Camera HTTP API
User Guide

Version 7

2022-9

Revision History	Description	Data
Version 1.0 Revision 1	Initial version	2016-06-01
Version 1.1 Revision 2	1. Add the interface of short connection accessing CGI. 2. Add rtmp port parameter to GetNetPort and SetNetPort interfaces. 3. Add hourFmt parameter to GetTime and SetTime interfaces. 4. Add streamType and interval parameters to GetFtp and SetFtp interfaces. 5. Add schedule parameter to GetEmail and SetEmail interfaces. 6. Add GetPush and SetPush interfaces. 7. Remove enable, action and schedule parameters to GetAlarm and SetAlarm interfaces. 8. Add emailSchedule, pushSchedule and hourFmt to GetAbility interface.	2016-11-07
Version 1.2 Revision 3	1. Add UpgradePrepare 2. Add Shutdown 3. Add GetAuth and SetAuth 4. Add Getcloud and Setcloud 5. Get3G and Set3G 6. GetP2p and SetP2p 7. Add Preview 8. Add rtmp=start and rtmp=stop and rtmp=auth for rtmp 9. Ptz add GetPtzSerial SetPtzSerial	2019-4-26

		GetPtzTattern SetPtzTattern command
		
		10. Camera increases GetAutoFocus
		
		  SetAutoFocus command of focus
		
		11. LED increases GetIrLights SetIrLights
		
		  GetPowerLed SetPowerLed command
		
		12. Add GetAudioAlarm SetAudioAlarm
		
		13. Add HeartBeat
		
		14. Add GetCrop SetCrop
		
		15. Add GetAutoUpgrade SetAutoUpgrade
		
		  CheckFirmware UpgradeOnline
		
		  UpgradeStatus in system mode	

Version 1.3 Revision 4	1. Ptz add GetPtzSerial SetPtzSerial GetPtzTattern SetPtzTattern command 2. System delete ImportCfg 3. Security delete GetAuth SetAuth 4. Alarm add SetAudioAlarm 5. Complete the responsed code	2019-9-30
Version 1.4 Revision 5	1. Merge CGI commands for NVR and IPC	2021-01-05
Version 1.5 Revison 6	1. AI adds GetAiCfg SetAiCfg GetAiState 2. Ptz adds GetZoomFocus StartZoomFocus GetPtzGuard SetPtzGuard GetPtzCheckState PtzCheck 3. Alarm adds AudioAlarmPlay 4. LED updates GetWhiteLed SetWilteLed 5. System updates GetAbility 6. Network updates GetFtpV20 SetFtpV20 TestFtp GetNetPort SetNetPort 7. Network adds GetCertificateInfo CertificateClear GetRtspUrl	2021-12-03

	8. video input updates SetIsp GetIsp 9. Enc updates GetEnc 10. Response updates Error	
Version 1.6 Revison 7	1. Improve the description of the example 2. Add the description of video preview 3. Delete the abandoned command (rtmp start/rtmp stop/rtmp auth) 4. Add the version field to the login command 5. Add GetSysCfg/SetSysCfg/GetStitch/SetStitch commands 6. ISP adds multi-level frame drop and soft light sensitivity 7. NVR cut and download video file optional stream type 8. Increase the ptz guard parameter 9. Increase the white light setting parameters 10. Add description for ftp command 11. Improve the capability set 12. Improve the error code	2022-9-6

Contents

1 Scope

The document defines a series of HTTP and HTTPS based application programming interface, covering the System, Security, Network, Video input, Enc, Record, PTZ, and Alarm modules.

The document applies to both IPC and NVR products,and the differences will be explained in the commands.

2 HTTP & Json

2.1 Protocol

Support both HTTP and HTTPS. By default, http is turned off. If you need to use the http protocol, you need to go to Settings -> Network Settings -> Advanced Settings -> Port Settings to open the http port.
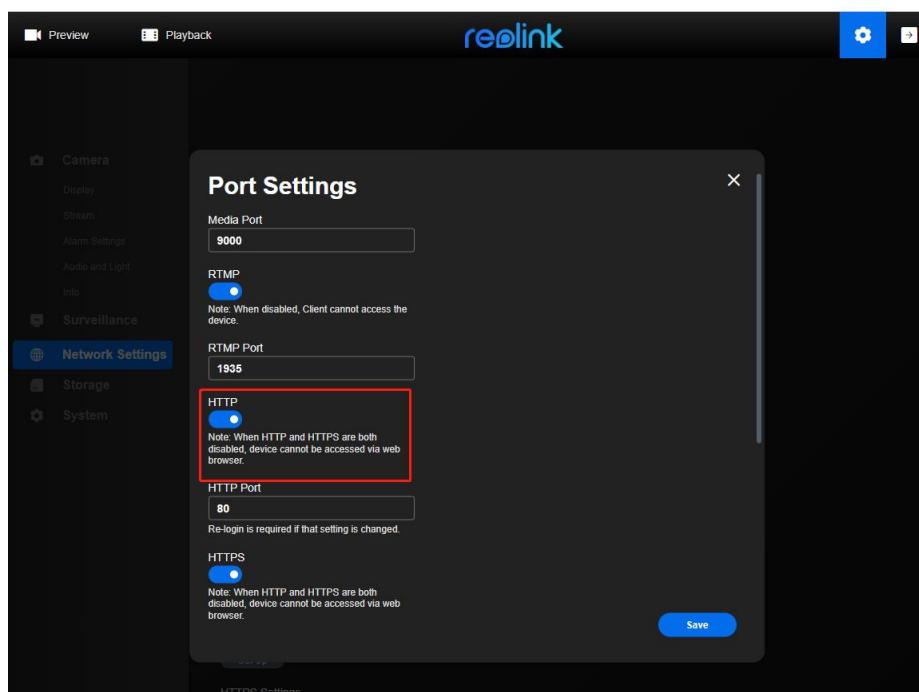
HTTP and HTTPS only support the POST method, get and set all through it.

POST /cgi-bin/api.cgi?cmd=xxx&token=20343295&paramxxx=xxx HTTP/1.1

The payload type is a JSON or file that is specified by Content-Type.

Content-Type = "application/octet-stream" or "application/json"

2.2 JSON

JSON (JavaScript Object Notation) is based on a subset of the JavaScript Programming Language, Standard ECMA-262 3rd Edition - December 1999.

Request:

```
[
    {
        "cmd":string,
        "action":int,
        "param":
        {
            "name": val,        // val = string or int
             ...
        },
    }
    ...
]
```

Response:

```
[
    {
        "cmd":string,
        "code":int, // rsp code, 0:success, others: false
        "value": or "error" // "value" when code = 0, "error" when "code" = 1
        {
            "name": val,        //    val = string or int
             ...
        },
    }
    ...
]
```

2.3 Token

Token is the only global certification of developers. Token is required whenever developers are calling each port. Normally the lease for each token is 3600 seconds and you may regain it after it expires. Please refer to the Login command for the methods of requiring token.

2.4 Abbreviations

For the purposes of the present document, the following abbreviations apply:

M/O   Mandatory/Optional

2.5 Definitions

For the purposes of the present document, the following definitions apply:

initial: The initial value of the configuration.

range: The data range of the configuration.

value: The current value of the configuration.

action : Obtain **initial**, **range** and **value** when the value is 1, obtain only the **value** when the value is 0.

channel : The channel number of the current device.

2.6 Command usage example

There are two access methods for reolink ipc/nvr:

1: Long-session access, that is, first send a login request with a user name and password, and obtain a token, and then all subsequent commands URL carry the token as authentication information.

2. Short session access, that is, each cgi request url carries the username and password as authentication information.

The following are examples of the method of sending the GetEnc command to obtain the encoding configuration through the long session connection and the short session connection mode

2.6.1 Get encoding configuration through long session connection

If you want to work over a persistent connection, you need to get the Token by sending a login request.

1. get token first：

The login request url:

https://<camera_ip>/api.cgi?cmd=Login

The request body:

```
[
  {
    "cmd":"Login",
    "param":{
      "User":{
        "Version": "0",
        "userName":"admin",
        "password":"xxxxxx"
      }
    }
  }
]
```

Response：

```
[
  {
    "cmd" : "Login",
    "code" : 0,
    "value" : {
      "Token" : {
        "leaseTime" : 3600,
        "name" : "42da7586d7b82a6"
      }
    }
  }
]
```

It is also possible to simulate the test through the Advanced Rest Client

Application on Google Chrome

2. Next execute the GetEnc command

When sending a request, you need to carry the token name obtained by

the login command.

The GetEnc request url:

`https://<camera_ip>/api.cgi?cmd=GetEnc&token=42da7586d7b82a6`

The request body:

```
[
    {
        "cmd":"GetEnc",
        "action":1,
        "param":{
            "channel":0
        }
    }
]
```

Response：

```
[
    {
        "cmd" : "GetEnc",
        "code" : 0,
        "initial" : {
            "Enc" : {
                "audio" : 0,
                "channel" : 0,
                "mainStream" : {
                    "bitRate" : 6144,
                    "frameRate" : 25,
                    "gop" : 2,
                    "height" : 2160,
                    "profile" : "High",
                    "size" : "3840*2160",
                    "vType" : "h265",
                    "width" : 3840
                },
                "subStream" : {
                    "bitRate" : 256,
                    "frameRate" : 10,
                    "gop" : 4,
                    "height" : 360,
                    "profile" : "High",
                    "size" : "640*360",
```

```
                    "vType" : "h264",
                    "width" : 640
                }
            }
        },
        "range" : {
            "Enc" : [
                {
                    "audio" : "boolean",
                    "chnBit" : 1,
                    "mainStream" : {
                        "bitRate" : [ 4096, 5120, 6144, 7168, 8192 ],
                        "default" : {
                            "bitRate" : 6144,
                            "frameRate" : 25,
                            "gop" : 2
                        },
                        "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
                        "gop" : {
                            "max" : 4,
                            "min" : 1
                        },
                        "height" : 2160,
                        "profile" : [ "Base", "Main", "High" ],
                        "size" : "3840*2160",
                        "vType" : "h265",
                        "width" : 3840
                    },
                    "subStream" : {
                        "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
                        "default" : {
                            "bitRate" : 256,
                            "frameRate" : 10,
                            "gop" : 4
                        },
                        "frameRate" : [ 15, 10, 7, 4 ],
                        "gop" : {
                            "max" : 4,
                            "min" : 1
                        },
                        "height" : 360,
                        "profile" : [ "Base", "Main", "High" ],
                        "size" : "640*360",
                        "vType" : "h264",
```

```
                    "width" : 640
                }
            },
            {
                "audio" : "boolean",
                "chnBit" : 1,
                "mainStream" : {
                    "bitRate" : [ 1024, 1536, 2048, 3072, 4096, 5120, 6144, 7168,
8192 ],
                    "default" : {
                        "bitRate" : 6144,
                        "frameRate" : 25,
                        "gop" : 2
                    },
                    "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
                    "gop" : {
                        "max" : 4,
                        "min" : 1
                    },
                    "height" : 1440,
                    "profile" : [ "Base", "Main", "High" ],
                    "size" : "2560*1440",
                    "vType" : "h264",
                    "width" : 2560
                },
                "subStream" : {
                    "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
                    "default" : {
                        "bitRate" : 256,
                        "frameRate" : 10,
                        "gop" : 4
                    },
                    "frameRate" : [ 15, 10, 7, 4 ],
                    "gop" : {
                        "max" : 4,
                        "min" : 1
                    },
                    "height" : 360,
                    "profile" : [ "Base", "Main", "High" ],
                    "size" : "640*360",
                    "vType" : "h264",
                    "width" : 640
                }
            },
```

```
            {
                "audio" : "boolean",
                "chnBit" : 1,
                "mainStream" : {
                    "bitRate" : [ 1024, 1536, 2048, 3072, 4096, 5120, 6144, 7168,
8192 ],
                    "default" : {
                        "bitRate" : 6144,
                        "frameRate" : 25,
                        "gop" : 2
                    },
                    "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
                    "gop" : {
                        "max" : 4,
                        "min" : 1
                    },
                    "height" : 1296,
                    "profile" : [ "Base", "Main", "High" ],
                    "size" : "2304*1296",
                    "vType" : "h264",
                    "width" : 2304
                },
                "subStream" : {
                    "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
                    "default" : {
                        "bitRate" : 256,
                        "frameRate" : 10,
                        "gop" : 4
                    },
                    "frameRate" : [ 15, 10, 7, 4 ],
                    "gop" : {
                        "max" : 4,
                        "min" : 1
                    },
                    "height" : 360,
                    "profile" : [ "Base", "Main", "High" ],
                    "size" : "640*360",
                    "vType" : "h264",
                    "width" : 640
                }
            }
        ]
    },
    "value" : {
```

```
        "Enc" : {
            "audio" : 1,
            "channel" : 0,
            "mainStream" : {
                "bitRate" : 6144,
                "frameRate" : 25,
                "gop" : 2,
                "height" : 2160,
                "profile" : "High",
                "size" : "3840*2160",
                "vType" : "h265",
                "width" : 3840
            },
            "subStream" : {
                "bitRate" : 256,
                "frameRate" : 10,
                "gop" : 4,
                "height" : 360,
                "profile" : "High",
                "size" : "640*360",
                "vType" : "h264",
                "width" : 640
            }
        }
    }
]
```

2.6.2 Get encoding configuration through short session connection

The short connection interface is for users to skip the process of logging in to the IP Camera to get token. In this way, users just need the user name and password to access the IP Camera easily. Here is how short connection works.

The request url:

https://<camera_ip>/api.cgi?cmd=GetEnc&user=admin&password=xxxx

The request body:

```
[
    {
        "cmd":"GetEnc",
        "action":1,
        "param":{
            "channel":0
        }
    }
]
```

Response：

```
[
    {
        "cmd" : "GetEnc",
        "code" : 0,
        "initial" : {
            "Enc" : {
                "audio" : 0,
                "channel" : 0,
                "mainStream" : {
                    "bitRate" : 6144,
                    "frameRate" : 25,
                    "gop" : 2,
                    "height" : 2160,
                    "profile" : "High",
                    "size" : "3840*2160",
                    "vType" : "h265",
                    "width" : 3840
                },
                "subStream" : {
                    "bitRate" : 256,
                    "frameRate" : 10,
                    "gop" : 4,
                    "height" : 360,
                    "profile" : "High",
                    "size" : "640*360",
                    "vType" : "h264",
                    "width" : 640
                }
```

```json
            }
        },
        "range" : {
            "Enc" : [
                {
                    "audio" : "boolean",
                    "chnBit" : 1,
                    "mainStream" : {
                        "bitRate" : [ 4096, 5120, 6144, 7168, 8192 ],
                        "default" : {
                            "bitRate" : 6144,
                            "frameRate" : 25,
                            "gop" : 2
                        },
                        "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
                        "gop" : {
                            "max" : 4,
                            "min" : 1
                        },
                        "height" : 2160,
                        "profile" : [ "Base", "Main", "High" ],
                        "size" : "3840*2160",
                        "vType" : "h265",
                        "width" : 3840
                    },
                    "subStream" : {
                        "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
                        "default" : {
                            "bitRate" : 256,
                            "frameRate" : 10,
                            "gop" : 4
                        },
                        "frameRate" : [ 15, 10, 7, 4 ],
                        "gop" : {
                            "max" : 4,
                            "min" : 1
                        },
                        "height" : 360,
                        "profile" : [ "Base", "Main", "High" ],
                        "size" : "640*360",
                        "vType" : "h264",
                        "width" : 640
                    }
                },
```

```
{
    "audio" : "boolean",
    "chnBit" : 1,
    "mainStream" : {
        "bitRate" : [ 1024, 1536, 2048, 3072, 4096, 5120, 6144, 7168,
8192 ],
        "default" : {
            "bitRate" : 6144,
            "frameRate" : 25,
            "gop" : 2
        },
        "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
        "gop" : {
            "max" : 4,
            "min" : 1
        },
        "height" : 1440,
        "profile" : [ "Base", "Main", "High" ],
        "size" : "2560*1440",
        "vType" : "h264",
        "width" : 2560
    },
    "subStream" : {
        "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
        "default" : {
            "bitRate" : 256,
            "frameRate" : 10,
            "gop" : 4
        },
        "frameRate" : [ 15, 10, 7, 4 ],
        "gop" : {
            "max" : 4,
            "min" : 1
        },
        "height" : 360,
        "profile" : [ "Base", "Main", "High" ],
        "size" : "640*360",
        "vType" : "h264",
        "width" : 640
    }
},
{
    "audio" : "boolean",
    "chnBit" : 1,
```

```
                    "mainStream" : {
                        "bitRate" : [ 1024, 1536, 2048, 3072, 4096, 5120, 6144, 7168,
8192 ],

                        "default" : {
                            "bitRate" : 6144,
                            "frameRate" : 25,
                            "gop" : 2
                        },
                        "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
                        "gop" : {
                            "max" : 4,
                            "min" : 1
                        },
                        "height" : 1296,
                        "profile" : [ "Base", "Main", "High" ],
                        "size" : "2304*1296",
                        "vType" : "h264",
                        "width" : 2304
                    },
                    "subStream" : {
                        "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
                        "default" : {
                            "bitRate" : 256,
                            "frameRate" : 10,
                            "gop" : 4
                        },
                        "frameRate" : [ 15, 10, 7, 4 ],
                        "gop" : {
                            "max" : 4,
                            "min" : 1
                        },
                        "height" : 360,
                        "profile" : [ "Base", "Main", "High" ],
                        "size" : "640*360",
                        "vType" : "h264",
                        "width" : 640
                    }
                }
            ]
        },
        "value" : {
            "Enc" : {
                "audio" : 1,
                "channel" : 0,
```

```
                "mainStream" : {
                    "bitRate" : 6144,
                    "frameRate" : 25,
                    "gop" : 2,
                    "height" : 2160,
                    "profile" : "High",
                    "size" : "3840*2160",
                    "vType" : "h265",
                    "width" : 3840
                },
                "subStream" : {
                    "bitRate" : 256,
                    "frameRate" : 10,
                    "gop" : 4,
                    "height" : 360,
                    "profile" : "High",
                    "size" : "640*360",
                    "vType" : "h264",
                    "width" : 640
                }
            }
        }
    }
]
```

2.7 Preview

Reolink IPC supports rtsp/rtmp/flv video transmission protocol, rtmp/flv video transmission protocol only supports h264 encoding format video, and rtsp supports h264 and h265 encoding format video.

2.7.1 rtsp mode preview

The rtsp port is closed by default, so before using the rtsp protocol, you need to go to Settings -> Network Settings -> Advanced Settings -> Port Settings to open the rtsp port.
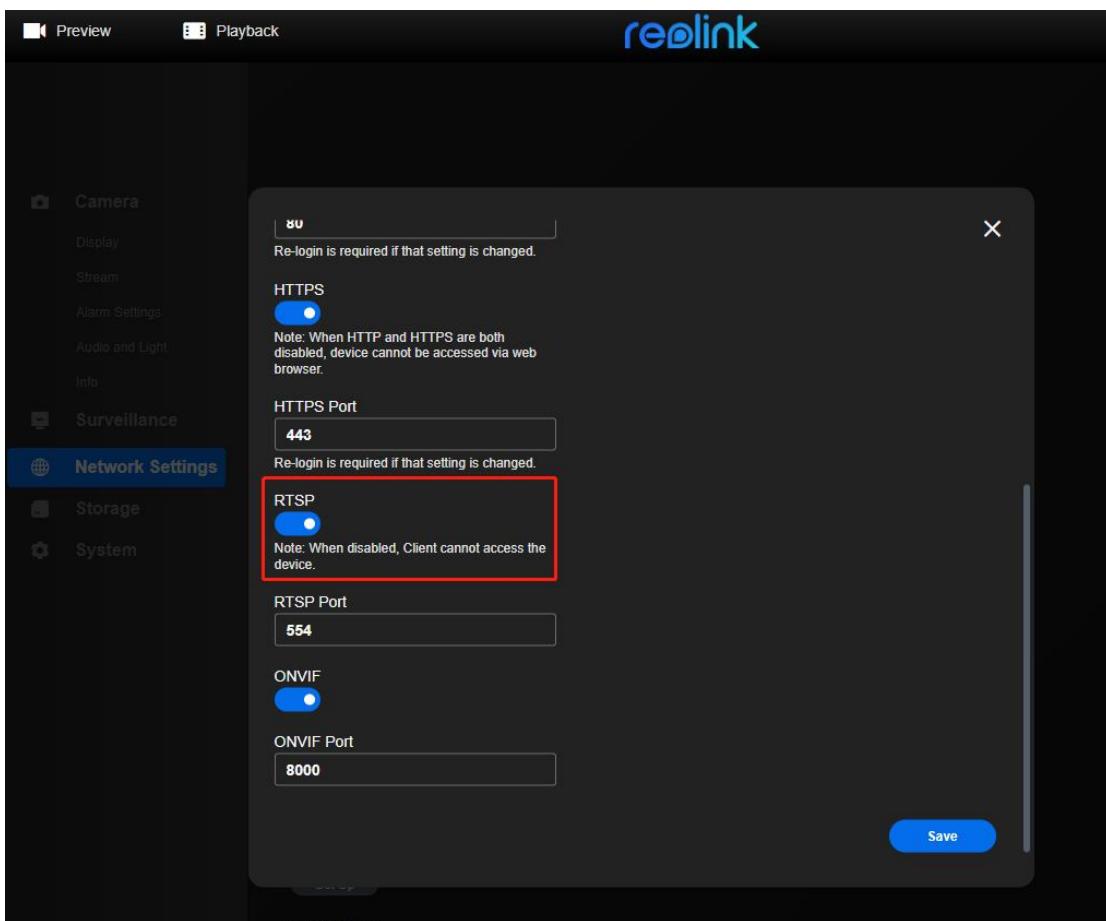
1. main stream url

rtsp://(user name):(password)@(ip address):554/Preview_(channel number)_main

2. sub stream url

rtsp://(user name):(password)@(ip address):554/Preview_(channel number)_sub

The following is the rtsp url of the historical version, no longer recommended, but still compatible.

main stream:

rtsp://(user name):(password)@(ip address):554/h264Preview_(channel number)_main

rtsp://(user name):(password)@(ip address):554/h265Preview_(channel number)_main

rtsp://(user name):(password)@(ip address):554/

Sub stream:

rtsp://(user name):(password)@(ip address):554/h264Preview_(channel number)_sub

Note: The "channel number" starts from 01

example:

1.Preview ipc device video

   rtsp://admin:xxxx@192.168.123.145:554/Preview_01_main

2.Preview the video of the third channel of nvr

   rtsp://admin:xxxx@192.168.0.206:554/Preview_03_main

2.7.2 rtmp mode preview

The rtmp port is closed by default, so before using the rtmp protocol, you need to go to Settings -> Network Settings -> Advanced Settings -> Port Settings to open the rtmp port.
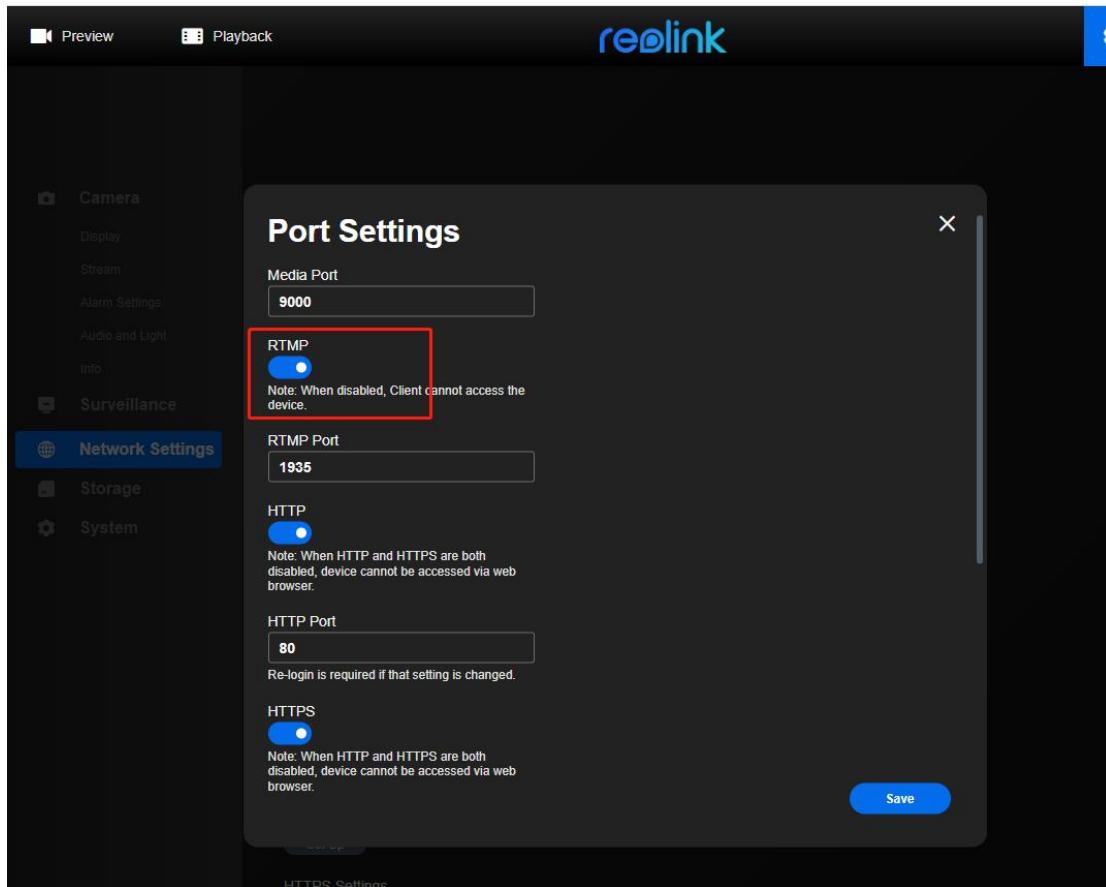
The rtmp protocol only supports videos in h264 encoding format, and videos in h265 encoding format are not supported yet.

1. **Main stream url:**

rtmp://(ip address)/bcs/channel(channel id)_main.bcs?channel=(channel id)&stream=0&user=(user name)&password=(user password)

2. **Ext stream url:**

rtmp://(ip address)/bcs/channel(channel id)_ext.bcs?channel=(channel id)&stream=0&user=(user name)&password=(user password)

3. **Sub stream url:**

rtmp://(ip address)/bcs/channel(channel id)_sub.bcs?channel=(channel id)&stream=1&user=(user name)&password=(user password)

Note: The "channel id" starts from 0
example:

1.Preview ipc device video

   rtmp://192.168.123.145/bcs/channel0_main.bcs?channel=0&stream=0&user=admin&password=xxxx

2.Preview the video of the third channel of nvr

   rtmp://192.168.0.206/bcs/channel2_main.bcs?channel=2&stream=0&user=admin&password=000000

2.7.3 flv mode preview

The flv protocol only supports videos in h264 encoding format, and videos in h265 encoding format are not supported yet.

1. Main stream:

   https://(ip address)/flv?port=1935&app=bcs&stream=channel(channel id)_main.bcs&user=(user name)&password=(user password)

2. Ext stream:

   https://(ip address)/flv?port=1935&app=bcs&stream=channel(channel id)_ext.bcs&user=(user name)&password=(user password)

3. Sub stream:

   https://(ip address)/flv?port=1935&app=bcs&stream=channel(channel id)_sub.bcs&user=(user name)&password=(user password)

Note: The "channel id" starts from 0
example:
1.Preview ipc device video
   https://192.168.123.145/flv?port=1935&app=bcs&stream=channel0_main.bcs&user=admin&password=xxxx
2.Preview the video of the third channel of nvr
   https://192.168.0.206/flv?port=1935&app=bcs&stream=channel2_main.bcs&user=admin&password=xxxx

2.8 Reolink ipc/nvr web reference

The interaction between the reolink ipc/nvr web interface and the device

uses the http/https protocol, but the web also uses a private encryption protocol (the encryption protocol processing process is more complicated, so it is not open to the public).

At the same time, it also makes it impossible to use software such as wareshark to capture and analyze json data information.
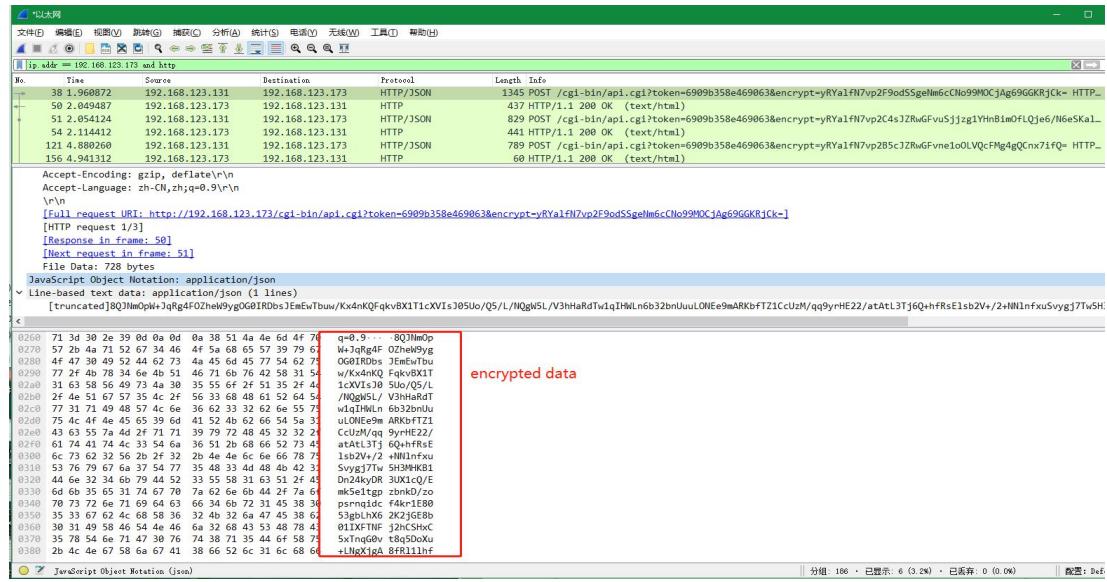
In order to solve this problem, the web background adds the printing of json log information for sending and receiving requests.

If you want to view jason log information, visit https://(camera ip address)?debug=1 on Google Chrome to enter the web debug mode of the device, then type F12 on the keyboard to view the background information. When the web is operating, you can see the web on the Console->verbose page Sent json data information.

step1: login page url add "?debug=1"

step2: Enter F12 on the keyboard to open the background information

step3: Click Console

step4: Click verbose

When you open any setting interface or click any setting button, you can see the corresponding jason information
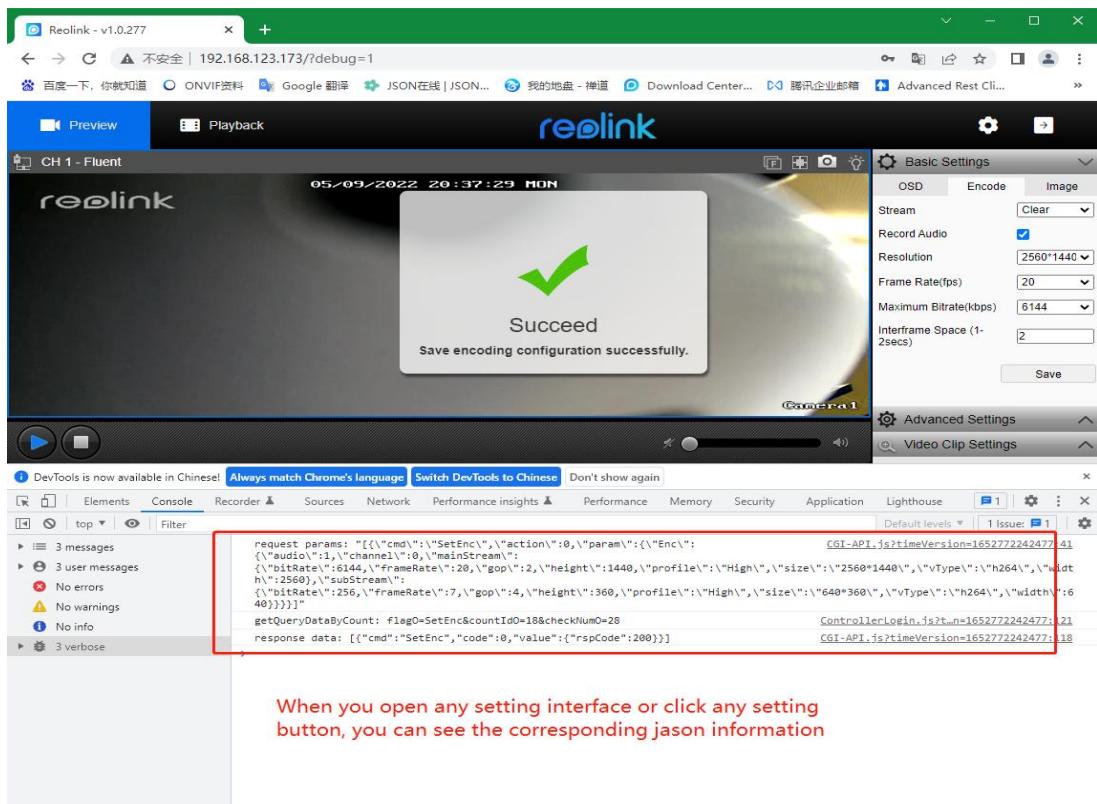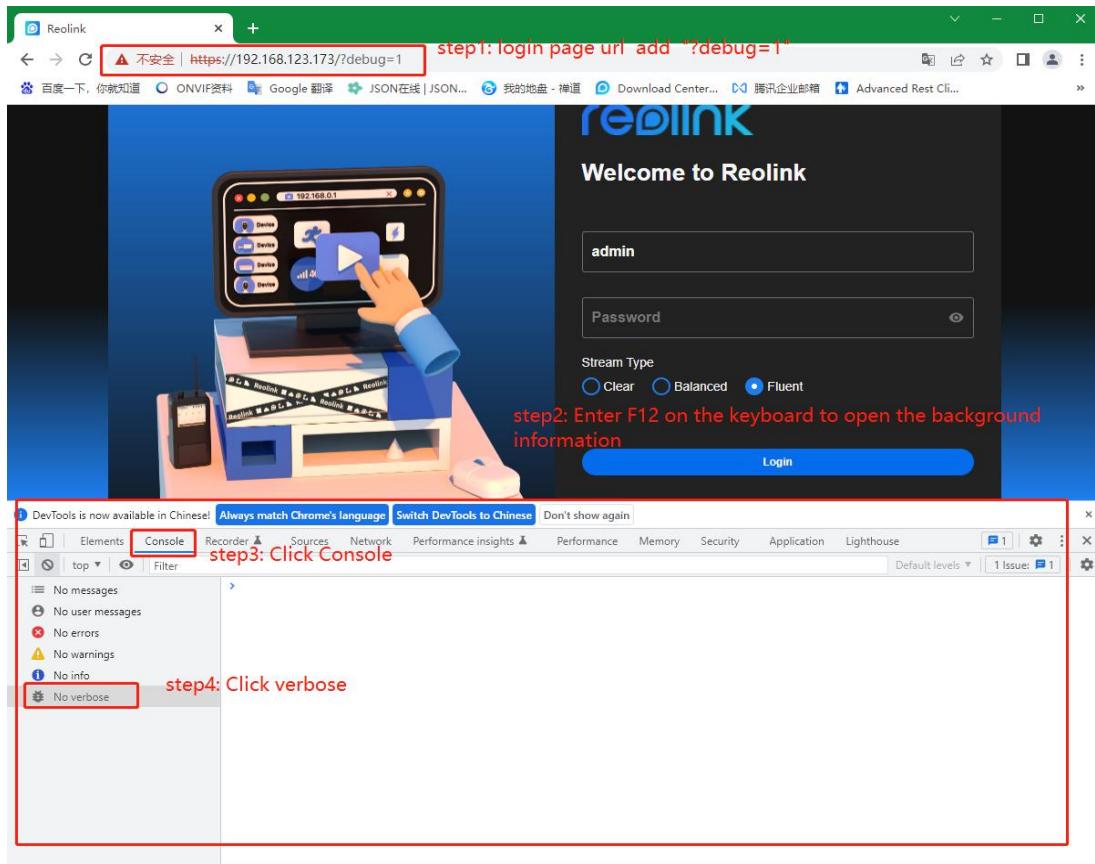
3 Commands

3.1 System

3.1.1 GetAbility

- **Interface Description**

It is used to get system ability of appointed user.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetAbility&token=TOKEN

- **Post Data**

Data example

[
  {
    "cmd":"GetAbility",
    "param":{
      "User":{
        "userName":"admin"
      }
    }
  }
]

Field description		
Field	**Description**	**M/O**
userName	User name, it should be consisted of less than 32 characters, if the user name is NULL, then it would get current user ability.	M

- **Return data description**

Return data correctly

Each domain is corresponding to a functional module. The permit field marks access right, validating in least significant three bits: the most significant bit indicates execution permission, the first bit indicates revision permission, and the second bit indicates read/write permission. The ver field indicates the version number. 0 means the feature is not supported in that version, nonzero means the feature is supported. Different version numbers indicate those certain functional modules support different functional options.

```json
[{
    "cmd": "GetAbility",
    "code": 0,
    "value": {
        "Ability": {
            "3g": {
                "permit": 0,
                "ver": 0
            },
            "abilityChn": [{
                "aiTrack": {
                    "permit": 0,
                    "ver": 0
                },
                "aiTrackDogCat": {
                    "permit": 0,
                    "ver": 0
                },
                "alarmAudio": {
                    "permit": 6,
                    "ver": 1
                },
                "alarmIoIn": {
                    "permit": 0,
                    "ver": 0
                },
                "alarmIoOut": {
                    "permit": 0,
                    "ver": 0
                },
                "alarmMd": {
                    "permit": 6,
                    "ver": 1
                },
```

```json
"alarmRf": {
    "permit": 0,
    "ver": 0
},
"batAnalysis": {
    "permit": 0,
    "ver": 0
},
"battery": {
    "permit": 0,
    "ver": 0
},
"cameraMode": {
    "permit": 6,
    "ver": 0
},
"disableAutoFocus": {
    "permit": 0,
    "ver": 0
},
"enc": {
    "permit": 6,
    "ver": 1
},
"floodLight": {
    "permit": 0,
    "ver": 0
},
"ftp": {
    "permit": 6,
    "ver": 6
},
"image": {
    "permit": 6,
    "ver": 1
},
"indicatorLight": {
    "permit": 0,
    "ver": 0
},
"isp": {
    "permit": 6,
    "ver": 1
},
```

```json
"isp3Dnr": {
    "permit": 0,
    "ver": 0
},
"ispAntiFlick": {
    "permit": 6,
    "ver": 1
},
"ispBackLight": {
    "permit": 0,
    "ver": 0
},
"ispBright": {
    "permit": 6,
    "ver": 1
},
"ispContrast": {
    "permit": 6,
    "ver": 1
},
"ispDayNight": {
    "permit": 6,
    "ver": 1
},
"ispExposureMode": {
    "permit": 0,
    "ver": 0
},
"ispFlip": {
    "permit": 6,
    "ver": 1
},
"ispHue": {
    "permit": 0,
    "ver": 0
},
"ispMirror": {
    "permit": 6,
    "ver": 1
},
"ispSatruation": {
    "permit": 6,
    "ver": 1
},
```

```json
        "ispSharpen": {
            "permit": 6,
            "ver": 1
        },
        "ispWhiteBalance": {
            "permit": 6,
            "ver": 0
        },
        "ledControl": {
            "permit": 6,
            "ver": 1
        },
        "live": {
            "permit": 4,
            "ver": 2
        },
        "mainEncType": {
            "permit": 0,
            "ver": 0
        },
        "mask": {
            "permit": 6,
            "ver": 1
        },
        "mdTriggerAudio": {
            "permit": 0,
            "ver": 0
        },
        "mdTriggerRecord": {
            "permit": 0,
            "ver": 0
        },
        "mdWithPir": {
            "permit": 0,
            "ver": 0
        },
        "osd": {
            "permit": 6,
            "ver": 1
        },
        "powerLed": {
            "permit": 0,
            "ver": 0
        },
```

```
"ptzCtrl": {
    "permit": 0,
    "ver": 0
},
"ptzDirection": {
    "permit": 1,
    "ver": 0
},
"ptzPatrol": {
    "permit": 0,
    "ver": 0
},
"ptzPreset": {
    "permit": 0,
    "ver": 0
},
"ptzTattern": {
    "permit": 0,
    "ver": 0
},
"ptzType": {
    "permit": 0,
    "ver": 0
},
"recCfg": {
    "permit": 6,
    "ver": 1
},
"recDownload": {
    "permit": 6,
    "ver": 1
},
"recReplay": {
    "permit": 6,
    "ver": 1
},
"recSchedule": {
    "permit": 6,
    "ver": 2
},
"shelterCfg": {
    "permit": 6,
    "ver": 1
},
```

```json
    "snap": {
        "permit": 6,
        "ver": 1
    },
    "supportAi": {
        "permit": 6,
        "ver": 1
    },
    "supportAiAnimal": {
        "permit": 0,
        "ver": 0
    },
    "supportAiDetectConfig": {
        "permit": 6,
        "ver": 1
    },
    "supportAiDogCat": {
        "permit": 6,
        "ver": 1
    },
    "supportAiFace": {
        "permit": 0,
        "ver": 0
    },
    "supportAiPeople": {
        "permit": 6,
        "ver": 1
    },
    "supportAiSensitivity": {
        "permit": 6,
        "ver": 1
    },
    "supportAiStayTime": {
        "permit": 6,
        "ver": 1
    },
    "supportAiTargetSize": {
        "permit": 6,
        "ver": 1
    },
    "supportAiTrackClassify": {
        "permit": 0,
        "ver": 0
    },
```

```json
"supportAiVehicle": {
    "permit": 6,
    "ver": 1
},
"supportAoAdjust": {
    "permit": 0,
    "ver": 1
},
"supportFLBrightness": {
    "permit": 6,
    "ver": 1
},
"supportFLIntelligent": {
    "permit": 6,
    "ver": 1
},
"supportFLKeepOn": {
    "permit": 0,
    "ver": 0
},
"supportFLSchedule": {
    "permit": 6,
    "ver": 1
},
"supportFLswitch": {
    "permit": 6,
    "ver": 1
},
"supportGop": {
    "permit": 0,
    "ver": 1
},
"supportMd": {
    "permit": 6,
    "ver": 1
},
"supportPtzCalibration": {
    "permit": 0,
    "ver": 0
},
"supportPtzCheck": {
    "permit": 0,
    "ver": 0
},
```

```json
        "supportThresholdAdjust": {
            "permit": 6,
            "ver": 1
        },
        "supportWhiteDark": {
            "permit": 6,
            "ver": 1
        },
        "videoClip": {
            "permit": 0,
            "ver": 0
        },
        "waterMark": {
            "permit": 6,
            "ver": 1
        },
        "white_balance": {
            "permit": 6,
            "ver": 0
        }
    }],
    "alarmAudio": {
        "permit": 6,
        "ver": 1
    },
    "alarmDisconnet": {
        "permit": 6,
        "ver": 1
    },
    "alarmHddErr": {
        "permit": 6,
        "ver": 1
    },
    "alarmHddFull": {
        "permit": 6,
        "ver": 1
    },
    "alarmIpConflict": {
        "permit": 6,
        "ver": 1
    },
    "auth": {
        "permit": 6,
        "ver": 1
```

```
        },
        "autoMaint": {
            "permit": 6,
            "ver": 1
        },
        "cloudStorage": {
            "permit": 0,
            "ver": 0
        },
        "customAudio": {
            "permit": 1,
            "ver": 1
        },
        "dateFormat": {
            "permit": 6,
            "ver": 1
        },
        "ddns": {
            "permit": 6,
            "ver": 9
        },
        "ddnsCfg": {
            "permit": 6,
            "ver": 1
        },
        "devInfo": {
            "permit": 4,
            "ver": 1
        },
        "devName": {
            "permit": 6,
            "ver": 2
        },
        "disableAutoFocus": {
            "permit": 0,
            "ver": 0
        },
        "disk": {
            "permit": 0,
            "ver": 0
        },
        "display": {
            "permit": 6,
            "ver": 1
```

```
        },
        "email": {
            "permit": 6,
            "ver": 3
        },
        "emailInterval": {
            "permit": 6,
            "ver": 1
        },
        "emailSchedule": {
            "permit": 6,
            "ver": 1
        },
        "exportCfg": {
            "permit": 4,
            "ver": 0
        },
        "ftpAutoDir": {
            "permit": 6,
            "ver": 1
        },
        "ftpExtStream": {
            "permit": 0,
            "ver": 0
        },
        "ftpPic": {
            "permit": 0,
            "ver": 0
        },
        "ftpSubStream": {
            "permit": 6,
            "ver": 1
        },
        "ftpTest": {
            "permit": 6,
            "ver": 0
        },
        "hourFmt": {
            "permit": 6,
            "ver": 2
        },
        "http": {
            "permit": 6,
            "ver": 3
```

```json
        },
        "httpFlv": {
            "permit": 6,
            "ver": 1
        },
        "https": {
            "permit": 6,
            "ver": 3
        },
        "importCfg": {
            "permit": 1,
            "ver": 0
        },
        "ipcManager": {
            "permit": 6,
            "ver": 1
        },
        "ledControl": {
            "permit": 7,
            "ver": 1
        },
        "localLink": {
            "permit": 6,
            "ver": 1
        },
        "log": {
            "permit": 6,
            "ver": 1
        },
        "mediaPort": {
            "permit": 6,
            "ver": 1
        },
        "ntp": {
            "permit": 6,
            "ver": 1
        },
        "online": {
            "permit": 6,
            "ver": 1
        },
        "onvif": {
            "permit": 6,
            "ver": 3
```

```
        },
        "p2p": {
            "permit": 6,
            "ver": 1
        },
        "performance": {
            "permit": 4,
            "ver": 1
        },
        "pppoe": {
            "permit": 6,
            "ver": 0
        },
        "push": {
            "permit": 6,
            "ver": 1
        },
        "pushSchedule": {
            "permit": 6,
            "ver": 1
        },
        "reboot": {
            "permit": 1,
            "ver": 1
        },
        "recExtensionTimeList": {
            "permit": 6,
            "ver": 1
        },
        "recOverWrite": {
            "permit": 6,
            "ver": 1
        },
        "recPackDuration": {
            "permit": 6,
            "ver": 0
        },
        "recPreRecord": {
            "permit": 6,
            "ver": 1
        },
        "restore": {
            "permit": 1,
            "ver": 1
```

```
        },
        "rtmp": {
            "permit": 6,
            "ver": 3
        },
        "rtsp": {
            "permit": 6,
            "ver": 3
        },
        "scheduleVersion": {
            "permit": 6,
            "ver": 1
        },
        "sdCard": {
            "permit": 6,
            "ver": 1
        },
        "showQrCode": {
            "permit": 6,
            "ver": 0
        },
        "simMoudule": {
            "permit": 6,
            "ver": 0
        },
        "supportAudioAlarm": {
            "permit": 6,
            "ver": 1
        },
        "supportAudioAlarmEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportAudioAlarmSchedule": {
            "permit": 6,
            "ver": 1
        },
        "supportAudioAlarmTaskEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportBuzzer": {
            "permit": 0,
            "ver": 0
```

```
        },
        "supportBuzzerEnable": {
            "permit": 0,
            "ver": 0
        },
        "supportBuzzerTask": {
            "permit": 0,
            "ver": 0
        },
        "supportBuzzerTaskEnable": {
            "permit": 0,
            "ver": 0
        },
        "supportEmailEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportEmailTaskEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportFtpCoverPicture": {
            "permit": 6,
            "ver": 1
        },
        "supportFtpCoverVideo": {
            "permit": 6,
            "ver": 1
        },
        "supportFtpDirYM": {
            "permit": 6,
            "ver": 1
        },
        "supportFtpEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportFtpPicCaptureMode": {
            "permit": 6,
            "ver": 1
        },
        "supportFtpPicResoCustom": {
            "permit": 6,
            "ver": 0
```

```json
        },
        "supportFtpPictureSwap": {
            "permit": 6,
            "ver": 1
        },
        "supportFtpTask": {
            "permit": 6,
            "ver": 1
        },
        "supportFtpTaskEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportFtpVideoSwap": {
            "permit": 6,
            "ver": 1
        },
        "supportFtpsEncrypt": {
            "permit": 6,
            "ver": 1
        },
        "supportHttpEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportHttpsEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportOnvifEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportPushInterval": {
            "permit": 6,
            "ver": 1
        },
        "supportRecScheduleEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportRecordEnable": {
            "permit": 6,
            "ver": 1
```

```
        },
        "supportRtmpEnable": {
            "permit": 6,
            "ver": 1
        },
        "supportRtspEnable": {
            "permit": 6,
            "ver": 1
        },
        "talk": {
            "permit": 4,
            "ver": 1
        },
        "time": {
            "permit": 6,
            "ver": 2
        },
        "tvSystem": {
            "permit": 6,
            "ver": 0
        },
        "upgrade": {
            "permit": 1,
            "ver": 2
        },
        "upnp": {
            "permit": 6,
            "ver": 1
        },
        "user": {
            "permit": 6,
            "ver": 1
        },
        "videoClip": {
            "permit": 0,
            "ver": 0
        },
        "wifi": {
            "permit": 0,
            "ver": 0
        },
        "wifiTest": {
            "permit": 6,
            "ver": 0
```

```
            }
        }
    }
}]
```

Field description

Field	ver	permit
abilityChn-> mask	0: not support, 1:support Whether privacy zone configuration is supported	1:option 2:write 4: read 7: read & write & option
abilityChn->image	0: not support, 1:support Whether video parameter configuration is supported	
abilityChn->isp	0: not support, 1:support Whether ISP parameter configuration is supported	
abilityChn->white_balance	0: not support, 1:support Whether white balance is supported	
abilityChn->cameraMode	0: not support, 1:support Whether analog camera mode switching is supported	
abilityChn->osd	0: not support, 1:support, 2: support osd and distinct osd	
abilityChn->waterMark	0: not support, 1:support Whether watermark Settings are supported	
abilityChn->enc	0: not support set encode cfg, 1:support set encode cfg	
abilityChn->live	0: not support 1:support main/extern/sub stream; 2:support main/sub stream	

abilityChn->snap	0: not support snap, 1:support snap	
abilityChn->ftp	0: not support ftp; ver>0:support ftp (1: support stream 2: support jpg picture + stream 3: support Stream + mode selection 4: support jpg picture + stream + mode selection 5: support Stream + mode selection + stream type selection 6: support jpg picture + stream + mode selection + stream type selection)	
abilityChn->recCfg	0: not support, 1:support Supports video configuration (package time, preview, video delay, video coverage)	
abilityChn->recSchedule	0: not support, 1:support md record, 2:support md record and normal record	
abilityChn->recDownload	0: not support download record file, 1:support download record file	
abilityChn->recReplay	0: not support playback record file online, 1:support playback record file online file	
abilityChn->ptzType	0: Does not support PTZ or does	

	not have permission to operate 1:support AF 2: support PTZ 3: support PT 4: Simulated ball machine 5: PTZ (GM8136S PTZ) does not support speed adjustment
abilityChn->ptzCtrl	0:not support, 1: support control zoom 2: support control zoom and focus with slider
abilityChn->ptzPreset	0:not support, 1: support Whether PTZ preset points are supported
abilityChn->ptzPatrol	0:not support, 1: support Whether PTZ cruising is supported
abilityChn->ptzTattern	0:not support, 1: support Whether the PTZ trajectory setting is supported
abilityChn->ptzDirection	0: support 8 directions + auto scan, 1: support only 4 directions, no auto scan
abilityChn->alarmIoIn	0:not support, 1: support Whether IO alarm input is supported

abilityChn->alarmIoOut	0:not support, 1: support Whether IO alarm output is supported	
abilityChn->alarmRf	0:not support, 1: support Rf alarm on DVR 2:Battery ipc 3:Add the ALARM/MD schedule option	
abilityChn->alarmMd	0:not support, 1: support Whether movement detection alarms are supported	
abilityChn->disableAutoFocus	0:not support set auto fucus, 1: support set auto fucus	
abilityChn->floodLight	0:not support White light LED, 1: support White light LED	
abilityChn->battery	0:not support, 1: support	
abilityChn->indicatorLight	0:not support indicator Light, 1: support indicator Light	
abilityChn->videoClip	0:not support video Cutout 1: support cutout width and height cannot be modified; 2: support cutout width and height can be modified	
abilityChn->powerLed	0:not support, 1: support	
abilityChn->mainEncType	0: main stream enc type is H264 1:main stream enc type is H265	

abilityChn->ispDayNight	0:not support day_night mode 1:support day_night mode 2: Support day and night mode and support setting switching threshold	
abilityChn->ispAntiFlick	0:not support 1:support Whether anti-flicker function is supporte	
abilityChn->ispExposureMode	0:not support 1:support Whether exposure is supported	
abilityChn->ispWhiteBalance	0:not support 1:support	
abilityChn->ispBackLight	0:not support 1:support	
abilityChn->isp3Dnr	0:not support 1:support	
abilityChn->ispMirror	0:not support 1:support	
abilityChn->ispFlip	0:not support 1:support	
abilityChn->ispBright	0:not support 1:support	
abilityChn->ispContrast	0:not support 1:support	
abilityChn->ispSatruation	0:not support 1:support	
abilityChn->ispHue	0:not support 1:support	

abilityChn->ispSharpen	0:not support 1:support	
abilityChn->floodLight	0:not support 1: Support white light, 2: Support white light automatic mode	
abilityChn->mdWithPir	0:not support 1:support	
abilityChn->mdTriggerAudio	0:not support 1:support	
abilityChn->mdTriggerRecord	0:not support 1:support	
abilityChn->shelterCfg	0:not support 1:support	
abilityChn->alarmAudio	0:not support 1:support	
abilityChn->batAnalysis	0:not support 1:support	
abilityChn->waterMark	0:not support 1:support	
abilityChn->ledControl	0:not support 1:support	
abilityChn->supportPtzCheck	0:not support 1:support	
hourFmt	0:not support 1: support change hour formate	
time	0:not support 1: Daylight saving time only supports Sunday; 2: Supports any day of the week	

tvSystem	0:not support 1:support	
display	0:not support 1:support	
ipcManager	0:not support 1:support	
devInfo	0:not support 1:support	
autoMaint	0:not support 1:support	
restore	0:not support 1:support	
reboot	0:not support 1:support	
log	0:not support 1:support	
performance	0:not support 1:support	
upgrade	0:not support 1:support manual upgrade 2: support manual upgrade and upgrade online	
importCfg	0:not support 1:support	
exportCfg	0:not support 1:support	
disk	0:not support 1:support	
sdCard	0:not support 1:support	

devName	0:not support	
	1:support	
auth	0:not support	
	1:support	
user	0:not support	
	1:support	
online	0:not support	
	1:support	
rtsp	0:not support	
	1:support	
rtmp	0:not support	
	1:support	
ddns	0:not support	
	1:swan	
	2:3322	
	3:dyndns	
	4:swann+3322	
	5:swann+dyndns	
	6:3322+dyndns	
	7:swann+3332+dyndns	
	8:noip	
	9:dyndns+noip	
ddnsCfg	0: Does not support entering ddns server address	
	1: Support input ddns server address	
email	0: Mail function is not supported	
	1: Support jpg attachment	
	2: Support video and jpg attachments	

	3: Support video and jpg attachments, support sender nickname	
emailSchedule	0: Schedule is not supported 1: Support schedule	
upnp	0:not support 1:support	
onvif	0:not support 1:support	
ntp	0:not support 1:support	
mediaPort	0:not support 1:support	
http	0:not support 1:support	
https	0:not support 1:support	
httpFlv	0:not support 1:support	
p2p	0:not support 1:support	
3g	0:not support 1:support	
localLink	0:not support 1:support	
pppoe	0:not support 1:support	
Wifi	0:not support 1:support	

Push	0:not support 1:support	
pushSchedule	0:not support 1:support	
Talk	0:not support 1:support	
alarmHddErr	0:not support 1:support	
alarmHddFull	0:not support 1:support	
alarmDisconnet	0:not support 1:support	
alarmIpConflict	0:not support 1:support	
ledControl	0:not support 1:support	
disableAutoFocus	0:not support 1:support	
videoClip	1: Cutout width and height cannot be modified; 2: Cutout width and height can be modified	
alarmAudio	0:not support 1:support	
cloudStorage	bit0: Whether to support cloud upload bit1: Whether to support cloud service configuration bit3: Whether to support cloud upload deployment	

scheduleVersion	0: support cmd: "GetRec" ,"SetRec"," GetEmail"," SetEmail"," GetFtp", "SetFtp", "GetPush", "SetPush", "GetAudioAlarm", "SetAudioAlarm", "GetCloudSchedule","SetCloudSch edule","GetAlarm","SetAlarm" 1: support cmd: "GetRecV20" ,"SetRecV20"," GetEmailV20"," SetEmailV20"," GetFtpV20", "SetFtpV20", "GetPushV20", "SetPushV20", "GetAudioAlarmV20", "SetAudioAlarmV20", "GetCloudScheduleV20", "SetCloudScheduleV20"; "GetMdAlarm" "SetMdAlarm"	
customAudio	0:not support 1:support	
wifiTest	0:not support 1:support	
simMoudule	0:not support 1:support	
dateFormat	0:not support 1:support	
emailInterval	0:not support 1:support	

showQrCode	0:not support 1:support	
ftpTest	0:not support 1:support	
ftpSubStream	0:not support 1:support	
ftpExtStream	0:not support 1:support	
ftpPic	0:not support 1:support	
ftpAutoDir	0:not support 1:support	
recOverWrite	0:not support 1:support	
recPackDuration	0:not support 1:support	
recPreRecord	0:not support 1:support	
recExtensionTimeList	0:not support 1:support	
supportAudioAlarm	0:not support 1:support	
supportAudioAlarmEnable	0:not support 1:support	
supportAudioAlarmSchedule	0:not support 1:support	
supportAudioAlarmTaskEnable	0:not support 1:support	
supportFtpTask	0:not support 1:support	

supportBuzzer	0:not support	
	1:support	
supportBuzzerEnable	0:not support	
	1:support	
supportBuzzerTask	0:not support	
	1:support	
supportBuzzerTaskEnable	0:not support	
	1:support	
supportRecordEnable	0:not support	
	1:support	
supportRecScheduleEnable	0:not support	
	1:support	
supportEmailEnable	0:not support	
	1:support	
supportEmailTaskEnable	0:not support	
	1:support	
supportFtpEnable	0:not support	
	1:support	
supportFtpTaskEnable	0:not support	
	1:support	
supportAi	0:not support	
	1:support	
supportAiAnimal	0:not support	
	1:support	
supportAiDetectConfig	0:not support	
	1:support	
supportAiDogCat	0:not support	
	1:support	
supportAiFace	0:not support	
	1:support	

supportAiPeople	0:not support 1:support	
supportAiSensitivity	0:not support 1:support	
supportAiStayTime	0:not support 1:support	
supportAiTargetSize	0:not support 1:support	
supportAiVehicle	0:not support 1:support	
supportAoAdjust	0:not support 1:support	
supportFLBrightness	0:not support 1:support	
supportFLIntelligent	0:not support 1:support	
supportFLKeepOn	0:not support 1:support	
supportFLSchedule	0:not support 1:support	
supportFLswitch	0:not support 1:support	
supportGop	0:not support 1:support	
supportPtzCheck	0:not support 1:support	
supportThresholdAdjust	0:not support 1:support	
supportWhiteDark	0:not support 1:support	

supportAudioAlarm	0:not support 1:support	
supportAudioAlarmEnable	0:not support 1:support	
supportAudioAlarmSchedule	0:not support 1:support	
supportAudioAlarmTaskEnable	0:not support 1:support	
supportBuzzer	0:not support 1:support	
supportBuzzerEnable	0:not support 1:support	
supportBuzzerTask	0:not support 1:support	
supportBuzzerTaskEnable	0:not support 1:support	
supportEmailEnable	0:not support 1:support	
supportEmailTaskEnable	0:not support 1:support	
supportFtpCoverPicture	0:not support 1:support	
supportFtpCoverVideo	0:not support 1:support	
supportFtpDirYM	0:not support 1:support	
supportFtpPicCaptureMode	0:not support 1:support	
supportFtpPicResoCustom	0:not support 1:support	

supportFtpPictureSwap	0:not support 1:support	
supportFtpTask	0:not support 1:support	
supportFtpTaskEnable	0:not support 1:support	
supportFtpVideoSwap	0:not support 1:support	
supportFtpsEncrypt	0:not support 1:support	
supportHttpEnable	0:not support 1:support	
supportHttpsEnable	0:not support 1:support	
supportOnvifEnable	0:not support 1:support	
supportPushInterval	0:not support 1:support	
supportRecScheduleEnable	0:not support 1:support	
supportRecordEnable	0:not support 1:support	
supportRtmpEnable	0:not support 1:support	
supportRtspEnable	0:not support 1:support	
supportAutoTrackStream	0:not support 1:support Whether the tracking stream configuration is supported	

supportBinoStitch	0:not support 1:support Whether the adjustment of binocular equipment splicing picture is supported	
aiTrackDogCat	Whether tracking of cats and dogs is supported	

3.1.2 GetDevInfo

- **Interface Description**

It is used to get device information.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetDevInfo&token=TOKEN

- **Post Data**

Data example

[
  {
    "cmd":"GetDevInfo"
  }
]

Field description

Field	Description	M/O

- **Return data description**

Return data correctly
[

```
    {
        "cmd" : "GetDevInfo",
        "code" : 0,
        "value" : {
            "DevInfo" : {
                "B485" : 1,
                "IOInputNum" : 0,
                "IOOutputNum" : 0,
                "audioNum" : 16,
                "buildDay" : "build 20080734",
                "cfgVer" : "v3.0.0.0",
                "channelNum" : 16,
                "detail" : "NVR652410104001000200000",
                "diskNum" : 2,
                "exactType" : "NVR",
                "firmVer" : "v3.0.0.59_20080734",
                "frameworkVer" : 1,
                "hardVer" : "H3MB18",
                "model" : "RLN16-410",
                "name" : "NVR",
                "pakSuffix" : "pak,paks",
                "serial" : "00000000000000",
                "type" : "NVR",
                "wifi" : 0
            }
        }
    }
]
```

Field description

Field	Description
IOInputNum	The number of IO input port.
IOOutputNum	The number of IO output port.
buildDay	The establish date.
cfgVer	The version number of configuration information.
channelNum	The channel number.
detail	The details of device information.
diskNum	The number of USB disk or SD card.
firmVer	The version number of the firmware.

hardVer	The version number of the hardware.
name	Device name.
type	Device type.
wifi	Whether Wi-Fi is supported.
B485	0: no 485, 1 :have 485
exactType	Product type
frameworkVer	Architecture version

3.1.3 GetDevName

- **Interface Description**

It is used to get configuration of DevName.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetDevName&token=TOKEN

- **Post Data**

Data example

[{
    "cmd": "GetDevName",
    "param": {
        "channel":0
    }
 	
}]

Field description		
Field	**Description**	**M/O**
channel	Index of channel	M

- **Return data description**

Return data correctly
| ```
[
    {
        "cmd" : "GetDevName",
        "code" : 0,
        "value" : {
            "DevName" : {
                "name" : "NVR"
            }
        }
    }
]
``` |

Field description	
Field	**description**
name	name of device

3.1.4 SetDevName

● **Interface Description**

It is used to set configuration of DevName.

● **Interface Call Instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetDevName&token=TOKEN

● **Post Data**

Data example
| ```
[{
    "cmd": "SetDevName",
    "param": {
        "DevName": {
            "name": "camera101"
        }
``` |

}		
}]		
Field description		
Field	**Description**	**M/O**
channel	Index of channel	M

- **Return data description**

Return data correctly

[
    {
        "cmd" : "SetDevName",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**

3.1.5 GetTime

- **Interface Description**

It is used to get time from device.

- **Interface Call Instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetTime&token=TOKEN

- **Post Data**

Data example

[
  {
    "cmd":"GetTime",
    "action":1
  }
]

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
  {
    "cmd" : "GetTime",
    "code" : 0,
    "initial" : {
      "Dst" : {
        "enable" : 0,
        "endHour" : 2,
        "endMin" : 0,
        "endMon" : 10,
        "endSec" : 0,
        "endWeek" : 5,
        "endWeekday" : 0,
        "offset" : 1,
        "startHour" : 2,
        "startMin" : 0,
        "startMon" : 3,
        "startSec" : 0,
        "startWeek" : 2,
        "startWeekday" : 0
      },
      "Time" : {
        "day" : 1,
        "hour" : 0,
        "hourFmt" : 0,
        "min" : 0,
        "mon" : 0,

```json
                "sec" : 0,
                "timeFmt" : "DD/MM/YYYY",
                "timeZone" : 28800,
                "year" : 0,
                "hourFmt" : 0
                        }
                },
            "range" : {
                "Dst" : {
                    "enable" : "boolean",
                    "endHour" : {
                        "max" : 23,
                        "min" : 0
                    },
                    "endMin" : {
                        "max" : 59,
                        "min" : 0
                    },
                    "endMon" : {
                        "max" : 12,
                        "min" : 1
                    },
                    "endSec" : {
                        "max" : 59,
                        "min" : 0
                    },
                    "endWeek" : {
                        "max" : 5,
                        "min" : 1
                    },
                    "endWeekday" : {
                        "max" : 6,
                        "min" : 0
                    },
                    "offset" : {
                        "max" : 2,
                        "min" : 1
                    },
                    "startHour" : {
                        "max" : 23,
                        "min" : 0
                    },
                    "startMin" : {
                        "max" : 59,
```

```
                            "min" : 0
                        },
                        "startMon" : {
                            "max" : 12,
                            "min" : 1
                        },
                        "startSec" : {
                            "max" : 59,
                            "min" : 0
                        },
                        "startWeek" : {
                            "max" : 5,
                            "min" : 1
                        },
                        "startWeekday" : {
                            "max" : 6,
                            "min" : 0
                        }
                    },
                    "Time" : {
                        "day" : {
                            "max" : 31,
                            "min" : 1
                        },
                        "hour" : {
                            "max" : 23,
                            "min" : 0
                        },
                        "hourFmt" : {
                            "max" : 1,
                            "min" : 0
                        },
                        "min" : {
                            "max" : 59,
                            "min" : 0
                        },
                        "mon" : {
                            "max" : 12,
                            "min" : 1
                        },
                        "sec" : {
                            "max" : 59,
                            "min" : 0
                        },
```

```json
                        "timeFmt" : [ "MM/DD/YYYY", "YYYY/MM/DD",
"DD/MM/YYYY" ],
                        "timeZone" : {
                            "max" : 43200,
                            "min" : -46800
                        },
                        "year" : {
                            "max" : 2100,
                            "min" : 1900
                        }
                    }
                },
                "value" : {
                    "Dst" : {
                        "enable" : 0,
                        "endHour" : 2,
                        "endMin" : 0,
                        "endMon" : 10,
                        "endSec" : 0,
                        "endWeek" : 5,
                        "endWeekday" : 0,
                        "offset" : 1,
                        "startHour" : 2,
                        "startMin" : 0,
                        "startMon" : 3,
                        "startSec" : 0,
                        "startWeek" : 2,
                        "startWeekday" : 0
                    },
                    "Time" : {
                        "day" : 23,
                        "hour" : 20,
                        "hourFmt" : 0,
                        "min" : 59,
                        "mon" : 12,
                        "sec" : 40,
                        "timeFmt" : "DD/MM/YYYY",
                        "timeZone" : 28800,
                        "year" : 2020,
        "hourFmt" : 0
                    }
                }
            }
        ]
```

Field description	
Field	**description**
Dst	Daylight Savings Time
enable	Enable Daylight Savings Time
endHour	The end of Daylight Savings Time(Hour)
endMin	The end of Daylight Savings Time(Minute)
endMon	The end of Daylight Savings Time(Month)
endSec	The end of Daylight Savings Time(Second)
endWeek	The end of Daylight Savings Time(Week)
endWeekday	The end of Daylight Savings Time(Day)
offset	Time offset
startHour	Daylight Savings Time starting time(Hour)
startMin	Daylight Savings Time starting time(Minute)
startMon	Daylight Savings Time starting time(Month)
startSec	Daylight Savings Time starting time(Second)
startWeek	Daylight Savings Time starting time(Week)
startWeekday	Daylight Savings Time starting time(Day)
Time	System time
year	Year
mon	Month
day	Day
hour	Hour
min	Minute
sec	Second
timeFmt	Time format
timeZone	Time zone
hourFmt	Hour format,0 is for 24 hour clock，1 is for 12 hour clock

3.1.6 SetTime

- **Interface Description**

It is used to set time of the device.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetTime&token=TOKEN

- **Post Data**

Data example

```
[
  {
    "cmd":"SetTime",
    "param" : {
        "Dst" : {
            "enable" : 0,
            "endHour" : 2,
            "endMin" : 0,
            "endMon" : 10,
            "endSec" : 0,
            "endWeek" : 5,
            "endWeekday" : 0,
            "offset" : 1,
            "startHour" : 2,
            "startMin" : 0,
            "startMon" : 3,
            "startSec" : 0,
            "startWeek" : 2,
            "startWeekday" : 0
        },
        "Time" : {
            "day" : 6,
            "hour" : 20,
            "min" : 9,
            "mon" : 6,
            "sec" : 32,
            "timeFmt" : "DD/MM/YYYY",
            "timeZone" : -28800,
            "year" : 2016,
```

```
                "hourFmt" : 0
            }
        }
    }
]
```

Field description

Field	Description	M/O
Dst	See also GetTime	O
enable	See also GetTime	O
endHour	See also GetTime	O
endMin	See also GetTime	O
endMon	See also GetTime	O
endSec	See also GetTime	O
endWeek	See also GetTime	O
endWeekday	See also GetTime	O
offset	See also GetTime	O
startHour	See also GetTime	O
startMin	See also GetTime	O
startMon	See also GetTime	O
startSec	See also GetTime	O
startWeek	See also GetTime	O
startWeekday	See also GetTime	O
year	See also GetTime	O
mon	See also GetTime	O
day	See also GetTime	O
hour	See also GetTime	O
min	See also GetTime	O
sec	See also GetTime	O
timeFmt	See also GetTime	O
timeZone	See also GetTime	O
hourFmt	See also GetTime	O

- **Return data description**

Return data correctly
``[
{
"cmd" : "SetTime",
"code" : 0,
"value" : {
"rspCode" : 200
}
}
]```
Field description

Field	description

3.1.7 GetAutoMaint

- **Interface Description**

It is used to get device automatic maintenance information.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetAutoMaint&token=TOKEN

- **Post Data**

Data example
``[
{
"cmd":"GetAutoMaint",
"action":1
}
]```
Field description

Field	Description	M/O

● **Return data description**

Return data correctly

```
[
    {
        [
    {
        "cmd" : "GetAutoMaint",
        "code" : 0,
        "initial" : {
            "AutoMaint" : {
                "enable" : 0,
                "hour" : 0,
                "min" : 0,
                "sec" : 0,
                "weekDay" : "Sunday"
            }
        },
        "range" : {
            "AutoMaint" : {
                "enable" : "boolean",
                "hour" : {
                    "max" : 23,
                    "min" : 0
                },
                "min" : {
                    "max" : 59,
                    "min" : 0
                },
                "sec" : {
                    "max" : 59,
                    "min" : 0
                },
                "weekDay" : [
                    "Everyday",
                    "Sunday",
                    "Monday",
                    "Tuesday",
                    "Wednesday",
                    "Thursday",
                    "Friday",
                    "Saturday"
```

```
                    ]
                }
            },
            "value" : {
                "AutoMaint" : {
                    "enable" : 1,
                    "hour" : 2,
                    "min" : 0,
                    "sec" : 0,
                    "weekDay" : "Sunday"
                }
            }
        }
]
```

Field description

Field	description
enable	Auto maintainance of enable/disable switch
hour	Hour
min	Minute
sec	Second
weekDay	The day of the week

3.1.8 SetAutoMaint

● **Interface Description**

It is used to set device automatic maintenance information.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetAutoMaint&token=TOKEN

● **Post Data**

Data example

[

```
{
    "cmd":"SetAutoMaint",
    "param":{
        "AutoMaint":{
            "enable":1,
            "weekDay":"Everyday",
            "hour":3,
            "min":52,
            "sec":4
        }
    }
}
]
```

Field description

Field	Description	M/O
enable	See also GetAutoMaint	O
hour	See also GetAutoMaint	O
min	See also GetAutoMaint	O
sec	See also GetAutoMaint	O
weekDay	See also GetAutoMaint	O

● **Return data description**

Return data correctly

```
[
    {
        "cmd" : "SetAutoMaint",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
```

Field description

Field	description

3.1.9 GetHddInfo

- **Interface Description**

It is used to get hard disks or sd-Card information of device.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetHddInfo&token=TOKEN

- **Post Data**

Data example

[
  {
    "cmd":"GetHddInfo"
  }
]

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
    {
        "cmd" : "GetHddInfo",
        "code" : 0,
        "value" : {
            "HddInfo" : [
                {
                    "capacity" : 938610,
                    "format" : 1,
                    "mount" : 1,
                    "number" : 1,
                    "size" : 549219,
                    "storageType" : 1
                }
            ]

```
        }
    }
]
```

Field description	
Field	**description**
capacity	The capacity of HDD or SD card(Mb)
format	Whether it is formatted or not
id	Index for HDD or SD card
mount	Whether it is mounted or not
size	The remaining capacity (Mb)
storageType	Type of storage
number	External SATA interface

3.1.10 Format

● **Interface Description**

It is used to format hard disks or SD-Card.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=Format&token=TOKEN

● **Post Data**

Data example
| ```
[{
    "cmd": "Format",
    "param": {
        "HddInfo": {
            "id": [0]
        }
    }
}]
``` |

Field description		
Field	**Description**	**M/O**
id	Index of the hard disk or sd-Card that you want to format.	M

● **Return data description**

Return data correctly

<pre>[
    {
        "cmd" : "Format",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]</pre>

Field description	
Field	**description**

3.1.11 Upgrade

● **Interface Description**

It is used to upgrade the firmware of the device. Must send cmd UpgradePrepare first

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=Upgrade&clearConfig=%d&token=TOKEN

● **Request parameter description**

Parameter	M/O	Description
clearConfig	M	Whether to clear the configuration mark

- **Post Data**

Data example
Content-Type: multipart/form-data; boundary=----WebKitFormBoundaryYkwJBwvTHAd3Nukl Referer: https://192.168.2.232/?1466148584152 Accept-Encoding: gzip, deflate Accept-Language: zh-CN,zh;q=0.8 ------WebKitFormBoundaryYkwJBwvTHAd3Nukl Content-Disposition: form-data; name="upgrade-package"; filename="xxx.pak" Content-Type: application/octet-stream xxxxxxxxxxx......(File content) ------WebKitFormBoundaryYkwJBwvTHAd3Nukl--   Note: This command can only carry up to 40K packets at a time, and it needs to be called several times to complete the device update

Field description		
Field	**Description**	**M/O**
boundary	Delimiter	M
filename	The name of the update file	M
name	Bound to be "upgrade-package"	M

- **Return data description**

Return data correctly

[
    {
        "cmd" : "Upgrade",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**

3.1.12 Restore

- **Interface Description**

It is used to reset all configurations of the device to the factory default.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=Restore&token=TOKEN

- **Post Data**

Data example		

[
  {
    "cmd":"Restore"
  }
]		

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
  {
    "cmd" : "Restore",
    "code" : 0,
    "value" : {
      "rspCode" : 200
    }
  }
]

Field description	
Field	**description**

3.1.13 Reboot

● **Interface Description**

It is used to reboot the device.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=Reboot&token=TOKEN

● **Post Data**

Data example		

[
  {
    "cmd":"Reboot"
  }
]		

Field description		
Field	**Description**	**M/O**

● **Return data description**

Return data correctly

[
    {
       "cmd" : "Reboot",
       "code" : 0,
       "value" : {
           "rspCode" : 200
       }
    }
]

Field description

Field	description

3.1.14 UpgradePrepare

- **Interface Description**

It is used to check that the upgrade file is legal or not. Combined use with cmd upgrade

- **Interface call instructions**

Request URL	https://IPC_IP/ api.cgi?cmd=UpgradePrepare&token=TOKEN

- **Post Data**

Data example

[
    {
        "cmd":"UpgradePrepare",
        "action":1,
        "param":
        {
            "restoreCfg":0,
            "fileName":"XXX.pak"
        }
    }
]

Field description		
Field	**Description**	**M/O**
restoreCfg	Whether to clear the configuration mark	**M**
fileName	The file name of the upgrade file	**M**

- **Return data description**

Return data correctly
[{

```
        "cmd" : " UpgratePrepare ",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
```

Field description	
Field	**description**
rspCode	Response code

3.1.15 GetAutoUpgrade

● **Interface Description**

It is used to get device automatic upgrade information.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= GetAutoUpgrade&token=TOKEN

● **POST Data**

Data example		

[
    {
        "cmd":" GetAutoUpgrade"
    }
]		

Field description		
Field	**Description**	**M/O**
		M

● **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetAutoUpgrade",
        "code" : 0,
        "initial" : {
            "AutoUpgrade" : {
                "enable" : 1
            }
        },
        "range" : {
            "AutoUpgrade" : {
                "enable" : "boolean"
            }
        },
        "value" : {
            "AutoUpgrade" : {
                "enable" : 1
            }
        }
    }
]
```

Field description

Field	description
rspCode	Response code

3.1.16 SetAutoUpgrade

- **Interface Description**

It is used to set device automatic upgrade information.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= SetAutoUpgrade &token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd": "SetAutoUpgrade",
        "param": {
            "AutoUpgrade": {
                "enable": 0
            }
        }
    }
]
```

Field description

Field	Description	M/O
		M

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : " SetAutoUpgrade ",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
```

Field description

Field	description
rspCode	Response code

3.1.17 CheckFirmware

- **Interface Description**

It is used to check for new upgrade file of online upgrades

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= CheckFirmware&token=TOKEN

- **POST Data**

Data example		

[
    {
        "cmd":" CheckFirmware"
    }
]		

Field description		
Field	**Description**	**M/O**
		M

- **Return data description**

Return data correctly	

[
    {
        "cmd" : " CheckFirmware",
        "code" : 0,
        "value" : {
            "newFirmware" : 00
        }
    }
]	

Field description	
Field	**description**
rspCode	Response code
newFirmware	New firmware

3.1.18 UpgradeOnline

- **Interface Description**

It is used to startonline upgrade when check for a new version

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= UpgradeOnline &token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":" UpgradeOnline ",
    }
]
```

Field description

Field	Description	M/O
		M

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : " UpgradeOnline ",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
```

Field description

Field	description
rspCode	Response code

3.1.19 UpgradeStatus

- **Interface Description**

It is used to Check file download progress during online upgrade

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= UpgradeStatus &token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd":" UpgradeStatus "
    }
]

Field description		
Field	**Description**	**M/O**
		M

- **Return data description**

Return data correctly	

[
    {
        "cmd" : "UpgradeStatus",
        "code" : 0,
        "value" : {
            "Status" : {
                "Persent" : 0,
                "code" : 0
            }
        }
    }
]	

Field description	
Field	**description**
rspCode	Response code

3.1.20 Getchannelstatus

● **Interface Description**

It is used to get configuration of channelstatus.

● **Interface call instructions**

Request URL	https://NVR_IP/api.cgi?cmd=Getchannelstatus&token=TOKEN

● **Post Data**

Data example
[{ 　　"cmd": "Getchannelstatus" }]
Field description

Field	Description	M/O

● **Return data description**

Return data correctly

[
　　{
　　　　"cmd" : "GetChannelstatus",
　　　　"code" : 0,
　　　　"value" : {
　　　　　　"count" : 16,
　　　　　　"status" : [
　　　　　　　　{
　　　　　　　　　　"channel" : 0,
　　　　　　　　　　"name" : "E1 X",
　　　　　　　　　　"online" : 1,
　　　　　　　　　　"typeInfo" : "E1 X"
　　　　　　　　},
　　　　　　　　{
　　　　　　　　　　"channel" : 1,
　　　　　　　　　　"name" : "",

```
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 2,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 3,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 4,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 5,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 6,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 7,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 8,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
```

```
        },
        {
            "channel" : 9,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 10,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 11,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 12,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 13,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 14,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        },
        {
            "channel" : 15,
            "name" : "",
            "online" : 0,
            "typeInfo" : ""
        }
    ]
```

```
        }
    }
]
```

Field description	
Field	**description**
channel	Channel number
name	Device name
online	Whether online or not
typeinfo	Infomation of type

3.2 Security

3.2.1 Login

● **Interface Description**

It is used to get Token.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=Login

● **POST Data**

Data example

[{
    "cmd": "Login",
    "param": {
        "User": {
            "Version": "0",
            "userName": "admin",
            "password": "111111"
        }
    }
}]]

Field description		
Field	**Description**	**M/O**
userName	Account name, limit 1~31 characters.	M
password	Account password, limit 1~31 characters.	O
Version	Login version 0: Do not apply private encryption protocol 1: Apply a private encryption protocol *The private encryption protocol is not provided externally, so* *please select 0*	O

- **Return data description**

Return data correctly

```[```
    `{`
       `"cmd" : "Login",`
       `"code" : 0,`
       `"value" : {`
          `"Token" : {`
             `"leaseTime" : 3600,`
             `"name" : "031465962723"`
          `}`
       `}`
    `}`
`]`

Field description	
Field	**description**
leaseTime	Lease time by second.
name	Token string, length should be less than 32 characters.

3.2.2 Logout

- **Interface Description**

It is used to release Token.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=Logout&token=TOKEN

- **POST Data**

Data example
<pre>[
{
"cmd":"Logout",
"param":{
}
}
]</pre>
Field description

Field	Description	M/O

- **Return data description**

Return data correctly
<pre>[
{
"cmd" : "Logout",
"code" : 0,
"value" : {
"rspCode" : 200
}
}
]</pre>
Field description

Field	description
rspCode	Response code

3.2.3 GetUser

- **Interface Description**

It is used to get all users' infomation.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetUser&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":"GetUser",
        "action":1
    }
]
```

Field description

Field	Description	M/O

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetUser",
        "code" : 0,
        "initial" : {
            "User" : {
                "level" : "guest"
            }
        },
        "range" : {
            "User" : {
                "level" : [ "guest", "admin" ],
                "password" : {
                    "maxLen" : 31,
```

```
                "minLen" : 6
            },
            "userName" : {
                "maxLen" : 31,
                "minLen" : 1
            }
        }
    },
    "value" : {
        "User" : [
            {
                "level" : "admin",
                "userName" : "admin"
            }
        ]
    }
    }
]
```

Field description

Field	description
level	User competence
userName	User name
maxlen	Max length
minlen	Min length

3.2.4 AddUser

- **Interface Description**

It is used to set configuration of user.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=AddUser&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd":"AddUser",
        "param":{
            "User":{
                "userName":"GuestUser",
                "password":"123456",
                "level":"guest"
            }
        }
    }
]

Field description

Field	Description	M/O
userName	Account name.	M
password	Account password.	M
level	User competence	M
Note : Can add up to 20 users		

- **Return data description**

Return data correctly

[
    {
        "cmd" : "AddUser",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description

Field	description
rspCode	Response code

3.2.5 DelUser

● **Interface Description**

It is used to del configuration of user.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=DelUser&token=TOKEN

● **POST Data**

Data example

[
    {
        "cmd":"DelUser",
        "param":{
            "User":{
                "userName":"TestUser"
            }
        }
    }
]

Field description		
Field	**Description**	**M/O**
userName	Account name,limit 1~31 characters.	M

● **Return data description**

Return data correctly

[
    {
        "cmd" : "DelUser",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**
rspCode	Response code

3.2.6 ModifyUser

- **Interface Description**

It is used to modify configuration of user.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=ModifyUser&token=TOKEN

- **POST Data**

Data example

[{
    "cmd": "ModifyUser",
    "action": 0,
    "param": {
        "User": {
            "userName": "admin",
            "newPassword": "111111",
            "oldPassword": "000000"
        }
    }
}]

Field description		
Field	**Description**	**M/O**
userName	Account name.	M
newPassword	Account new password.	M
oldPassword	Account old password.	

- **Return data description**

Return data correctly
| ```
[
    {
        "cmd" : "ModifyUser",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
``` |

Field description	
Field	**description**
rspCode	Response code

3.2.7 GetOnline

● **Interface Description**

It is used to get all onlusers' infomation.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetOnline&token=TOKEN

● **Return data description**

Return data correctly
| ```
[
    {
        "cmd":"GetOnline",
        "code":0,
        "value":{
            "User":[
                {
                    "canbeDisconn":0,
                    "ip":"192.168.2.166",
                    "level":"admin",
                    "sessionId":1000,
``` |

"userName":"admin"
            },
            … // There may be multiple online users.
        ]
    }
  }
]	

Field description

Field	description
canbeDisconn	When the field value is 1, the online user can be forced to disconnect.When the value is 0, the reverse is the case.
ip	The IP address of the online user.
level	User competence for online users
sessionId	Session id distributed to online users by the system, it is used to force the user to go offline.
userName	The online user's login account.

3.2.8 Disconnect

● **Interface Description**

It is used to disconnect configuration of user.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=Disconnect&token=TOKEN

● **POST Data**

Data example

```
[{
    "cmd": "Disconnect",
    "param": {
        "User": {
            "userName": "userName",
            "sessionId": 1001
```

}   }   }]

Field description

Field	Description	M/O
userName	The online user's login account.	M
sessionId	The session ID which System assigned to the online user.	M

● **Return data description**

Return data correctly

[
     {
         "cmd" : "Disconnect",
         "code" : 0,
         "value" : {
             "rspCode" : 200
         }
     }
 ]

Field description

Field	description
rspCode	Response code

3.2.9 GetSysCfg

● **Interface Description**

It is used to get the login lock time.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetSysCfg&token=TOKEN

● **Post Data**

Data example

[{
    "cmd": "GetSysCfg",
    "action": 1,
    "param": {
        "channel": 0
    }
 	
}]

Field description		
Field	**Description**	**M/O**
channel	Device channel number	

- **Return data description**

Return data correctly

[
    {
        "cmd" : "GetSysCfg",
        "code" : 0,
        "initial" : {
            "SysCfg" : {
                "LockTime" : 300,
                "allowedTimes" : 5,
                "loginLock" : 0
            }
        },
        "range" : {
            "SysCfg" : {
                "LockTime" : {
                    "max" : 300,
                    "min" : 0
                },
                "allowedTimes" : {
                    "max" : 5,
                    "min" : 0
                },
                "loginLock" : "boolean"
            }
        },

```
        "value" : {
            "SysCfg" : {
                "LockTime" : 300,
                "allowedTimes" : 5,
                "loginLock" : 0
            }
        }
    }
]
```

Field description	
Field	**description**
LockTime	Login lock time
allowedTimes	Maximum number of allowed attempts
loginLock	Login lock switch

3.2.10 SetSysCfg

- **Interface Description**

It is used to set configuration of system.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetSysCfg&token=TOKEN

- **Post Data**

Data example

[{
    "cmd": "SetSysCfg",
    "action": 0,
    "param": {
        "SysCfg": {
            "loginLock": 1

``
        }
    }
}]
``

Field description

Field	Description	M/O
loginLock	Login lock switch	
Note: You can only set whether to enable the login lock function, the number of attempts and lock time cannot be changed		

- **Return data description**

Return data correctly

``
[
    {
        "cmd" : "SetSysCfg",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
``

Field description

Field	description

3.3 Network

3.3.1 GetLocalLink

- **Interface Description**

It is used to get configuration of Local Link.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetLocalLink&token=TOKEN

- **POST Data**

Data example		

[
   {
      "cmd":"GetLocalLink",
      "action":1
   }
]		

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
   {
      "cmd" : "GetLocalLink",
      "code" : 0,
      "initial" : {
         "LocalLink" : {
            "activeLink" : "LAN",
            "dns" : {
               "auto" : 1,
               "dns1" : "192.168.0.1",
               "dns2" : "192.168.0.1"
            },
            "mac" : "EC:71:DB:36:8E:C7",
            "static" : {
               "gateway" : "192.168.0.1",
               "ip" : "192.168.0.100",
               "mask" : "255.255.255.0"
            },
            "type" : "DHCP"
         }
      },
      "range" : {
         "LocalLink" : {
            "dns" : {

```
                "auto" : "boolean",
                "dns1" : {
                    "maxLen" : 15
                },
                "dns2" : {
                    "maxLen" : 15
                }
            },
            "static" : {
                "gateway" : {
                    "maxLen" : 15
                },
                "ip" : {
                    "maxLen" : 15
                },
                "mask" : {
                    "maxLen" : 15
                }
            },
            "type" : [ "DHCP", "Static" ]
        }
    },
    "value" : {
        "LocalLink" : {
            "activeLink" : "LAN",
            "dns" : {
                "auto" : 1,
                "dns1" : "192.168.2.1",
                "dns2" : "114.114.114.114"
            },
            "mac" : "ec:71:db:0f:93:91",
            "static" : {
                "gateway" : "192.168.2.1",
                "ip" : "192.168.3.38",
                "mask" : "255.255.252.0"
            },
            "type" : "DHCP"
        }
    }
}
]
```

Field description

Field	description
activeLink	Network connection type [LAN, Wi-Fi]
mac	Network card's hardware address
type	Network IP's distrbuiting way, [DHCP, Static]
Static->ip	Ip address
Static->gateway	Gateway address
Static->mask	Subnet mask
Dns->auto	Whether auto get ddns or not
Dns->dns1	Preferred DNS Server.
Dns->dns2	Alternate DNS server.

3.3.2 SetLocalLink

● **Interface Description**

It is used to set configuration of LocalLink.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetLocalLink&token=TOKEN

● **POST Data**

Data example
```
[
    {
        "cmd":"SetLocalLink",
        "action":0,
        "param":{
            "LocalLink":{
                "type":"Static",
                "static":{
                    "ip":"192.168.2.122",
                    "mask":"255.255.255.0",
                    "gateway":"192.168.2.1"
                },
```

```
            "dns":{
                "auto":0,
                "dns1":"202.96.128.166",
                "dns2":"202.96.134.133"
            }
        }
    }
}
]
```

Field description

Field	Description	M/O
type	Network IP's distrbuiting way, [DHCP, Static]	O
Static->ip	Ip address	O
Static->gateway	Gateway address	O
Static->mask	Subnet mask	O
Dns->auto	Whether auto get ddns or not [0, 1]	O
Dns->dns1	Preferred DNS Server.	O
Dns->dns2	Alternate DNS server.	O

- **Return data description**

Return data correctly
```[{   "cmd" : "SetLocalLink",   "code" : 0,   "value" : {   "rspCode" : 200   }   }]```

Field description

Field	description
rspCode	Response code

3.3.3 GetDdns

- **Interface Description**

It is used to get configuration of Email.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetDdns&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd":"GetDdns",
        "action":1
    }
]

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
    {
        "cmd" : "GetDdns",
        "code" : 0,
        "initial" : {
            "Ddns" : {
                "domain" : "",
                "enable" : 1,
                "password" : "",
                "servAddr" : "dynupdate.no-ip.com",   //NVR
                "type" : "no-ip",
                "userName" : ""
            }
        },

```
        "range" : {
            "Ddns" : {
                "domain" : {
                    "maxLen" : 127
                },
                "enable" : "boolean",
                "password" : {
                    "maxLen" : 127
                },
                "servAddr" : {                    //NVR
                    "maxLen" : 127,
                    "servAddrList" : {
                        "Dyndns" : "members.dyndns.org",
                        "no-ip" : "dynupdate.no-ip.com"
                    }
                },
                "type" : [ "no-ip", "Dyndns" ],
                "userName" : {
                    "maxLen" : 127
                }
            }
        },
        "value" : {
            "Ddns" : {
                "domain" : "",
                "enable" : 1,
                "password" : "",
                "servAddr" : "dynupdate.no-ip.com",    //NVR
                "type" : "no-ip",
                "userName" : ""
            }
        }
    }
]
```

Field description	
Field	**description**
domain	The domain which you set.
enable	Ddns enable switch.
type	Ddns Server type.Range of value is ["3322", "Dyndns"].
userName	Ddns userName.

password	Ddns password.
servAddr	Server address

3.3.4 SetDdns

- **Interface Description**

It is used to set configuration of DDNS.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetDdns&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":"SetDdns",
        "param":{
            "Ddns":{
                "enable":1,
                "type":"dyndns",
                "userName":"username",
                "password":"password",
                "domain":"domain"
            }
        }
    }
]
```

Field description

Field	Description	M/O
domain	The domain which you set.	O
enable	Ddns enable switch.	O
type	Ddns Server type.Range of value is ["3322", "Dyndns"].	O
userName	Ddns userName.	O

password	Ddns password.	O

- **Return data description**

Return data correctly

[
    {
        "cmd" : " SetDdns",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**
rspCode	Response code

3.3.5 GetEmail

- **Interface Description**

It is used to get configuration of Email.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetEmail&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd":"GetEmail",
        "action":1
    }
]

Field description		
Field	Description	M/O

● **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetEmail",
        "code" : 0,
        "initial" : {
            "Email" : {
                "addr1" : "",
                "addr2" : "",
                "addr3" : "",
                "attachment" : "picture",
                "interval" : "5 Minutes",
                "nickName" : "NVR",     //NVR
                "password" : "",
                "schedule" : {
                    "enable" : 0,
                    "table" :
"1111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111"
                },
                "smtpPort" : 465,
                "smtpServer" : "smtp.gmail.com",
                "ssl" : 1,
                "userName" : ""
            }
        },
        "range" : {
            "Email" : {
                "addr1" : {
                    "maxLen" : 127
                },
                "addr2" : {
                    "maxLen" : 127
                },
                "addr3" : {
                    "maxLen" : 127
```

```
                },
                "attachment" : [ "no", "picture", "video", "onlyPicture" ],
                "interval" : [ "30 Seconds", "1 Minute", "5 Minutes", "10 Minutes",
"30 Minutes" ],
                "nickName" : {     //NVR
                    "maxLen" : 127
                },
                "password" : {
                    "maxLen" : 31
                },
                "schedule" : {
                    "enable" : "boolean",
                    "table" : {
                        "maxLen" : 168,
                        "minLen" : 168
                    }
                },
                "smtpPort" : {
                    "max" : 65535,
                    "min" : 1
                },
                "smtpServer" : {
                    "maxLen" : 127
                },
                "ssl" : "boolean",
                "userName" : {
                    "maxLen" : 127
                }
            }
        },
        "value" : {
            "Email" : {
                "addr1" : "",
                "addr2" : "",
                "addr3" : "",
                "attachment" : "picture",
                "interval" : "30 Minutes",
                "nickName" : "NVR",     //NVR
                "password" : "******",
                "schedule" : {
                    "enable" : 1,
                    "table" :
"111111111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111111111
```

```
1111111111111111111111111111111111111"
            },
            "smtpPort" : 465,
            "smtpServer" : "smtp.gmail.com",
            "ssl" : 1,
            "userName" : "***@sz-bcs.com.cn"
        }
    }
}
]
```

Field description

Field	description
smtpServer	Email server of sender,at most 127 characters.
smtpPort	Port of Email server,limit 1~65535.
userName	Sender address,at most 127 characters.
password	Sender password,at most 31 characters.
attachment	The type of email attachment.
ssl	Whether to open the encryption mode,the type of ssl is Boolean.
interval	Send mail interval.
addr1	Recver address1, at most 127 characters.
addr2	Recver address2, at most 127 characters.
addr3	Recver address3, at most 127 characters.
Schedule->enable	Whether email receive the alarm information
Schedule->table	The schedule about when email receives the alarm information
Note: When scheduleVersion ver=1 in the capability set, use cmd "GetEmailV20"	

3.3.6 SetEmail

● **Interface Description**

It is used to set configuration of Email.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetEmail&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":"SetEmail",
        "param":{
            "Email":{
                "smtpServer":"smtp.exmail.qq.com",
                "smtpPort":25,
                "userName":"xxx@sz-bcs.com.cn",
                "password":"xxxxxx",
                "attachment":"video",
                "ssl":0,
                "interval":"5 Minutes",
                "addr1":"xxx@sz-bcs.com.cn",
                "addr2":"xxx@sz-bcs.com.cn",
                "addr3":"xxx@sz-bcs.com.cn",
                "schedule" : {
                    "enable" : 1,
                    "table" :
"111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111"
                }
            }
        }
    }
]
```

Field description

Field	Description	M/O
smtpServer	Email server of sender, at most 127 characters.	O
smtpPort	Port of Email server, limit 1~65535.	O
userName	Sender address, at most 127 characters.	O

password	Sender password, at most 31 characters.	O
attachment	The type of email attachment. Range of value is ["O", "picture", "video", "onlyPicture"].	O
Ssl	Whether to open the encryption mode, the type of ssl is Boolean.	O
interval	Send mail interval. Range of value is ["30 Seconds", "1 Minute", "5 Minutes", "10 Minutes"].	O
addr1	Recver address1,at most 127 characters.	O
addr2	Recver address2,at most 127 characters.	O
addr3	Recver address3,at most 127 characters.	O
Schedule->enable	Whether email receive the alarm information [0, 1]	O
Schedule->table	The schedule about when email receives the alarm information	O

- **Return data description**

Return data correctly
```[{   "cmd" : "SetEmail",   "code" : 0,   "value" : {   "rspCode" : 200   }   }]```

Field description	
Field	**description**
rspCode	Response code
Note: When scheduleVersion ver=1 in the capability set, use cmd "SetEmailV20"	

3.3.7 GetEmailV20

● **Interface Description**

It is used to get configuration of Email.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetEmailV20&token=TOKEN

● **POST Data**

Data example

[{
 	
    "cmd": "GetEmailV20",
 	
    "param": {
        "channel": 0
    }
 	
}]

Field description		
Field	**Description**	**M/O**

● **Return data description**

Return data correctly

[
    {
        "cmd" : "GetEmailV20",
        "code" : 0,
        "value" : {
            "Email" : {
                "addr1" : "xxx@sz-bcs.com.cn",
                "addr2" : "xxx@sz-bcs.com.cn",
                "addr3" : "xxx@sz-bcs.com.cn",
                "attachmentType" : 2,
                "diskErrorAlert" : 0,

```
            "diskFullAlert" : 0,
            "enable" : 0,
            "interval" : "5 Minutes",
            "nickName" : "NVR",
            "password" : "xxxxxx",
            "schedule" : {
                "channel" : 0,
                "table" : {
                    "AI_PEOPLE" :
"0000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000",
                    "AI_VEHICLE" :
"0000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000",
                    "MD" :
"1111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111",
                    "VL" :
"0000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000"
                }
            },
            "smtpPort" : 25,
            "smtpServer" : "smtp.exmail.qq.com",
            "ssl" : 0,
            "supportTextType" : 1,
            "supportVideo" : 1,
            "textType" : 1,
            "userName" : "xxx@sz-bcs.com.cn"
        }
    }
}
]
```

Field description

Field	description
smtpServer	Email server of sender,at most 127 characters.
smtpPort	Port of Email server,limit 1~65535.

userName	Sender address,at most 127 characters.
password	Sender password,at most 31 characters.
attachmentType	The type of email attachment.
Ssl	Whether to open the encryption mode,the type of ssl is Boolean.
interval	Send mail interval.
addr1	Recver address1, at most 127 characters.
addr2	Recver address2, at most 127 characters.
addr3	Recver address3, at most 127 characters.
Schedule->enable	Start using schedule
Schedule->table	Table of Alarmtype
nickname	Corresponds to the user name
supportTextType	Support the type of Test
supportVideo	Support the type of video
textType	Text of type

3.3.8 SetEmailV20

● **Interface Description**

It is used to set configuration of Email.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetEmailV20&token=TOKEN

● **POST Data**

Data example

[{
    "cmd": "SetEmailV20",
    "param": {

```
        "Email": {
            "ssl": 0,
            "smtpPort": 25,
            "smtpServer": "smtp.exmail.qq.com",
            "userName": "xxx@sz-bcs.com.cn",
            "nickName": "",
            "addr1": "xxx@sz-bcs.com.cn",
            "addr2": "xxx@sz-bcs.com.cn",
            "addr3": "xxx@sz-bcs.com.cn",
            "interval": "5 Minutes"
        }
    }
}]
```

Field description

Field	Description	M/O
smtpServer	Email server of sender, at most 127 characters.	O
smtpPort	Port of Email server, limit 1~65535.	O
userName	Sender address, at most 127 characters.	O
password	Sender password, at most 31 characters.	O
nickName		O
Ssl	Whether to open the encryption mode, the type of ssl is Boolean.	O
interval	Send mail interval. Range of value is ["30 Seconds", "1 Minute", "5 Minutes", "10 Minutes"].	O
addr1	Recver address1,at most 127 characters.	O
addr2	Recver address2,at most 127 characters.	O
addr3	Recver address3,at most 127 characters.	O
Schedule->enable	Start using schedule	O
Schedule->table	Table of Alarmtype	O

- **Return data description**

Return data correctly

``
[
    {
        "cmd" : "SetEmailV20",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
``

Field description	
Field	**description**
rspCode	Response code

3.3.9 TestEmail

● **Interface Description**

It is used to set configuration of TestEmail.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=TestEmail&token=TOKEN

● **POST Data**

Data example

``
[{
    "cmd": "TestEmail",
    "param": {
        "Email": {
            "addr1": "****@sz-bcs.com.cn",
            "addr2": "",
            "addr3": "",
            "interval": "5 Minutes",
            "nickName": "000",
            "password": "lwmypvelvexadfab",
``

```
            "smtpPort": 465,
            "smtpServer": "smtp.qq.com",
            "ssl": 1,
            "userName": "**********@qq.com"
        }
    }
}]
```

Field description

Field	Description	M/O
smtpServer	Email server of sender, at most 127 characters.	M
smtpPort	Port of Email server, limit 1~65535.	M
userName	Sender address, at most 127 characters.	M
password	Sender password, at most 31 characters.	O
ssl	Whether to open the encryption mode, the type of ssl is Boolean.	M
addr1	Recver address1, at most 127 characters.	O
addr2	Recver address2, at most 127 characters.	O
addr3	Recver address3, at most 127 characters.	O
nickName	Corresponds to the user name	O

Note: At least one of the three addresses (addr1,addr2,addr3) is completed.

● **Return data description**

Return data correctly
```[{   "cmd" : "TestEmail",   "code" : 0,   "value" : {   "rspCode" : 200   }   }]```
Field description

Field	description

rspCode	Response code

3.3.10 GetFtp

- **Interface Description**

It is used to get configuration of Ftp.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetFtp&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":"GetFtp",
        "action":1
    }
]
```

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetFtp",
        "code" : 0,
        "initial" : {
            "Ftp" : {
                "anonymous" : 0,
                "autoDir" : 1,     //NVR
                "interval" : 30,
                "maxSize" : 100,
                "mode" : 0,   //NVR
```

```
                    "password" : "",
                    "port" : 21,
                    "remoteDir" : "",
                    "schedule" : {
                        "enable" : 0,
                        "table" :
"2222222222222222222222222222222222222222222222222222222222222222
2222222222222222222222222222222222222222222222222222222222222222
22222222222222222222222222222222222"
                    },
                    "server" : "",
                    "streamType" : 0,
                    "userName" : ""
                }
            },
            "range" : {
                "Ftp" : {
                    "anonymous" : "boolean",
                    "autoDir" : "boolean",     //NVR
                    "interval" : {
                        "max" : 3600,
                        "min" : 1
                    },
                    "maxSize" : {
                        "max" : 1024,
                        "min" : 10
                    },
                    "mode" : {     //NVR
                        "max" : 2,
                        "min" : 0
                    },
                    "password" : {
                        "maxLen" : 127
                    },
                    "port" : {
                        "max" : 65535,
                        "min" : 1
                    },
                    "remoteDir" : {
                        "maxLen" : 255
                    },
                    "schedule" : {
                        "enable" : "boolean",
                        "table" : {
```

```
                    "maxLen" : 168,
                    "minLen" : 168
                }
            },
            "server" : {
                "maxLen" : 127
            },
            "streamType" : {
                "max" : 2,
                "min" : 0
            },
            "userName" : {
                "maxLen" : 127
            }
        }
    },
    "value" : {
        "Ftp" : {
            "anonymous" : 0,
            "autoDir" : 1,    //NVR
            "interval" : 30,
            "maxSize" : 100,
            "mode" : 0,
            "password" : "",
            "port" : 21,
            "remoteDir" : "",
            "schedule" : {
                "enable" : 1,
                "table" :
"2222222222222222222222222222222222222222222222222222222222222222
2222222222222222222222222222222222222222222222222222222222222222222
2222222222222222222222222222222222222"
            },
            "server" : "",
            "streamType" : 0,
            "userName" : ""
        }
    }
  }
]
```

Field description

Field	Description

initial	The initial value of the Ftp field.
range	The range of the Ftp field.
value	The real value of the Ftp field.
server	FTP server, can fill in the IP address or domain name. At most 127 characters.
port	Port of FTP Server, Limit 1~65535.
anonymous	Whether anonymous or not
userName	FTP account name.
password	FTP account password.
remoteDir	FTP root directory.
maxSize	Maximum size of FTP file.
streamType	The types of the uploading files. 0 is for uploading both pictures and videos, and 1 is for uploading pictures only.
interval	When streamType=0, interval stands for the time of post record, the range is between 30 to 1800 seconds. When streamType=1, interval stands for the time interval, the range is between 1 to 1800 seconds.
Schedule->enable	Whether ftp receives the alarm information or not.
Schedule->table	The schedule about when ftp receives the alarm information
autoDir	
Note: When scheduleVersion ver=1 in the capability set, use cmd "GetFtpV20"	

3.3.11 SetFtp

● **Interface Description**

It is used to set configuration of Ftp.

● **Interface Call Instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetFtp&token=TOKEN

- **POST Data**

Data example

[{
    "cmd": "SetFtp",
    "param": {
        "Ftp": {
            "anonymous": 0,
            "autoDir": 1,
            "bpicSingle": 0,
            "bvideoSingle": 0,
            "interval": 30,
            "maxSize": 100,
            "mode": 0,
            "onlyFtps": 0,
            "password": "",
            "picInterval": 60,
            "picName": "",
            "port": 21,
            "remoteDir": "",
            "schedule": {
                "enable": 1,
                "table":
"1111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111"
            },
            "server": "",
            "size": "",
            "streamType": 0,
            "userName": "",
            "videoName": ""
        }
    }
}]

Field description

Field	Description	M/O
server	FTP server, can fill in the IP address or domain name.	O
port	Port of FTP Server.	O

aonymous	Whether anonymous or not	O
userName (Depend on anonymous)	FTP account name. When the value of anonymous is 0, the user Name field is necessary.	O
Password (Depend on anonymous)	FTP account password. FTP account name. When the value of aOnymous is 0, the password field is necessary.	O
remoteDir	FTP root directory.	O
maxSize	Maximum size of FTP file.	O
streamType	The type of the uploading files. 0 is for uploading both pictures and videos, and 1 is for uploading pictures only.	O
interval	When streamType=0, interval stands for the time of post record, the range is between 30 to 1800 seconds. When streamType=1, interval stands for the time interval, the range is between 1 to 1800 seconds.	O
Schedule->enable	Whether ftp receive the alarm information [0, 1]	O
Schedule->table	The schedule about when ftp receives the alarm information	O
Note: When scheduleVersion ver=1 in the capability set, use cmd "SetFtpV20"		

- **Return data description**

Return data correctly

``
[
    {
        "cmd" : "SetFtp",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
``

``
        }
]
``	

Field description	

Field	Description
rspCode	Response code

Note: This command supports model 52X only

3.3.12 GetFtpV20

- **Interface Description**

It is used to get configuration of Ftp.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetFtpV20&token=TOKEN

- **POST Data**

Data example		

``
[
    {
        "cmd":"GetFtpV20",
        "action":1
    }
]
``		

Field description		
Field	Description	M/O

- **Return data description**

Return data correctly

``
[
    {
        "cmd" : "GetFtpV20",
        "code" : 0,
``

```
"initial" : {
    "Ftp" : {
        "anonymous" : 0,
        "autoDir" : 1,
        "bpicSingle" : 0,
        "bvideoSingle" : 0,
        "enable" : 1,
        "interval" : 30,
        "maxSize" : 100,
        "mode" : 0,
        "onlyFtps" : 0,
        "password" : "",
        "picCaptureMode" : 0,
        "picHeight" : 2160,
        "picInterval" : 60,
        "picName" : "",
        "picWidth" : 3840,
        "port" : 21,
        "remoteDir" : "",
        "schedule" : {
            "channel" : 0,
            "table" : {
                "AI_DOG_CAT" :
"00000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000",
                "AI_PEOPLE" :
"00000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000",
                "AI_VEHICLE" :
"00000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000",
                "MD" :
"11111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111",
                "TIMING" :
"00000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000"
            }
        },
```

```json
                "server" : "",
                "streamType" : 0,
                "userName" : "",
                "videoName" : ""
            }
        },
        "range" : {
            "Ftp" : {
                "anonymous" : "boolean",
                "autoDir" : [ 0, 1, 2, 3 ],
                "bpicSingle" : [ 0, 1, 2 ],
                "bvideoSingle" : [ 0, 1, 2 ],
                "enable" : "boolean",
                "interval" : [ 5, 10, 15, 30, 60 ],
                "maxSize" : {
                    "max" : 1024,
                    "min" : 10
                },
                "mode" : {
                    "max" : 2,
                    "min" : 0
                },
                "password" : {
                    "maxLen" : 127
                },
                "picCaptureMode" : [ 0, 1, 2, 3 ],
                "picHeight" : {
                    "max" : 2160,
                    "min" : 360
                },
                "picInterval" : [ 2, 5, 10, 15, 30, 60, 300, 600, 1800 ],
                "picName" : {
                    "maxLen" : 127
                },
                "picWidth" : {
                    "max" : 3840,
                    "min" : 640
                },
                "port" : {
                    "max" : 65535,
                    "min" : 1
                },
                "remoteDir" : {
                    "maxLen" : 255
```

```
            },
            "schedule" : {
                "channel" : 0,
                "table" : {
                    "AI_DOG_CAT" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    },
                    "AI_PEOPLE" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    },
                    "AI_VEHICLE" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    },
                    "MD" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    },
                    "TIMING" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    }
                }
            },
            "server" : {
                "maxLen" : 127
            },
            "streamType" : {
                "max" : 6,
                "min" : 0
            },
            "userName" : {
```

```
                    "maxLen" : 127
                },
                "videoName" : {
                    "maxLen" : 127
                }
            }
        },
        "value" : {
            "Ftp" : {
                "anonymous" : 0,
                "autoDir" : 2,
                "bpicSingle" : 0,
                "bvideoSingle" : 0,
                "enable" : 1,
                "interval" : 30,
                "maxSize" : 100,
                "mode" : 2,
                "onlyFtps" : 1,
                "password" : "***********",
                "picCaptureMode" : 3,
                "picHeight" : 2160,
                "picInterval" : 60,
                "picName" : "",
                "picWidth" : 3840,
                "port" : 21,
                "remoteDir" : "*******",
                "schedule" : {
                    "channel" : 0,
                    "table" : {
                        "AI_DOG_CAT" :
"00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000",
                        "AI_PEOPLE" :
"00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000",
                        "AI_VEHICLE" :
"00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000",
                        "MD" :
"11111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111
```

1111111111111111111111111111111111111",
                "TIMING" :
"0000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000"
                }
            },
            "server" : "192.168.0.132",
            "streamType" : 3,
            "userName" : "ft***er",
            "videoName" : ""
        }
      }
    }
]

Field description

Field	Description
initial	The initial value of the Ftp field.
range	The range of the Ftp field.
value	The real value of the Ftp field.
server	FTP server, can fill in the IP address or domain name. At most 127 characters.
port	Port of FTP Server, Limit 1~65535.
Anonymous	Whether to be anonymous
userName	FTP account name.
password	FTP account password.
remoteDir	FTP root directory.
maxSize	Maximum size of FTP file.
streamType	The types of the uploading files. 0 is for uploading both pictures and videos, and 1 is for uploading pictures only.
interval	When streamType=0, interval stands for the time of post record, the range is between 30 to 1800 seconds. When streamType=1, interval stands for the time interval, the range is between 1 to 1800 seconds.

Schedule->enable	Whether Start using schedule or not
Schedule->table	Table of Alarm type
autoDir	Whether to create directories automatically 0:Create directories by year, month and day, like : YYYY-MM-DD 1:0:Create directories by year, month,like: YYYY-MM
mode	Transport mode 0:Choose active mode or passive mode autonomously 1:Active mode 2:Passive mode
onlyFtps	Ftps switch,Whether to select the encryption mode
picCaptureMode	Image resolution mode 0:A clear picture 1:Standard image 2:Smooth image Note: Clear pictures have the highest resolution, smooth pictures have the lowest resolution
picHeight	Picture height Note: The width and height of the image are not arbitrary and need to match the resolution supported by the image
picWidth	Pitcure width
bpicSingle	Image upload mode 0:All images are retained and will not be deleted 1:Only the latest image will be kept, and the others will be replaced 2:The other replacement strategy, which is different, instead of replacing directly, is to first store the second image and then delete the first one
bvideoSingle	Video upload mode

	0:All videos are retained and will not be deleted 1:Only the latest video will be kept, and the others will be replaced 2:The other replacement strategy, which is different, instead of replacing directly, is to first store the second video and then delete the first one
picInterval	Image upload interval

3.3.13 SetFtpV20

● **Interface Description**

It is used to set configuration of Ftp.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetFtpV20&token=TOKEN

● **POST Data**

Data example

[{
    "cmd": "SetFtpV20",
    "param": {
        "Ftp": {
            "anonymous": 0,
            "autoDir": 1,
            "bpicSingle": 0,
            "bvideoSingle": 0,
            "enable": 1,
            "interval": 30,
            "maxSize": 100,
            "mode": 0,
            "onlyFtps": 1,
            "password": "***********",
            "picCaptureMode": 3,

```
            "picHeight": 1920,
            "picInterval": 60,
            "picName": "",
            "picWidth": 2304,
            "port": 21,
            "remoteDir": "hello",
            "schedule": {
                "channel": 0,
                "table": {
                    "AI_DOG_CAT":
"111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111",
                    "AI_PEOPLE":
"111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111",
                    "AI_VEHICLE":
"111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111",
                    "MD":
"111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111",
                    "TIMING":
"000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000"
                }
            },
            "server": "192.168.1.236",
            "streamType": 6,
            "userName": "ft***er",
            "videoName": "sdfs"
        }
    }
}]
```

Field description		
Field	**Description**	**M/O**
server	FTP server, can fill in the IP address or domain name.	O
port	Port of FTP Server.	O

anonymous	Whether to be anomyous or not	O
userName (Depend on anonymous)	FTP account name. When the value of anonymous is 0, the user Name field is necessary.	O
Password (Depend on anonymous)	FTP account password. FTP account name. When the value of anonymous is 0, the password field is necessary.	O
remoteDir	FTP root directory.	O
maxSize	Maximum size of FTP file.	O
streamType	The type of the uploading files. 0 is for uploading both pictures and videos, and 1 is for uploading pictures only.	O
interval	When streamType=0, interval stands for the time of post record, the range is between 30 to 1800 seconds. When streamType=1, interval stands for the time interval, the range is between 1 to 1800 seconds.	O
Schedule->enable	Whether Start using schedule or not	O
Schedule->table	Table of Alarm type	O
mode	Transport mode	

- **Return data description**

Return data correctly

[
    {
        "cmd" : "SetFtp",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }

]	
Field description	
Field	**description**
rspCode	Response code

3.3.14 TestFtp

● **Interface Description**

It is used to set configuration of TestFtp.

● **Interface Call Instructions**

Request URL	https://IPC_IP/api.cgi?cmd=TestFtp&token=TOKEN

● **POST Data**

Data example

[{
    "cmd": "TestFtp",
    "action": 0,
    "param": {
        "Ftp": {
            "server": "192.168.0.132",
            "port": 21,
            "anonymous": 0,
            "mode": 2,
            "userName": "ftpuser",
            "password": "000000",
            "remoteDir": "fadad",
            "onlyFtps": 1,
            "bpicSingle": 2,
            "bvideoSingle": 2
        }
    }
}]

Field description		
Field	**Description**	**M/O**
server	FTP server, can fill in the IP address or domain name. At most 127 characters.	M
port	Port of FTP Server ,Limit 1~65535.	M
anonymous	Whether anonymous or not	M
userName (Depend on anonymous)	FTP account name. FTP account password. FTP account name. When the value of anonymous is 0, the userName field is necessary.	O
Password (Depend on anonymous)	FTP account password. FTP account password. FTP account name. When the value of anonymous is 0, the password field is necessary.	O
remoteDir	FTP root directory.	M
mode	Transport type	M
onlyFtps	Ftps switch	M
bpicSingle	Image upload mode	M
bvideoSingle	Video upload mode	M

- **Return data description**

Return data correctly
```[{   "cmd" : "TestFtp",   "code" : 0,   "value" : {   "rspCode" : 200   }   }]```
Field description

Field	**Description**
rspCode	Response code

mode	Trans port

3.3.15 GetNtp

- **Interface Description**

It is used to get configuration of NTP.

- **Interface Call Instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetNtp&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":"GetNtp",
        "action":1
    }
]
```

Field description

Field	Description	M/O

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetNtp",
        "code" : 0,
        "initial" : {
            "Ntp" : {
                "enable" : 0,
                "interval" : 1440,
                "port" : 123,
                "server" : "pool.ntp.org"
            }
```

```
        },
        "range" : {
            "Ntp" : {
                "enable" : "boolean",
                "interval" : {
                    "max" : 65535,
                    "min" : 60
                },
                "port" : {
                    "max" : 65535,
                    "min" : 1
                },
                "server" : {
                    "maxLen" : 127
                }
            }
        },
        "value" : {
            "Ntp" : {
                "enable" : 0,
                "interval" : 1440,
                "port" : 123,
                "server" : "pool.ntp.org"
            }
        }
    }
]
```

Field description

Field	Description
enable	NTP switch, The value of 1 represents the open, and the 0 is the opposite.
server	NTP server, can fill in the IP address or domain name.
port	Port of NTP Server.
interval	Time synchronization interval. Limit 10~65535, and 0 on behalf of the immediate synchronization.

3.3.16 SetNtp

- **Interface Description**

It is used to set configuration of Set Ntp.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetNtp&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd":"SetNtp",
        "param":{
            "Ntp":{
                "enable":1,
                "server":"pool.ntp.org",
                "port":123,
                "interval":1440
            }
        }
    }
]

Field description		
Field	**Description**	**M/O**
enable	NTP switch, the value of 1 represents the open, and the 0 is the opposite.	O
server	NTP server, can fill in the IP address or domain name.	O
port	Port of NTP Server .	O
interval	Time synchronization interval. Limit 10~65535, and 0 on behalf of the immediate synchronization.	O

- **Return data description**

Return data correctly

[
    {
        "cmd" : "SetNtp",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**Description**
rspCode	Response code

3.3.17 GetNetPort

- **Interface Description**

It is used to get configuration of NetPort.

- **Interface Call Instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetNetPort&token=TOKEN

- **POST Data**

Data example		

[
    {
        "cmd":"GetNetPort",
        "action":1
    }
]		

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetNetPort",
        "code" : 0,
        "value" : {
            "NetPort" : {
                "httpEnable" : 0,
                "httpPort" : 80,
                "httpsEnable" : 1,
                "httpsPort" : 443,
                "mediaPort" : 9000,
                "onvifEnable" : 1,
                "onvifPort" : 8000,
                "rtmpEnable" : 0,
                "rtmpPort" : 1935,
                "rtspEnable" : 1,
                "rtspPort" : 554
            }
        }
    }
]
```

Field description

Field	Description
httpPort	Port of http.
httpsPort	Port of https.
mediaPort	Port of media.
onvifPort	Port of onvif.
rtspPort	Port of rtsp.
rtmpPort	Port of rtmp.
httpEnable	http switch
httpsEnable	https switch
rtmpEnable	Rtmp switch
rtspEnable	Rtsp switch
onvifEnable	Onvif switch

3.3.18 SetNetPort

● **Interface Description**

It is used to set configuration of NetPort.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetNetPort&token=TOKEN

● **POST Data**

Data example

[{
    "cmd": "SetNetPort",
    "param": {
        "NetPort": {
            "httpEnable": 0,
            "httpPort": 80,
            "httpsEnable": 1,
            "httpsPort": 443,
            "mediaPort": 9000,
            "onvifEnable": 1,
            "onvifPort": 8000,
            "rtmpEnable": 0,
            "rtmpPort": 1935,
            "rtspEnable": 1,
            "rtspPort": 554
        }
    }
}]

Field description		
Field	**Description**	**M/O**
httpPort	Port of http.	O
httpsPort	Port of https.	O
mediaPort	Port of media.	O
onvifPort	Port of onvif.	O

rtspPort	Port of rtsp.	O
rtmpPort	Port of rtmp.	O

- **Return data description**

Return data correctly

<pre>[
    {
        "cmd" : "SetNetPort",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]</pre>

Field Description	
Field	**Description**
rspCode	Response code

3.3.19 GetUpnp

- **Interface Description**

It is used to get configuration of Upnp.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetUpnp&token=TOKEN

- **POST Data**

Data example

<pre>[
    {
        "cmd":"GetUpnp",
        "action":1
    }</pre>

]		
Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
    {
        "cmd" : "GetUpnp",
        "code" : 0,
        "initial" : {
            "Upnp" : {
                "enable" : 0
            }
        },
        "range" : {
            "Upnp" : {
                "enable" : "boolean"
            }
        },
        "value" : {
            "Upnp" : {
                "enable" : 0
            }
        }
    }
]

Field description	
Field	**Description**
enable	Upnp switch,The value of 1 represents the open, and the 0 is the opposite.

3.3.20 SetUpnp

- **Interface Description**

It is used to set configuration of Upnp.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetUpnp&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":"SetUpnp",
        "param":{
            "Upnp":{
                "enable":1
            }
        }
    }
]
```

Field description

Field	Description	M/O
enable	Upnp switch, The value of 1 represents the open, and the 0 is the opposite.	O

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "SetUpnp",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
```

Field description

Field	description

rspCode	Response code

3.3.21 GetWifi

● **Interface Description**

It is used to get configuration of GetWifi.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetWifi&token=TOKEN

● **POST Data**

Data example

```
[
    {
        "cmd":"GetWifi",
        "action":1
    }
]
```

Field description

Field	Description	M/O

● **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetWifi",
        "code" : 0,
        "initial" : {
            "Wifi" : {
                "password" : "",
                "ssid" : ""
            }
        },
        "range" : {
```

```
            "Wifi" : {
                "password" : {
                    "maxLen" : 127
                },
                "ssid" : {
                    "maxLen" : 127
                }
            }
        },
        "value" : {
            "Wifi" : {
                "password" : "**********",
                "ssid" : "reolink_pyc"
            }
        }
    }
]
```

Field description

Field	description
ssid	The name of the wireless network
password	The password of the wireless network

3.3.22 SetWifi

● **Interface Description**

It is used to set configuration of Wifi.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetWifi&token=TOKEN

● **POST Data**

Data example

```
[
    {
        "cmd":"SetWifi",
```

```
        "param":{
            "Wifi":{
                "ssid":"ssid",
                "password":"000000"
            }
        }
    }
]
```

Field description

Field	Description	M/O
ssid	The name of the wireless network	O
password	The password of the wireless network	O

- **Return data description**

```
Return data correctly
[
    {
        "cmd" : "SetWifi",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
```

Field description

Field	description
rspCode	Response code

3.3.23 TestWifi

- **Interface Description**

It is used to set configuration of TestWifi.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=TestWifi&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd":"TestWifi",
        "param":{
            "Wifi":{
                "ssid":"ssid",
                "password":"password"
            }
        }
    }
]

Field description		
Field	**Description**	**M/O**
ssid	The name of the wireless network	M
password	The password of the wireless network	O

- **Return data description**

Return data correctly

[
    {
        "cmd" : "TestWifi",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**
rspCode	Response code

3.3.24 ScanWifi

- **Interface Description**

It is used to get configuration of ScanWifi.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=ScanWifi&token=TOKEN

- **POST Data**

Data example		

[
    {
        "cmd":"ScanWifi",
        "param":{}
    }
]		

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
   {
      "cmd" : "ScanWifi",
      "code" : 0,
      "value" : {
         "Wifi" : [
           {
              "bencrypt" : 1,
              "signal" : 4,
              "ssid" : "HUAWEI-D1FC"
           },
           ... // There may be multiple wireless networks.
         ]
      }

}	
]	
Field description	
Field	**description**
signal	Wireless signal strength (1 : signal <= -60) (2 : signal <= -50) (3 : signal <= -40) (4 : signal > -40)
ssid	The name of wireless network
bencrypt	

3.3.25 GetWifiSignal

● **Interface Description**

It is used to get configuration of Get Wifi signal.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetWifiSignal&token=TOKEN

● **POST Data**

Data example		

[
    {
        "cmd":"GetWifiSignal",
        "action":1
    }
]		

Field description		
Field	**Description**	**M/O**

● **Return data description**

Return data correctly

``
[
    {
        "cmd" : "GetWifiSignal",
        "code" : 0,
        "initial" : {
            "wifiSignal" : 100
        },
        "range" : {
            "wifiSignal" : {
                "max" : 255,
                "min" : 0
            }
        },
        "value" : {
            "wifiSignal" : 100
        }
    }
]
``

Field description

Field	description
wifiSignal	

3.3.26 GetPush

- **Interface Description**

It is used to get configuration of Push.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetPush&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd":"GetPush",
        "action":1
    }
]

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
    {
        "cmd" : "GetPush",
        "code" : 0,
        "initial" : {
            "Push" : {
                "schedule" : {
                    "enable" : 1,
                    "table" :
"1111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111"
                }
            }
        },
        "range" : {
            "Push" : {
                "schedule" : {
                    "enable" : "boolean",
                    "table" : {
                        "maxLen" : 168,
                        "minLen" : 168
                  }
                }
            }
        },
        "value" : {

```
        "Push" : {
            "schedule" : {
                "enable" : 1,
                "table" :
"111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111"
            }
        }
    }
]
```

Field description

Field	description
Schedule->enable	Whether push the alarm information
Schedule->table	The schedule about when push the alarm information
Note:	

When scheduleVersion ver=1 in the capability set, use cmd "GetPushV20"

3.3.27 SetPush

● **Interface Description**

It is used to set configuration of Push.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetPush&token=TOKEN

● **POST Data**

Data example
```
[
    {
        "cmd":"SetPush",
        "param":{
            "Push":{
```

```
                    "schedule" : {
                        "enable" : 1,
                        "table" :
"1111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111"
                    }
                }
            }
        }
]
```

Field description

Field	Description	M/O
Schedule->enab le	Whether push the alarm information [0, 1]	O
Schedule->table	The schedule about when push the alarm information	O
Note: This command supports model 52X only		

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : " SetPush",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
```

Field description

Field	description
rspCode	Response code
Note:	
When scheduleVersion ver=1 in the capability set, use cmd "SetPushV20"	

3.3.28 GetPushV20

● **Interface Description**

It is used to get configuration of Push.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetPush&token=TOKEN

● **POST Data**

Data example
``[
{
"cmd":"GetPushV20",
"action":1,
"param": {
"channel": 0
}
}
]```

Field description		
Field	**Description**	**M/O**

● **Return data description**

Return data correctly
``[
{
"cmd" : "GetPushV20",
"code" : 0,
"initial" : {
"Push" : {
"enable" : 0,
"schedule" : {
"channel" : 0,
"table" : {
//NVR   "AI_PEOPLE" :```

```
"0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000",
        //NVR                "AI_VEHICLE" :
"0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000",
                  "MD" :
"1111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111"
                  }
              }
            }
        },
        "range" : {
          "Push" : {
              "enable" : "boolean",
              "schedule" : {
                  "channel" : 0,
                  "table" : {
        //NVR              "AI_PEOPLE" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    },
        //NVR              "AI_VEHICLE" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    },
                    "MD" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    }
                }
            }
        },
        "value" : {
```

```
        "Push" : {
            "enable" : 1,
            "schedule" : {
                "channel" : 0,
                "table" : {
        //NVR            "AI_PEOPLE" :
"000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000",
        //NVR            "AI_VEHICLE" :
"000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000",
                "MD" :
"011111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111100"
                }
            }
        }
    }
]
```

Field description	
Field	**description**
Schedule->enable	Schedule switch
Schedule->table	Schdeule table

3.3.29 SetPushV20

● **Interface Description**

It is used to set configuration of Push.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetPush&token=TOKEN

● **POST Data**

Data example

[{
    "cmd": "SetPushV20",
    "param": {
        "Push": {
            "enable": 1,
            "schedule": {
                "channel": 0,
                "table": {
                    "MD":
"0111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111100"
                }
            }
        }
    }
}]

Field description		
Field	**Description**	**M/O**
Schedule->enable	Schedule switch	O
Schedule->table	Schedule table	O

● **Return data description**

Return data correctly

[
    {
        "cmd" : "SetEmail",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**
rspCode	Response code

3.3.30 GetPushCfg

- **Interface Description**

It is used to get configuration of Push.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetPushCfg&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd":"GetPushCfg",
        "action":1
    }
]

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
    {
        "cmd" : "GetPushCfg",
        "code" : 0,
        "initial" : {
            "PushCfg" : {
                "pushInterval" : 0

```
            }
        },
        "range" : {
            "PushCfg" : {
                "pushInterval" : [ 20, 30, 60, 120 ]
            }
        },
        "value" : {
            "PushCfg" : {
                "pushInterval" : 30
            }
        }
    }
]
```

Field description	
Field	**description**
initial	The initial value of the Ftp field.
range	The range of the Ftp field.
value	The real value of the Ftp field.
pushInterval	The interval of push

3.3.31 SetPushCfg

● **Interface Description**

It is used to set configuration of Push.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetPushCfg&token=TOKEN

● **POST Data**

Data example
[{

```
    "cmd": "SetPushCfg",
    "param": {
        "PushCfg": {
            "pushInterval":30
        }
    }
}]
```

Field description		
Field	**Description**	**M/O**
pushInterval	Push interval.	O

- **Return data description**

Return data correctly
```[{   "cmd" : "SetPushCfg",   "code" : 0,   "value" : {   "rspCode" : 200   }   }]```

Field description	
Field	**description**
rspCode	Response code

3.3.32 GetP2p

- **Interface Description**

Get tP2pinformation

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= GetP2p&token=TOKEN

- **POST Data**

Data example

``
[
    {
        "cmd": "GetP2p",
        "action": 1
    }
]
``

Field description

Field	Description	M/O
		M

- **Return data description**

Return data correctly

``
[
    {
        "cmd": "GetP2p",
        "code": 0,
        "initial": {
            "P2p": {
                "enable": 1
            }
        },
``

```
              "range": {
                    "P2p": {
                          "enable": "boolean"
                    }
              },
              "value": {
                    "P2p": {
                          "enable": 1,
                          "uid": "95270000SXIPOGIJ"
                    }
              }
        }
    }
]
```

Field description

Field	description
enable	Whether enable p2p or not
uid	IPC uid

3.3.33 SetP2p

- **Interface Description**

SetP2P

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= SetP2p&token=TOKEN

- **POST Data**

Data example
```
[
    {
        "cmd": "SetP2p",
        "param": {
              "P2p": {
                    "enable": 0
              }
        }
```

}
]

Field description		
Field	**Description**	**M/O**
enable	Whether enable p2p or not	O

- **Return data description**

Return data correctly

[
    {
        "cmd" : " SetP2P",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**
rspCode	Response code

3.3.34 GetCertificateInfo

- **Interface Description**

Get CertificateInfo

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= GetCertificateInfo&token=TOKEN

- **POST Data**

Data example

[{
    "cmd": "GetCertificateInfo",
    "action": 0,

"param": {} }]		
Field description		
Field	**Description**	**M/O**
		M

- **Return data description**

Return data correctly
[{   "cmd" : "GetCertificateInfo",   "code" : 0,   "value" : {   "CertificateInfo" : {   "crtName" : "",   "enable" : 0,   "keyName" : ""   }   }   }]

Field description	
Field	**description**
enable	Whether enable p2p or not
uid	IPC uid

3.3.35 CertificateClear

- **Interface Description**

Clear Certificate

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= CertificateClear&token=TOKEN

● **POST Data**

Data example		

[{
    "cmd": "CertificateClear",
    "action": 0,
    "param": {}
}]		

Field description		
Field	**Description**	**M/O**
		M

● **Return data description**

Return data correctly	

[
    {
        "cmd" : "CertificateClear",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]	

Field description	
Field	**description**
enable	Whether enable p2p or not
uid	IPC uid

3.3.36 GetRtspUrl

● **Interface Description**

Get Rtsp Url.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= GetRtspUrl&token=TOKEN

- **POST Data**

Data example

```
[{
    "cmd": "GetRtspUrl",
    "action": 0,
    "param": {
        "channel": 1
    }

}]
```

Field description

Field	Description	M/O
		M

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetRtspUrl",
        "code" : 0,
        "value" : {
            "rtspUrl" : {
                "channel" : 1,
                "mainStream" : "rtsp://192.168.1.58:554/Preview_02_main",
                "subStream" : "rtsp://192.168.1.58:554/Preview_02_sub"
            }
        }
    }
]
```

Field description

Field	description
mainStream	Rtsp url of main stream
subStream	Rtsp url of sub stream

3.4 Video input

3.4.1 GetImage

● **Interface Description**

It is used to get configuration of image.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetImage&token=TOKEN

● **POST Data**

Data example

<pre>[
    {
        "cmd":"GetImage",
        "action":1,
        "param":{
            "channel":0
        }
    }
]</pre>

Field description		
Field	**Description**	**M/O**

● **Return data description**

Return data correctly

<pre>[
    {
        "cmd" : "GetImage",
        "code" : 0,
        "initial" : {</pre>

```json
        "Image" : {
            "bright" : 128,
            "channel" : 0,
            "contrast" : 128,
            "hue" : 128,
            "saturation" : 128,
            "sharpen" : 128
        }
    },
    "range" : {
        "Image" : {
            "bright" : {
                "max" : 255,
                "min" : 0
            },
            "channel" : 0,
            "contrast" : {
                "max" : 255,
                "min" : 0
            },
            "hue" : {
                "max" : 255,
                "min" : 0
            },
            "saturation" : {
                "max" : 255,
                "min" : 0
            },
            "sharpen" : {
                "max" : 255,
                "min" : 0
            }
        }
    },
    "value" : {
        "Image" : {
            "bright" : 128,
            "channel" : 0,
            "contrast" : 128,
            "hue" : 128,
            "saturation" : 128,
            "sharpen" : 128
        }
    }
```

}]	
Field description	
Field	**description**
bright	Bright of video.
contrast	Contrast of video.
saturation	Saturation of video.
hue	Hue of video.
sharpen	Sharpen of video.

3.4.2 SetImage

- **Interface Description**

It is used to set configuration of image.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetImage&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd":"SetImage",
        "param":{
            "Image":{
                "channel":0,
                "bright":150,
                "contrast":150,
                "saturation":150,
                "hue":150,
                "sharpen":150
            }
        }

}]		
Field description		
Field	**Description**	**M/O**
channel	IPC channel number.	M
bright	Bright of video.	M
contrast	Contrast of video.	M
saturation	Saturation of video.	M
hue	Hue of video.	M
sharpen	Sharpen of video.	M

- **Return data description**

Return data correctly

[
    {
        "cmd" : "SetImage",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**
rspCode	Response code

3.4.3 GetOsd

- **Interface Description**

It is used to get configuration of Osd.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetOsd&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd": "GetOsd",
        "action": 1,
        "param": {
            "channel": 0
        }
    }
]
```

Field description

Field	Description	M/O
channel	IPC channel number	M

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetOsd",
        "code" : 0,
        "initial" : {
            "Osd" : {
                "bgcolor" : 0,
                "channel" : 0,
                "osdChannel" : {
                    "enable" : 1,
                    "name" : "Camera1",
                    "pos" : "Lower Right"
                },
                "osdTime" : {
                    "enable" : 1,
                    "pos" : "Top Center"
                },
                "watermark" : 1
            }
```

```
            },
        "range" : {
            "Osd" : {
                "bgcolor" : "boolean",
                "channel" : 0,
                "osdChannel" : {
                    "enable" : "boolean",
                    "name" : {
                        "maxLen" : 31
                    },
                    "pos" : [
                        "Upper Left",
                        "Top Center",
                        "Upper Right",
                        "Lower Left",
                        "Bottom Center",
                        "Lower Right",
                        "Other Configuration"
                    ]
                },
                "osdTime" : {
                    "enable" : "boolean",
                    "pos" : [
                        "Upper Left",
                        "Top Center",
                        "Upper Right",
                        "Lower Left",
                        "Bottom Center",
                        "Lower Right",
                        "Other Configuration"
                    ]
                },
                "watermark" : "boolean"
            }
        },
        "value" : {
            "Osd" : {
                "bgcolor" : 0,
                "channel" : 0,
                "osdChannel" : {
                    "enable" : 1,
                    "name" : "Camera1",
                    "pos" : "Lower Right"
                },
```

```
            "osdTime" : {
                "enable" : 1,
                "pos" : "Top Center"
            },
            "watermark" : 1
        }
    }
}
]
```

Field description

Field	description
osdChannel->enable	Camera name display switch.
osdChannel->name	Camera name
osdChannel->pos	Camera name display position.
osdTime->enable	Camera time display switch.
osdTime->pos	Camera time display position.
bgcolor	Background color
watermark	Watermark

3.4.4 SetOsd

● **Interface Description**

It is used to set configuration of Osd.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetOsd&token=TOKEN

● **POST Data**

Data example

```
[
    {
        "cmd": "SetOsd",
```

```
            "param": {
                "Osd": {
                    "channel": 0,
                    "osdChannel": {
                        "enable": 1,
                        "name": "Camera101",
                        "pos": "Lower Right"
                    },
                    "osdTime": {
                        "enable": 1,
                        "pos": "Upper Right"
                    }
                }
            }
        }
    ]
```

Field description

Field	Description	M/O
channel	IPC channel number.	M
osdChannel->enable	Camera name display switch.	M
osdChannel->name	Camera name	M
osdChannel->pos	Camera name display position.	M
osdTime->enable	Camera time display switch.	M
osdTime->pos	Camera time display position.	M

● **Return data description**

```
Return data correctly
[
    {
        "cmd": "SetOsd",
        "code": 0,
        "value": {
            "rspCode": 200
        }
    }
]
```

Field description

Field	description
rspCode	Response code

3.4.5 GetIsp

- **Interface Description**

It is used to get configuration of Isp.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetIsp&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":"GetIsp",
        "action":1,
        "param":{
            "channel":0
        }
    }
]
```

Field description		
Field	**Description**	**M/O**
channel	IPC channel number	M

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetIsp",
        "code" : 0,
        "initial" : {
            "Isp" : {
```

```
            "antiFlicker" : "Off",
            "backLight" : "Off",
            "bd_day" : {
                "bright" : 128,
                "dark" : 128,
                "mode" : "Auto"
            },
            "bd_led_color" : {
                "bright" : 128,
                "dark" : 128,
                "mode" : "Auto"
            },
            "bd_night" : {
                "bright" : 128,
                "dark" : 128,
                "mode" : "Auto"
            },
            "blc" : 128,
            "blueGain" : 128,
            "cdsType" : 1,
            "channel" : 0,
            "constantFrameRate" : 0,
            "dayNight" : "Auto",
            "dayNightThreshold" : 0,
            "drc" : 128,
            "exposure" : "Auto",
            "gain" : {
                "max" : 62,
                "min" : 1
            },
            "mirroring" : 0,
            "nr3d" : 1,
            "redGain" : 128,
            "rotation" : 0,
            "shutter" : {
                "max" : 125,
                "min" : 0
            },
            "whiteBalance" : "Auto"
        }
    },
    "range" : {
        "Isp" : {
            "antiFlicker" : [ "Other", "50HZ", "60HZ", "Off" ],
```

```
            "backLight" : [ "Off", "BackLightControl", "DynamicRangeControl" ],
            "bd_day" : {
                "bright" : {
                    "max" : 255,
                    "min" : 0
                },
                "dark" : {
                    "max" : 255,
                    "min" : 0
                },
                "mode" : [ "Auto", "Manual" ]
            },
            "bd_led_color" : {
                "bright" : {
                    "max" : 255,
                    "min" : 0
                },
                "dark" : {
                    "max" : 255,
                    "min" : 0
                },
                "mode" : [ "Auto", "Manual" ]
            },
            "bd_night" : {
                "bright" : {
                    "max" : 255,
                    "min" : 0
                },
                "dark" : {
                    "max" : 255,
                    "min" : 0
                },
                "mode" : [ "Auto", "Manual" ]
            },
            "blc" : {
                "max" : 255,
                "min" : 0
            },
            "blueGain" : {
                "max" : 255,
                "min" : 0
            },
            "cdsType" : "boolean",
            "channel" : 0,
```

```
            "constantFrameRate" : [ 0, 1 ],
            "dayNight" : [ "Auto", "Color", "Black&White" ],
            "dayNightThreshold" : {
                "max" : 0,
                "min" : 0
            },
            "drc" : {
                "max" : 255,
                "min" : 0
            },
            "exposure" : [ "Auto", "LowNoise", "Anti-Smearing", "Manual" ],
            "gain" : {
                "max" : 100,
                "min" : 1
            },
            "mirroring" : "boolean",
            "nr3d" : "boolean",
            "redGain" : {
                "max" : 255,
                "min" : 0
            },
            "rotation" : "boolean",
            "shutter" : {
                "max" : 125,
                "min" : 0
            },
            "whiteBalance" : [ "Auto", "Manual" ]
        }
    },
    "value" : {
        "Isp" : {
            "antiFlicker" : "Off",
            "backLight" : "Off",
            "bd_day" : {
                "bright" : 128,
                "dark" : 128,
                "mode" : "Auto"
            },
            "bd_led_color" : {
                "bright" : 0,
                "dark" : 0,
                "mode" : "Auto"
            },
            "bd_night" : {
```

```
                    "bright" : 128,
                    "dark" : 128,
                    "mode" : "Auto"
                },
                "blc" : 128,
                "blueGain" : 128,
                "cdsType" : 0,
                "channel" : 0,
                "constantFrameRate" : 1,
                "dayNight" : "Auto",
                "dayNightThreshold" : 73,
                "drc" : 128,
                "exposure" : "Auto",
                "gain" : {
                    "max" : 62,
                    "min" : 1
                },
                "mirroring" : 0,
                "nr3d" : 1,
                "redGain" : 128,
                "rotation" : 0,
                "shutter" : {
                    "max" : 125,
                    "min" : 0
                },
                "whiteBalance" : "Auto"
            }
        }
    }
]
```

Field description

Field	description
antiFlicker	Flicker prevention,["Outdoor", "50HZ", "60HZ", "Off"]
exposure	Exposure mode, ["Auto", "LowOise", "Anti-Smearing", "Manual"]
gain (Depend on exposure)	When the value of exposure is LowOise or Manual, the gain field is effective.
shutter	When the value of exposure is Anti-Smearing or Manual,

(Depend on exposure)	the shutter field is effective.
whiteBalance	White Balance,["Auto", "Manual"]
blueGain (Depend on whiteBalance)	When the value of whiteBalance is Anti-Smearing or Manual, the blueGain field is effective.
redGain (Depend on whiteBalance)	When the value of whiteBalance is Anti-Smearing or Manual, the redGain field is effective.
dayNight	Day&Night,["Auto", "Color", "Black&White"]
backLight	Backlight compensation, ["Off", "BackLightControl", "DynamicRangeControl"]
Blc (Depend on backLight)	When the value of backLight is BackLightControl, the blc field is effective.
drc (Depend on backLight)	When the value of backLight is DynamicRangeControl, the drc field is effective.
nr3d	
mirroring	Video mirroring.
rotation	Video rotation.
cdsType	Soft light sensitive switch, off when the hard light sensitive effect, can use the day and night switching threshold adjustment, open when the soft light sensitive effect, can use the day and night switching sensitivity adjustment
constantFrameRate	Fixed frame rate switch, when on, to the video fluency priority, when off to the quality of the picture priority

3.4.6 SetIsp

● **Interface Description**

It is used to set configuration of Isp.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetIsp&token=TOKEN

● **POST Data**

Data example

```
[{
    "cmd": "SetIsp",
    "action": 0,
    "param": {
        "Isp": {
            "antiFlicker": "Off",
            "backLight": "Off",
            "constantFrameRate": 1,
            "blc": 128,
            "blueGain": 128,
            "channel": 0,
            "dayNight": "Auto",
            "drc": 128,
            "exposure": "Auto",
            "cdsType": 0,
            "gain": {
                "max": 62,
                "min": 1
            },
            "mirroring": 0,
            "nr3d": 1,
            "redGain": 128,
            "rotation": 0,
            "shutter": {
                "max": 125,
                "min": 0
            },
            "whiteBalance": "Auto",
            "bd_day": {
```

```
                "iAvailable": 1,
                "bright": 128,
                "dark": 128,
                "mode": "Auto"
            },
            "bd_led_color": {
                "iAvailable": 0,
                "bright": 0,
                "dark": 0,
                "mode": "Auto"
            },
            "bd_night": {
                "iAvailable": 1,
                "bright": 128,
                "dark": 128,
                "mode": "Auto"
            },
            "dayNightThreshold": 73
        }
    }
}]
```

Field description

Field	Description	M/O
channel	IPC channel number.	M
antiFlicker	Flicker prevention,["Outdoor", "50HZ", "60HZ", "Off"]	M
exposure	Exposure mode, ["Auto", "LowOise", "Anti-Smearing", "Manual"]	M
gain (Depend on exposure)	When the value of exposure is LowOise or Manual, the gain field is effective.	M
shutter (Depend on exposure)	When the value of exposure is Anti-Smearing or Manual, the shutter field is effective.	M
whiteBalance	White Balance,["Auto", "Manual"]	M
blueGain (Depend on	When the value of whiteBalance is Anti-Smearing or Manual, the blueGain field is effective.	M

whiteBalance)		
redGain (Depend on whiteBalance)	When the value of whiteBalance is Anti-Smearing or Manual, the redGain field is effective.	M
dayNight	Day&Night,["Auto", "Color", "Black&White"]	M
backLight	Backlight compensation, ["Off", "BackLightControl", "DynamicRangeControl"]	M
Blc (Depend on backLight)	When the value of backLight is BackLightControl, the blc field is effective.	M
Drc (Depend on backLight)	When the value of backLight is DynamicRangeControl, the drc field is effective.	M
nr3d		M
mirroring	Video mirroring.	M
rotation	Video rotation.	M
cdsType	Soft light sensitive switch, off when the hard light sensitive effect, can use the day and night switching threshold adjustment, open when the soft light sensitive effect, can use the day and night switching sensitivity adjustment	M
constantFrame Rate	Fixed frame rate switch, when on, to the video fluency priority, when off to the quality of the picture priority	M

● **Return data description**

Return data correctly
[{

"cmd" : "SetOsd",
"code" : 0,
"value" : {
　　"rspCode" : 200
　}
　}
]

Field description	
Field	**description**
rspCode	Response code

3.4.7 GetMask

- **Interface Description**

It is used to get configuration of Mask.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetMask&token=TOKEN

- **POST Data**

Data example

[
　{
　　　"cmd": "GetMask",
　　　"action": 1,
　　　"param": {
　　　　"channel": 0
　　　}
　}
]

Field description		
Field	**Description**	**M/O**
channel	IPC channel number	M

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetMask",
        "code" : 0,
        "initial" : {
            "Mask" : {
                "area" : [
                    {
                        "block" : {
                            "height" : 0,
                            "width" : 0,
                            "x" : 0,
                            "y" : 0
                        },
                        "screen" : {
                            "height" : 0,
                            "width" : 0
                        }
                    }
                ],
                "channel" : 0,
                "enable" : 0
            }
        },
        "range" : {
            "Mask" : {
                "channel" : 0,
                "enable" : "boolean",
                "maxAreas" : 4
            }
        },
        "value" : {
            "Mask" : {
                "area" : [
                    {
                        "block" : {
                            "height" : 163,
                            "width" : 121,
                            "x" : 192,
                            "y" : 143
```

```
                    },
                    "screen" : {
                        "height" : 480,
                        "width" : 640
                    }
                }
            ],
            "channel" : 0,
            "enable" : 1
        }
    }
}
]
```

Field description

Field	description
enable	Video mask switch.
Block->height	Block height.
Block->width	Block width.
Block->x	Left upper X axis coordinates
Block->y	Left upper Y axis coordinates
Screen->height	Screen height.
Screen->width	Screen width.

3.4.8 SetMask

● **Interface Description**

It is used to set configuration of Mask.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetMask&token=TOKEN

● **POST Data**

Data example
[

```json
{
    "cmd":"SetMask",
    "action":0,
    "param":{
        "Mask":{
            "channel":0,
            "enable":1,
            "area":[
                {
                    "screen":{
                        "height":720,
                        "width":1280
                    },
                    "block":{
                        "x":110,
                        "y":95,
                        "width":36,
                        "height":166
                    }
                },
                {
                    "screen":{
                        "height":720,
                        "width":1280
                    },
                    "block":{
                        "x":251,
                        "y":100,
                        "width":54,
                        "height":175
                    }
                },
                {
                    "screen":{
                        "height":720,
                        "width":1280
                    },
                    "block":{
                        "x":425,
                        "y":102,
                        "width":23,
                        "height":211
                    }
                },
```

```
                    {
                        "screen":{
                            "height":720,
                            "width":1280
                        },
                        "block":{
                            "x":632,
                            "y":88,
                            "width":51,
                            "height":245
                        }
                    }
                ]
            }
        }
    }
]
```

Field description

Field	Description	M/O
channel	IPC channel number.	M
enable	Video mask switch.	M
block->height	Block height.	M
block->width	Block width.	M
block->x	Left upper X axis coordinates	M
block->y	Left upper Y axis coordinates	M
screen->height	Screen height.	M
screen->width	Screen width.	M

- **Return data description**

```
Return data correctly
[
    {
        "cmd" : "SetMask",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
```

}	
]	

Field description

Field	description
rspCode	Response code

3.4.9 GetCrop

- **Interface Description**

It is used to get configuration of Crop.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetCrop&token=TOKEN

- **POST Data**

Data example

[{
    "cmd": "GetCrop",
    "action": 0,   //NVR
    "param": {   //NVR
        "channel": 0   //NVR
    }
}]

Field description

Field	Description	M/O

- **Return data description**

Return data correctly
[{

```
            "cmd" : "GetCrop",
        "code" : 0,
        "initial" : {
            "Crop" : {
                "cropHeight" : 480,
                "cropWidth" : 640,
                "mainHeight" : 1920,
                "mainWidth" : 2560,
                "minHeight" : 480,
                "minWidth" : 640,
                "topLeftX" : 960,
                "topLeftY" : 720
            }
        },
        "range" : {
            "Crop" : {
                "topLeftX" : {
                    "max" : 1920,
                    "min" : 0
                },
                "topLeftY" : {
                    "max" : 1440,
                    "min" : 0
                }
            }
        },
        "value" : {
            "Crop" : {
                "channel" : 0,        //NVR
                "cropHeight" : 480,
                "cropWidth" : 640,
                "mainHeight" : 1920,
                "mainWidth" : 2560,
                "minHeight" : 480,
                "minWidth" : 640,
                "topLeftX" : 960,
                "topLeftY" : 720
            }
        }
    }
]
```

Field description

Field	description
rspCode	Response code
minHeight	Minimum height of crop area
minWidth	Minimum width of crop area
mainHeight	height of Main stream
mainWidth	width of Main stream
cropHeight	height of crop area
cropWidth	width of crop area
topLeftY	Distance between the upper left corner of the crop area and the upper boundary
topLeftX	Distance between the upper left corner of the crop area and the left boundary

3.4.10 SetCrop

● **Interface Description**

It is used to set configuration of Crop.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetCrop&token=TOKEN

● **POST Data**

Data example

[{
    "cmd": "SetCrop",
    "action": 0,
    "param": {
        "Crop": {
            "channel":0,   //NVR
             "screenWidth": 2560,
             "screenHeight": 1920,
             "cropWidth": 640,
             "cropHeight": 480,

"topLeftX": 960,
        "topLeftY": 720
     }
   }
}]

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
   {
      "cmd" : "SetCrop",
      "code" : 0,
      "value" : {
         "rspCode" : 200
      }
   }
]

Field description	
Field	**description**
rspCode	Response code
minHeight	Minimum height of crop area
minWidth	Minimum width of crop area
mainHeight	height of Main stream
mainWidth	width of Main stream
cropHeight	height of crop area
cropWidth	width of crop area
topLeftY	Distance between the upper left corner of the crop area and the upper boundary
topLeftX	Distance between the upper left corner of the crop area and

	the left boundary

3.4.11 GetStitch

- **Interface Description**

This command is used for "stitching binocular" IPC to adjust the stitching picture

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetStitch &token=TOKEN

- **POST Data**

Data example		

[{
    "cmd": "GetStitch",
    "action": 1
}]		

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
   {
      "cmd" : "GetStitch",
      "code" : 0,
      "initial" : {
         "stitch" : {
            "distance" : 2.0,
            "stitchXMove" : 0,

```
                    "stitchYMove" : 0
                }
            },
            "range" : {
                "stitch" : {
                    "distance" : {
                        "max" : 20.0,
                        "min" : 2.0
                    },
                    "stitchXMove" : {
                        "max" : 100,
                        "min" : -100
                    },
                    "stitchYMove" : {
                        "max" : -100,
                        "min" : 100
                    }
                }
            },
            "value" : {
                "stitch" : {
                    "distance" : 8.100000381469727,
                    "stitchXMove" : 5,
                    "stitchYMove" : 3
                }
            }
        }
    }
]
```

Field description

Field	description
distance	Distance between images
stitchXMove	Adjust pixels horizontally
stitchYMove	Adjust pixels vertically

3.4.12 SetStitch

● **Interface Description**

It is used to set configuration of Stitch.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetStitch &token=TOKEN

- **POST Data**

Data example

[{
    "cmd": "setStitch",
    "param": {
        "stitch": {
            "distance": 8.1,
            "stitchXMove": 5,
            "stitchYMove": 3
        }
 	
    }
}]

Field description		
Field	**Description**	**M/O**
distance	Distance between images	M
stitchXMove	Adjust pixels horizontally	M
stitchYMove	Adjust pixels vertically	M

- **Return data description**

Return data correctly

[
    {
        "cmd" : "SetStitch",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description

Field	description

3.5 Enc

3.5.1 GetEnc

● **Interface Description**

It is used to get configuration of Enc.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetEnc&token=TOKEN

● **POST Data**

Data example

```
[
    {
        "cmd":"GetEnc",
        "action":1,
        "param":{
            "channel":0
        }
    }
]
```

Field description

Field	Description	M/O
channel	IPC channel number	M

● **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetEnc",
```

```json
"code" : 0,
"initial" : {
    "Enc" : {
        "audio" : 0,
        "channel" : 0,
        "mainStream" : {
            "bitRate" : 6144,
            "frameRate" : 25,
            "gop" : 2,
            "height" : 2160,
            "profile" : "High",
            "size" : "3840*2160",
            "vType" : "h265",
            "width" : 3840
        },
        "subStream" : {
            "bitRate" : 256,
            "frameRate" : 10,
            "gop" : 4,
            "height" : 360,
            "profile" : "High",
            "size" : "640*360",
            "vType" : "h264",
            "width" : 640
        }
    }
},
"range" : {
    "Enc" : [
        {
            "audio" : "boolean",
            "chnBit" : 1,
            "mainStream" : {
                "bitRate" : [ 4096, 5120, 6144, 7168, 8192 ],
                "default" : {
                    "bitRate" : 6144,
                    "frameRate" : 25,
                    "gop" : 2
                },
                "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
                "gop" : {
                    "max" : 4,
                    "min" : 1
                },
```

```
                        "height" : 2160,
                        "profile" : [ "Base", "Main", "High" ],
                        "size" : "3840*2160",
                        "vType" : "h265",
                        "width" : 3840
                    },
                    "subStream" : {
                        "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
                        "default" : {
                            "bitRate" : 256,
                            "frameRate" : 10,
                            "gop" : 4
                        },
                        "frameRate" : [ 15, 10, 7, 4 ],
                        "gop" : {
                            "max" : 4,
                            "min" : 1
                        },
                        "height" : 360,
                        "profile" : [ "Base", "Main", "High" ],
                        "size" : "640*360",
                        "vType" : "h264",
                        "width" : 640
                    }
                },
                {
                    "audio" : "boolean",
                    "chnBit" : 1,
                    "mainStream" : {
                        "bitRate" : [ 1024, 1536, 2048, 3072, 4096, 5120, 6144,
7168, 8192 ],
                        "default" : {
                            "bitRate" : 6144,
                            "frameRate" : 25,
                            "gop" : 2
                        },
                        "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
                        "gop" : {
                            "max" : 4,
                            "min" : 1
                        },
                        "height" : 1440,
                        "profile" : [ "Base", "Main", "High" ],
                        "size" : "2560*1440",
```

```json
                    "vType" : "h264",
                    "width" : 2560
                },
                "subStream" : {
                    "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
                    "default" : {
                        "bitRate" : 256,
                        "frameRate" : 10,
                        "gop" : 4
                    },
                    "frameRate" : [ 15, 10, 7, 4 ],
                    "gop" : {
                        "max" : 4,
                        "min" : 1
                    },
                    "height" : 360,
                    "profile" : [ "Base", "Main", "High" ],
                    "size" : "640*360",
                    "vType" : "h264",
                    "width" : 640
                }
            },
            {
                "audio" : "boolean",
                "chnBit" : 1,
                "mainStream" : {
                    "bitRate" : [ 1024, 1536, 2048, 3072, 4096, 5120, 6144,
7168, 8192 ],
                    "default" : {
                        "bitRate" : 6144,
                        "frameRate" : 25,
                        "gop" : 2
                    },
                    "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
                    "gop" : {
                        "max" : 4,
                        "min" : 1
                    },
                    "height" : 1296,
                    "profile" : [ "Base", "Main", "High" ],
                    "size" : "2304*1296",
                    "vType" : "h264",
                    "width" : 2304
                },
```

```json
            "subStream" : {
                "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
                "default" : {
                    "bitRate" : 256,
                    "frameRate" : 10,
                    "gop" : 4
                },
                "frameRate" : [ 15, 10, 7, 4 ],
                "gop" : {
                    "max" : 4,
                    "min" : 1
                },
                "height" : 360,
                "profile" : [ "Base", "Main", "High" ],
                "size" : "640*360",
                "vType" : "h264",
                "width" : 640
            }
        }
    ]
},
"value" : {
    "Enc" : {
        "audio" : 1,
        "channel" : 0,
        "mainStream" : {
            "bitRate" : 6144,
            "frameRate" : 25,
            "gop" : 2,
            "height" : 2160,
            "profile" : "High",
            "size" : "3840*2160",
            "vType" : "h265",
            "width" : 3840
        },
        "subStream" : {
            "bitRate" : 256,
            "frameRate" : 10,
            "gop" : 4,
            "height" : 360,
            "profile" : "High",
            "size" : "640*360",
            "vType" : "h264",
            "width" : 640
```

```
                }
            }
        }
    }
]
```

Field description

Field	description
audio	Audio switch.
mainStream->bitRate	Bit rate of main stream.
mainStream->frameRate	FrameRate of main stream.
mainStream->profile	H.264 Profile.
mainStream->size	Resolution.
subStream->bitRate	Bit rate of sub stream.
subStream->frameRate	FrameRate of sub stream.
subStream->profile	H.264 Profile.
subStream->size	Resolution.
mainstream->height	Height of mainstream (This item is internal use only, and no needed for cmd "SetEnc")
mainstream->resolution	Resolution enumerate of mainstream (This item is internal use only, and no needed for cmd "SetEnc")
mainstream->width	Width of mainstream (This item is internal use only, and no needed for cmd "SetEnc")
substeram->height	Height of substream (This item is internal use only, and no needed for cmd "SetEnc")
substeram->resolution	Resolution enumerate of substream (This item is internal use only, and no needed for cmd "SetEnc")

substeram->width	Width of substream
	(This item is internal use only, and no needed for cmd "SetEnc")

3.5.2 SetEnc

- **Interface Description**

It is used to set configuration of Enc.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetEnc&token=TOKEN

- **POST Data**

Data example
<pre>[{
    "cmd": "SetEnc",
    "action": 0,
    "param": {
        "Enc": {
            "channel": 0,
            "audio": 1,
            "mainStream": {
                "size": "2560*1920",
                "frameRate": 20,
                "bitRate": 4096,
                "profile": "High"
            },
            "subStream": {
                "size": "640*480",
                "frameRate": 10,
                "bitRate": 256,
                "profile": "High"
            }

        }
    }</pre> |

}]		
Field description		
Field	**Description**	**M/O**
channel	IPC channel number.	M
audio	Audio switch.	M
mainStream->bitRate	Bit rate of main stream.	M
mainStream->frameRate	FrameRate of main stream.	M
mainStream->profile	H.264 Profile.	M
mainStream->size	Resolution.	M
subStream->bitRate	Bit rate of sub stream.	M
subStream->frameRate	FrameRate of sub stream.	M
subStream->profile	H.264 Profile.	M
subStream->size	Resolution.	M

● **Return data description**

Return data correctly
| ```
[
    {
        "cmd" : "SetEnc",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
``` |

Field description	
Field	**description**
rspCode	Response code

3.6 Record

3.6.1 GetRec

- **Interface Description**

It is used to get configuration of record.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetRec&token=TOKEN

- **Post Data**

Data example

[
  {
    "cmd":"GetRec",
    "action":1,
    "param":{
      "channel":0
    }
  }
]

Field description		
Field	**Description**	**M/O**
channel	Index of channel	M

- **Return data description**

Return data correctly

[
  {
    "cmd" : "GetRec",
    "code" : 0,
    "initial" : {
      "Rec" : {
        "channel" : 0,

```
                    "overwrite" : 1,
                    "packTime" : "30 Minutes",    //NVR
                    "postRec" : "1 Minute",
                    "preRec" : 1,
                    "schedule" : {
                        "enable" : 1,
                        "table" :
"222222222222222222222222222222222222222222222222222222222222
222222222222222222222222222222222222222222222222222222222222
222222222222222222222222222222222"
                    }
                }
            },
            "range" : {
                "Rec" : {
                    "channel" : 0,
                    "overwrite" : "boolean",
                    "packTime" : [ "30 Minutes", "45 Minutes", "60 Minutes" ],
            //NVR
                            "postRec" : [ "15 Seconds", "30 Seconds", "1 Minute", "10
Minutes" ],
                            "preRec" : "boolean",
                            "schedule" : {
                                "enable" : "boolean"
                            }
                        }
                    },
                    "value" : {
                        "Rec" : {
                            "channel" : 0,
                            "overwrite" : 1,
                            "packTime" : "60 Minutes",    //NVR
                            "postRec" : "1 Minute",
                            "preRec" : 1,
                            "schedule" : {
                                "enable" : 1,
                                "table" :
"222222222222222222222222222222222222222222222222222222222222
222222222222222222222222222222222222222222222222222222222222
222222222222222222222222222222222"
                            }
                        }
                    }
                }
            }
```

Field description	
Field	**description**
channel	Channel number
overwrite	Whether the video files can be overwritten
postRec	Post record time
preRec	Enable pre record
enable	Enable scheduled recording
table	A string with the length of 7 days*24 hours. Each byte in this hour indicates whether it's recording. With the value of 0, the recording is off, otherwise the recording is on.
Note: This command supports model 52X only	
Note: When scheduleVersion ver=1 in the capability set, use cmd "GetRecV20"	

3.6.2 SetRec

- **Interface Description**

It is used to set configuration of record.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetRec&token=TOKEN

- **Post Data**

Data example

[
  {
    "cmd":"SetRec",
    "param":
    {

```
        "Rec" :
        {
            "channel" : 0,
            "overwrite" : 1,
            "postRec" : "30 Seconds",
            "preRec" : 1,
            "schedule" :
            {
                "enable" : 1,
                "table" :
"111111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111"
            }
        }
    }
}
]
```

Field description

Field	Description	M/O
channel	See also GetRec	M
overwrite	See also GetRec	O
postRec	See also GetRec	O
preRec	See also GetRec	O
enable	See also GetRec	O
table	See also GetRec	O

Note:

When scheduleVersion ver=1 in the capability set, use cmd "SetRecV20"

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "SetRec",
        "code" : 0,
        "value" : {
            "rspCode" : 200
```

}
}
]

Field description	
Field	**description**

3.6.3 GetRecV20

● **Interface Description**

It is used to get configuration of record.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetRecV20&token=TOKEN

● **Post Data**

Data example		

[
  {
    "cmd":"GetRecV20",
    "action":1,
    "param":{
      "channel":0
    }
  }
]		

Field description		
Field	**Description**	**M/O**
channel	Index of channel	M

● **Return data description**

Return data correctly
[{

"cmd" : "GetRecV20",
"code" : 0,
"initial" : {
    "Rec" : {
        "enable" : 1,
        "overwrite" : 1,
        "packTime" : "60 Minutes",
        "postRec" : "2 Minutes",
        "preRec" : 1,
        "saveDay" : 7,
        "schedule" : {
            "channel" : 0,
            "table" : {
//NVR   "AI_PEOPLE" : "00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000",
                //NVR   "AI_VEHICLE" : "00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000",
                "MD" : "00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000",
                "TIMING" : "111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111"
            }
        }
    },
    "range" : {
        "Rec" : {
            "enable" : "boolean",
            "overwrite" : "boolean",
            "packTime" : ["30 Minutes", "45 Minutes", "60 Minutes"],
            "postRec" : ["1 Minute", "2 Minutes", "5 Minutes", "10 Minutes"],
            "preRec" : "boolean",
            "schedule" : {
                "channel" : 0,

```
                        "table" : {
                            "AI_PEOPLE" : "boolean",    //NVR
                            "AI_VEHICLE" : "boolean",    //NVR
                            "MD" : "boolean",
                            "TIMING" : "boolean"
                        }
                    }
                }
            },
            "value" : {
                "Rec" : {
                    "enable" : 1,
                    "overwrite" : 1,
                    "packTime" : "60 Minutes",
                    "postRec" : "1 Minute",
                    "preRec" : 1,
            "saveDay" : 30,
                    "schedule" : {
                        "channel" : 0,
                        "table" : {
                //NVR            "AI_PEOPLE" :
"0000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000",
                //NVR            "AI_VEHICLE" :
"0000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000",
                        "MD" :
"1111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111",
                        "TIMING" :
"0000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000"
                        }
                    }
                }
            }
        }
    ]
```

Field description

Field	description
channel	Channel number
overwrite	Whether the video files can be overwritten
postRec	Post record time
preRec	Enable pre record
enable	Enable scheduled recording
table	A string with the length of 7 days*24 hours. Each byte in this hour indicates whether it's recording. With the value of 0, the recording is off, otherwise the recording is on.
PackTime	Packaging cycle
saveDay	Customize the retention days of video coverage

3.6.4 SetRecV20

- **Interface Description**

It is used to set configuration of record.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetRecV20&token=TOKEN

- **Post Data**

Data example

[{
    "cmd": "SetRecV20",
    "param": {
        "Rec": {
            "overwrite": 1,
            "postRec": "30 Seconds",
            "preRec": 1,
            "saveDay": 30,

```
                    "schedule": {
                        "enable": 1,
"channel": 0,
                        "table": {
                    "MD":
"10011111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111100",
                    "TIMING":
"10111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111"
                        }
                    }
                }
            }
}]
```

Field description

Field	Description	M/O
channel	See also GetRec	M
overwrite	See also GetRec	O
postRec	See also GetRec	O
preRec	See also GetRec	O
enable	See also GetRec	O
table	See also GetRec	O
saveDay	See also GetRec	O

● **Return data description**

Return data correctly
```[{   "cmd" : "SetRecV20",   "code" : 0,   "value" : {   "rspCode" : 200   }   }```

]	
Field description	
Field	**description**

3.6.5 Search

- **Interface Description**

It is used to search video files.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=Search&token=TOKEN

- **Post Data**

Data example
<pre>[{
    "cmd": "Search",
        "action":0,
    "param": {
        "Search": {
            "channel": 0,
            "onlyStatus": 1,
            "streamType": "main",
            "StartTime": {
                "year": 2020,
                "mon": 12,
                "day": 21,
                "hour": 12,
                "min": 26,
                "sec": 1

            },
            "EndTime": {
                "year": 2020,</pre> |

```
                    "mon": 12,
                    "day": 21,
                    "hour": 12,
                    "min": 34,
                    "sec": 1


            }
        }
    }
}]
```

Field description		
Field	**Description**	**M/O**
channel	Channel number	M
onlyStatus	The value 1 means it will only get the data of dates instead of requiring the details of the files. The value 0 means it will get the details information of a certain day.	M
streamType	The stream type of the recordings, "main" is for searching main stream, otherwise is for searching sub stream.	M
startTime	The start time of the recordings	M
endTime	The end time of the recordings	M
Noted: Searching a big amount of files might lead to searching time out		

- **Return data description**

Return data correctly

<pre>[
    {
        "cmd" : "Search",
        "code" : 0,
        "value" : {
            "SearchResult" : {
                "Status" : [
                    {
                        "mon" : 12,</pre>

```
                    "table" : "1111000000000011110011110000000",
                    "year" : 2020
                }
            ],
            "channel" : 0
        }
    }
}
]
```

Field description	
Field	**description**
mon	Record date(month)
year	Record date(year)
channel	channel number
table	Each byte in the string represent the days of the month, indicating whether it's recording. With the value of 0, the recording is off, with the value of 1, the recording is on.

Return data correctly (onlyStatus 为 0)

```
[
    {
        "cmd" : "Search",
        "code" : 0,
        "value" : {
            "SearchResult" : {
                "File" : [
                    {
                        "EndTime" : {
                            "day" : 21,
                            "hour" : 20,
                            "min" : 21,
                            "mon" : 12,
                            "sec" : 23,
                            "year" : 2020
                        },
                        "StartTime" : {
                            "day" : 21,
                            "hour" : 12,
```

```
                        "min" : 20,
                        "mon" : 12,
                        "sec" : 57,
                        "year" : 2020
                    },
                    "frameRate" : 0,
                    "height" : 0,
                    "name" :
"Mp4Record/2020-12-21/RecM01_20201221_122057_202123_6D28C08_E4B0AE.
mp4",
                    "size" : 14987438,
                    "type" : "main",
                    "width" : 0
                },
                {
                    "EndTime" : {
                        "day" : 21,
                        "hour" : 12,
                        "min" : 33,
                        "mon" : 12,
                        "sec" : 42,
                        "year" : 2020
                    },
                    "StartTime" : {
                        "day" : 21,
                        "hour" : 12,
                        "min" : 33,
                        "mon" : 12,
                        "sec" : 39,
                        "year" : 2020
                    },
                    "frameRate" : 0,
                    "height" : 0,
                    "name" :
"Mp4Record/2020-12-21/RecM01_20201221_123339_123342_6D28808_2D9AF5.
mp4",
                    "size" : 2988789,
                    "type" : "main",
                    "width" : 0
                },
                {
                    "EndTime" : {
                        "day" : 21,
                        "hour" : 12,
```

```
                        "min" : 38,
                        "mon" : 12,
                        "sec" : 49,
                        "year" : 2020
                    },
                    "StartTime" : {
                        "day" : 21,
                        "hour" : 12,
                        "min" : 33,
                        "mon" : 12,
                        "sec" : 49,
                        "year" : 2020
                    },
                    "frameRate" : 0,
                    "height" : 0,
                    "name" :
"Mp4Record/2020-12-21/RecM01_20201221_123349_123849_6D28C18_98ADFF
F.mp4",
                    "size" : 160096255,
                    "type" : "main",
                    "width" : 0
                }
            ],
            "Status" : [
                {
                    "mon" : 12,
                    "table" : "000000000000000111110000000000",
                    "year" : 2020
                }
            ],
            "channel" : 0
        }
    }
}
]
```

Field description	
Field	**description**
frameRate	Frame rate
height	The height of the image
width	The width of the image

name	File name
size	File size
type	Stream type
StartTime	The start time of the recordings
EndTime	The end time of the recordings
mon	Month
year	Year
channel	Channel number
table	Each byte in the string represent the days of the month, indicating whether it's recording. With the value of 0, the recording is off, with the value of 1, the recording is on.

3.6.6 Download

● **Interface Description**

It is used to download video files.

● **Interface call instructions**

Request URL	https://192.168.1.238/cgi-bin/api.cgi?cmd=Download&source=Mp4Record/2020-12-21/RecM01_20201221_121551_121553_6D28808_2240A8.mp4&output=Mp4Record_2020-12-21_RecM01_20201221_121551_121553_6D28808_2240A8.mp4&token=TOKEN

● **Request parameter description**

Parameter	M/O	Description
source	M	The name of the source file
output	M	Video files storage name

● **Return data description**

Return data correctly
Content-Type: apolication/octet-stream Content-Length: 2244776 Last-Modified: Mon, 21 Dec 2020 03:15:56 GMT Connection: keep-alive Content-Disposition: attachment;filename=Mp4Record_2020-12-21_RecM01_202 01221_121551_121553_6D28808_2240A8.mp4 ETag: "5fe0136c-2240a8" X-Frame-Options: SAMEORIGIN X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff Accept-Ranges: bytes ....(file content)

Field description	
Field	**description**
filename	The name of the video file

3.6.7 Snap

- **Interface Description**

It is used to capture an image.

- **Interface call instructions**

Request URL	https://192.168.1.238/cgi-bin/api.cgi?cmd=Snap&channel=0 &rs=flsYJfZgM6RTB_os&token=TOKEN

- **Request parameter description**

Parameter	M/O	Description
channel	M	Channel number
rs	M	Random character with fixed length. It's used to prevent browser caching.

- **Return data description**

Return data correctly
Content-Type: image/jpeg Content-Length: 171648 Connection: keep-alive X-Frame-Options: SAMEORIGIN X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff ....(File content)

Field description	
Field	**description**
name	Picture name

3.6.8 Playback

- **Interface Description**

It is used to get configuration of Playback.

- **Interface call instructions**

Request URL	https://192.168.1.238/cgi-bin/api.cgi?cmd=Playback&source= Mp4Record/2020-12-22/RecM01_20201222_075939_080140 _6D28808_1A468F9.mp4&output=Mp4Record/2020-12-22/R ecM01_20201222_075939_080140_6D28808_1A468F9.mp4 &token=TOKEN

- **Request parameter description**

Parameter	M/O	Description
source	M	The name of the source file
output	M	Video files storage name

- **Return data description**

Return data correctly

Content-Type: apolication/octet-stream
Content-Length: 2244776
Last-Modified: Mon, 21 Dec 2020 03:15:56 GMT
Connection: keep-alive
Content-Disposition: attachment;filename=Mp4Record/2020-12-22/RecM01_2020
1222_075939_080140_6D28808_1A468F9.mp4
ETag: "5fe0136c-2240a8"
X-Frame-Options: SAMEORIGIN
X-XSS-Protection: 1; mode=block
X-Content-Type-Options: nosniff
Accept-Ranges: bytes

.............................(file content)

3.6.9 NvrDownload

- **Interface Description**

It is used to Nvr Download.

- **Interface call instructions**

Request URL	https://NVR_IP/api.cgi?cmd= NvrDownload&token=TOKEN

- **Post Data**

Data example

[{
    "cmd": "NvrDownload",
    "action": 1,
    "param": {
        "NvrDownload": {
            "channel": 0,
            "streamType": "sub",
            "StartTime": {
                "year": 2022,
                "mon": 8,
                "day": 9,
                "hour": 0,
                "min": 1,

```
                "sec": 21
            },
            "EndTime": {
                "year": 2022,
                "mon": 8,
                "day": 9,
                "hour": 0,
                "min": 1,
                "sec": 41
            }
        }
    }
}]
```

Field description

Field	Description	M/O
StartTime	Start time	O
EndTime	End time	O
streamType	The bitstream type of the file to download,main or sub	O

- **Return data description**

Return data correctly

<pre>[
    {
        "cmd" : "NvrDownload",
        "code" : 0,
        "value" : {
            "fileCount" : 10,
            "fileList" : [
                {
                    "fileName" : "fragment_01_20201224101100.mp4",
                    "fileSize" : "2122011"
                },
                {
                    "fileName" : "fragment_01_20201224100925.mp4",
                    "fileSize" : "39858411"
                },
                {
                    "fileName" : "fragment_01_20201224101151.mp4",</pre>

```
                    "fileSize" : "2728197"
                },
                {

                    "fileName" : "fragment_01_20201224100848.mp4",
                    "fileSize" : "14158847"
                },
                {

                    "fileName" : "fragment_01_20201224100800.mp4",
                    "fileSize" : "11221990"
                },
                {

                    "fileName" : "fragment_01_20201224100834.mp4",
                    "fileSize" : "2303298"
                },
                {

                    "fileName" : "fragment_01_20201224101201.mp4",
                    "fileSize" : "7295191"
                },
                {

                    "fileName" : "fragment_01_20201224101135.mp4",
                    "fileSize" : "2182079"
                },
                {

                    "fileName" : "fragment_01_20201224101125.mp4",
                    "fileSize" : "2222880"
                },
                {

                    "fileName" : "fragment_01_20201224101222.mp4",
                    "fileSize" : "18956748"
                }
            ]
        }
    }
]
```

Field description	
Field	**description**
Filename	name of file
File size	Szie of file

3.7 PTZ

- **Note :Only for devices with PTZ capabilities**

3.7.1 GetPtzPreset

- **Interface Description**

It is used to get configuration of Ptz Preset.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetPtzPreset&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd": "GetPtzPreset",
        "action": 1,
        "param": {
            "channel": 0
        }
    }
]

Field description		
Field	**Description**	**M/O**
channel	The channel number.	M

- **Return data description**

Return data correctly

[
   {
      "cmd" : "GetPtzPreset",
      "code" : 0,
      "initial" : {

```
"PtzPreset" : [
    {
        "channel" : 0,
        "enable" : 1,
        "id" : 1,
        "name" : "pos1"
    },
    {
        "channel" : 0,
        "enable" : 1,
        "id" : 2,
        "name" : "pos1"
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 3,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 4,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 5,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 6,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 7,
        "name" : ""
    },
    {
```

```
            "channel" : 0,
            "enable" : 0,
            "id" : 8,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 9,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 10,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 11,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 12,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 13,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 14,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
```

```
                    "id" : 15,
                    "name" : ""
            },
            {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 16,
                    "name" : ""
            },
            {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 17,
                    "name" : ""
            },
            {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 18,
                    "name" : ""
            },
            {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 19,
                    "name" : ""
            },
            {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 20,
                    "name" : ""
            },
            {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 21,
                    "name" : ""
            },
            {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 22,
                    "name" : ""
```

```json
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 23,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 24,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 25,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 26,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 27,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 28,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 29,
                "name" : ""
            },
            {
```

```
            "channel" : 0,
            "enable" : 0,
            "id" : 30,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 31,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 32,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 33,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 34,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 35,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 36,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
```

```
        "id" : 37,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 38,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 39,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 40,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 41,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 42,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 43,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 44,
        "name" : ""
```

```
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 45,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 46,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 47,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 48,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 49,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 50,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 51,
            "name" : ""
        },
        {
```

```
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 52,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 53,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 54,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 55,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 56,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 57,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 58,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
```

```
                    "id" : 59,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 60,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 61,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 62,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 63,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 64,
                    "name" : ""
                }
            ]
        },
        "range" : {
            "PtzPreset" : {
                "channel" : 0,
                "enable" : "boolean",
                "id" : {
                    "max" : 64,
                    "min" : 1
                },
                "name" : {
```

```
                    "maxLen" : 31
                }
            }
        },
        "value" : {
            "PtzPreset" : [
                {
                    "channel" : 0,
                    "enable" : 1,
                    "id" : 1,
                    "name" : "pos1"
                },
                {
                    "channel" : 0,
                    "enable" : 1,
                    "id" : 2,
                    "name" : "pos1"
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 3,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 4,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 5,
                    "name" : ""
                },
                {
                    "channel" : 0,
                    "enable" : 0,
                    "id" : 6,
                    "name" : ""
                },
                {
                    "channel" : 0,
```

```
        "enable" : 0,
        "id" : 7,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 8,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 9,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 10,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 11,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 12,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 13,
        "name" : ""
    },
    {
        "channel" : 0,
        "enable" : 0,
        "id" : 14,
```

```
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 15,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 16,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 17,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 18,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 19,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 20,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 21,
                "name" : ""
            },
```

```
                    {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 22,
                        "name" : ""
                    },
                    {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 23,
                        "name" : ""
                    },
                    {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 24,
                        "name" : ""
                    },
                    {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 25,
                        "name" : ""
                    },
                    {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 26,
                        "name" : ""
                    },
                    {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 27,
                        "name" : ""
                    },
                    {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 28,
                        "name" : ""
                    },
                    {
                        "channel" : 0,
```

```
            "enable" : 0,
            "id" : 29,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 30,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 31,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 32,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 33,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 34,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 35,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 36,
```

```
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 37,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 38,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 39,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 40,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 41,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 42,
                "name" : ""
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 43,
                "name" : ""
            },
```

```
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 44,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 45,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 46,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 47,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 48,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 49,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 50,
            "name" : ""
        },
        {
            "channel" : 0,
```

```json
            "enable" : 0,
            "id" : 51,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 52,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 53,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 54,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 55,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 56,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 57,
            "name" : ""
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 58,
```

```
                        "name" : ""
                },
                {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 59,
                        "name" : ""
                },
                {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 60,
                        "name" : ""
                },
                {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 61,
                        "name" : ""
                },
                {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 62,
                        "name" : ""
                },
                {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 63,
                        "name" : ""
                },
                {
                        "channel" : 0,
                        "enable" : 0,
                        "id" : 64,
                        "name" : ""
                }
            ]
        }
    }
]
```

Field description

Field	description
enable	Preset switch, The value of 1 represents the open, and the 0 is the opposite.
id	ID number of the Preset.
name	Name of the Preset.

3.7.2 SetPtzPreset

● **Interface Description**

It is used to set configuration of PtzPreset.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetPtzPreset&token=TOKEN

● **POST Data**

Data example

``
[
    {
        "cmd":"SetPtzPreset",
        "action":0,
        "param":{
            "PtzPreset":{
                "channel":0,
                "enable":1,
                "id":1,
                "name":"pos1"
            }
        }
    }
]
``

Field description		
Field	**Description**	**M/O**
channel	IPC channel number.	M

enable	1 means that is on, and 0 means it's off. If that field doesn't exist it means only the name of the preset can be revised.	O
id	ID number of preset. Range [1~64].	M
name	Name of preset, limit 1~31 characters.	M

- **Return data description**

Return data correctly

[
    {
        "cmd" : "SetPtzPreset",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**
rspCode	Response code

3.7.3 GetPtzPatrol

- **Interface Description**

It is used to get configuration of PtzPatrol.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetPtzPatrol&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":"GetPtzPatrol",
        "action":1,
        "param":{
            "channel":0
        }
    }
]
```

Field description

Field	Description	M/O
channel	The channel number.	M

- **Return data description**

```
Return data correctly
[
    {
        "cmd" : "GetPtzPatrol",
        "code" : 0,
        "range" : {
            "PtzPatrol" : {
                "enable" : "boolean",
                "id" : {
                    "max" : 1,
                    "min" : 1
                },
                "name" : {
                    "maxLen" : 31
                },
                "preset" : {
                    "dwellTime" : {
                        "max" : 30,
                        "min" : 1
                    },
                    "id" : {
                        "max" : 64,
                        "min" : 1
                    },
                    "speed" : {
                        "max" : 64,
                        "min" : 1
```

```
                }
            },
            "running" : "boolean"
        }
    },
    "value" : {
        "PtzPatrol" : [
            {
                "channel" : 0,
                "enable" : 1,
                "id" : 1,
                "name" : "cruise1",
                "preset" : [
                    {
                        "dwellTime" : 3,
                        "id" : 1,
                        "speed" : 10
                    },
                    {
                        "dwellTime" : 4,
                        "id" : 2,
                        "speed" : 20
                    }
                ],
                "running" : 0
            },
            {
                "channel" : 0,
                "enable" : 0,
                "id" : 2,
                "name" : "",
                "preset" : [
                    {
                        "dwellTime" : 3,
                        "id" : 1,
                        "speed" : 10
                    },
                    {
                        "dwellTime" : 4,
                        "id" : 2,
                        "speed" : 20
                    }
                ],
                "running" : 0
```

```
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 3,
            "name" : "",
            "preset" : [
                {
                    "dwellTime" : 3,
                    "id" : 1,
                    "speed" : 10
                },
                {
                    "dwellTime" : 4,
                    "id" : 2,
                    "speed" : 20
                }
            ],
            "running" : 0
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 4,
            "name" : "",
            "preset" : [
                {
                    "dwellTime" : 3,
                    "id" : 1,
                    "speed" : 10
                },
                {
                    "dwellTime" : 4,
                    "id" : 2,
                    "speed" : 20
                }
            ],
            "running" : 0
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 5,
            "name" : "",
```

```
            "preset" : [
                {
                    "dwellTime" : 3,
                    "id" : 1,
                    "speed" : 10
                },
                {
                    "dwellTime" : 4,
                    "id" : 2,
                    "speed" : 20
                }
            ],
            "running" : 0
        },
        {
            "channel" : 0,
            "enable" : 0,
            "id" : 6,
            "name" : "",
            "preset" : [
                {
                    "dwellTime" : 3,
                    "id" : 1,
                    "speed" : 10
                },
                {
                    "dwellTime" : 4,
                    "id" : 2,
                    "speed" : 20
                }
            ],
            "running" : 0
        }
    ]
  }
}
]
```

Field description

Field	description
enable	Patrol switch, The value 1 means that's enabled, and 0 means the opposite.

id	ID number of the Patrol.
running	Whether running or not
preset->dwellTime	Patrol time
Preset->id	ID number of the preset
preset->speed	Patrol speed
name	Name of the patrol

3.7.4 SetPtzPatrol

- **Interface Description**

It is used to set configuration of PtzPatrol.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetPtzPatrol&token=TOKEN

- **POST Data**

Data example
```
[
    {
        "cmd":"SetPtzPatrol",
        "action":0,
        "param":{
            "PtzPatrol":{
                "channel":0,
                "enable":1,
                "id":1,
                "running":0,
                "name":"hello"
                "preset":[
                    {
                        "dwellTime":3,
                        "id":1,
                        "speed":10
                    },
                    {
```

"dwellTime":4,		

```
                            "dwellTime":4,
                            "id":2,
                            "speed":20
                    }

                ]
            }
        }
    }
]
```

Field description

Field	Description	M/O
channel	IPC channel number.	M
enable	Whether enable the preset or not	M
id	ID number of Patrol.	M
Preset->dwellTime	Patrol time	M
Preset->id	ID number of preset. Range [1~64].	M
Preset->speed	Patrol speed	M
Note : Support up to 16 preset.		

● **Return data description**

Return data correctly
| ```
[
    {
        "cmd" : "SetPtzPatrol",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
``` |
| **Field description** |

Field	description
rspCode	Response code

3.7.5 PtzCtrl

- **Interface Description**

It is used to control the operation of PTZ.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=PtzCtrl&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":"PtzCtrl",
        "param":{
            "channel":0,
            "op":"Auto",
            "speed":32
        }
},
{
    "cmd":"PtzCtrl",
    "param":{
        "channel":0,
        "op":"Stop"
    }
},
{
    "cmd":"PtzCtrl",
    "param":{
        "channel":0,
        "op":"ToPos",
        "id":1,
        "speed":32
    }
}

]
```

Field description

Field	Description	M/O
channel	IPC channel number.	M
op	Operation to control the PTZ.	M
id	Preset id number or Patrol id number.	O
speed	PTZ running speed.	O

- **Return data description**

Return data correctly

<pre>[
    {
        "cmd" : "PtzCtrl",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    },
    {
        "cmd" : "PtzCtrl",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    },
    {
        "cmd" : "PtzCtrl",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]</pre>

Field description

Field	description
rspCode	Response code

Notes :

connect to the ptz command, some parameters are unneeded. you just set it "0".

the value of op is:

"Stop": PTZ stop turning.

"Left": PTZ turn left in the specified speed.

"Right": PTZ turn right in the specified speed.

"Up": PTZ turn up in the specified speed.

"Down": PTZ turn down in the specified speed.

"LeftUp": PTZ turn left-up in the specified speed.

"LeftDown": PTZ turn left-down in the specified speed.

"RightUp": PTZ turn right-up in the specified speed.

"RightDown": PTZ turn right-down in the specified speed.

"IrisDec":Iris shrink in the specified speed.

"IrisInc":Iris enlarge in the specified speed.

"ZoomDec":Zoom in in the specified speed.

"ZoomInc":Zoom out in the specified speed.

"FocusDec":Focus backwards in the specified speed.

"FocusInc":Focus forwards in the specified speed.

"Auto": PTZ turn auto in the specified speed.

"StartPatrol": PTZ patrol in the specified speed.

"StopPatrol": PTZ stop patrol.

"ToPos": PTZ turn to a specified preset in the specified speed.

3.7.6 GetPtzSerial

● **Interface Description**

GetPtzSerial.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetPtzSerial&token=TOKEN

- **POST Data**

<table>
<tr><td colspan="3">Data example</td></tr>
<tr><td colspan="3">

```
[
    {
        "cmd": "GetPtzSerial",
        "action": 1,
        "param": {
            "channel": 0
        }
    }
]
```

</td></tr>
<tr><td colspan="3">Field description</td></tr>
<tr><td>Field</td><td>Description</td><td>M/O</td></tr>
<tr><td>channel</td><td>The channel number.</td><td>M</td></tr>
</table>

- **Return data description**

<table>
<tr><td>Return data correctly</td></tr>
<tr><td>

```
[
    {
        "cmd" : "GetPtzSerial",
        "code" : 0,
        "initial" : {
            "PtzSerial" : {
                "baudRate" : 1200,
                "channel" : 0,
                "ctrlAddr" : 0,
                "ctrlProtocol" : "PELCO_D",
                "dataBit" : "CS8",
                "flowCtrl" : "none",
                "parity" : "none",
                "stopBit" : 1
            }
        },
        "range" : {
            "PtzSerial" : {
                "baudRate" : [ 1200, 2400, 4800, 9600 ],
                "channel" : 0,
                "ctrlAddr" : {
                    "max" : 64,
```

</td></tr>
</table>

```
                    "min" : 1
                },
                "ctrlProtocol" : [ "PELCO_D", "PELCO_P" ],
                "dataBit" : [ "CS8", "CS7", "CS6", "CS5" ],
                "flowCtrl" : [ "none", "hard", "xon", "xoff" ],
                "parity" : [ "none", "odd", "even" ],
                "stopBit" : [ 1, 2 ]
            }
        },
        "value" : {
            "PtzSerial" : {
                "baudRate" : 1200,
                "channel" : 0,
                "ctrlAddr" : 0,
                "ctrlProtocol" : "PELCO_D",
                "dataBit" : "CS8",
                "flowCtrl" : "none",
                "parity" : "none",
                "stopBit" : 1
            }
        }
    }
]
```

Field description

Field	description
channel	The channel number.
baudRate	The baud rate of the serial in ptz
ctrlAddr	The control address of the serial in ptz
ctrlProtocol	The control protocol of the serial in ptz
dataBit	The data bit of the serial in ptz
flowCtrl	The flow control of the serial in ptz
parity	The parity of the serial in ptz
stopBit	The stop bit of the serial in ptz

3.7.7 SetPtzSerial

● **Interface Description**

SetPtzSerial.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetPtzSerial&token=TOKEN

● **POST Data**

Data example

`[`
　　`{`
　　　　`"cmd": "SetPtzSerial",`
　　　　`"action": 0,`
　　　　`"param": {`
　　　　　　`"PtzSerial": {`
　　　　　　　　`"channel": 0,`
　　　　　　　　`"baudRate": 9600,`
　　　　　　　　`"dataBit": "CS6",`
　　　　　　　　`"stopBit": 2,`
　　　　　　　　`"parity": "odd",`
　　　　　　　　`"flowCtrl": "hard",`
　　　　　　　　`"crtlProtocol": "PELCO_P",`
　　　　　　　　`"ctrlAddr": 2`
　　　　　　`}`
　　　　`}`
　　`}`
`]`

Field description		
Field	**Description**	**M/O**
channel	The channel number.	M
baudRate	The baud rate of the serial in ptz	O
ctrlAddr	The control address of the serial in ptz, which is default equal to channel plus 1	O
ctrlProtocol	The control protocol of the serial in ptz, which is	O

	between "PELCO_D" and "PELCO_P"	
dataBit	The data bit of the serial in ptz, which is between "CS8", "CS7", "CS6" and "CS5"	O
flowCtrl	The flow control of the serial in ptz, which is between "none", "hard", "xon" and "xoff"	O
parity	The parity of the serial in ptz, which is between "none", "odd" and "even"	O
stopBit	The stop bit of the serial in ptz, which can be 1 or 2	O

- **Return data description**

Return data correctly

[
    {
        "cmd" : " SetPtzSerial ",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**
rspCode	Response code

3.7.8 GetPtzTattern

- **Interface Description**

GetPtzTattern.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetPtzTattern&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd": "GetPtzTattern",
        "action": 1,
        "param": {
            "channel": 0
        }
    }
]

Field description		
Field	**Description**	**M/O**
channel	The channel number.	M

- **Return data description**

Return data correctly

[
    {
      "cmd" : "GetPtzTattern",
      "code" : 0,
      "initial" : {
        "PtzTattern" : {
          "channel" : 0,
          "track" : [
            {
               "enable" : 0,
               "id" : 1,
               "name" : "",
               "running" : 0
            },
            {
               "enable" : 0,
               "id" : 1,
               "name" : "",
               "running" : 0

```
            },
            {
                "enable" : 0,
                "id" : 1,
                "name" : "",
                "running" : 0
            },
            {
                "enable" : 0,
                "id" : 1,
                "name" : "",
                "running" : 0
            },
            {
                "enable" : 0,
                "id" : 1,
                "name" : "",
                "running" : 0
            },
            {
                "enable" : 0,
                "id" : 1,
                "name" : "",
                "running" : 0
            }
        ]
    }
},
"range" : {
    "PtzTattern" : {
        "track" : {
            "enable" : "boolean",
            "id" : {
                "max" : 6,
                "min" : 1
            },
            "name" : {
                "maxLen" : 191
            },
            "running" : "boolean"
        }
    }
},
"value" : {
```

```
            "PtzTattern" : {
                "channel" : 0,
                "track" : [
                    {
                        "enable" : 0,
                        "id" : 1,
                        "name" : "",
                        "running" : 0
                    },
                    {
                        "enable" : 0,
                        "id" : 1,
                        "name" : "",
                        "running" : 0
                    },
                    {
                        "enable" : 0,
                        "id" : 1,
                        "name" : "",
                        "running" : 0
                    },
                    {
                        "enable" : 0,
                        "id" : 1,
                        "name" : "",
                        "running" : 0
                    },
                    {
                        "enable" : 0,
                        "id" : 1,
                        "name" : "",
                        "running" : 0
                    },
                    {
                        "enable" : 0,
                        "id" : 1,
                        "name" : "",
                        "running" : 0
                    }
                ]
            }
        }
    }
]
```

Field description	
Field	**description**
channel	The channel number.
id	ID number of the track.
name	The name of the track
enable	Track switch, The value 1 means that's enabled, and 0 means the opposite
running	Whether running or not

3.7.9 SetPtzTattern

- **Interface Description**

SetPtzTattern.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetPtzTattern&token=TOKEN

- **POST Data**

Data example
```
[
    {
        "cmd": "SetPtzTattern",
        "action": 0,
        "param": {
            "PtzTattern": {
                "channel": 0,
                "track": [
                    {
                        "id": 1,
                        "enable": 0,
                        "running": 0,
                        "name": "track1"
                    },
```

```
                          {
                                "id": 2,
                                "enable": 0,
                                "running": 0,
                                "name": "track2"
                          }
                    ]
              }
          }
      }
]
```

Field description

Field	Description	M/O
channel	The channel number.	M
id	ID number of the track. Range [1~6]	M
name	The name of the track	O
enable	Track switch, The value 1 means that's enabled, and 0 means the opposite	O
running	Whether running or not	O

● **Return data description**

Return data correctly
```
[
    {
        "cmd" : " SetPtzTattern",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
```

Field description

Field	description
rspCode	Response code

3.7.10 GetAutoFocus

- **Interface Description**

GetAutoFocus.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetAutoFocus&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd": "GetAutoFocus",
        "action": 1,
        "param": {
            "channel": 0
        }
    }
]

Field description		
Field	**Description**	**M/O**
channel	The channel number.	M

- **Return data description**

Return data correctly

[
    {
        "cmd" : "GetAutoFocus",
        "code" : 0,
        "initial" : {
            "AutoFocus" : {
                "channel" : 0,
                "disable" : 0
            }
        },

```
        "range" : {
            "AutoFocus" : {
                "disable" : "boolean"
            }
        },
        "value" : {
            "AutoFocus" : {
                "disable" : 0
            }
        }
    }
]
```

Field description

Field	description
disable	Forbid the autofocus of the ptz or not

3.7.11 SetAutoFocus

- **Interface Description**

SetAutoFocus.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetAutoFocus&token=TOKEN

- **POST Data**

Data example
```
[
    {
        "cmd": "SetAutoFocus",
        "action": 0,
        "param": {
            "AutoFocus": {
                "channel": 0,
                "disable": 1
            }
```

}
}
]

Field description		
Field	**Description**	**M/O**
disable	Forbid the autofocus of the ptz, 1 means forbidding, 0 means enabling	M

- **Return data description**

Return data correctly

[
    {
        "cmd" : " SetAutoFocus",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**
rspCode	Response code

3.7.12 GetZoomFocus

- **Interface Description**

GetZoomFocus.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetZoomFocus&token=TOKEN

- **POST Data**

Data example

```
[{
    "cmd": "GetZoomFocus",
    "action": 0,
    "param": {
        "channel": 0
    }
}]
```

Field description

Field	Description	M/O
channel	The channel number.	M

- **Return data description**

Return data correctly
```
[
    {
        "cmd" : "GetZoomFocus",
        "code" : 0,
        "value" : {
            "ZoomFocus" : {
                "channel" : 0,
                "focus" : {
                    "pos" : 23
                },
                "zoom" : {
                    "pos" : 0
                }
            }
        }
    }
]
```

Field description

Field	description
disable	Forbid the autofocus of the ptz or not

3.7.13 StartZoomFocus

- **Interface Description**

StartZoomFocus.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=StartZoomFocus&token=TOKEN

- **POST Data**

Data example

```
[{
    "cmd": "StartZoomFocus",
    "action": 0,
    "param": {
        "ZoomFocus": {
            "channel": 0,
            "pos": 6,
            "op": "ZoomPos"
        }
    }
}]
```

Field description

Field	Description	M/O
channel	The channel number.	M
pos	Move to the position	
op	Control command	O

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "StartZoomFocus",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
```

Field description	
Field	**description**
rspCode	Response code

3.7.14 GetPtzGuard

● **Interface Description**

GetPtzGuard.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetPtzGuard&token=TOKEN

● **POST Data**

Data example		

[{
    "cmd": "GetPtzGuard",
    "action": 0,
    "param": {
        "channel": 0
    }
}]		

Field description		
Field	**Description**	**M/O**
channel	The channel number.	M

● **Return data description**

Return data correctly

[
    {
        "cmd" : "GetPtzGuard",
        "code" : 0,
        "value" : {
            "PtzGuard" : {

```
                "benable" : 1,
                "bexistPos" : 1,
                "channel" : 0,
                "timeout" : 60
            }
        }
    }
]
```

Field description

Field	description
benable	whether automatically return to guard position
bexistPos	Whether there is a guard position
channel	Device channel number
timeout	Time of automatically return to guard position

3.7.15 SetPtzGuard

● **Interface Description**

SetPtzGuard.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetPtzGuard&token=TOKEN

● **POST Data**

Data example

```
[
    {
        "cmd": "SetPtzGuard",
        "action": 0,
        "param": {
            "PtzGuard": {
                "channel": 0,
                "cmdStr": ""，
                "benable":1,
                "bexistPos":1,
```

	"timeout":60, "bSaveCurrentPos":1 } } }]	

Field description

Field	Description	M/O
cmdStr	setPos/ toPos setpos : set this pos as guard topos: go to the guard	M
benable	whether automatically return to guard position	O
timeout	Time of automatically return to guard position Can only be 60 second now	O
bsaveCurrentPos	Whether set this pos as guard	O

- **Return data description**

Return data correctly

[
    {
        "cmd" : " SetPtzGuard",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description

Field	description
rspCode	Response code

3.7.16 GetPtzCheckState

- **Interface Description**

GetPtzCheckState.//NVR

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetPtzCheckState&token=TOKEN

- **POST Data**

Data example

[{
    "cmd": "GetPtzCheckState",
    "action": 0,
    "param": {
        "channel": 0
    }
}]

Field description

Field	Description	M/O
channel	The channel number.	M

- **Return data description**

Return data correctly

[
   {
      "cmd" : "GetPtzCheckState",
      "code" : 0,
      "value" : {
         "PtzCheckState" : 2
      }
   }
]

Field description

Field	description
disable	Forbid the autofocus of the ptz or not
PtzCheckState	0:idle, 1:doing, 2:finish

3.7.17 PtzCheck

- **Interface Description**

Ptz Check.//NVR

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=PtzCheck&token=TOKEN

- **POST Data**

Data example

[{
    "cmd": "PtzCheck",
    "action": 1,
    "param": {
        "channel": 0
    }
 	
}]

Field description		
Field	**Description**	**M/O**
channel	Index of channel	M

- **Return data description**

Return data correctly

[
   {
      "cmd" : " PtzCheck",
      "code" : 0,
      "value" : {
         "rspCode" : 200
      }
   }
]

Field description

Field	description
rspCode	Response code

3.8 Alarm

3.8.1 GetAlarm

- **Interface Description**

It is used to get alarm setting.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetAlarm&token=TOKEN

- **Post Data**

Data example
``[
{
"cmd":"GetAlarm",
"action":1,
"param":{
"Alarm":{
"type":"md",
"channel":0
}
}
}
]```

Field description		
Field	**Description**	**M/O**
channel	Index of channel	M
type	Alarm type , only support "md" now	M

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetAlarm",
        "code" : 0,
        "initial" : {
            "Alarm" : {
                "channel" : 0,
                "scope" : {
                    "cols" : 80,
                    "rows" : 45,
                    "table" :
"11111111111111111111111111111111111111111111111111111111111111111111111111
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11111111111111111111111111111111111111"
                },
                "sens" : [
                    {
                        "beginHour" : 0,
                        "beginMin" : 0,
                        "endHour" : 6,
                        "endMin" : 0,
                        "sensitivity" : 9
                    },
                    {
                        "beginHour" : 6,
                        "beginMin" : 0,
                        "endHour" : 12,
                        "endMin" : 0,
                        "sensitivity" : 9
                    },
                    {
                        "beginHour" : 12,
                        "beginMin" : 0,

```
                    "endHour" : 18,
                    "endMin" : 0,
                    "sensitivity" : 9
                },
                {

                    "beginHour" : 18,
                    "beginMin" : 0,
                    "endHour" : 23,
                    "endMin" : 59,
                    "sensitivity" : 9
                }
            ],
            "type" : "md"
        }
    },
    "range" : {
        "Alarm" : {
            "channel" : 0,
            "scope" : {
                "cols" : {
                    "max" : 80,
                    "min" : 80
                },
                "rows" : {
                    "max" : 45,
                    "min" : 45
                },
                "table" : {
                    "maxLen" : 6399
                }
            },
            "sens" : [
                {
                    "beginHour" : {
                        "max" : 23,
                        "min" : 0
                    },
                    "beginMin" : {
                        "max" : 59,
                        "min" : 0
                    },
                    "endHour" : {
                        "max" : 23,
                        "min" : 0
```

```json
            },
            "endMin" : {
                "max" : 59,
                "min" : 0
            },
            "id" : 0,
            "sensitivity" : {
                "max" : 50,
                "min" : 1
            }
        },
        {
            "beginHour" : {
                "max" : 23,
                "min" : 0
            },
            "beginMin" : {
                "max" : 59,
                "min" : 0
            },
            "endHour" : {
                "max" : 23,
                "min" : 0
            },
            "endMin" : {
                "max" : 59,
                "min" : 0
            },
            "id" : 1,
            "sensitivity" : {
                "max" : 50,
                "min" : 1
            }
        },
        {
            "beginHour" : {
                "max" : 23,
                "min" : 0
            },
            "beginMin" : {
                "max" : 59,
                "min" : 0
            },
            "endHour" : {
```

```json
                            "max" : 23,
                            "min" : 0
                        },
                        "endMin" : {
                            "max" : 59,
                            "min" : 0
                        },
                        "id" : 2,
                        "sensitivity" : {
                            "max" : 50,
                            "min" : 1
                        }
                    },
                    {
                        "beginHour" : {
                            "max" : 23,
                            "min" : 0
                        },
                        "beginMin" : {
                            "max" : 59,
                            "min" : 0
                        },
                        "endHour" : {
                            "max" : 23,
                            "min" : 0
                        },
                        "endMin" : {
                            "max" : 59,
                            "min" : 0
                        },
                        "id" : 3,
                        "sensitivity" : {
                            "max" : 50,
                            "min" : 1
                        }
                    }
                ],
                "type" : "md"
            }
        },
        "value" : {
            "Alarm" : {
                "channel" : 0,
                "scope" : {
```

          "cols" : 80,
          "rows" : 45,
          "table" :
"11111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111111111111
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                },
                "sens" : [
                    {
                        "beginHour" : 2,
                        "beginMin" : 0,
                        "endHour" : 23,
                        "endMin" : 0,
                        "id" : 0,
                        "sensitivity" : 9
                    },
                    {
                        "beginHour" : 23,
                        "beginMin" : 0,
                        "endHour" : 23,
                        "endMin" : 0,
                        "id" : 1,
                        "sensitivity" : 9
                    },
                    {
                        "beginHour" : 23,
                        "beginMin" : 0,
                        "endHour" : 23,
                        "endMin" : 0,
                        "id" : 2,
                        "sensitivity" : 9
                    },
                    {
                        "beginHour" : 23,
                        "beginMin" : 0,
                        "endHour" : 23,

```
                    "endMin" : 59,
                    "id" : 3,
                    "sensitivity" : 9
                }
            ],
            "type" : "md"
        }
    }
}
]
```

Field description

Field	description
channel	Channel number
scope	Motion detection scope, consisting of 80 columns and 45 rows. Appointed by cols and rows.
cols	The number of col
rows	The number of row
table(scope)	A string with the length of 80*45, each byte represents an area. With the value 1 motion detection is active in that period of time. With the value of 0 no response will be made with any detected motion.
sens	The sensitivity settings for motion detection. It is devided into 4 intervals by time.
beginHour	The start hour.
beginMin	The start minute.
endHour	The ending hour.
endMin	The ending minute.
sensitivity	Sensitivity
id	Section index
type	Alarm type, only "md" is supported.
Note: When scheduleVersion ver=1 in the capability set, use cmd "GetMdAlarm"	

3.8.2 SetAlarm

- **Interface Description**

It is used to set alarm setting.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetAlarm&token=TOKEN

- **Post Data**

Data example

```
[
  {
    "cmd":"SetAlarm",
    "param":{
        "Alarm" : {
            "channel" : 0,
            "scope" : {
                "cols" : 80,
                "rows" : 60,
                "table" :
"11111111111111111111111111111111111111111111111111111111111111111111
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                },
                "sens" : [
                    {
                        "beginHour" : 0,
                        "beginMin" : 0,
                        "endHour" : 6,
                        "endMin" : 0,
                        "sensitivity" : 10
                    },
                    {
                        "beginHour" : 6,
                        "beginMin" : 0,
                        "endHour" : 12,
                        "endMin" : 0,
                        "sensitivity" : 10
                    },
                    {
                        "beginHour" : 12,
                        "beginMin" : 0,
                        "endHour" : 18,
                        "endMin" : 0,
                        "sensitivity" : 10
                    },
                    {
                        "beginHour" : 18,
                        "beginMin" : 0,
                        "endHour" : 23,
                        "endMin" : 59,
                        "sensitivity" : 10
                    }
                ],
                "type" : "md"
            }
        }

}]	

Field description		
Field	**Description**	**M/O**
channel	See also GetAlarm	M
scope	See also GetAlarm	O
cols	See also GetAlarm	O
rows	See also GetAlarm	O
table	See also GetAlarm	O
sens	See also GetAlarm	O
beginHour	See also GetAlarm	O
beginMin	See also GetAlarm	O
endHour	See also GetAlarm	O
endMin	See also GetAlarm	O
sensitivity	See also GetAlarm	O
id	See also GetAlarm	O
type	See also GetAlarm	M
Note: When scheduleVersion ver=1 in the capability set, use cmd "SetMdAlarm"		

- **Return data description**

Return data correctly
| ```
[
    {
        "cmd" : "SetAlarm",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
``` |

Field description	
Field	**description**

3.8.3 GetMdAlarm

- **Interface Description**

It is used to get md alarm setting.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetMdAlarm&token=TOKEN

- **Post Data**

Data example

```
[{
    "cmd": "GetMdAlarm",
    "action": 1,
    "param": {
        "channel": 0
    }

}]
```

Field description		
Field	**Description**	**M/O**
channel	Index of channel	M

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetMdAlarm",
        "code" : 0,
        "initial" : {
            "MdAlarm" : {
                "channel" : 0,
                "newSens" : {
                    "sens" : [
                        {
```

```json
                "beginHour" : 0,
                "beginMin" : 0,
                "enable" : 0,
                "endHour" : 0,
                "endMin" : 0,
                "id" : 0,
                "priority" : 0,
                "sensitivity" : 0
            },
            {
                "beginHour" : 0,
                "beginMin" : 0,
                "enable" : 0,
                "endHour" : 0,
                "endMin" : 0,
                "id" : 1,
                "priority" : 0,
                "sensitivity" : 0
            },
            {
                "beginHour" : 0,
                "beginMin" : 0,
                "enable" : 0,
                "endHour" : 0,
                "endMin" : 0,
                "id" : 2,
                "priority" : 0,
                "sensitivity" : 0
            },
            {
                "beginHour" : 0,
                "beginMin" : 0,
                "enable" : 0,
                "endHour" : 0,
                "endMin" : 0,
                "id" : 3,
                "priority" : 0,
                "sensitivity" : 0
            }
        ],
        "sensDef" : 25
    },
    "scope" : {
        "cols" : 80,
```

"rows" : 60,
"table" :
"111111111111111111111111111111111111111111111111111111111111
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1111111111111111111111111111111111111111111111111"
                },
                "sens" : [
                    {
                        "beginHour" : 0,
                        "beginMin" : 0,
                        "endHour" : 6,
                        "endMin" : 0,
                        "id" : 0,
                        "sensitivity" : 9
                    },
                    {
                        "beginHour" : 6,
                        "beginMin" : 0,

```json
            "endHour" : 12,
            "endMin" : 0,
            "id" : 1,
            "sensitivity" : 9
        },
        {
            "beginHour" : 12,
            "beginMin" : 0,
            "endHour" : 18,
            "endMin" : 0,
            "id" : 2,
            "sensitivity" : 9
        },
        {
            "beginHour" : 18,
            "beginMin" : 0,
            "endHour" : 23,
            "endMin" : 59,
            "id" : 3,
            "sensitivity" : 9
        }
    ],
    "useNewSens" : 1
    }
},
"range" : {
    "MdAlarm" : {
        "channel" : 0,
        "newSens" : {
            "sens" : [
                {
                    "beginHour" : {
                        "max" : 23,
                        "min" : 0
                    },
                    "beginMin" : {
                        "max" : 59,
                        "min" : 0
                    },
                    "enable" : {
                        "max" : 1,
                        "min" : 0
                    },
                    "endHour" : {
```

```
                "max" : 23,
                "min" : 0
            },
            "endMin" : {
                "max" : 59,
                "min" : 0
            },
            "id" : 0,
            "priority" : {
                "max" : 0,
                "min" : 0
            },
            "sensitivity" : {
                "max" : 50,
                "min" : 1
            }
        },
        {
            "beginHour" : {
                "max" : 23,
                "min" : 0
            },
            "beginMin" : {
                "max" : 59,
                "min" : 0
            },
            "enable" : {
                "max" : 1,
                "min" : 0
            },
            "endHour" : {
                "max" : 23,
                "min" : 0
            },
            "endMin" : {
                "max" : 59,
                "min" : 0
            },
            "id" : 1,
            "priority" : {
                "max" : 0,
                "min" : 0
            },
            "sensitivity" : {
```

```
                            "max" : 50,
                            "min" : 1
                        }
                    },
                    {
                        "beginHour" : {
                            "max" : 23,
                            "min" : 0
                        },
                        "beginMin" : {
                            "max" : 59,
                            "min" : 0
                        },
                        "enable" : {
                            "max" : 1,
                            "min" : 0
                        },
                        "endHour" : {
                            "max" : 23,
                            "min" : 0
                        },
                        "endMin" : {
                            "max" : 59,
                            "min" : 0
                        },
                        "id" : 2,
                        "priority" : {
                            "max" : 0,
                            "min" : 0
                        },
                        "sensitivity" : {
                            "max" : 50,
                            "min" : 1
                        }
                    },
                    {
                        "beginHour" : {
                            "max" : 23,
                            "min" : 0
                        },
                        "beginMin" : {
                            "max" : 59,
                            "min" : 0
                        },
```

```json
                    "enable" : {
                        "max" : 1,
                        "min" : 0
                    },
                    "endHour" : {
                        "max" : 23,
                        "min" : 0
                    },
                    "endMin" : {
                        "max" : 59,
                        "min" : 0
                    },
                    "id" : 3,
                    "priority" : {
                        "max" : 0,
                        "min" : 0
                    },
                    "sensitivity" : {
                        "max" : 50,
                        "min" : 1
                    }
                }
            ],
            "sensDef" : {
                "max" : 50,
                "min" : 1
            }
        },
        "scope" : {
            "cols" : {
                "max" : 80,
                "min" : 80
            },
            "rows" : {
                "max" : 60,
                "min" : 60
            },
            "table" : {
                "maxLen" : 8159
            }
        },
        "sens" : [
            {
                "beginHour" : {
```

```json
                    "max" : 23,
                    "min" : 0
                },
                "beginMin" : {
                    "max" : 59,
                    "min" : 0
                },
                "endHour" : {
                    "max" : 23,
                    "min" : 0
                },
                "endMin" : {
                    "max" : 59,
                    "min" : 0
                },
                "id" : 0,
                "sensitivity" : {
                    "max" : 50,
                    "min" : 1
                }
            },
            {
                "beginHour" : {
                    "max" : 23,
                    "min" : 0
                },
                "beginMin" : {
                    "max" : 59,
                    "min" : 0
                },
                "endHour" : {
                    "max" : 23,
                    "min" : 0
                },
                "endMin" : {
                    "max" : 59,
                    "min" : 0
                },
                "id" : 1,
                "sensitivity" : {
                    "max" : 50,
                    "min" : 1
                }
            },
```

```
{
    "beginHour" : {
        "max" : 23,
        "min" : 0
    },
    "beginMin" : {
        "max" : 59,
        "min" : 0
    },
    "endHour" : {
        "max" : 23,
        "min" : 0
    },
    "endMin" : {
        "max" : 59,
        "min" : 0
    },
    "id" : 2,
    "sensitivity" : {
        "max" : 50,
        "min" : 1
    }
},
{
    "beginHour" : {
        "max" : 23,
        "min" : 0
    },
    "beginMin" : {
        "max" : 59,
        "min" : 0
    },
    "endHour" : {
        "max" : 23,
        "min" : 0
    },
    "endMin" : {
        "max" : 59,
        "min" : 0
    },
    "id" : 3,
    "sensitivity" : {
        "max" : 50,
        "min" : 1
```

```
                }
            }
        ],
        "useNewSens" : {
            "max" : 1,
            "min" : 0
        }
    }
},
"value" : {
    "MdAlarm" : {
        "channel" : 0,
        "newSens" : {
            "sens" : [
                {
                    "beginHour" : 0,
                    "beginMin" : 0,
                    "enable" : 0,
                    "endHour" : 0,
                    "endMin" : 0,
                    "id" : 0,
                    "priority" : 0,
                    "sensitivity" : 0
                },
                {
                    "beginHour" : 0,
                    "beginMin" : 0,
                    "enable" : 0,
                    "endHour" : 0,
                    "endMin" : 0,
                    "id" : 1,
                    "priority" : 0,
                    "sensitivity" : 0
                },
                {
                    "beginHour" : 0,
                    "beginMin" : 0,
                    "enable" : 0,
                    "endHour" : 0,
                    "endMin" : 0,
                    "id" : 2,
                    "priority" : 0,
                    "sensitivity" : 0
                },
```

```
                    {
                        "beginHour" : 0,
                        "beginMin" : 0,
                        "enable" : 0,
                        "endHour" : 0,
                        "endMin" : 0,
                        "id" : 3,
                        "priority" : 0,
                        "sensitivity" : 0
                    }
                ],
                "sensDef" : 25
            },
            "scope" : {
                "cols" : 80,
                "rows" : 60,
                "table" :
"1111111111111111111111111111111111111111111111111111111111111111111111
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```

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1111111111111111111111111111111111111111111111111"
                },
                "sens" : [
                    {
                        "beginHour" : 0,
                        "beginMin" : 0,
                        "endHour" : 6,
                        "endMin" : 0,
                        "id" : 0,
                        "sensitivity" : 9
                    },
                    {
                        "beginHour" : 6,
                        "beginMin" : 0,
                        "endHour" : 12,
                        "endMin" : 0,
                        "id" : 1,
                        "sensitivity" : 9
                    },
                    {
                        "beginHour" : 12,
                        "beginMin" : 0,
                        "endHour" : 18,
                        "endMin" : 0,
                        "id" : 2,
                        "sensitivity" : 9
                    },
                    {
                        "beginHour" : 18,
                        "beginMin" : 0,
                        "endHour" : 23,
                        "endMin" : 59,
                        "id" : 3,
                        "sensitivity" : 9
                    }
                ],
                "useNewSens" : 1   //NVR
            }
        }
    }
]

Field description

Field	description
channel	Channel number
scope	Motion detection scope, consisting of 80 columns and 45 rows. Appointed by cols and rows.
cols	The number of col
rows	The number of row
table(scope)	A string with the length of 80*45, each byte represents an area. With the value 1 motion detection is active in that period of time. With the value of 0 no response will be made with any detected motion.
sens	The sensitivity settings for motion detection. It is devided into 4 intervals by time.
beginHour	The start hour.
beginMin	The start minute.
endHour	The ending hour.
endMin	The ending minute.
sensitivity	Sensitivity
id	Section index
type	Alarm type, only "md" is supported.
priority	Priority of alarm type
sensDef	The sensitiveity value
useNewSens	

3.8.4 SetMdAlarm

● **Interface Description**

It is used to set alarm setting.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetMdAlarm&token=TOKEN

- **Post Data**

Data example

```
[{
    "cmd": "SetMdAlarm",
    "param": {
        "MdAlarm": {
            "channel": 0,
            "scope": {
                "cols": 120,
                "rows": 67,
                "table":
"11111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111
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11111111111111111111111111111111111111111111111111111111111111111
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```

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11111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111"
        },
        "useNewSens": 1,
        "newSens": {
            "sensDef": 10,
            "sens": {
                "sensitivity": 10,
                "beginHour": 0,
                "beginMin": 0,
                "endHour": 6,
                "endMin": 0,
                "priority": 0,
                "enable": 0
            }

        }
    }
  }
}]
```

Field description

Field	Description	M/O
channel	See also GetAlarm	M
scope	See also GetAlarm	O
cols	See also GetAlarm	O
rows	See also GetAlarm	O
table	See also GetAlarm	O
sens	See also GetAlarm	O
beginHour	See also GetAlarm	O
beginMin	See also GetAlarm	O
endHour	See also GetAlarm	O
endMin	See also GetAlarm	O
sensitivity	See also GetAlarm	O

id	See also GetAlarm	O
type	See also GetAlarm	M
priority	See also GetAlarm	

- **Return data description**

Return data correctly

``
[
    {
        "cmd" : "SetMdAlarm",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
 	
    }
]
``

Field description

Field	description

3.8.5 GetMdState

- **Interface Description**

It is used to get state of MD.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetMdState&token=TOKEN

- **POST Data**

Data example
[{

```
        "cmd":"GetMdState",
        "param":{
            "channel":0
        }
    }
]
```

Field description		
Field	**Description**	**M/O**
chnnel	Chnnel num (ipc is 0)	O
Note: use this url no need to post json date		
"https://IPC_IP/api.cgi?cmd=GetMdState&channel=0&token=TOKEN"		

- **Return data description**

Return data correctly
```[{   "cmd" : "GetMdState",   "code" : 0,   "value" : {   "state" : 0   }   }]```

Field description	
Field	**description**
state	The state of motion detection. The value 1 means motions have been detected and 0 means no motion has been detected.

3.8.6 GetAudioAlarm

- **Interface Description**

GetAudioAlarm.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetAudioAlarm&token=TOKEN

- **POST Data**

Data example
```[{   "cmd": "GetAudioAlarm",   "action": 1,   "param": {}   }]```

Field description		
Field	**Description**	**M/O**

Note:
When scheduleVersion ver=1 in the capability set, use cmd "GetAudioAlarmV20"

- **Return data description**

Return data correctly
```[{   "cmd" : "GetAudioAlarm",   "code" : 0,   "initial" : {   "Audio" : {   "schedule" : {   "enable" : 0,   "table" : "111"   }   }```

```
        },
        "range" : {
            "Audio" : {
                "schedule" : {
                    "enable" : "boolean",
                    "table" : {
                        "maxLen" : 168,
                        "minLen" : 168
                    }
                }
            }
        },
        "value" : {
            "Audio" : {
                "schedule" : {
                    "enable" : 0,
                    "table" :
"11111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111"
                }
            }
        }
    }
]
```

Field description

Field	description
table	See also GetAlarm

3.8.7 SetAudioAlarm

- **Interface Description**

SetAudioAlarm.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= SetAudioAlarm&token=TOKEN

- **Post Data**

Data example

[
    {
        "cmd": " SetAudioAlarm",
        "param": {
            "Audio": {
                "schedule": {
                    "enable": 1,
                    "table":
"1111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111"
                }
            }
        }
    }
]

Field description		
Field	**Description**	**M/O**
enable	See also GetAlarm	O
table	See also GetAlarm	O
Note: When scheduleVersion ver=1 in the capability set, use cmd "SetAudioAlarmV20"		

- **Return data description**

Return data correctly

[
    {
        "cmd" : "SetAlarm",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description

Field	description

3.8.8 GetAudioAlarmV20

- **Interface Description**

It is used to get configuration of AudioAlarm

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetAudioAlarmV20&token=TOKEN

- **POST Data**

Data example

```
[
    {
        "cmd":"GetAudioAlarmV20",
        "action":1,
        "param": {
          "channel": 0
    }
    }
]
```

Field description

Field	Description	M/O

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetAudioAlarmV20",
```

```
        "code" : 0,
        "initial" : {
            "Audio" : {
                "enable" : 0,
                "schedule" : {
                    "channel" : 15,
                    "table" : {
                        "AI_PEOPLE" :
"0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000",
                        "AI_VEHICLE" :
"0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000",
                        "MD" :
"1111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111"
                    }
                }
            }
        },
        "range" : {
            "Audio" : {
                "enable" : "boolean",
                "schedule" : {
                    "channel" : 15,
                    "table" : {
                        "AI_PEOPLE" : {
                            "table" : {
                                "maxLen" : 168,
                                "minLen" : 168
                            }
                        },
                        "AI_VEHICLE" : {
                            "table" : {
                                "maxLen" : 168,
                                "minLen" : 168
                            }
                        },
                        "MD" : {
                            "table" : {
                                "maxLen" : 168,
```

```
                            "minLen" : 168
                          }
                        }
                      }
                    }
                  }
                },
            "value" : {
                "Audio" : {
                    "enable" : 0,
                    "schedule" : {
                        "channel" : 15,
                        "table" : {
                            "AI_PEOPLE" :
"000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000",
                            "AI_VEHICLE" :
"000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000",
                            "MD" :
"111111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111"
                        }
                      }
                    }
                  }
                }
              }
]
```

Field description	
Field	**description**
table	Audio alarm switch
channel	Index of channel

3.8.9 SetAudioAlarmV20

- **Interface Description**

It is used to set configuration of audio alarm

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= SetAudioAlarmV20&token=TOKEN

- **POST Data**

Data example

[{
    "cmd": "SetAudioAlarmV20",
    "param": {
        "Audio": {
            "enable": 1,
            "schedule": {
                "channel": 0,
                "table": {
                    "MD":
"0111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111100"
                }
            }
        }
    }
}]

Field description		
Field	**Description**	**M/O**
Schedule->en	Schedule switch	O

able		
Schedule->table	Schedule table	O

- **Return data description**

Return data correctly

[
    {
        "cmd" : " SetAudioAlarmV20",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**
rspCode	Response code

3.8.10 GetBuzzerAlarmV20

- **Interface Description**

It is used to get configuration of BuzzerAlarm

- **Interface call instructions**

Request URL	https://NVR_IP/api.cgi?cmd=GetBuzzerAlarmV20&token=TOKEN

- **POST Data**

Data example
[

```
        {
            "cmd":"GetBuzzerAlarmV20",
            "action":1,
            "param": {
              "channel": 0
            }
        }
]
```

Field description

Field	Description	M/O

● **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetBuzzerAlarmV20",
        "code" : 0,
        "initial" : {
            "Buzzer" : {
                "diskErrorAlert" : 0,
                "diskFullAlert" : 0,
                "enable" : 0,
                "ipConflictAlert" : 0,
                "nvrDisconnectAlert" : 0,
                "schedule" : {
                    "channel" : 0,
                    "table" : {
                        "AI_PEOPLE" :
"00000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000",
                        "AI_VEHICLE" :
"00000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000",
                        "MD" :
"11111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111111
```

1111111111111111111111111111111111111111",
                    "VL" :
"000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000"
                }
            }
        }
    },
    "range" : {
        "Buzzer" : {
            "diskErrorAlert" : "boolean",
            "diskFullAlert" : "boolean",
            "enable" : "boolean",
            "ipConflictAlert" : "boolean",
            "nvrDisconnectAlert" : "boolean",
            "schedule" : {
                "channel" : 0,
                "table" : {
                    "AI_PEOPLE" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    },
                    "AI_VEHICLE" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    },
                    "MD" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    },
                    "VL" : {
                        "table" : {
                            "maxLen" : 168,
                            "minLen" : 168
                        }
                    }
                }

```
                        }
                    }
                },
                "value" : {
                    "Buzzer" : {
                        "diskErrorAlert" : 0,
                        "diskFullAlert" : 0,
                        "enable" : 0,
                        "ipConflictAlert" : 0,
                        "nvrDisconnectAlert" : 0,
                        "schedule" : {
                            "channel" : 0,
                            "table" : {
                                "AI_PEOPLE" :
"000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000",
                                "AI_VEHICLE" :
"000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000",
                                "MD" :
"011111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111100",
                                "VL" :
"000000000000000000000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000"
                            }
                        }
                    }
                }
            }
        }
    }
]
```

Field description

Field	description
diskErrorAlert	Disk error Alert
diskFullAlert	Disk full Alert
enable	Buzzer switch

ipconflictAlert	Ipc conflict Alert
channel	Index of channel
table	Schedule table
nvrDisconnectAlert	Nvr Disconnect Alert

3.8.11 SetBuzzerAlarmV20

● **Interface Description**

It is used to set configuration of　Buzzer alarm

● **Interface call instructions**

Request URL	https://NVR_IP/api.cgi?cmd= SetBuzzerAlarmV20&token=TOKEN

● **POST Data**

Data example

```
[{
    "cmd": "SetBuzzerAlarmV20",
    "param": {
        "Buzzer": {
            "enable": 0,
            "schedule": {
                "channel": 0,
                "table": {
                    "MD":
"0111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111100",
                    "TIMING":
"0001111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111"
                }
            }
        }
    }
```

}]	
Field description	

Field	Description	M/O
Schedule->enable	Buzzer switch	O
Schedule->table	Schedule table	O

- **Return data description**

Return data correctly

[
    {
        "cmd" : " SetBuzzerAlarmV20",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description

Field	description
rspCode	Response code

3.8.12 AudioAlarmPlay

- **Interface Description**

It is used to play audio alarm

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=AudioAlarmPlay&token=TOKEN

- **Post Data**

Data example

```
[{
    "cmd": "AudioAlarmPlay",
    "action": 0,
    "param": {
        "alarm_mode": "times",
        "manual_switch": 0,
        "times": 2,
        "channel": 0
    }

}]
```

Field description

Field	Description	M/O
channel	Index of channel	M
manual_switch	Switch of manual	O
times	Times of Audio alarm	O
alarm_mode	Alarm mode : "times"/"manu"	O

- **Return data description**

Return data correctly

```
[
    {
        "cmd" : " AudioAlarmPlay",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]
```

Field description

Field	description

3.10 LED

3.10.1 GetIrLights

- **Interface Description**

It is used to get Irlights information of device.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetIrLights&token=TOKEN

- **POST Data**

Data example

[
    {
        "cmd":"GetIrLights"
    }
]

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly

[
    {
        "cmd": "GetIrLights",
        "code": 0,
        "value": {
            "IrLights": {
                "state": 0
            }
        },
        "initial": {

```
                    "IrLights": {
                            "state": 0
                    }
            },
            "range": {
                    "IrLights": {
                            "state": {
                                    "Auto"
                                    "Off"
                                    "On"
                            }
                    }
            }
    }
]
```

Field description	
Field	**description**
state	The state of irlight

3.10.2 SetIrLights

● **Interface Description**

It is used to set configuration of IrLights.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetIrLights&token=TOKEN

● **Post Data**

Data example
[{

```
[{
    "cmd": "SetIrLights",
    "action": 0,
    "param": {
        "IrLights": {
            "channel": 0,
            "state": "Auto"

        }
```

} }]	
Field description	

Field	Description	M/O
channel	Index of channel	M

- **Return data description**

Return data correctly

[
    {
        "cmd" : "SetIrLights",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description

Field	description

3.10.3 GetPowerLed

- **Interface Description**

It is used to get power led information of device.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetPowerLed&token=TOKEN

- **POST Data**

Data example		

[
    {
        "cmd":"GetPowerLed"
    }
]		

Field description		
Field	**Description**	**M/O**

- **Return data description**

Return data correctly	

[
    {
        "cmd": "GetPowerLed",
        "code": 0,
        "value": {
            "PowerLed": {
                "channel": 0,
                "state": 0
            }
        },
        "range": {
            "PowerLed": {
                "state": {
                    "On"
                    "Off"
                }
            }
        }
    }
]	

Field description	
Field	**description**
state	State of power led

3.10.4 SetPowerLed

- **Interface Description**

It is used to set power led information of device.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd= SetPowerLed &token=TOKEN

- **POST Data**

Data example
| ```
[
    {
        "cmd":"SetPowerLed",
         "param":{
            "PowerLed":{
                "state":"Off",
                "channel":0
            }
        }
    }
]
``` |
| **Field description** |

Field	Description	M/O
state	State of power led	
Note :Only for devices with power led		

- **Return data description**

Return data correctly
| ```
[
    {
        "cmd" : " SetPowerLed ",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
``` |

}]	
Field description	
Field	**description**
rspCode	Response code

3.10.5 GetWhiteLed

● **Interface Description**

It is used to get configuration of white led.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetWhiteLed&token=TOKEN

● **Post Data**

Data example		

[{
    "cmd": "GetWhiteLed",
    "action": 0,
    "param": {
        "channel": 0
    }
}]		

Field description		
Field	**Description**	**M/O**
channel	Index of channel	M

● **Return data description**

Return data correctly
[{

```json
"cmd" : "GetWhiteLed",
"code" : 0,
"initial" : {
    "WhiteLed" : {
        "wlAiDetectType" : {
            "dog_cat" : 0,
            "face" : 0,
            "people" : 0,
            "vehicle" : 0
        }
    }
},
"range" : {
    "AiDetectType" : {
        "dog_cat" : "boolean",
        "face" : "boolean",
        "people" : "boolean",
        "vehicle" : "boolean"
    },
    "WhiteLed" : {
        "bright" : {
            "max" : 100,
            "min" : 0
        }
    }
},
"value" : {
    "WhiteLed" : {
        "LightingSchedule" : {
            "EndHour" : 6,
            "EndMin" : 0,
            "StartHour" : 18,
            "StartMin" : 0
        },
        "bright" : 79,
        "channel" : 0,
        "mode" : 1,
        "state" : 0,
        "wlAiDetectType" : {
            "dog_cat" : 1,
            "face" : 0,
            "people" : 1,
            "vehicle" : 0
        }
```

```
        }
      }
    }
]
```

Field description	
Field	**description**
channel	Channel number
state	White led state
auto	White led auto mode
bright	Current brightness
mode	Brightness state

3.10.6 SetWhiteLed

● **Interface Description**

It is used to set configuration of white led.

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetWhiteLed&token=TOKEN

● **Post Data**

Data example

[{
    "cmd": "SetWhiteLed",
    "param": {
        "WhiteLed": {
            "state": 0,
            "channel": 0,
            "mode": 1,
            "bright": 79,

```
                    "LightingSchedule": {
                         "EndHour": 6,
                         "EndMin": 0,
                         "StartHour": 18,
                         "StartMin": 0
                    },
                    "wlAiDetectType": {
                         "dog_cat": 1,
                         "face": 0,
                         "people": 1,
                         "vehicle": 0
                    }
               }
          }
     }
}]
```

Field description

Field	Description	M/O
channel	Index of channel	M
state	White led state 0/1 0:Off 1:On	O
mode	Brightness state 0/1/2 0:it`s always light at night 1:alarm trigger mode 2:light on for specific periods	O
bright	Current brightness 1-100	O
wlAiDetectType	The ai detect type of white led	O

● **Return data description**

```
Return data correctly
[
    {
        "cmd" : "SetWhiteLed",
        "code" : 0,
        "value" : {
```

| "rspCode" : 200 |
| } |
| } |
|] |

Field description	
Field	**description**

3.10.7 GetAiAlarm

● **Interface Description**

It is used to get configuration of ai alarm

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetAiAlarm&token=TOKEN

● **Post Data**

Data example		

[{
    "cmd": "GetAiAlarm",
    "action": 0,
    "param": {
        "channel": 0,
        "ai_type": "people"
    }
 	
}]		

Field description		
Field	**Description**	**M/O**
channel	Index of channel	M
ai_type	Ai type	O

● **Return data description**

Return data correctly

```
[
    {
        "cmd" : "GetAiAlarm",
        "code" : 0,
        "value" : {
            "ai_detect_type" : "people",
            "height" : 60,
            "max_target_height" : 0.0,
            "max_target_width" : 0.0,
            "min_target_height" : 0.0,
            "min_target_width" : 0.0,
            "scope" : {
                "area" :
"111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111
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        },

```
            "sensitivity" : 10,
            "stay_time" : 0,
            "width" : 80
        }
    }
]
```

Field description	
Field	**description**

3.10.8 SetAiAlarm

● **Interface Description**

It is used to set configuration of ai alarm

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetAiAlarm&token=TOKEN

● **Post Data**

Data example

[{
    "cmd": "SetAiAlarm",
    "param": {
        "channel": 0,
        "AiAlarm": {
            "ai_type": "people",
            "sensitivity": 10,
            "stay_time": 0,
            "width": 80,
            "height": 60,
            "scope": {
                "area":
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        },
        "min_target_height": 0.0,
        "max_target_height": 1.0,
        "min_target_width": 0.0,
        "max_target_width": 1.0

    }
  }

}]

Field description		
Field	**Description**	**M/O**
channel	Index of channel	M
ai_type	Ai type	O
sensitivity	Sensitivity of ai alarm	O

stay_time	Stay time	O

- **Return data description**

Return data correctly

<pre>[
    {
        "cmd" : "SetAiAlarm",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]</pre>

Field description
Field   **description**

3.10.9 SetAlarmArea

- **Interface Description**

It is used to set alarm area.

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetAlarmArea&token=TOKEN

- **Post Data**

Data example

<pre>[{
    "cmd": "SetAlarmArea",
    "param": {
        "channel": 0,
        "ai_type": "people",</pre>

```
        "width": 80,
        "height": 60,

        "area":
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    }

}]

Field description

Field	Description	M/O
channel	Index of channel	M
ai_type	Type of ai alarm	O
width	Width of alarm area	O

height	Height of alarm area	O

- **Return data description**

Return data correctly

``[
    {
        "cmd" : "SetAlarmArea",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]```

Field description
Field   **description**

3.11 AI

3.11.1 GetAiCfg

- **Interface Description**

It is used to get configuration of ai

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetAiCfg&token=TOKEN

- **Post Data**

Data example

``[{
    "cmd": "GetAiCfg",
    "action": 0,
    "param": {```

"channel": 0 } }]	

Field description		
Field	**Description**	**M/O**
channel	Index of channel	M

● **Return data description**

Return data correctly
```[{   "cmd" : "GetAiCfg",   "code" : 0,   "value" : {   "AiDetectType" : {   "dog_cat" : 1,   "face" : 0,   "people" : 1,   "vehicle" : 1   },   "aiTrack" : 0,   "channel" : 0,   "trackType" : {   "dog_cat" : 0,   "face" : 0,   "people" : 1,   "vehicle" : 0   }   }   }]```

Field description	
Field	**description**

3.11.2 SetAiCfg

- **Interface Description**

It is used to set ai detect type and ai track type

- **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=SetAiCfg&token=TOKEN

- **POST Data**

Data example

<pre>[{
    "cmd": "SetAiCfg",
    "action": 0,
    "param": {
        "aiTrack": 0,
        "trackType": {},
        "AiDetectType": {
            "people": 1,
            "vehicle": 1,
            "dog_cat": 1,
            "face": 0
        },
        "channel": 0
    }
}]</pre>

Field description		
Field	**Description**	**M/O**
channel	Index of channel	**M**
aiTrack	Switch to aiTrack	O
trackType	Ai track type	O
AiDetectType	Ai detect type	O
people	People detection	O
vehicle	Vehicle detection	O
Dog_cat	Dog and cat detection	O

face	Face detection	O

● **Return data description**

Return data correctly

[
    {
        "cmd" : "SetAiCfg",
        "code" : 0,
        "value" : {
            "rspCode" : 200
        }
    }
]

Field description	
Field	**description**

3.11.3 GetAiState

● **Interface Description**

It is used to get ai alarm state

● **Interface call instructions**

Request URL	https://IPC_IP/api.cgi?cmd=GetAiState&token=TOKEN

● **POST Data**

Data example

[
    {
        "cmd":"GetAiState",
        "param":{

"channel":0		
}		
}		
]		

Field description

Field	Description	M/O
channel	Index of channel	M

- **Return data description**

Return data correctly

[
    {
        "cmd" : "GetAiState",
        "code" : 0,
        "value" : {
            "channel" : 0,
            "dog_cat" : {
                "alarm_state" : 0,
                "support" : 1
            },
            "face" : {
                "alarm_state" : 0,
                "support" : 0
            },
            "people" : {
                "alarm_state" : 0,
                "support" : 1
            },
            "vehicle" : {
                "alarm_state" : 0,
                "support" : 1
            }
        }
    }
]

Field description

Field	description

alarm_state	Alarm state
support	Whether support or not

4. Response

4.1 Error

Error Response

[
    {
        "cmd":string,
        "code":0,
        "error":{
            "rspCode":int,
            "detail":string
        }
    }
]

rspCode	Details	Description
-1	not exist	Missing parameters
-2	out of mem	Used up memory
-3	check err	Check error
-4	param error	Parameters error
-5	max session	Reached the max session number.
-6	please login first	Login required
-7	login failed	Login error
-8	timeout	Operation timeout
-9	not support	Not supported
-10	protocol	Protocol error
-11	fcgi read failed	Failed to read operation
-12	get config failed	Failed to get configuration.

-13	set config failed	Failed to set configuration.
-14	malloc failed	Failed to apply for memory
-15	create socket failed	Failed to created socket
-16	send failed	Failed to send data
-17	rcv failed	Failed to receiver data
-18	open file failed	Failed to open file
-19	read file failed	Failed to read file
-20	write file failed	Failed to write file
-21	error token	Token error
-22	The length of the string exceeds the limit	The length of the string exceeds the limitmation
-23	missing param	Missing parameters
-24	error command	Command error
-25	internal error	Internal error
-26	ability error	Ability error
-27	invalid user	Invalid user
-28	user already exist	User already exist
-29	maximum number of users	Reached the maximum number of users
-30	same version	The version is identical to the current one.
-31	busy	Ensure only one user can upgrade
-32	ip conflict	Modify IP conflicted with used IP
-34	need bing email	Cloud login need bind email first
-35	unbind	Cloud login unbind camera
-36	network timeout	Cloud login get login information out of time

-37	password err	Cloud login password error
-38	uid err	Cloud bind camera uid error
-39	user not exist	Cloud login user doesn't exist
-40	unbind failed	Cloud unbind camera failed
-41	cloud not support	The device doesn't support cloud
-42	login cloud server failed	Cloud login server failed
-43	bind failed	Cloud bind camera failed
-44	cloud unknown err	Cloud unknown error
-45	need verify code	Cloud bind camera need verify code
-46	Digest authentication failed	An error occurred while using the digest authentication process
-47	Digest authentication Nonce expires	Abstract An expired nonce is used in the authentication process
-48	Fetching a picture failed	Snap a picture failed
-49	Channel invalid	Channel is invalid
-99	Device offline	Device offline
-100	test failed	Test Email、Ftp、Wifi failed
-101	check firmware failed	Upgrade checking firmware failed
-102	download online failed	Upgrade download online failed
-103	get upgrade status failed	Upgrade get upgrade status failed
-105	Frequent logins, please try again later!	Frequent logins
-220	Error downloading video file	Error downloading video file
-221	Busy video recording task	Busy video recording task
-222	The video file does not exist	The video file does not exist

-301	Digest Authentication nonce error	Digest Authentication nonce error
-310	Aes decryption failure	Aes decryption failure
-451	ftp login failed	ftp test login failed
-452	ftp create dir failed	Creat ftp dir failed
-453	ftp upload failed	Upload ftp file failed
-454	ftp connect failed	Cannot connect ftp server
-480	email undefined failed	Some undifined errors
-481	email connect failed	Cannot connect email server
-482	email auth failed	Auth user failed
-483	email network err	Email network err
-484	email server err	Something wrong with email server
-485	email memory err	Something wrong with memory
-500	The number of IP addresses reaches the upper limit	The number of IP addresses reaches the upper limit
-501	The user does not exist	The user does not exist
-502	Password err	Password err
-503	Login deny	Login deny
-505	Login not init	Login not init
-506	Login locked	Login locked
-507	Login reach max	The number of logins reached the upper limit
Note : Field "details" means more detailed error information.		