial number
enable	Yes	Boolean	Enable/Disable annotation

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Disabling annotation for device with serial number A450240805002.

### Input Example

```
{
  "serial-number": "A450240805002",
  "enable": false
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	The device is not existed.

# Enable magnifier

## 1. API Description

This API is used to enable/disable magnifier.

Request mode: POST [ip]/api/annotation/enable-zoom

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
serial-number	Yes	String	Serial number
enable	Yes	Boolean	Enable/Disable magnifier

## 3. Output Parameters

Name	Type	Description
status	Int	Status code

## 4. Example

Enabling magnifier for device with serial number A450240805002.

### Input Example

```
{
  "serial-number": "A450240805002",
  "enable": true
}
```

### Output Example

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

## 5. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

Status	Definition	Description
7	MW_STATUS_INVALID_ARG	Parameter is missing or incorrect
16	MW_STATUS_NOT_EXIST	The device is not existed.

# Obtain device information

## 1. API Description

This API is used to obtain core temperature, fan speed and UVC/UAC status, etc.

Request mode: GET/POST [ip]/api/common/summary-info

Administrator Rights	Logged-in
Yes	Yes

## 2. Input Parameters

None

## 3. Output Parameters

Name	Type	Description
status	Int	Status code
temperature	String	Core temperature
fan-rpm	String	Fan speed
uvc-uac	Array of <a href="#">UVC/UAC Info</a>	UVC/UAC status

### UVC/UAC Info

Name	Type	Description
name	String	Device name
uvc-stream-onoff	Boolean	Whether UVC is on or off
uvc-format	<a href="#">UVC Format</a>	UVC capture format
uac-stream-onoff	Boolean	Whether UAC is on or off
uac-format	<a href="#">UAC Format</a>	UAC capture format

### UVC Format

Name	Type	Description
cx	Int	Video width
cy	Int	Video height
duration	Int	Video frame interval, unit: 100 ns
fourcc	String	Video format

### UAC Format

Name	Type	Description
channels	Int	Number of audio channels
sample-rate	Int	audio sample rate
bit-depth	Int	audio bit depth

## 4. Example

Obtaining device information.

### Input Example

```
None
```

### Output Example

```
{
```

```
"temperature": "53.6 °C",
"fan-rpm": 0,
"uvc-uac": [
  {
    "name": "Hybrid NDI Matrix 0",
    "uvc-stream-onoff": false,
    "uvc-format": {
      "cx": 1920,
      "cy": 1080,
      "duration": 166667,
      "fourcc": "JPEG"
    },
    "uac-stream-onoff": false,
    "uac-format": {
      "channels": 2,
      "sample-rate": 48000,
      "bit-depth": 16
    }
  },
  ...
]
"status": 0
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).

# Monitor device status

## 1. API Description

This API is used to monitor device status, including HDMI input, streams input and disk status.

Request mode: ws://[ip]/status?sid=xxx

Administrator Rights	Logged-in
No	Yes

## 2. Input Parameters

Name	Required	Type	Description
sid	Yes	String	User identification, obtained via <a href="#">user login</a> .

## 3. Output Parameters

Name	Type	Description
time	Int	System time
hdmi-rx	<a href="#">HDMI RX Info</a>	HDMI input status
stream-rx	<a href="#">Source Info</a>	Streams input status
disk	<a href="#">Disk Info</a>	Disk status

### HDMI RX Info

Name	Type	Description
index	Int	Interface index
locked	Boolean	Whether the input signal is locked

### Source Info

Name	Type	Description
stream-idx	Int	Index
state	Int	Status code

### Disk Info

Name	Type	Description
disk-status	Int	Disk status. 0: Disk not detected 1: Disk valid 3: Disk full 4: Disk has no write permission 5: Disk space remaining is insufficient, remaining recording time is less than 10 minutes 6: Disk invalid
disk-type	Int	Disk type. 0: USB flash disk 1: Local storage

## 4. Example

Monitoring the changes of device status.

### Input Example

```
None
```

### Output Example

```
{
```

```
"time": 1728624520,  
"hdmi-rx": {  
  "index": 2,  
  "locked": false  
}  
}  
{  
  "time": 1728624794,  
  "stream-rx": {  
    "index": 0,  
    "state": 1000  
  }  
}  
{  
  "time": 1728624965,  
  "disk": {  
    "disk-type": 0,  
    "disk-status": 0  
  }  
}
```

## 5. Error Code

No error code related to the API business logic. For other error codes, see [Common Error Codes](#).