

Camera HTTP API User Guide

Version 4

2019-9

| Revision History | Description | Data |
|---------------------------|---|-------------|
| Version 1.0 Revision 1 | Initial version | 2016-06-01 |
| Version 1.1 Revision 2 | <ol style="list-style-type: none"> 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 | <ol style="list-style-type: none"> 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 GetPtzTattern SetPtzTattern command 10. camera increace GetAutoFocus SetAutoFocus command of focus 11. LED increace 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 | 2019-4-26 |
| Version 1.3 | <ol style="list-style-type: none"> 1. Ptz add GetPtzSerial SetPtzSerial | 2019-9-30 |

| | | |
|---------------------------|---|------------|
| Revision 4 | GetPtzTattern SetPtzTattern command 2. System delete ImportCfg 3. Security delete GetAuth SetAuth 4. Alarm add SetAudioAlarm 5. Complete the responsed code | |
| Version 1.4 Revision 5 | 1. Merge CGI commands for NVR and IPC | 2021-01-05 |

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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 difference will be explained in the commands.

2 HTTP & Json

2.1 Protocol

Support both HTTP and HTTPS.

And 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 Example

2.6.1 Get token first

Request

Post /cgi-bin/api.cgi?cmd=Login HTTP/1.1

Response

HTTP/1.1 200 OK

Server: nginx/1.14.2
Date: Wed, 25 Sep 2019 06:34:59 GMT
Content-Type: text/html
Transfer-Encoding: chunked
Connection: keep-alive
Pragma: O-cache
Cache-Control: O-cache
Content-Type: application/json; charset=utf-8

```
[  
  {  
    "cmd" : "Login",  
    "code" : 0,  
    "value" : {  
      "Token" : {  
        "leaseTime" : 3600,  
        "name" : "011465962723"  
      }  
    }  
  }  
]
```

2.6.2 Execute command GetUpnp

Request

Post /cgi-bin/api.cgi?cmd=GetUpnp&token=011465962723 HTTP/1.1

Response

HTTP/1.1 200 OK
Server: nginx/1.14.2
Date: Wed, 25 Sep 2019 06:50:49 GMT
Content-Type: text/html
Transfer-Encoding: chunked
Connection: keep-alive
Pragma: O-cache
Cache-Control: O-cache
Content-Type: application/json; charset=utf-8

```
[
```

```

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

```

Note: Either cmd or token or both should be existed when requesting URL.

2.7 Preview

| Protocol | RTMP |
|--|--|
| Request URL | rtmp://192.168.2.120/bcs/channel{channelId}_{streamName}.bcs? token=TOKEN&channel={channelId}&stream={streamType} |
| Field | Description |
| token | The only global certification of developers. Please refer to the Login command for the methods of requiring token. |
| channel | The channel number of the device (channel id) |
| stream | Stream type[0,1,2] |
| <p>Note : The correspondences between the streamName and streamType in Request URL is shown as follow: Main StreamstreamName=main, streamType=0. Sub StreamstreamName=sub, streamType=1. Extern StreamstreamName=ext, streamType=2.</p> | |

2.8 Short 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.

e.g. Previewing:

```
rtmp://IPC_IP/bcs/channel0_main.bcs?  
channel=0&stream=0&user=admin&password=xxxx  
http://IPC_IP/flv?  
port=1935&app=bcs&stream=channel0_main.bcs&user=admin&password=xxxx
```

e.g. Snapping picture:

```
http://IPC_IP/cgi-bin/api.cgi?  
cmd=Snap&channel=0&rs=Get&user=admin&password=xxxx
```

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 | http://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.

```
[
  {
    "cmd" : "GetAbility",
    "code" : 0,
    "value" : {
      "Ability" : {
        "3g" : {
          "permit" : 0,
          "ver" : 0
        },
        "abilityChn" : [
          {
```

```
"alarmAudio" : {
  "permit" : 6,
  "ver" : 1
},
"alarmIoIn" : {
  "permit" : 0,
  "ver" : 0
},
"alarmIoOut" : {
  "permit" : 0,
  "ver" : 0
},
"alarmMd" : {
  "permit" : 6,
  "ver" : 1
},
"alarmRf" : {
  "permit" : 0,
  "ver" : 0
},
"batAnalysis" : {
  "permit" : 0,
  "ver" : 0
},
"battery" : {
  "permit" : 0,
  "ver" : 0
},
"cameraMode" : {
  "permit" : 6,
  "ver" : 0
},
"disableAutoFocus" : {
  "permit" : 6,
  "ver" : 1
},
"enc" : {
  "permit" : 6,
  "ver" : 1
},
"floodLight" : {
  "permit" : 6,
  "ver" : 1
}
```

```
},
"ftp" : {
  "permit" : 6,
  "ver" : 6
},
"image" : {
  "permit" : 6,
  "ver" : 1
},
"indicatorLight" : {
  "permit" : 0,
  "ver" : 0
},
"isp" : {
  "permit" : 6,
  "ver" : 1
},
"isp3Dnr" : {
  "permit" : 6,
  "ver" : 1
},
"ispAntiFlick" : {
  "permit" : 6,
  "ver" : 1
},
"ispBackLight" : {
  "permit" : 6,
  "ver" : 1
},
"ispBright" : {
  "permit" : 6,
  "ver" : 1
},
"ispContrast" : {
  "permit" : 6,
  "ver" : 1
},
"ispDayNight" : {
  "permit" : 6,
  "ver" : 1
},
"ispExposureMode" : {
  "permit" : 6,
```



```
"ver" : 1
},
"ispFlip" : {
  "permit" : 6,
  "ver" : 1
},
"ispHue" : {
  "permit" : 6,
  "ver" : 1
},
"ispMirror" : {
  "permit" : 6,
  "ver" : 1
},
"ispSatruation" : {
  "permit" : 6,
  "ver" : 1
},
"ispSharpen" : {
  "permit" : 6,
  "ver" : 1
},
"ispWhiteBalance" : {
  "permit" : 6,
  "ver" : 0
},
"ledControl" : {
  "permit" : 5,
  "ver" : 2
},
"live" : {
  "permit" : 4,
  "ver" : 1
},
"mainEncType" : {
  "permit" : 1,
  "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" : 7,  
"ver" : 2  
},  
"ptzDirection" : {  
"permit" : 1,  
"ver" : 1  
},  
"ptzPatrol" : {  
"permit" : 7,  
"ver" : 0  
},  
"ptzPreset" : {  
"permit" : 7,  
"ver" : 1  
},  
"ptzTattern" : {  
"permit" : 7,  
"ver" : 0  
},  
"ptzType" : {  
"permit" : 0,  
"ver" : 5  
},  
}
```

```
"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
},
"snap" : {
  "permit" : 6,
  "ver" : 1
},
"videoClip" : {
  "permit" : 6,
  "ver" : 2
},
"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" : 6,  
  "ver" : 35  
},  
"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" : 6,
  "ver" : 1
},
"disk" : {
  "permit" : 6,
  "ver" : 1
},
"display" : {
  "permit" : 6,
  "ver" : 1
},
"email" : {
  "permit" : 6,
  "ver" : 3
},
"emailInterval" : {
  "permit" : 6,
  "ver" : 1
},
"emailSchedule" : {
  "permit" : 6,
  "ver" : 1
},
"exportCfg" : {
  "permit" : 4,
  "ver" : 1
},
"ftpAutoDir" : {
  "permit" : 6,
  "ver" : 0
},
"ftpExtStream" : {
  "permit" : 6,
  "ver" : 1
}
```

```
},
"ftpPic" : {
  "permit" : 0,
  "ver" : 0
},
"ftpSubStream" : {
  "permit" : 6,
  "ver" : 1
},
"ftpTest" : {
  "permit" : 6,
  "ver" : 0
},
"hourFmt" : {
  "permit" : 6,
  "ver" : 2
},
"http" : {
  "permit" : 6,
  "ver" : 1
},
"httpFlv" : {
  "permit" : 6,
  "ver" : 1
},
"https" : {
  "permit" : 6,
  "ver" : 1
},
"importCfg" : {
  "permit" : 1,
  "ver" : 0
},
"ipcManager" : {
  "permit" : 6,
  "ver" : 1
},
"ledControl" : {
  "permit" : 5,
  "ver" : 2
},
"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" : 1
},
"p2p" : {
  "permit" : 0,
  "ver" : 0
},
"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" : 1
},
"rtsp" : {
  "permit" : 6,
  "ver" : 2
},
"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
}
```

```
},
"supportFtpEnable" : {
  "permit" : 6,
  "ver" : 1
},
"supportFtpTask" : {
  "permit" : 6,
  "ver" : 1
},
"supportFtpTaskEnable" : {
  "permit" : 6,
  "ver" : 1
},
"supportRecScheduleEnable" : {
  "permit" : 6,
  "ver" : 1
},
"supportRecordEnable" : {
  "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" : 6,
    "ver" : 2
  },
  "wifi" : {
    "permit" : 6,
    "ver" : 259
  },
  "wifiTest" : {
    "permit" : 6,
    "ver" : 1
  }
}
}
}
},

```

| Field description | | |
|---------------------------|---|--|
| Field | ver | permit |
| abilityChn->mask | 0: not support 1: support | 1: option 2: write 4: read 7: read & write & option |
| abilityChn->image | 0: not support 1: support | |
| abilityChn->isp | 0: not support 1: support | |
| abilityChn->white_balance | 0: not support 1: support | |
| abilityChn->cameraMode | 0: not support 1: support | |
| abilityChn->osd | 0: not support 1: support 2: support osd and distinct osd | |
| abilityChn->waterMark | 0: not support 1: support | |
| 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 | |
| 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 | |
| abilityChn->ptzPatrol | 0: not support, 1: support | |
| abilityChn->ptzTattern | 0: not support, 1: support | |

| | | |
|------------------------------|---|--|
| abilityChn->ptzDirection | 0: support 8 directions + auto scan 1: support only 4 directions, no auto scan | |
| abilityChn->alarmIoIn | 0: not support, 1: support | |
| abilityChn->alarmIoOut | 0: not support, 1: support | |
| abilityChn->alarmRf | 0: not support, 1: support | |
| abilityChn->alarmMd | 0: not support, 1: support | |
| abilityChn->disableAutoFocus | 0: not support set auto focus, 1: support set auto focus | |
| 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 | |
| abilityChn->ispExposureMode | 0: not support 1: support | |
| 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->ispSaturation | 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 format | |
| 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", "SetCloudSchedule", "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 | |

3.1.2 GetDevInfo

- **Interface Description**

It is used to get device information.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=GetDevInfo&token=TOKEN |
|-------------|--|

- **Post Data**

| Data example | | |
|--|-------------|-----|
| <pre>[{ "cmd": "GetDevInfo" }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "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" : "0000000000000000", </pre> |

```

    "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 | |
| exactType | |
| frameworkVer | |

3.1.3 GetDevName

- **Interface Description**

It is used to get configuration of DevName.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://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 | http://IPC_IP/api.cgi?cmd=SetDevName&token=TOKEN |
|-------------|--|

- **Post Data**

| Data example | | |
|---|------------------|-----|
| <pre>{ "cmd": "SetDevName", "param": { "DevName": { "name": "camera101" } } }</pre> | | |
| Field description | | |
| Field | Description | M/O |
| channel | Index of channel | M |

- **Return data description**

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

3.1.5 GetTime

- **Interface Description**

It is used to get time from device.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=GetTime&token=TOKEN |
|-------------|---|

- **Post Data**

| Data example | | |
|--|-------------|-----|
| <pre>[{ "cmd":"GetTime", "action":1 }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "GetTime", "code" : 0, "initial" : { "Dst" : { "enable" : 0, "endHour" : 2, "endMin" : 0, "endMon" : 10,</pre> |


```
"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,
  "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
  },
  "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 clock1 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 | http://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 | 0 |
| enable | See also GetTime | 0 |
| endHour | See also GetTime | 0 |
| endMin | See also GetTime | 0 |
| endMon | See also GetTime | 0 |
| endSec | See also GetTime | 0 |
| endWeek | See also GetTime | 0 |
| endWeekday | See also GetTime | 0 |
| offset | See also GetTime | 0 |
| startHour | See also GetTime | 0 |
| startMin | See also GetTime | 0 |
| startMon | See also GetTime | 0 |
| startSec | See also GetTime | 0 |
| startWeek | See also GetTime | 0 |
| startWeekday | See also GetTime | 0 |
| year | See also GetTime | 0 |
| mon | See also GetTime | 0 |
| day | See also GetTime | 0 |
| hour | See also GetTime | 0 |
| min | See also GetTime | 0 |
| sec | See also GetTime | 0 |
| timeFmt | See also GetTime | 0 |
| timeZone | See also GetTime | 0 |
| hourFmt | See also GetTime | 0 |

- **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 | http://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 maintenance 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 | http://IPC_IP/api.cgi?cmd=SetAutoMaint&token=TOKEN |
|-------------|---|

- **Post Data**

| Data example | | |
|--|-----------------------|-----|
| <pre>[{ "cmd":"SetAutoMaint", "param":{ "AutoMaint":{ "enable":1, "weekDay":"Everyday", "hour":3, "min":52, "sec":4 } } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| enable | See also GetAutoMaint | 0 |
| hour | See also GetAutoMaint | 0 |
| min | See also GetAutoMaint | 0 |
| sec | See also GetAutoMaint | 0 |
| weekDay | See also GetAutoMaint | 0 |

- **Return data description**

| Return data correctly | |
|--|-------------|
| <pre>[{ "cmd" : "SetAutoMaint", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| 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 | http://IPC IP/api.cgi?cmd=GetHddInfo&token=TOKEN |
|-------------|--|

- **Post Data**

| Data example | | |
|---|-------------|-----|
| <pre>[{ "cmd":"GetHddInfo" }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "GetHddInfo", "code" : 0, "value" : { "HddInfo" : [{ "capacity" : 938610, "format" : 1, "mount" : 1, "number" : 1, "size" : 549219, "storageType" : 1 }] } }]</pre> |

```

    ]
  }
}
]

```

| 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 | |

3.1.10 Format

- **Interface Description**

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

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=Format&token=TOKEN |
|-------------|--|

- **Post Data**

| Data example | | | | | | |
|--|-------------|-------------|-----|--|--|--|
| <pre> [{ "cmd": "Format", "param": { "HddInfo": { "id": [0] } } }] </pre> | | | | | | |
| Field description | | | | | | |
| <table border="1"> <thead> <tr> <th>Field</th> <th>Description</th> <th>M/O</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Field | Description | M/O | | | |
| 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 | http://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: http://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

xxxxxxxxxxxx.....(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 | http://IPC IP/api.cgi?cmd=Restore&token=TOKEN |
| Request URL | http://NVR IP/api.cgi?cmd=Restore&token=TOKEN |

- **Post Data**

| Data example | | |
|--|-------------|-----|
| <pre>[{ "cmd":"Restore" }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "Restore", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> |

| <pre> } }]</pre> | |
|-------------------|-------------|
| Field description | |
| Field | description |

3.1.13 Reboot

- **Interface Description**

It is used to reboot the device.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=Reboot&token=TOKEN |
|-------------|--|

- **Post Data**

| Data example | | |
|--------------------------------------|-------------|-----|
| <pre>[{ "cmd": "Reboot" }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|--|
| <pre>[{ "cmd" : "Reboot", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> |

| <pre> } }] </pre> | |
|--------------------|-------------|
| 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 | http://IPC_IP/api.cgi?cmd=UpgradePrepare&token=TOKEN |
|-------------|--|

- **Post Data**

| Data example | | |
|--|---|----------|
| <pre> [{ "cmd":"UpgradePrepare", "action":1, "param": { "restoreCfg":0, "fileName":"XXX.pak" } }] </pre> | | |
| 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 | |
|---|---------------|
| <pre>[{ "cmd" : "UpgradePrepare ", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| 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 | http://IPC IP/api.cgi?cmd=GetAutoUpgrade&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|---|-------------|-----|
| <pre>[{ "cmd":"GetAutoUpgrade" }]</pre> | | |
| 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 | http://IPC IP/api.cgi?cmd=SetAutoUpgrade&token=TOKEN |
|-------------|--|

- **POST Data**

| | | |
|---|--------------------|------------|
| Data example | | |
| <pre>[{ "cmd": "SetAutoUpgrade", "param": { "AutoUpgrade": { "enable": 0 } } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| | | M |

- **Return data description**

| | | |
|---|--------------------|--|
| Return data correctly | | |
| <pre>[{ "cmd" : "SetAutoUpgrade ", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | | |
| 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 | http://IPC IP/api.cgi?cmd= CheckFirmware&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|--|-------------|-----|
| <pre>[{ "cmd":"CheckFirmware" }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| | | M |

- **Return data description**

| Return data correctly | |
|--|---------------|
| <pre>[{ "cmd" : "CheckFirmware", "code" : 0, "value" : { "newFirmware" : 00 } }]</pre> | |
| Field description | |
| Field | description |
| rspCode | Response code |
| newFirmware | New firmware |

3.1.18 UpgradeOnline

- **Interface Description**

It is used to start online upgrade when check for a new version

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=UpgradeOnline&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|--|-------------|-----|
| <pre>[{ "cmd":"UpgradeOnline ", }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| | | M |

- **Return data description**

| Return data correctly | | |
|--|--|--|
| <pre>[{ "cmd" : "UpgradeOnline ", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | | |
| 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 | http://IPC_IP/api.cgi?cmd=UpgradeStatus&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|---|-------------|-----|
| <pre>[{ "cmd":"UpgradeStatus " }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| | | M |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "UpgradeStatus", "code" : 0, "value" : { "Status" : { "Perset" : 0, "code" : 0 } } }]</pre> |

| | |
|--------------------------------------|--------------------|
| <pre> } }] </pre> | |
| Field description | |
| Field | description |
| rspCode | Response code |

3.1.20 Getchannelstatus

- **Interface Description**

It is used to set configuration of channelstatus.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://NVR_IP/api.cgi?cmd=Getchannelstatus&token=TOKEN |
|-------------|--|

- **Post Data**

| | | |
|--|--------------------|------------|
| Data example | | |
| <pre> [{ "cmd": "Getchannelstatus" }] </pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| |
|--|
| Return data correctly |
| <pre> [{ "cmd" : "GetChannelstatus", "code" : 0, "value" : { </pre> |


```
"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 | Information of type |

3.2 Security

3.2.1 Login

- **Interface Description**

It is used to get Token.

- **Interface call instructions**

| | |
|-------------|---------------------------------|
| Request URL | http://IPC IP/api.cgi?cmd=Login |
|-------------|---------------------------------|

- **POST Data**

| Data example | | |
|--|--|-----|
| <pre>[{ "cmd":"Login", "param":{ "User":{ "userName":"admin", "password":"" } } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| userName | Account name, limit 1~31 characters. | M |
| password | Account password, limit 1~31 characters. | O |

- **Return data description**

| Return data correctly | |
|---|---|
| <pre>[{ "cmd" : "Login", "code" : 0, "value" : { "Token" : { "leaseTime" : 3600, "name" : "031465962723" } } }]</pre> | |
| 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 | http://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' information.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=GetUser&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|--|-------------|-----|
| <pre>[{ "cmd":"GetUser", "action":1 }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "GetUser", "code" : 0, "initial" : { "User" : { "level" : "guest" } }, "range" : {</pre> |

```

    "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 | http://IPC_IP/api.cgi?cmd=AddUser&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|---|--------------------|------------|
| <pre>[{ "cmd":"AddUser", "param":{ "User":{ "userName":"GuestUser", "password":"123456", "level":"guest" } } }]</pre> | | |
| 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 | |
|---|--------------------|
| <pre>[{ "cmd" : "AddUser", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| Field description | |
| Field | description |
| rspCode | Response code |

3.2.5 DelUser

- **Interface Description**

It is used to delete configuration of user.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC IP/api.cgi?cmd=DelUser&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|--|--------------------------------------|-----|
| <pre>[{ "cmd":"DelUser", "param":{ "User":{ "userName":"TestUser" } } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| userName | Account name, limit 1~31 characters. | M |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "DelUser", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> |

| | |
|--------------------------|--------------------|
|] | |
| 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 | http://IPC IP/api.cgi?cmd=ModifyUser&token=TOKEN |
|-------------|--|

- **POST Data**

| | | |
|--|--------------------|------------|
| Data example | | |
| <pre>[{ "cmd":"ModifyUser", "param":{ "User":{ "userName":"TestUser", "password":"123456" } } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| userName | Account name. | M |
| password | Account password. | M |

- **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 online users' information.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://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 | http://IPC_IP/api.cgi?cmd=Disconnect&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example |
|---|
| <pre> [{ "cmd":"Disconnect", "param":{ "User":{ "userName":"userName" } } }] </pre> |

```

        "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 |

3.3 Network

3.3.1 GetLocalLink

- **Interface Description**

It is used to get configuration of Local Link.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC IP/api.cgi?cmd=GetLocalLink&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|---|-------------|-----|
| <pre>[{ "cmd":"GetLocalLink", "action":1 }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|--|
| <pre>[{ "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" } } }],</pre> |

```
"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 distributing way, [DHCP, Static] |
| static->ip | Ip address |
| static->gateway | Gateway address |
| static->mask | Subnet mask |
| dns->auto | Whether auto get DNS 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 | http://IPC_IP/api.cgi?cmd=SetLocalLink&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example |
|---|
| <pre>[{ "cmd":"SetLocalLink", "action":0, "param":{ "LocalLink":{ "type":"Static", "static":{ "ip":"192.168.2.122", "mask":"255.255.255.0", "gateway":"192.168.2.1" } } } },]</pre> |


```

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

```

| Field description | | |
|-------------------|---|-----|
| Field | Description | M/O |
| type | Network IP's distributing way, [DHCP, Static] | O |
| static->ip | Ip address | O |
| static->gateway | Gateway address | O |
| static->mask | Subnet mask | O |
| dns->auto | Whether auto get DNS 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 Ddns

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC IP/api.cgi?cmd=GetDdns&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|--|-------------|-----|
| <pre>[{ "cmd":"GetDdns", "action":1 }]</pre> | | |
| 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 | http://IPC_IP/api.cgi?cmd=SetDdns&token=TOKEN |
|-------------|---|

- **POST Data**

| |
|---|
| Data example |
| <pre>[{ "cmd":"SetDdns", "param":{ "Ddns":{ "enable":1, "type":"dyndns", "userName":"username", "password":"password", "domain":"domain" } } }]</pre> |

| 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 | http://IPC_IP/api.cgi?cmd=GetEmail&token=TOKEN |
|-------------|--|

- **POST Data**

Data example

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

Field description

| Field | Description | M/O |
|-------|-------------|-----|
|-------|-------------|-----|

| | | |
|--|--|---|
| addr1 | Receiver address1,at most 127 characters. | 0 |
| addr2 | Receiver address2,at most 127 characters. | 0 |
| addr3 | Receiver address3,at most 127 characters. | 0 |
| schedule- >enable | Whether email receive the alarm information [0, 1] | 0 |
| schedule- >table | The schedule about when email receives the alarm information | 0 |
| Note: This command supports model 52X only | | |

- **Return data description**

| | |
|--|--------------------|
| Return data correctly | |
| <pre>[{ "cmd" : "SetEmail", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| 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 | http://IPC_IP/api.cgi?cmd=GetEmailV20&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|---|-------------|-----|
| <pre>[{ "cmd":"GetEmailV20", "param":{ "channel":0 } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|--|
| <pre>[{ "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" : {</pre> |

| | |
|------------------|------------------------------|
| 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 | http://IPC_IP/api.cgi?cmd=SetEmailV20&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|---|-------------|-----|
| <pre> [["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" } } }] </pre> | | |
| Field description | | |
| Field | Description | M/O |

| | | |
|------------------|--|---|
| smtpServer | Email server of sender, at most 127 characters. | 0 |
| smtpPort | Port of Email server, limit 1~65535. | 0 |
| userName | Sender address, at most 127 characters. | 0 |
| password | Sender password, at most 31 characters. | 0 |
| nickName | | 0 |
| ssl | Whether to open the encryption mode, the type of ssl is Boolean. | 0 |
| interval | Send mail interval. Range of value is ["30 Seconds", "1 Minute", "5 Minutes", "10 Minutes"]. | 0 |
| addr1 | Receiver address1,at most 127 characters. | 0 |
| addr2 | Receiver address2,at most 127 characters. | 0 |
| addr3 | Receiver address3,at most 127 characters. | 0 |
| schedule->enable | Start using schedule | 0 |
| schedule->table | Table of Alarmtype | 0 |

- **Return data description**

| | |
|---|--------------------|
| Return data correctly | |
| <pre>[{ "cmd" : "SetEmailV20", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| 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 | http://IPC IP/api.cgi?cmd=TestEmail&token=TOKEN |
|-------------|---|

- **POST Data**

| |
|---|
| Data example |
| <pre>{ "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" } } }</pre> |

| 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 | Receiver address1, at most 127 characters. | O |
| addr2 | Receiver address2, at most 127 characters. | O |

| | | |
|---|--|---|
| addr3 | Receiver address3, at most 127 characters. | 0 |
| nickName | Corresponds to the user name | 0 |
| Note: At least one of the three addresses (addr1,addr2,addr3) is completed. | | |

- **Return data description**

| | |
|---|--------------------|
| Return data correctly | |
| <pre>[{ "cmd" : "TestEmail", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| 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 | http://IPC IP/api.cgi?cmd=GetFtp&token=TOKEN |
|-------------|--|

- **POST Data**

| |
|---|
| Data example |
| <pre>[{ "cmd": "GetFtp", "action": 1 }]</pre> |


```
    "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
```


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 | http://IPC_IP/api.cgi?cmd=SetFtp&token=TOKEN |
|-------------|--|

- **POST Data**

Data example

```
[
  {
    "cmd":"SetFtp",
    "param":{
      "Ftp":{
        "server":"pool.ftp.org",
        "port":21,
        "anonymous":0,
        "userName":"name",
        "password":"password",
        "remoteDir":"Dir",
        "maxSize":20,
        "streamType":0,
        "interval":30,
        "schedule":{
          "enable":1,
          "table":"1111111111111111"
        }
      }
    }
  }
]
```

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 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 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 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 | |
| <pre>[{ "cmd" : "SetFtp", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| 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 | http://IPC IP/api.cgi?cmd=GetFtpV20&token=TOKEN |
|-------------|---|

- **POST Data**

| | | |
|--|--------------------|------------|
| Data example | | |
| <pre>[{ "cmd":"GetFtpV20", "action":1 }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| |
|---|
| Return data correctly |
| <pre>[{ "cmd" : "GetFtpV20", "code" : 0, "initial" : { "Ftp" : { "anonymous" : 0, "autoDir" : 1,</pre> |


```
"mode" : {
  "max" : 2,
  "min" : 0
},
"password" : {
  "maxLen" : 127
},
"port" : {
  "max" : 65535,
  "min" : 1
},
"remoteDir" : {
  "maxLen" : 255
},
"schedule" : {
  "channel" : 0,
  "table" : {
    "AI_PEOPLE" : { //NVR
      "table" : {
        "maxLen" : 168,
        "minLen" : 168
      }
    },
    "AI_VEHICLE" : { //NVR
      "table" : {
        "maxLen" : 168,
        "minLen" : 168
      }
    },
    "MD" : {
      "table" : {
        "maxLen" : 168,
        "minLen" : 168
      }
    },
    "TIMING" : {
      "table" : {
        "maxLen" : 168,
        "minLen" : 168
      }
    }
  }
}
},
```



```

    },
    "server" : "pool.ftp.org",
    "streamType" : 0,
    "userName" : "name"
  }
}
}
]

```

| 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 |
| mode | Transport mode |

3.3.13 SetFtpV20

- **Interface Description**

It is used to set configuration of Ftp.

| | | |
|-----------------------------------|--|---|
| server | FTP server, can fill in the IP address or domain name. | 0 |
| port | Port of FTP Server. | 0 |
| anonymous | Whether to be anonymous or not | 0 |
| userName (Depend on anonymous) | FTP account name. When the value of anonymous is 0, the user Name field is necessary. | 0 |
| Password (Depend on anonymous) | FTP account password. FTP account name. When the value of anonymous is 0, the password field is necessary. | 0 |
| remoteDir | FTP root directory. | 0 |
| maxSize | Maximum size of FTP file. | 0 |
| streamType | The type of the uploading files. 0 is for uploading both pictures and videos, and 1 is for uploading pictures only. | 0 |
| 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. | 0 |
| schedule->enable | Whether Start using schedule or not | 0 |
| schedule->table | Table of Alarm type | 0 |
| mode | Transport mode | |

- **Return data description**

| | |
|--|--------------------|
| Return data correctly | |
| <pre>[{ "cmd" : "SetFtp", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| 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 | http://IPC_IP/api.cgi?cmd=TestFtp&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|---|---|-----|
| <pre>{ "cmd": "TestFtp", "param": { "Ftp": { "anonymous": 1, "mode": 0, "password": "test", "port": 21, "remoteDir": "523", "server": "192.168.2.101", "userName": "ftp_test" } } }</pre> | | |
| 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 | |

- **Return data description**

| | |
|---|--------------------|
| Return data correctly | |
| <pre>[{ "cmd" : "TestFtp", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| 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 | http://IPC IP/api.cgi?cmd=GetNtp&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|---|-------------|-----|
| <pre>[{ "cmd":"GetNtp", "action":1 }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "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" : {</pre> |

```

    "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 | http://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 | http://IPC IP/api.cgi?cmd=GetNetPort&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|---|-------------|-----|
| <pre>[{ "cmd":"GetNetPort", "action":1 }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|--|
| <pre>[{ "cmd" : "GetNetPort", "code" : 0, "initial" : { "NetPort" : { "httpPort" : 80, "httpsPort" : 443, "mediaPort" : 9000, "onvifPort" : 8000, "rtmpPort" : 1935, "rtspPort" : 554 } } }]</pre> |

```

},
"range" : {
  "NetPort" : {
    "httpPort" : {
      "max" : 65535,
      "min" : 1
    },
    "httpsPort" : {
      "max" : 65535,
      "min" : 1
    },
    "mediaPort" : {
      "max" : 65535,
      "min" : 1
    },
    "onvifPort" : {
      "max" : 65535,
      "min" : 1
    },
    "rtmpPort" : {
      "max" : 65535,
      "min" : 1
    },
    "rtspPort" : {
      "max" : 65535,
      "min" : 1
    }
  }
},
"value" : {
  "NetPort" : {
    "httpPort" : 80,
    "httpsPort" : 443,
    "mediaPort" : 9000,
    "onvifPort" : 8000,
    "rtmpPort" : 1935,
    "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. |

3.3.18 SetNetPort

- **Interface Description**

It is used to set configuration of NetPort.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=SetNetPort&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|--|---------------|-----|
| <pre>[{ "cmd":"SetNetPort", "param":{ "NetPort":{ "httpPort":80, "httpsPort":445, "mediaPort":9000, "onvifPort":8000, "rtmpPort" : 1935, "rtspPort":555 } } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| httpPort | Port of http. | O |

| | | |
|-----------|----------------|---|
| httpsPort | Port of https. | 0 |
| mediaPort | Port of media. | 0 |
| onvifPort | Port of onvif. | 0 |
| rtspPort | Port of rtsp. | 0 |
| rtmpPort | Port of rtmp. | 0 |

- **Return data description**

Return data correctly

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

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 | http://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 | | |
| <pre>[{ "cmd": "GetUpnp", "code": 0, "initial": { "Upnp": { "enable": 0 } }, "range": { "Upnp": { "enable": "boolean" } }, "value": { "Upnp": { "enable": 0 } } }]</pre> | | |
| 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 | http://IPC IP/api.cgi?cmd=SetUpnp&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|---|---|-----|
| <pre>[{ "cmd":"SetUpnp", "param":{ "Upnp":{ "enable":1 } } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| enable | Upnp switch, The value of 1 represents the open, and the 0 is the opposite. | 0 |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "SetUpnp", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> |

| <pre> }] </pre> | |
|-------------------|---------------|
| 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 | http://IPC IP/api.cgi?cmd=GetWifi&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|--|-------------|-----|
| <pre> [{ "cmd": "GetWifi", "action": 1 }] </pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| |
|--|
| Return data correctly |
| <pre> [{ "cmd" : "GetWifi", "code" : 0, "initial" : { "Wifi" : { </pre> |


```

    "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 | http://IPC_IP/api.cgi?cmd=SetWifi&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|--|--------------------------------------|-----|
| <pre>[{ "cmd": "SetWifi", "param": { "Wifi": { "ssid": "ssid", "password": "000000" } } }]</pre> | | |
| 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 | | |
|---|---------------|--|
| <pre>[{ "cmd" : "SetWifi", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | | |
| 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 | http://IPC_IP/api.cgi?cmd=TestWifi&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|--|--------------------------------------|-----|
| <pre>[{ "cmd":"TestWifi", "param":{ "Wifi":{ "ssid":"ssid", "password":"password" } } }]</pre> | | |
| 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 | |
|--|---------------|
| <pre>[{ "cmd" : "TestWifi", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| 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 | http://IPC_IP/api.cgi?cmd=ScanWifi&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|---|-------------|-----|
| <pre>[{ "cmd":"ScanWifi", "param":{} }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|--|
| <pre>[{ "cmd" : "ScanWifi", "code" : 0, "value" : { "Wifi" : [{ "bencrypt" : 1, "signal" : 4, "ssid" : "HUAWEI-D1FC" }] } }]</pre> |

```

    },
    ... // 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 | http://IPC_IP/api.cgi?cmd=GetWifiSignal&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example |
|--|
| <pre> [{ "cmd":"GetWifiSignal", "action":1 }] </pre> |

| 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 | http://IPC IP/api.cgi?cmd=GetPush&token=TOKEN |
|-------------|---|

3.3.28 GetPushV20

- **Interface Description**

It is used to get configuration of Push.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC IP/api.cgi?cmd=GetPush&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|--|-------------|-----|
| <pre>[{ "cmd":"GetPushV20", "action":1, "param": { "channel": 0 } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "GetPushV20", "code" : 0, "initial" : { "Push" : { "enable" : 0, "schedule" : { "channel" : 0, "table" : {</pre> |

| | |
|--------------------------|--------------------|
|] | |
| Field description | |
| Field | description |
| rspCode | Response code |

3.3.30 GetP2p

- **Interface Description**

| |
|---------------------|
| Get P2p information |
|---------------------|

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC IP/api.cgi?cmd=GetP2p&token=TOKEN |
|-------------|--|

- **POST Data**

| | | |
|---|--------------------|------------|
| Data example | | |
| <pre>[{ "cmd": "GetP2p", "action": 1 }]</pre> | | |
| 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 |

3.3.31 SetP2p

- **Interface Description**

SetP2P

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://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 |

3.4 Video input

3.4.1 GetNorm

- **Interface Description**

It is used to get configuration of Norm.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=GetNorm&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|--|-------------|-----|
| <pre>[{ "cmd":"GetNorm", "action":1 }]</pre> | | |
| Field description | | |
| Field | Description | M/O |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "GetNorm", "code" : 0, "initial" : { "Norm" : "NTSC" }, "range" : { "Norm" : ["PAL", "NTSC"] } }]</pre> |

| | |
|---|--------------------|
| <pre> }, "value" : { "Norm" : "NTSC" } }] </pre> | |
| Field description | |
| Field | description |
| Norm | Norm of video |

3.4.2 SetNorm

- **Interface Description**

It is used to set configuration of Norm.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=SetNorm&token=TOKEN |
|-------------|---|

- **POST Data**

| | | |
|---|--------------------|------------|
| Data example | | |
| <pre> [{ "cmd":"SetNorm", "param":{ "norm" : "NTSC" } }] </pre> | | |
| Field description | | |
| Field | Description | M/O |
| Norm | | M |
| Note : After changing the Norm , the system will reboot. | | |

- **Return data description**

Return data correctly

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

Field description

| Field | description |
|---------|---------------|
| rspCode | Response code |

3.4.3 GetImage

- **Interface Description**

It is used to get configuration of image.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=GetImage&token=TOKEN |
|-------------|--|

- **POST Data**

Data example

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

Field description

| Field | Description | M/O |
|-------|-------------|-----|
|-------|-------------|-----|

| | | |
|--|--|--|
| | | |
|--|--|--|

- **Return data description**

Return data correctly

```
[
  {
    "cmd": "GetImage",
    "code": 0,
    "initial": {
      "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. |

3.4.4 SetImage

- **Interface Description**

It is used to set configuration of image.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://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 |

3.4.5 GetOsd

- **Interface Description**

It is used to get configuration of Osd.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC IP/api.cgi?cmd=GetOsd&token=TOKEN |
|-------------|--|

- **POST Data**

| |
|--|
| Data example |
| <pre>[{ "cmd": "GetOsd", "action": 1, "param": { "channel": 0 } }]</pre> |

| Field description | | |
|--------------------------|--------------------|-----|
| Field | Description | M/O |
| channel | IPC channel number | M |

- **Return data description**

| |
|---|
| Return data correctly |
| <pre>[{ "cmd" : "GetOsd", "code" : 0, "initial" : { "Osd" : { "bgcolor" : 0, "channel" : 0, "osdChannel" : {</pre> |

```
"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 |

3.4.6 SetOsd

- **Interface Description**

It is used to set configuration of Osd.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=SetOsd&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example |
|--|
| <pre>[{ "cmd": "SetOsd", "param": { "Osd": { "channel": 0, "osdChannel": { "enable": 1, "name": "Camera101", "pos": "Lower Right" }, "osdTime": { "enable": 1, "pos": "Upper Right" } } } }]</pre> |

| 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 |
|--|
| <pre>[{ "cmd": "SetOsd", "code": 0,</pre> |

| | |
|--|--------------------|
| <pre> "value": { "rspCode": 200 } }] </pre> | |
| Field description | |
| Field | description |
| rspCode | Response code |

3.4.7 GetIsp

- **Interface Description**

It is used to get configuration of Isp.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=GetIsp&token=TOKEN |
|-------------|--|

- **POST Data**

| | | |
|--|--------------------|------------|
| Data example | | |
| <pre> [{ "cmd":"GetIsp", "action":1, "param":{ "channel":0 } }] </pre> | | |
| 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",
        "blc" : 128,
        "blueGain" : 128,
        "channel" : 0,
        "dayNight" : "Auto",
        "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" : [ "Outdoor", "50HZ", "60HZ", "Off" ],
        "backLight" : [ "Off", "BackLightControl", "DynamicRangeControl" ],
        "blc" : {
          "max" : 255,
          "min" : 0
        },
        "blueGain" : {
          "max" : 255,
          "min" : 0
        },
        "channel" : 0,
        "dayNight" : [ "Auto", "Color", "Black&White" ],
```

```
"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" : "50HZ",
    "backLight" : "BackLightControl",
    "blc" : 128,
    "blueGain" : 128,
    "channel" : 0,
    "dayNight" : "Black&White",
    "drc" : 128,
    "exposure" : "Manual",
    "gain" : {
      "max" : 62,
      "min" : 1
    },
  },
  "mirroring" : 1,
  "nr3d" : 1,
  "redGain" : 128,
  "rotation" : 1,
  "shutter" : {
    "max" : 125,
```

```

    "min" : 0
  },
  "whiteBalance" : "Auto"
}
}
}
]

```

| Field description | |
|--------------------------------------|---|
| Field | description |
| antiFlicker | Flicker prevention,["Outdoor", "50HZ", "60HZ", "Off"] |
| exposure | Exposure mode, ["Auto", "LowNoise", "Anti-Smearing", "Manual"] |
| gain (Depend on exposure) | When the value of exposure is LowNoise or Manual, the gain field is effective. |
| shutter (Depend on exposure) | When the value of exposure is Anti-Smearing or Manual, 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 | Enable or disable nr3d |
| mirroring | Video mirroring. |
| rotation | Video rotation. |

3.4.8 SetIsp

- **Interface Description**

| |
|---|
| It is used to set configuration of Isp. |
|---|

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC IP/api.cgi?cmd=SetIsp&token=TOKEN |
|-------------|--|

- **POST Data**

| |
|---------------------|
| Data example |
|---------------------|

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

| <pre> } }]</pre> | | |
|--------------------------------------|---|-----|
| Field description | | |
| Field | Description | M/O |
| channel | IPC channel number. | M |
| antiFlicker | Flicker prevention,["Outdoor", "50HZ", "60HZ", "Off"] | M |
| exposure | Exposure mode, ["Auto", "LowNoise", "Anti-Smearing", "Manual"] | M |
| gain (Depend on exposure) | When the value of exposure is LowNoise 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 whiteBalance) | When the value of whiteBalance is Anti-Smearing or Manual, the blueGain field is effective. | M |
| 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 | Enable or disable nr3d | M |
| mirroring | Video mirroring. | M |
| rotation | Video rotation. | M |

- **Return data description**

| |
|-----------------------|
| Return data correctly |
|-----------------------|


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

| Field description | |
|-------------------|---------------|
| Field | description |
| rspCode | Response code |

3.4.9 GetMask

- **Interface Description**

It is used to get configuration of Mask.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://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. |

3.4.10 SetMask

- **Interface Description**

It is used to set configuration of Mask.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=SetMask&token=TOKEN |
|-------------|---|

- **POST Data**

Data example

```
[
  {
    "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
    }
  }
]

```

| <pre> }] </pre> | |
|-------------------|---------------|
| Field description | |
| Field | description |
| rspCode | Response code |

3.4.11 Preview

- **Interface Description**

| |
|---------|
| discard |
|---------|

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=Preview&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|---|---------------------|-----|
| <pre> [[{ "cmd": "Preview", "action": 0, "param": { "Preview": { "channel": 0, "enable": 0, "type": "main" } } }]] </pre> | | |
| Field description | | |
| Field | Description | M/O |
| channel | Index of channel | M |
| enable | Preview switch | |
| type | Type of code stream | |

- **Return data description**

Return data correctly

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

Field description

| Field | description |
|---------|---------------|
| rspCode | Response code |

3.4.12 GetCrop

- **Interface Description**

It is used to get configuration of Crop.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://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 |

3.4.13 SetCrop

- **Interface Description**

It is used to set configuration of Crop.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://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 |
|-----------|---|

3.5 Enc

3.5.1 GetEnc

- **Interface Description**

It is used to get configuration of Enc.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=GetEnc&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|--|--------------------|-----|
| <pre>[{ "cmd":"GetEnc", "action":1, "param":{ "channel":0 } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| channel | IPC channel number | M |

- **Return data description**

Return data correctly

```
[
  {
    "cmd" : "GetEnc",
    "code" : 0,
    "initial" : {
      "Enc" : {
        "audio" : 1,
        "channel" : 0,
        "mainStream" : {
          "bitRate" : 4096,
          "frameRate" : 20,
          "height" : 1920,
          "profile" : "High",
          "resolution" : 54,
          "size" : "2560*1920",
          "width" : 2560
        },
        "subStream" : {
          "bitRate" : 256,
          "frameRate" : 10,
          "height" : 480,
          "profile" : "High",
          "size" : "640*480",
          "width" : 640
        }
      }
    }
  },
  "range" : {
    "Enc" : [
      {
        "audio" : "boolean",
        "chnBit" : 1,
        "mainStream" : {
          "bitRate" : [ 1024, 1536, 2048, 3072, 4096, 5120, 6144, 7168, 8192 ],
          "default" : {
            "bitRate" : 4096,
            "frameRate" : 20
          },
          "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
          "height" : 1920,
          "profile" : [ "Base", "Main", "High" ],
```

```
"resolution" : 54,
"size" : "2560*1920",
"width" : 2560
},
"subStream" : {
"bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
"default" : {
"bitRate" : 256,
"frameRate" : 10
},
"frameRate" : [ 15, 10, 7, 4 ],
"height" : 480,
"profile" : [ "Base", "Main", "High" ],
"resolution" : 28,
"size" : "640*480",
"width" : 640
}
},
{
"audio" : "boolean",
"chnBit" : 1,
"mainStream" : {
"bitRate" : [ 1024, 1536, 2048, 3072, 4096, 5120, 6144, 7168, 8192 ],
"default" : {
"bitRate" : 4096,
"frameRate" : 20
},
"frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
"height" : 1440,
"profile" : [ "Base", "Main", "High" ],
"resolution" : 41,
"size" : "2560*1440",
"width" : 2560
},
"subStream" : {
"bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
"default" : {
"bitRate" : 256,
"frameRate" : 10
},
"frameRate" : [ 15, 10, 7, 4 ],
"height" : 480,
"profile" : [ "Base", "Main", "High" ],
```

```
    "resolution" : 28,
    "size" : "640*480",
    "width" : 640
  }
},
{
  "audio" : "boolean",
  "chnBit" : 1,
  "mainStream" : {
    "bitRate" : [ 1024, 1536, 2048, 3072, 4096, 5120, 6144, 7168, 8192 ],
    "default" : {
      "bitRate" : 4096,
      "frameRate" : 20
    },
    "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
    "height" : 1536,
    "profile" : [ "Base", "Main", "High" ],
    "resolution" : 32,
    "size" : "2048*1536",
    "width" : 2048
  },
  "subStream" : {
    "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
    "default" : {
      "bitRate" : 256,
      "frameRate" : 10
    },
    "frameRate" : [ 15, 10, 7, 4 ],
    "height" : 480,
    "profile" : [ "Base", "Main", "High" ],
    "resolution" : 28,
    "size" : "640*480",
    "width" : 640
  }
},
{
  "audio" : "boolean",
  "chnBit" : 1,
  "mainStream" : {
    "bitRate" : [ 1024, 1536, 2048, 3072, 4096, 5120, 6144, 7168, 8192 ],
    "default" : {
      "bitRate" : 4096,
      "frameRate" : 20
```

```

    },
    "frameRate" : [ 25, 22, 20, 18, 16, 15, 12, 10, 8, 6, 4, 2 ],
    "height" : 1296,
    "profile" : [ "Base", "Main", "High" ],
    "resolution" : 34,
    "size" : "2304*1296",
    "width" : 2304
  },
  "subStream" : {
    "bitRate" : [ 64, 128, 160, 192, 256, 384, 512 ],
    "default" : {
      "bitRate" : 256,
      "frameRate" : 10
    },
    "frameRate" : [ 15, 10, 7, 4 ],
    "height" : 480,
    "profile" : [ "Base", "Main", "High" ],
    "resolution" : 28,
    "size" : "640*480",
    "width" : 640
  }
}
]
},
"value" : {
  "Enc" : {
    "audio" : 0,
    "channel" : 0,
    "mainStream" : {
      "bitRate" : 4096,
      "frameRate" : 20,
      "height" : 1920,
      "profile" : "High",
      "resolution" : 54,
      "size" : "2560*1920",
      "width" : 2560
    },
    "subStream" : {
      "bitRate" : 256,
      "frameRate" : 10,
      "height" : 480,
      "profile" : "High",
      "resolution" : 28,

```

```

        "size" : "640*480",
        "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") |
| subStream->height | Height of subStream (This item is internal use only, and no needed for cmd "SetEnc") |
| subStream->resolution | Resolution enumerate of subStream (This item is internal use only, and no needed for cmd "SetEnc") |
| subStream->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 | http://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 | |
| <pre>[{ "cmd" : "SetEnc", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| 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**

|] | | |
|--|-----------------|-----|
| 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 | |
|--|-------------|
| <pre>[{ "cmd" : "SetRec", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| Field description | |
| Field | description |

3.6.3 GetRecV20

- **Interface Description**

It is used to get configuration of record.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC IP/api.cgi?cmd=GetRecV20&token=TOKEN |
|-------------|---|

- **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 | http://IPC IP/api.cgi?cmd=Search&token=TOKEN |
|-------------|--|

- **Post Data**

Data example

```
{
  "cmd": "Search",
  "action": 0,
```


Return data correctly

```
[
  {
    "cmd" : "Search",
    "code" : 0,
    "value" : {
      "SearchResult" : {
        "Status" : [
          {
            "mon" : 12,
            "table" : "11111000000000011110011110000000",
            "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 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_98ADFFF.mp4",
    "size" : 160096255,
    "type" : "main",
    "width" : 0
  }
],
"Status" : [
  {
    "mon" : 12,
    "table" : "0000000000000000111110000000000",
    "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 | http://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_20201221_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 | http://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 | http://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/RecM01_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_20201222_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 | http://NVR_IP/api.cgi?cmd=NvrDownload&token=TOKEN |
|-------------|---|

- **Post Data**

| Data example |
|---|
| <pre>[{ "cmd": "NvrDownload", "action": 1, "param": {</pre> |

```

    "NvrDownload": {
      "EndTime": {
        "year": 2020,
        "mon": 12,
        "day": 24,
        "hour": 10,
        "min": 13,
        "sec": 0
      },
      "StartTime": {
        "year": 2020,
        "mon": 12,
        "day": 24,
        "hour": 10,
        "min": 8,
        "sec": 0
      },
      "channel": 0
    }
  }
}
]]

```

Field description

| Field | Description | M/O |
|-----------|-------------|-----|
| StartTime | Start time | O |
| EndTime | End time | O |

- **Return data description**

Return data correctly

```

[
  {
    "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",
  "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 |

| Field | description |
|-------|-------------|
|-------|-------------|

| | |
|----------|--------------|
| fileName | Name of file |
| fileSize | Size 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 | http://IPC_IP/api.cgi?cmd=GetPtzPreset&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|--|---------------------|-----|
| <pre>[{ "cmd": "GetPtzPreset", "action": 1, "param": { "channel": 0 } }]</pre> | | |
| 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" : ""  
},  
{  
  "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,  
  "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 | http://IPC_IP/api.cgi?cmd=SetPtzPreset&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example | | |
|---|--|-----|
| <pre>[{ "cmd":"SetPtzPreset", "action":0, "param":{ "PtzPreset":{ "channel":0, "enable":1, "id":1, "name":"pos1" } } }]</pre> | | |
| 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 |
|--|
| <pre>[{ "cmd" : "SetPtzPreset", "code" : 0, "value" : {</pre> |

| | |
|------------------------------------|--------------------|
| <pre> "rspCode" : 200 } }] </pre> | |
| 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 | http://IPC_IP/api.cgi?cmd=GetPtzPatrol&token=TOKEN |
|-------------|--|

- **POST Data**

| | | |
|--|---------------------|------------|
| Data example | | |
| <pre> [{ "cmd":"GetPtzPatrol", "action":1, "param":{ "channel":0 } }] </pre> | | |
| 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 | http://IPC IP/api.cgi?cmd=SetPtzPatrol&token=TOKEN |
|-------------|--|

- **POST Data**

| |
|---|
| Data example |
| <pre>[{ "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, "id":2, "speed":20 }] } } }]</pre> |

| 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 | http://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

```

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

```

```

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

```

| 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 | http://IPC IP/api.cgi?cmd=GetPtzSerial&token=TOKEN |
|-------------|--|

- **POST Data**

| |
|---------------------|
| Data example |
|---------------------|

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

| |
|--------------------------|
| Field description |
|--------------------------|

| Field | Description | M/O |
|---------|---------------------|-----|
| channel | The channel number. | M |

- **Return data description**

| |
|-----------------------|
| Return data correctly |
|-----------------------|

```
[
  {
    "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,
      "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 | http://IPC_IP/api.cgi?cmd=SetPtzSerial&token=TOKEN |
|-------------|--|

- **POST Data**

| | | |
|--|---------------------|------------|
| Data example | | |
| <pre>[{ "cmd": "SetPtzSerial", "action": 0, "param": { "PtzSerial": { "channel": 0, "baudRate": 9600, "dataBit": "CS6", "stopBit": 2, "parity": "odd", "flowCtrl": "hard", "ctrlProtocol": "PELCO_P", "ctrlAddr": 2 } } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| channel | The channel number. | M |

| | | |
|--------------|--|---|
| baudRate | The baud rate of the serial in ptz | 0 |
| ctrlAddr | The control address of the serial in ptz, which is default equal to channel plus 1 | 0 |
| ctrlProtocol | The control protocol of the serial in ptz, which is between "PELCO D" and "PELCO P" | 0 |
| dataBit | The data bit of the serial in ptz, which is between "CS8", "CS7", "CS6" and "CS5" | 0 |
| flowCtrl | The flow control of the serial in ptz, which is between "none", "hard", "xon" and "xoff" | 0 |
| parity | The parity of the serial in ptz, which is between "none", "odd" and "even" | 0 |
| stopBit | The stop bit of the serial in ptz, which can be 1 or 2 | 0 |

- **Return data description**

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

3.7.8 GetPtzTattern

- **Interface Description**

| |
|----------------|
| GetPtzTattern. |
|----------------|

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=GetPtzTattern&token=TOKEN |
|-------------|---|

- **POST Data**

| | | |
|---|---------------------|------------|
| Data example | | |
| <pre>[{ "cmd": "GetPtzTattern", "action": 1, "param": { "channel": 0 } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| channel | The channel number. | M |

- **Return data description**

| | | |
|---|--|--|
| Return data correctly | | |
| <pre>[{ "cmd" : "GetPtzTattern", "code" : 0, "initial" : { "PtzTattern" : { "channel" : 0, "track" : [{ "enable" : 0, "id" : 1, "name" : "", "running" : 0 }, { "enable" : 0, "id" : 1,</pre> | | |


```
    "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
      }
    ]
  }
}
```

```

    }
  }
}
]

```

| 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 | http://IPC_IP/api.cgi?cmd=SetPtzTattern&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example |
|---|
| <pre> [{ "cmd": "SetPtzTattern", "action": 0, "param": { "PtzTattern": { "channel": 0, "track": [{ "id": 1, "enable": 0, "running": 0, </pre> |

```

        "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 | |
|---|---------------|
| <pre> [{ "cmd" : "SetPtzTattern", "code" : 0, "value" : { "rspCode" : 200 } }] </pre> | |
| Field description | |
| Field | description |
| rspCode | Response code |

3.7.10 GetAutoFocus

- **Interface Description**

| |
|---------------|
| GetAutoFocus. |
|---------------|

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC IP/api.cgi?cmd=GetAutoFocus&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example |
|--|
| <pre>[{ "cmd": "GetAutoFocus", "action": 1, "param": { "channel": 0 } }]</pre> |

| Field description | | |
|-------------------|---------------------|-----|
| Field | Description | M/O |
| channel | The channel number. | M |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "GetAutoFocus", "code" : 0, "initial" : { "AutoFocus" : { "channel" : 0, "disable" : 0 } } }]</pre> |

```

    },
    "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 | http://IPC IP/api.cgi?cmd=SetAutoFocus&token=TOKEN |
|-------------|--|

- **POST Data**

| Data example |
|---|
| <pre> [{ "cmd": "SetAutoFocus", "action": 0, "param": { "AutoFocus": { "channel": 0, "disable": 1 } } }] </pre> |

| <pre> } } }] </pre> | | |
|----------------------------------|---|-----|
| 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 | | |
|---|---------------|--|
| <pre> [{ "cmd" : " SetAutoFocus", "code" : 0, "value" : { "rspCode" : 200 } }] </pre> | | |
| 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**


```
"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
        },
        "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
  }
},
```


| 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 divided 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 | http://IPC IP/api.cgi?cmd=SetAlarm&token=TOKEN |
|-------------|--|

- **Post Data**

Data example

```
[
  {
    "cmd":"SetAlarm",
```



```

        "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 | |
|--|-------------|
| <pre>[{ "cmd" : "SetAlarm", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | |
| Field description | |
| Field | description |

3.8.3 GetMdAlarm

- **Interface Description**

It is used to get MdAlarm setting.

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=GetMdAlarm&token=TOKEN |
|-------------|--|

- **Post Data**

| Data example |
|---|
| <pre>[{ "cmd": "GetMdAlarm", "action": 1,</pre> |

| <pre>"param": { "channel": 0 } }]</pre> | | |
|---|------------------|-----|
| Field description | | |
| Field | Description | M/O |
| channel | Index of channel | M |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "GetMdAlarm", "code" : 0, "initial" : { "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 }] } } } }]</pre> |


```
    "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
  },
  "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" : {
      "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,

```



```

        "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 divided 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 | http://IPC_IP/api.cgi?cmd=SetMdAlarm&token=TOKEN |
|-------------|--|

- **Post Data**

Data example

```
[{
  "cmd": "SetMdAlarm",
  "param": {
    "MdAlarm": {
```



```

    "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,

```

| | |
|--|--------------------|
| <pre>"value" : { "rspCode" : 200 } }</pre> | |
| Field description | |
| Field | description |

3.8.5 GetMdState

- **Interface Description**

It is used to get state of MD.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=GetMdState&token=TOKEN |
|-------------|---|

- **POST Data**

| | | |
|--|------------------------|------------|
| Data example | | |
| <pre>[{ "cmd":"GetMdState", "param":{ "channel":0 } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| channel | Channel num (ipc is 0) | O |
| Note: use this url no need to post json date " http://IPC_IP/api.cgi?cmd=GetMdState&channel=0&token=TOKEN " | | |

- **Return data description**

Return data correctly

```
[
  {
    "cmd" : "GetUpnp",
    "code" : 0,
    "value" : {
      "state" : 1
    }
  }
]
```

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 | http://IPC_IP/api.cgi?cmd=GetAudioAlarm&token=TOKEN |
|-------------|---|

- **POST Data**

Data example

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

Field description

| <pre> } }] </pre> | | |
|---|-------------------|-----|
| Field description | | |
| Field | Description | M/O |
| enable | See also GetAlarm | O |
| table | See also GetAlarm | O |
| <p>Note: When scheduleVersion ver=1 in the capability set, use cmd "SetAudioAlarmV20"</p> | | |

- **Return data description**

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

3.8.8 GetAudioAlarmV20

- **Interface Description**

| |
|---|
| It is used to get configuration of AudioAlarm |
|---|

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=GetAudioAlarmV20&token=TOKEN |
|-------------|--|

- **POST Data**

| 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 | http://NVR_IP/api.cgi? cmd=GetBuzzerAlarmV20&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|---|-------------|-----|
| <pre>[{ "cmd":"GetBuzzerAlarmV20", "action":1, "param": { "channel": 0 } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| | | |
| | | |

- **Return data description**

Return data correctly

[

- **Return data description**

Return data correctly

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

Field description

| Field | description |
|---------|---------------|
| rspCode | Response code |

3.9 RTMP

3.9.1 rtmp=start

- **Interface Description**

rtmp=start

- **Interface call instructions**

| | |
|-------------|--|
| Request URL | http://IPC_IP/api.cgi?cmd=rtmp=start&token=TOKEN |
|-------------|--|

- **POST Data**

Data example

```
[{
  "cmd": "rtmp=start",
  "param": {
```

```

    "Preview": {
      "channel": 0,
      "enable": 1,
      "type": "main"
    }
  }
}

```

| Field description | | |
|-------------------|----------------------|-----|
| Field | Description | M/O |
| channel | Index of channel | M |
| enable | Switch to start rtmp | M |
| type | Type of code stream | O |

- **Return data description**

| Return data correctly | |
|--|---------------|
| <pre> [{ "cmd" : "rtmp=start", "code" : 0, "value" : { "rspCode" : 200 } }] </pre> | |
| Field description | |
| Field | description |
| rspCode | Response code |

3.9.2 rtmp=stop

- **Interface Description**

```
rtmp=stop
```

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=rtmp=stop&token=TOKEN |
|-------------|---|

- **POST Data**

| | | |
|--|--------------------|------------|
| Data example | | |
| <pre> [[{ "cmd": "rtmp=stop", "param": { "Preview": { "channel": 0, "enable": 1, "type": "main" } } }]] </pre> | | |
| Field description | | |
| Field | Description | M/O |
| | | M |

- **Return data description**

| | | |
|---|--------------------|--|
| Return data correctly | | |
| <pre> [{ "cmd" : "rtmp=stop", "code" : 0, "value" : { "rspCode" : 200 } }] </pre> | | |
| Field description | | |
| Field | description | |
| rspCode | Response code | |

3.9.3 rtmp=auth

- **Interface Description**

| |
|-----------|
| rtmp=auth |
|-----------|

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC IP/api.cgi?cmd=rtmp=auth&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|---|-------------|-----|
| <pre>[{ "cmd": "rtmp=auth" }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| | | M |

- **Return data description**

| Return data correctly | | |
|--|---------------|--|
| <pre>[{ "cmd" : " rtmp=auth", "code" : 0, "value" : { "rspCode" : 200 } }]</pre> | | |
| Field description | | |
| Field | description | |
| rspCode | Response code | |

3.10 LED

3.10.1 GetIrLights

- **Interface Description**

It is used to get IrLights information of device.

- **Interface call instructions**

| | |
|-------------|---|
| Request URL | http://IPC_IP/api.cgi?cmd=GetIrLights&token=TOKEN |
|-------------|---|

- **POST Data**

| Data example | | |
|--|-------------|-----|
| <pre>[{ "cmd":"GetIrLights" }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| | | |
| | | |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd": "GetIrLights", "code": 0, "value": { "IrLights": { "state": 0 } } }]</pre> |

```

    },
    "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 | http://IPC_IP/api.cgi?cmd=SetIrLights&token=TOKEN |
|-------------|---|

- **Post Data**

| Data example |
|---|
| <pre> {{ "cmd": "SetIrLights", "action": 0, "param": { "IrLights": { </pre> |

| <pre> "channel": 0, "state": "Auto" } } }} </pre> | | |
|--|------------------|-----|
| Field description | | |
| Field | Description | M/O |
| channel | Index of channel | M |

- **Return data description**

| Return data correctly | | |
|---|-------------|--|
| <pre> [{ "cmd" : "SetIrLights", "code" : 0, "value" : { "rspCode" : 200 } }] </pre> | | |
| 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 | http://IPC_IP/api.cgi?cmd=GetPowerLed&token=TOKEN |
|-------------|---|

- **POST Data**

| | | |
|--|--------------------|------------|
| Data example | | |
| <pre>[{ "cmd":"GetPowerLed" }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| | | |
| | | |

- **Return data description**

| | | |
|---|--------------------|--|
| Return data correctly | | |
| <pre>[{ "cmd": "GetPowerLed", "code": 0, "value": { "PowerLed": { "channel": 0, "state": 0 } }, "range": { "PowerLed": { "state": { "On" "Off" } } } }]</pre> | | |
| 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 | http://IPC_IP/api.cgi?cmd=SetPowerLed&token=TOKEN |
|-------------|---|

- **POST Data**

| | | |
|---|--------------------|------------|
| Data example | | |
| <pre>[{ "cmd":"SetPowerLed", "param":{ "PowerLed":{ "state":"Off", "channel":0 } } }]</pre> | | |
| Field description | | |
| Field | Description | M/O |
| state | State of power led | |
| Note : Only for devices with power led | | |

- **Return data description**

| |
|-----------------------|
| Return data correctly |
| <pre>[{</pre> |

```

"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 | http://IPC_IP/api.cgi?cmd=GetWhiteLed&token=TOKEN |
|-------------|---|

- **Post Data**

| Data example |
|---|
| <pre> {{ "cmd": "GetWhiteLed", "action": 0, "param": { "channel": 0 } }} </pre> |

| Field description | | |
|-------------------|------------------|-----|
| Field | Description | M/O |
| channel | Index of channel | M |

- **Return data description**

Return data correctly

```
[
  {
    "cmd" : "GetWhiteLed",
    "code" : 0,
    "range" : {
      "WhiteLed" : {
        "bright" : {
          "max" : 100,
          "min" : 0
        }
      }
    },
    "value" : {
      "WhiteLed" : {
        "bright" : 79,
        "channel" : 0,
        "mode" : 2,
        "state" : 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 | http://IPC_IP/api.cgi?cmd=SetWhiteLed&token=TOKEN |
|-------------|---|

- **Post Data**

| Data example | | |
|---|--------------------|-----|
| <pre>{ "cmd": "GetWhiteLed", "param": { "state": 0, "channel": 0, "mode": 2, "bright": 79 } }</pre> | | |
| Field description | | |
| Field | Description | M/O |
| channel | Index of channel | M |
| state | White led state | O |
| mode | Brightness state | O |
| bright | Current brightness | O |

- **Return data description**

| Return data correctly |
|---|
| <pre>[{ "cmd" : "GetWhiteLed",</pre> |

```
"code" : 0,  
"range" : {  
  "WhiteLed" : {  
    "bright" : {  
      "max" : 100,  
      "min" : 0  
    }  
  }  
},  
"value" : {  
  "WhiteLed" : {  
    "bright" : 79,  
    "channel" : 0,  
    "mode" : 2,  
    "state" : 0  
  }  
}  
]  
]
```

| Field description | |
|-------------------|-------------|
| Field | description |

4. Response

4.1 Error

| Error Response | | |
|---|----------------------|---------------------------------|
| <pre>[{ "cmd":string, "code":0, "error":{ "rspCode":int, "detail":string } }]</pre> | | |
| 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 limitation |
| -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 |
| -48 | Fetching a picture failed | Snap a picture failed |
| -100 | test failed | Test EmailFtpWifi 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 |

Note : Field "details" means more detailed error information.

