Intelligent Security API (ANPR)

Developer Guide

Legal Information

Contents

Chapter 1 Overview

1.1 Introduction

ANPR (Automatic Number Plate Recognition) function integrated by Intelligent Security API (hereafter referred as to "ISAPI) helps to analyze the captured traffic capture and recognize the vehicle license plate, and supports importing the list for comparison to trigger vehicle matched (blocklist or allowlist) alarms.

1.2 Update History

Summary of Changes in Version 2.0_Nov., 2019

1. Edited the ANPR alarm receiving solution of listening mode, refer to ***Receive ANPR Alarm in Listening Mode*** for details.
2. Added a URI to switch the protocol for receiving ANPR alarm in listening mode: ***/ISAPI/Traffic/ANPR/alarmHttpPushProtocol*** .

Summary of Changes in Version 2.0_Sept., 2019

Added an API calling flow of controlling barrier gate status, refer to ***Control Barrier Gate Status*** for details.

Summary of Changes in Version 2.0_Aug., 2019

Related Product: DS-76XXNI-I Series, DS-77XXNI-I Series, DS-86XXNI-I Series, and DS-96XXNI-I Series NVR in Version 4.22.000

1. Extended intelligent traffic capability message ***XML_ITCCap*** (related URI: ***/ISAPI/ITC/capability***):
   added a node <**isSupportVehicleDetection**> (whether to support vehicle detection).
2. Added the URI to export or import vehicle blacklist and whitelist: GET or PUT ***/ISAPI/Traffic/plateList*** .

Summary of Changes in Version 2.0_May, 2018

1. Edited the message contents in ***XML_EventNotificationAlert_AlarmEventInfo*** (alarm/event information, message in XML format), related URI: ***/ISAPI/Event/notification/alertStream*** .
2. Edited the message contents in ***XML_HttpHostNotificationCap*** (message in XML format) and ***XML_HttpHostNotificationList*** (message in XML format), related URIs: ***/ISAPI/Event/notification/httpHosts/capabilities*** and ***/ISAPI/Event/notification/httpHosts*** .
3. Edited "ANPR alarm of blacklist and whitelist" as "vehicle matched or mismatched alarm" and deleted all the descriptions of blacklist or whitelist.

Summary of Changes in Version 2.0_Dec., 2017

New document.

Chapter 2 Configure ANPR Alarm

If the recognition and alarm parameters have been configured, when a vehicle appears in the monitoring area within the specified time period, the ANPR camera will capture the vehicle picture automatically, analyze the license plate, and trigger the ANPR alarm.

Steps

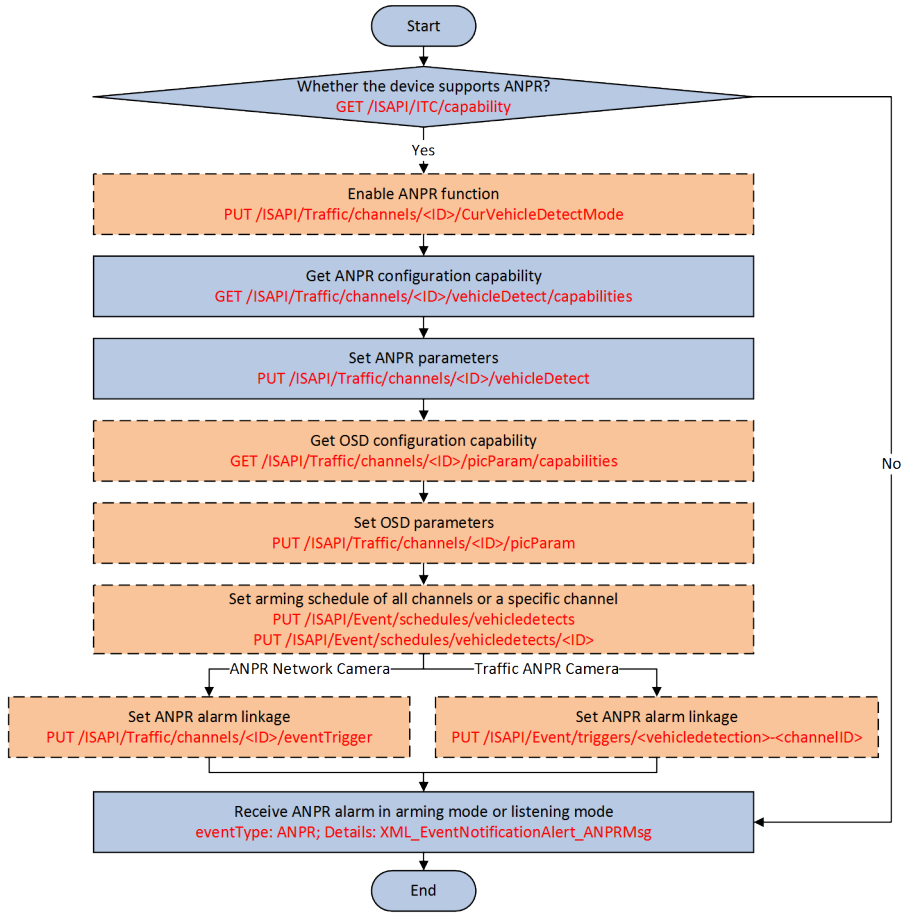

Figure 2-1 API Calling Flow of Configuring ANPR Alarm

1. Call ***/ISAPI/ITC/capability*** by GET method to check whether the device supports ANPR.

   The traffic capability is returned in the message ***XML_ITCCap*** .

   If the node <**isSupportVehicleDetection**> is returned in the capability message and the value is "true", it indicates that the device supports ANPR, and then you can perform the following steps to implement the function.

   Otherwise, the function is not supported by the device, please end the task.

2. **Optional:** Call ***/ISAPI/Traffic/channels/<ID>/CurVehicleDetectMode*** by PUT method to enable the ANPR function.

3. Call ***/ISAPI/Traffic/channels/<ID>/vehicleDetect/capabilities*** by GET method to get ANPR configuration capability.
4. **Optional:** Call ***/ISAPI/Traffic/channels/<ID>/vehicleDetect*** by GET method to get default or configured ANPR parameters for reference.
5. Call ***/ISAPI/Traffic/channels/<ID>/vehicleDetect*** by PUT method to set ANPR parameters.
6. **Optional:** Call ***/ISAPI/Traffic/channels/<ID>/picParam/capabilities*** by GET method to get OSD configuration capability.
7. **Optional:** Call ***/ISAPI/Traffic/channels/<ID>/picParam*** by PUT method to set OSD parameters for displaying information on alarm picture.

Note

Before setting OSD parameters, you'd better call the corresponding URI by GET method to get the configured or existing parameters for reference.

8. **Optional:** Perform one of the following operations to set arming schedule of ANPR alarm.
   - Call ***/ISAPI/Event/schedules/vehicledetects*** by PUT method to set arming schedule of all channels.
   - Call ***/ISAPI/Event/schedules/vehicledetects/<ID>*** by PUT method to set arming schedule of a specific channel

Note

Before setting arming schedule, you'd better call the corresponding URI by GET method to get the default or configured parameters for reference.

9. **Optional:** Perform one of the following operations to set ANPR alarm linkage.
   - For front-end ANPR network cameras (product model: iDS-2CD8626G0/P):

     Call ***/ISAPI/Traffic/channels/<ID>/eventTrigger*** by PUT method.
   - For traffic ANPR cameras:

     Call ***/ISAPI/Event/triggers/<eventType>-<ID>*** by PUT method and set the <**ID**> in the URI to "vehicledetection-<channelID>" (e.g., ***/ISAPI/Event/triggers/vehicledetection-101***).

Note

If you want to receive the alarm in the platform, the linkage action must be set to "center" (upload to center).

10. **Optional:** Call ***/ISAPI/Traffic/channels/<ID>/licensePlate/filtration?format=json*** by PUT method to filter the duplicated license plates and receive the same alarm just for once.

Note

To check whether the device supports filtering duplicated license plates, you can call ***/ISAPI/Traffic/channels/<ID>/capabilities*** by GET method to get the traffic channel capability (***XML_TrafficChannelCap***). If it supports, the node <**isSupportFiltration**> will be returned in the capability message and its value is "true".

11. Receive the ANPR alarm in arming mode (see ***Receive Alarm/Event in Arming Mode***) or listening mode (see ***Receive ANPR Alarm in Listening Mode***).

Note

Currently, for traffic camera or capture camera, receiving alarm or event in arming mode is not supported.

The ANPR alarm details are returned in the message ***XML_EventNotificationAlert_ANPRMsg*** , and the **eventType** in the message is "ANPR".

Chapter 3 Configure Blocklist and Allowlist ANPR Alarm

You can manage vehicles in the blocklist and allowlist to control the entry of vehicles. After analyzing the captured vehicle pictures, the license plate numbers will be compared with those in the blocklist or allowlist; if there are matched items in the blocklist, the entry of vehicles are not allowed; if there are matched items in the allowlist, the vehicles are allowed to enter. The comparison results can be uploaded as blocklist and allowlist ANPR alarms to the platform.

Steps

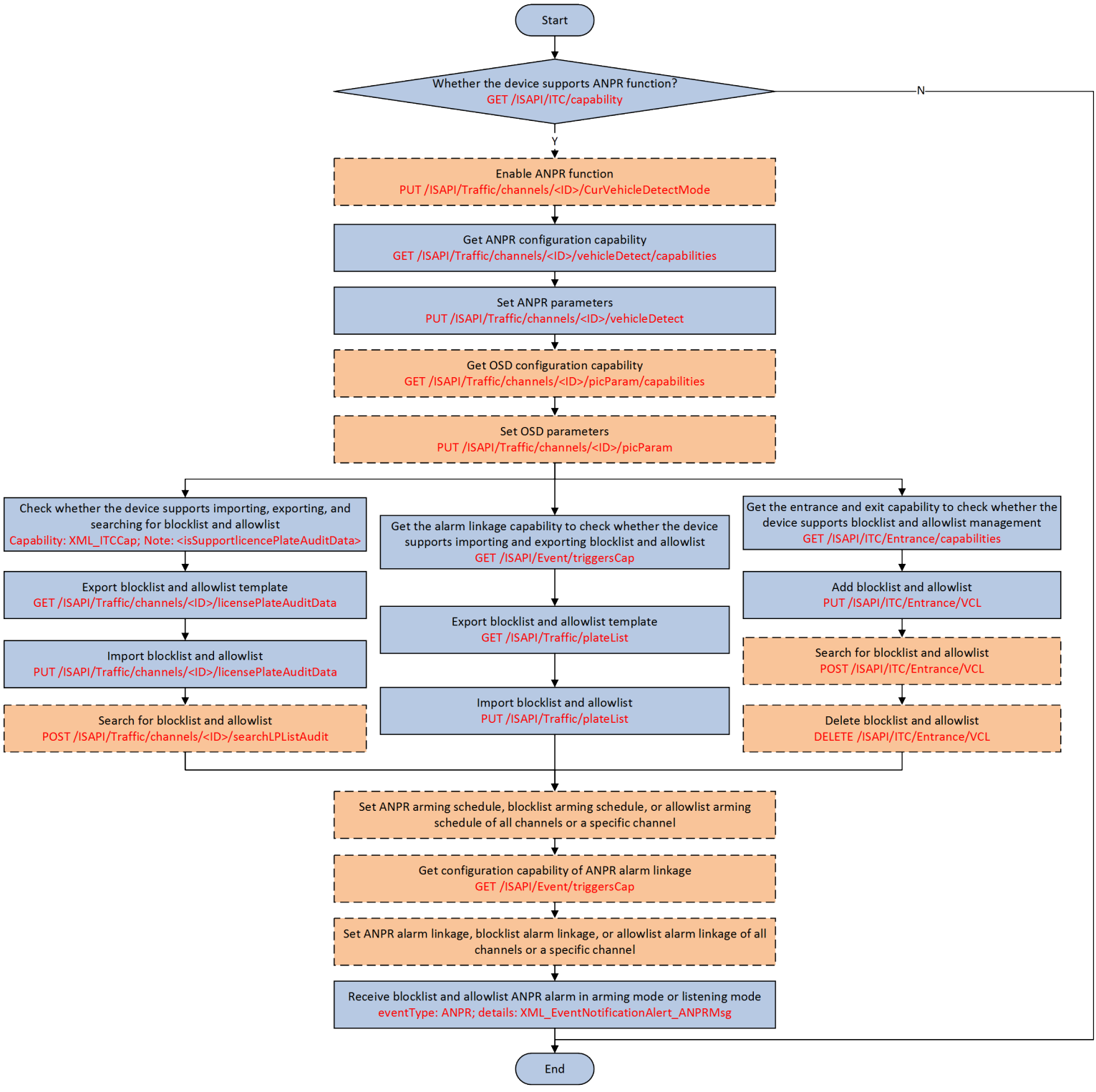

Figure 3-1 API Calling Flow of Configuring Blocklist and Allowlist ANPR Alarm

1. Call ***/ISAPI/ITC/capability*** by GET method get the intelligent traffic capability for checking whether the device supports ANPR.

   The intelligent traffic capability is returned in the message ***XML_ITCCap*** .

   If the node <**isSupportVehicleDetection**> is returned in the capability message and its value is true, it indicates that the device supports ANPR, and you can perform the following steps.

   Otherwise, the function is not supported by the device, please end the task.
2. **Optional:** Call ***/ISAPI/Traffic/channels/<ID>/CurVehicleDetectMode*** by PUT method to enable the ANPR function.
3. Call ***/ISAPI/Traffic/channels/<ID>/vehicleDetect/capabilities*** by GET method to get the ANPR configuration capability.
4. **Optional:** Call ***/ISAPI/Traffic/channels/<ID>/vehicleDetect*** by GET method to get default or configured ANPR parameters for reference.
5. Call ***/ISAPI/Traffic/channels/<ID>/vehicleDetect*** by PUT method to set ANPR parameters.
6. **Optional:** Call ***/ISAPI/Traffic/channels/<ID>/picParam/capabilities*** by GET method to get the OSD configuration capability.
7. **Optional:** Call ***/ISAPI/Traffic/channels/<ID>/picParam*** by PUT method to set OSD parameters.

   Note

   Before setting OSD parameters, you'd better call the corresponding URI by GET method to get the default or configured parameters for reference.
8. Configure the blocklist and allowlist.
   - For front-end devices (cameras):
     a. Check whether the device supports importing, exporting, and searching for the blocklist and allowlist according to the intelligent traffic capability message ***XML_ITCCap*** .

        Note

        If the node <**isSupportlicencePlateAuditData**> is returned in the capability message and its value is true, it indicates that the device supports importing and exporting the blocklist and allowlist. If the node <**isSupportSearchLPListAudit**> is in the capability message and its value is true, it indicates that the device supports searching for the blocklist and allowlist.

     b. Call ***/ISAPI/Traffic/channels/<ID>/licensePlateAuditData*** by GET method to export the blocklist and allowlist template and fill in the template.
     c. Call ***/ISAPI/Traffic/channels/<ID>/licensePlateAuditData*** by PUT method to import the blocklist and allowlist.
     d. Optional: Call ***/ISAPI/Traffic/channels/<ID>/searchLPListAudit*** by POST method to search for the blocklist and allowlist.
   - For NVR:
     a. Call ***/ISAPI/Event/triggersCap*** by GET to get the alarm linkage capability for checking whether the device supports importing and exporting blocklist and allowlist.

Note

The alarm linkage capability is returned in the message ***XML_EventTriggersCap*** . If the node <**BlackListTriggerCap**> and <**WhiteListTriggerCap**> are in the capability message and their values are true, it indicates that the device supports importing and exporting blocklist and allowlist.

b. Call ***/ISAPI/Traffic/plateList*** by GET method to export the blocklist and allowlist template and fill in the template.
c. Call ***/ISAPI/Traffic/plateList*** by PUT method to import the blocklist and allowlist.

- For capture cameras:

a. Call ***/ISAPI/ITC/Entrance/capabilities*** by GET method to get the entrance and exit capability for checking whether the device supports blocklist and allowlist management.

Note

The entrance and exit capability is returned in the message ***XML_EntranceCap*** . If the node <**supportEntrance**> is in the capability message and its value is true, it indicates that the device supports blocklist and allowlist management.

b. Call ***/ISAPI/ITC/Entrance/VCL*** by PUT method to add the blocklist and allowlist.
c. Optional: Call ***/ISAPI/ITC/Entrance/VCL*** by POST method to search for the blocklist and allowlist.
d. Optional: Call ***/ISAPI/ITC/Entrance/VCL*** by DELETE method to delete the blocklist or allowlist.

9. **Optional:** Perform one of the following operations to set the arming schedule.
   - Set the arming schedule of all channels.
     - Call ***/ISAPI/Event/schedules/vehicledetects*** by PUT method to set the arming schedule for blocklist and allowlist ANPR alarm.
     - Call ***/ISAPI/Event/schedules/blackList*** by PUT method to set the arming schedule for blocklist ANPR alarm.
     - Call ***/ISAPI/Event/schedules/whiteList*** by PUT method to set the arming schedule for allowlist ANPR alarm.
   - Set the arming schedule of a specific channel.
     - Call ***/ISAPI/Event/schedules/vehicledetects/<ID>*** by PUT and set <**ID**> in the URI to "vehicledetection-<channelID>" (e.g., ***/ISAPI/Event/schedules/vehicledetects/vehicledetection-101***) for setting the arming schedule of blocklist and allowlist ANPR alarm.
     - Call ***/ISAPI/Event/schedules/blackList/<ID>*** by PUT and set <**ID**> in the URI to "blacklist-<channelID>" (e.g., ***/ISAPI/Event/schedules/vehicledetects/blacklist-101***) for setting the arming schedule of blocklist ANPR alarm.
     - Call ***/ISAPI/Event/schedules/whiteList/<ID>*** by PUT and set <**ID**> in the URI to "whitelist-<channelID>" (e.g., ***/ISAPI/Event/schedules/vehicledetects/whitelist-101***) for setting the arming schedule of allowlist ANPR alarm.
10. **Optional:** Call ***/ISAPI/Event/triggersCap*** by GET to get the configuration capability of ANPR alarm linkage.

11. **Optional:** Perform one of the following operations to set the linkage action.
    - Call ***/ISAPI/Event/triggers/<eventType>-<ID>*** by PUT method and set the <**ID**> in the URI to "vehicledetection-<channelID>" (e.g., ***/ISAPI/Event/Trigger/vehicledetection-101***) for setting the linkage action of blocklist and allowlist ANPR alarm.

      Note

      For cameras supporting ANPR function (product model: iDS-2CD8626G0/P), you should call ***/ISAPI/Traffic/channels/<ID>/eventTrigger*** by PUT method to set the linkage action of blocklist and allowlist ANPR alarm.
    - Call ***/ISAPI/Event/triggers/<eventType>-<ID>*** by PUT method and set the <**ID**> in the URI to "blacklist-<channelID>" (e.g., ***/ISAPI/Event/Trigger/blacklist-101***) for setting the linkage action of blocklist ANPR alarm.
    - Call ***/ISAPI/Event/triggers/<eventType>-<ID>*** by PUT method and set the <**ID**> in the URI to "whitelist-<channelID>" (e.g., ***/ISAPI/Event/Trigger/whitelist-101***) for setting the linkage action of allowlist ANPR alarm.

    Note

    If you want to receive the alarm in the platform, the linkage action must be set to "center" (upload to center).

12. Receive the blocklist and allowlist ANPR alarm in arming mode (see ***Receive Alarm/Event in Arming Mode***) or in listening mode (see ***Receive ANPR Alarm in Listening Mode***).

    Note

    Currently, for traffic cameras or capture cameras, receiving alarm or event in arming mode is not supported.

    The details of blocklist and allowlist ANPR alarm are returned in the message ***XML_EventNotificationAlert_ANPRMsg*** , and the value of the node <**eventType**> is "ANPR".

Chapter 4 Control Barrier Gate Status

In the entrance and exit scene, you can remotely control the barrier gate status, such as lowering the gate, lifting the gate, stopping the gate at a certain position, and locking the gate.

Before You Start

Make sure you have logged in to the device.

Steps

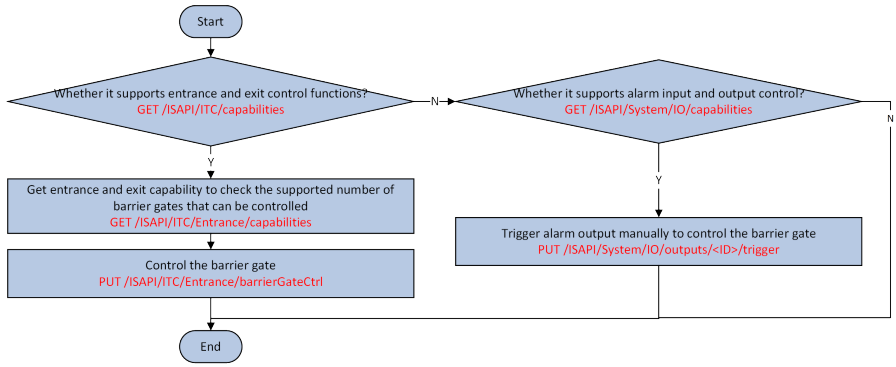

Figure 4-1 API Calling Flow of Controlling Barrier Gate Status

1. Call ***/ISAPI/ITC/capability*** by GET method to get the traffic capability for checking whether the device supports entrance and exit control functions.
   - If the node <**isSupportEntranceCap**> is returned in the traffic capability message ***XML_ITCCap*** and its value is true, it indicates that the device supports entrance and exit control functions, and then you can continue to perform the following steps.
   - If the node <**isSupportEntranceCap**> is not returned in the traffic capability message ***XML_ITCCap*** or it is returned but its value is false, it indicates that the device does not support entrance and exit control functions. Then you can do the following operations:
     a. Call ***/ISAPI/System/IO/capabilities*** by GET method to get the alarm input and output configuration capability for checking whether the devices supports alarm input and output control.

     Note

     The alarm input and output configuration capability is returned in the message ***XML_IOCap*** .
     If the node <**IOOutputPortNums**> is returned in the message and its value is greater than or equal to 2, it indicates that the device supports alarm input and output control, and then you can continue to perform the following steps. (The barrier gate needs to be connected via two I/O ports. By default, the I/O port 1 is used to open the barrier gate and the I/O port 2 is used to close it. When the ANPR event occurs, the I/O port 1 will be triggered for opening the barrier gate; when the vehicle leaves, the I/O port 2 will be triggered for closing the barrier gate. Whether the barrier gate can be closed depends on

the inductive loop vehicle detector as well, which is used to protect vehicles from being hit by the barrier gate.)
Otherwise, it indicates that the device does not support alarm input and output control, please end this task.

b. Call ***/ISAPI/System/IO/outputs/<ID>/trigger*** by PUT method to trigger an alarm output manually for controlling the barrier gate status.

2. Call ***/ISAPI/ITC/Entrance/capabilities*** by GET method to get the entrance and exit capability for checking the supported number of barrier gates that can be controlled.

3. Call ***/ISAPI/ITC/Entrance/barrierGateCtrl*** by PUT method to control barrier gate status.

Chapter 5 Alarm or Event Receiving

When the alarm is triggered or the event occurred, if you have configured alarm/event uploading parameters, you can receive and process the alarm/event information in the third-party platform or system. Two modes are available for receiving alarms, including arming mode and listening mode.

Arming Mode

When the alarm is triggered or event occurred, the third-party platform or system can send the request URL to the device for getting the alarm/event stream, and then the device uploads the response message with alarm/event information.

Listening Mode

When alarm is triggered or event occurred, the device uploads the alarm information automatically, and then the third-party platform or system can receives the alarm/event by configuring listening port of HTTP host server.

Note

Currently, for traffic camera or capture camera, receiving alarm or event in arming mode is not supported.

5.1 Receive ANPR Alarm in Listening Mode

When the alarm linkage is configured and the ANPR alarm is triggered, the device will automatically upload the alarm information, you can configure the listening address and port of the HTTP listening server to receive the alarm.

Before You Start

Make sure you have configured alarm parameters (refer to ***Configure ANPR Alarm*** and ***Configure Blocklist and Allowlist ANPR Alarm*** for details) and the alarm is triggered.

Steps

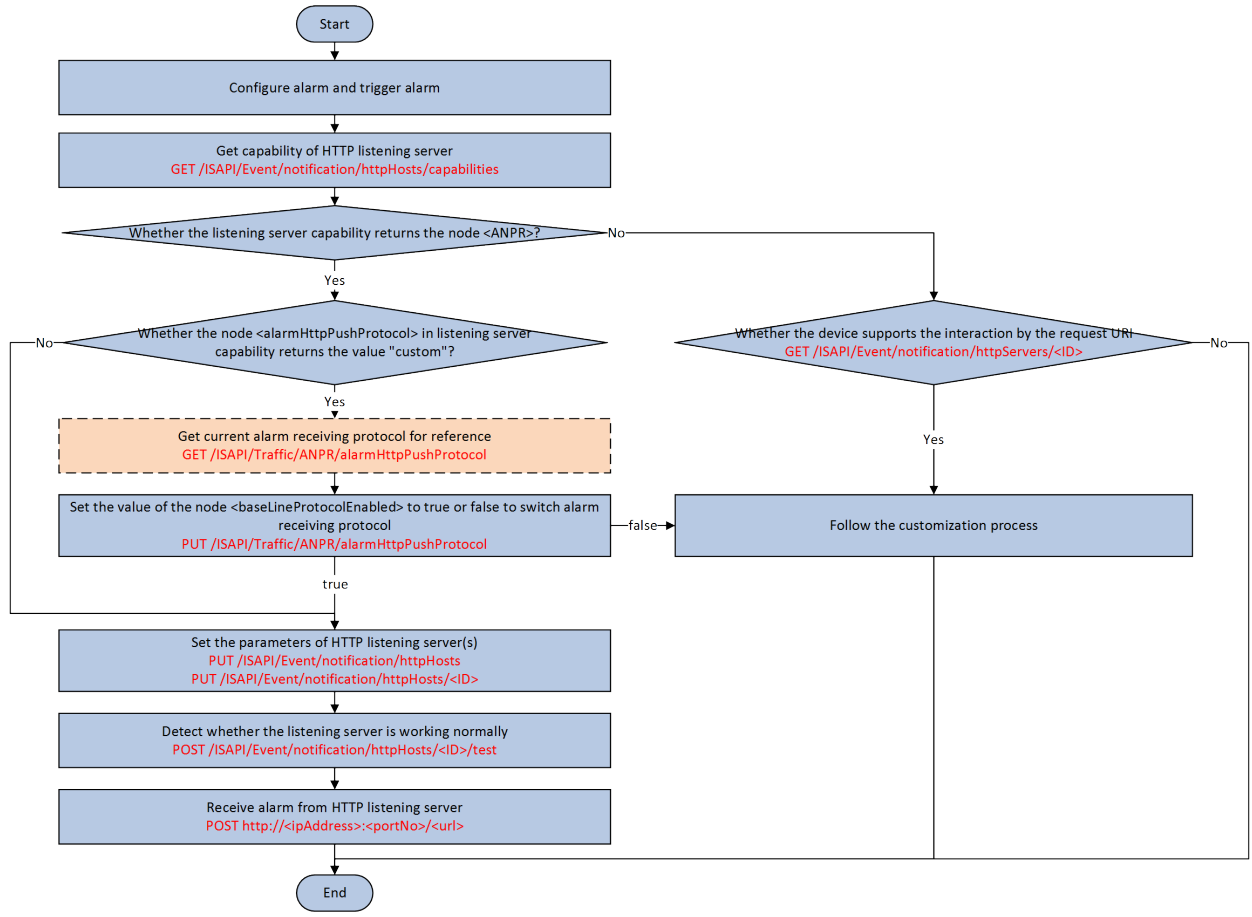

Figure 5-1 API Calling Flow of Receiving ANPR Alarm in Listening Mode

1. Call ***/ISAPI/Event/notification/httpHosts/capabilities*** by GET method to get the capability of the HTTP listening server.

   The HTTP listening server capability is returned in the message ***XML_HttpHostNotificationCap*** .

2. Check whether the node <**ANPR**> is returned in the listening server capability message.
   - If the node <**ANPR**> is returned in the capability message, you can continue to perform the following steps.
   - If the node <**ANPR**> is not returned in the capability message, you can call ***/ISAPI/Event/notification/httpServers/<ID>*** by GET method to check whether the device supports interaction by this URI.

   Note

   If the device supports this URI, it indicates that the device supports receiving the ANPR alarm with the custom method, and you can follow the customization development process. Otherwise, it indicates that the device does not support receiving the ANPR alarm, please end this task.

3. Check whether the value of the sub node <**alarmHttpPushProtocol**> of the node <**ANPR**> in the listening server capability message is "custom".
   - If the value of node <**alarmHttpPushProtocol**> is "custom", perform step 4.
   - If the value of node <**alarmHttpPushProtocol**> is not "custom", please directly perform step 6.
4. **Optional:** Call ***/ISAPI/Traffic/ANPR/alarmHttpPushProtocol*** by GET method to get the current alarm receiving protocol for reference.

   The alarm receiving protocol information is returned in the message ***XML_AlarmHttpPushProtocol*** .
5. Call ***/ISAPI/Traffic/ANPR/alarmHttpPushProtocol*** by PUT method to set the node <**baseLineProtocolEnabled**> of ***XML_AlarmHttpPushProtocol*** for switching the alarm receiving protocol.
   - If the node <**baseLineProtocolEnabled**> is set to true, please perform step 6.
   - If the node <**baseLineProtocolEnabled**> is set to false, please follow the customization development process.
6. Call ***/ISAPI/Event/notification/httpHosts/<ID>*** or ***/ISAPI/Event/notification/httpHosts*** by PUT method to set the parameters (including listening address and listening port No.) of a or multiple HTTP listening server(s).

   Note

   Before setting the listening server, you'd better call this URI by GET method to get default or configured parameters for reference.
7. Call ***/ISAPI/Event/notification/httpHosts/<ID>/test*** by POST method to check whether the listening server is working normally.
8. Call ***http://<ipAddress>:<portNo>/<url>*** by POST method to receive the ANPR alarm information from the listening server.

5.2 Receive Alarm/Event in Arming Mode

When alarm is triggered or event occurred, and the alarm/event linkage is configured, you can send request message to device for getting the alarm/event stream, and then the device uploads the corresponding response message, which contains alarm/event information.

Before You Start

Make sure you have configured alarm/event and triggered the alarm/event. For configuring alarm/event parameters, refer to the some typical applications of alarm/event configuration.

Steps

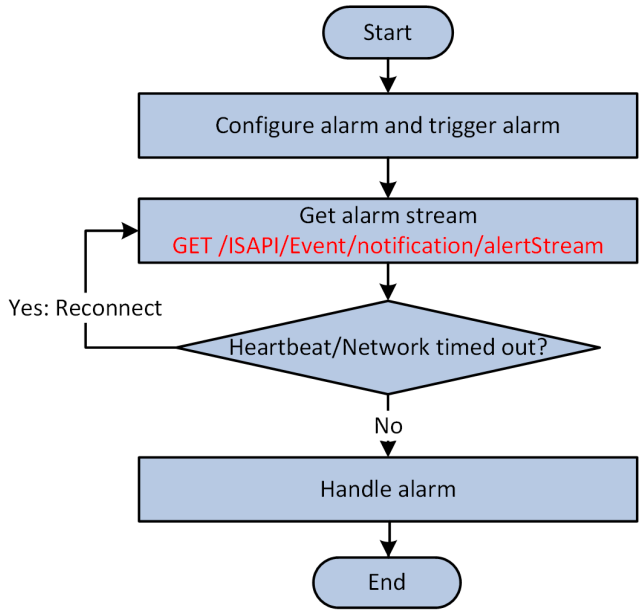

Figure 5-2 API Calling Flow of Receiving Alarm/Event in Arming Mode

1. Call ***/ISAPI/Event/notification/alertStream*** by GET to get the alarm/event stream.
2. Check if the heartbeat receiving timed out or network disconnected.
   - If the heartbeat keeps alive and the network still connected, perform the following step to continue.
   - If the heartbeat receiving timed out or network disconnected, perform the above step repeatedly until reconnected.
3. Receive and process the alarm/event information.

Example

Sample Code of Receiving Alarm/Event in Arming Mode (without Binary Picture Data)

```
GET /ISAPI/Event/notification/alertStream HTTP/1.1
Host: data_gateway_ip
Connection: Keep-Alive

HTTP/1.1 401 Unauthorized
Date: Sun, 01 Apr 2018 18:58:53 GMT
Server:
Content-Length: 178
Content-Type: text/html
Connection: keep-alive
Keep-Alive: timeout=10, max=99
WWW-Authenticate: Digest qop="auth",
realm="IP Camera(C2183)",
nonce="4e5468694e7a42694e7a4d364f4449354d7a6b354d54513d",
stale="FALSE"

GET /ISAPI/Event/notification/alertStream HTTP/1.1
Authorization: Digest username="admin",
```

```
realm="IP Camera(C2183)",
nonce="4e5468694e7a42694e7a4d364f4449354d7a6b354d54513d",
uri="/ISAPI/Event/notification/alertStream",
cnonce="3d183a245b8729121ae4ca3d41b90f18",
nc=00000001,
qop="auth",
response="f2e0728991bb031f83df557a8f185178"
Host: 10.6.165.192

HTTP/1.1 200 OK
MIME-Version: 1.0
Connection: close
Content-Type: multipart/mixed; boundary=<frontier>

--<frontier>
Content-Type: application/xml; charset="UTF-8"
Content-Length: text_length

<EventNotificationAlert/>
--<frontier>
```

Appendix A. Request URIs

A.1 /ISAPI/Event/schedules/blackList

Get or set arming schedule of blacklist ANPR of all channels.

Request URI Definition

Table A-1 GET /ISAPI/Event/schedules/blackList

Method	GET
Description	Get arming schedule of blacklist ANPR of all channels.
Query	None
Request	None
Response	Succeeded: ***XML_BlackListScheduleList*** Failed: ***XML_ResponseStatus***

Table A-2 PUT /ISAPI/Event/schedules/blackList

Method	PUT
Description	Set arming schedule of blacklist ANPR of all channels.
Query	None
Request	***XML_BlackListScheduleList***
Response	***XML_ResponseStatus***

A.2 /ISAPI/Event/schedules/blackList/<ID>

Get or set arming schedule of blacklist ANPR by channel.

Request URI Definition

Table A-3 GET /ISAPI/Event/schedules/blackList/<ID>

Method	GET
Description	Get arming schedule of blacklist ANPR by channel.
Query	None
Request	None
Response	Succeeded: ***XML_Schedule***

	Failed: ***XML_ResponseStatus***

Table A-4 PUT /ISAPI/Event/schedules/blackList/<ID>

Method	PUT
Description	Set arming schedule of blacklist ANPR by channel.
Query	None
Request	***XML_Schedule***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI consists of alarm category string (e.g., blacklist) and alarm triggered channel ID (e.g., 101). For example, "blacklist-101".

A.3 /ISAPI/Event/schedules/vehicledetects

Get or set ANPR arming schedules of all channels.

Request URL Definition

Table A-5 GET /ISAPI/Event/schedules/vehicledetects

Method	GET
Description	Get ANPR arming schedules of all channels.
Query	None
Request	None
Response	Succeeded: ***XML_VehicleDetectScheduleList*** Failed: ***XML_ResponseStatus***

Table A-6 PUT /ISAPI/Event/schedules/vehicledetects

Method	PUT
Description	Set ANPR arming schedules of all channels.
Query	None
Request	***XML_VehicleDetectScheduleList***
Response	***XML_ResponseStatus***

A.4 /ISAPI/Event/schedules/vehicledetects/<ID>

Get or set the arming schedule of blacklist and whitelist ANPR by channel.

Request URI Definition

Table A-7 GET /ISAPI/Event/schedules/vehicledetects/<ID>

Method	GET
Description	Get the arming schedule of blacklist and whitelist ANPR by channel.
Query	None
Request	None
Response	Succeeded: ***XML_Schedule*** Failed: ***XML_ResponseStatus***

Table A-8 PUT /ISAPI/Event/schedules/vehicledetects/<ID>

Method	PUT
Description	Set the arming schedule of blacklist and whitelist ANPR by channel.
Query	None
Request	***XML_Schedule***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI consists of alarm category string (e.g., vehicledetection) and alarm triggered channel ID (e.g., 101). For example, "vehicledetection-101".

A.5 /ISAPI/Event/schedules/whiteList

Get or set arming schedule of whitelist ANPR of all channels.

Request URI Definition

Table A-9 GET /ISAPI/Event/schedules/whiteList

Method	GET
Description	Get arming schedule of whitelist ANPR of all channels.
Query	None

Request	None
Response	Succeeded: ***XML_WhiteListScheduleList*** Failed: ***XML_ResponseStatus***

Table A-10 PUT /ISAPI/Event/schedules/whiteList

Method	PUT
Description	Set arming schedule of whitelist ANPR of all channels.
Query	None
Request	***XML_WhiteListScheduleList***
Response	***XML_ResponseStatus***

A.6 /ISAPI/Event/schedules/whiteList/<ID>

Get or set arming schedule of whitelist ANPR by channel.

Request URI Definition

Table A-11 GET /ISAPI/Event/schedules/whiteList/<ID>

Method	GET
Description	Get arming schedule of whitelist ANPR by channel.
Query	None
Request	None
Response	Succeeded: ***XML_Schedule*** Failed: ***XML_ResponseStatus***

Table A-12 PUT /ISAPI/Event/schedules/whiteList/<ID>

Method	PUT
Description	Set arming schedule of whitelist ANPR by channel.
Query	None
Request	***XML_Schedule***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI consists of alarm category string (e.g.,whitelist) and alarm triggered channel ID (e.g., 101). For example, "whitelist-101".

A.7 /ISAPI/Event/triggers/<eventType>-<ID>

Get, set, or delete the alarm linkage action by channel.

Request URI Definition

Table A-13 GET /ISAPI/Event/triggers/<eventType>-<ID>

Method	GET
Description	Get the alarm linkage action by channel.
Query	None
Request	None
Response	Succeeded: ***XML_EventTrigger*** Failed: ***XML_ResponseStatus***

Table A-14 PUT /ISAPI/Event/triggers/<eventType>-<ID>

Method	PUT
Description	Set the alarm linkage action by channel.
Query	None
Request	***XML_EventTrigger***
Response	***XML_ResponseStatus***

Table A-15 DELETE /ISAPI/Event/triggers/<eventType>-<ID>

Method	DELETE
Description	Delete the alarm linkage action by channel.
Query	None
Request	None
Response	***XML_ResponseStatus***

Remarks

The <**eventType**> in the request URI refers to the predefined event or alarm type name, and the <**ID**> is the No. of the event detection channel. For example, if the No. of the face capture channel is 101, the "<**eventType**>-<**ID**>" is "faceSnap-101".

A.8 /ISAPI/Event/triggersCap

Get alarm linkage capability.

Request URI Definition

Table A-16 GET /ISAPI/Event/triggersCap

Method	GET
Description	Get alarm linkage capability.
Query	None
Request	None
Response	Succeeded: ***XML_EventTriggersCap*** Failed: ***XML_ResponseStatus***

A.9 /ISAPI/ITC/capability

Get intelligent traffic capability.

Request URI Definition

Table A-17 GET /ISAPI/ITC/capability

Method	GET
Description	Get intelligent traffic capability
Query	None.
Request	None.
Response	Succeeded: ***XML_ITCCap*** Failed: ***XML_ResponseStatus***

A.10 /ISAPI/ITC/Entrance/barrierGateCtrl

Set parameters to control the barrier gate.

Request URI Definition

Table A-18 PUT /ISAPI/ITC/Entrance/barrierGateCtrl

Method	PUT
Description	Set parameters to control the barrier gate, such as falling the gate, rising the gate, stopping the gate at a certain position, and locking the gate.
Query	None

Request	***XML_BarrierGateCtrl***
Response	***XML_ResponseStatus***

A.11 /ISAPI/ITC/Entrance/capabilities

Get the entrance and exit capability.

Request URI Definition

Table A-19 GET /ISAPI/ITC/Entrance/capabilities

Method	GET
Description	Get the entrance and exit capability.
Query	None.
Request	None.
Response	Succeeded: ***XML_EntranceCap*** Failed: ***XML_ResponseStatus***

A.12 /ISAPI/ITC/Entrance/VCL

Import or delete blocklist and allowlist, or search items in the list.

Request URI Definition

Table A-20 PUT /ISAPI/ITC/Entrance/VCL

Method	PUT
Description	Import blocklist and allowlist.
Query	None.
Request	***XML_SetVCLData***
Response	***XML_ResponseStatus***

Table A-21 POST /ISAPI/ITC/Entrance/VCL

Method	POST
Description	Search items in the list.
Query	None.

Request	***XML_VCLGetCond***
Response	***XML_VCLData***

Table A-22 DELETE /ISAPI/ITC/Entrance/VCL

Method	DELETE
Description	Delete blocklist and allowlist.
Query	None.
Request	None.
Response	***XML_ResponseStatus***

A.13 /ISAPI/ITC/plateRecognitionParam

Get or set ANPR parameters.

Request URI Definition

Table A-23 GET /ISAPI/ITC/plateRecognitionParam

Method	GET
Description	Get ANPR parameters.
Query	None
Request	None
Response	Succeeded: ***XML_PlateRecognitionParam*** Failed: ***XML_ResponseStatus***

Table A-24 PUT /ISAPI/ITC/plateRecognitionParam

Method	PUT
Description	Set ANPR parameters.
Query	None
Request	***XML_PlateRecognitionParam***
Response	***XML_ResponseStatus***

A.14 /ISAPI/ITC/plateRecognitionParam/capabilities

Get ANPR configuration capability.

Request URI Definition

Table A-25 GET /ISAPI/ITC/plateRecognitionParam/capabilities

Method	GET
Description	Get ANPR configuration capability.
Query	None
Request	None
Response	Succeeded: ***XML_Cap_PlateRecognitionParam*** Failed: ***XML_ResponseStatus***

A.15 /ISAPI/System/IO/capabilities

Get alarm input and output configuration capability.

Request URI Definition

Table A-26 GET /ISAPI/System/IO/capabilities

Method	GET
Description	Get alarm input and output configuration capability.
Query	None.
Request	None.
Response	***XML_IOCap***

A.16 /ISAPI/System/IO/outputs/<ID>/trigger

Manually trigger a specific alarm output.

Request URI Definition

Table A-27 PUT /ISAPI/System/IO/outputs/<ID>/trigger

Method	PUT
Description	Manually trigger a specific alarm output.
Query	none.
Request	***XML_IOPortData***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the alarm output ID.

A.17 /ISAPI/Traffic/ANPR/alarmHttpPushProtocol

Get or set alarm receiving protocol.

Request URI Definition

Table A-28 GET /ISAPI/Traffic/ANPR/alarmHttpPushProtocol

Method	GET
Description	Get alarm receiving protocol.
Query	None
Request	None
Response	Succeeded: ***XML_AlarmHttpPushProtocol*** Failed: ***XML_ResponseStatus***

Table A-29 PUT /ISAPI/Traffic/ANPR/alarmHttpPushProtocol

Method	PUT
Description	Set alarm receiving protocol.
Query	None
Request	***XML_AlarmHttpPushProtocol***
Response	***XML_ResponseStatus***

A.18 /ISAPI/Traffic/channels/<ID>/capabilities

Get traffic channel capability.

Request URI Definition

Table A-30 GET /ISAPI/Traffic/channels/<ID>/capabilities

Method	GET
Description	Get traffic channel capability.
Query	None

Request	None
Response	Succeeded: ***XML_TrafficChannelCap*** Failed: ***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the traffic channel ID.

A.19 /ISAPI/Traffic/channels/<ID>/CurVehicleDetectMode

Get or set ANPR mode parameters.

Request URI Definition

Table A-31 GET /ISAPI/Traffic/channels/<ID>/CurVehicleDetectMode

Method	GET
Description	Get ANPR mode parameters.
Query	None
Request	None
Response	Succeeded: ***XML_CurVehicleDetectMode*** Failed: ***XML_ResponseStatus***

Table A-32 PUT /ISAPI/Traffic/channels/<ID>/CurVehicleDetectMode

Method	PUT
Description	Set ANPR mode parameters.
Query	None
Request	***XML_CurVehicleDetectMode***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the video channel ID.

A.20 /ISAPI/Traffic/channels/<ID>/eventTrigger

Get or set ANPR alarm linkage action by channel.

Request URI Definition

Table A-33 GET /ISAPI/Traffic/channels/<ID>/eventTrigger

Method	GET
Description	Get ANPR alarm linkage action by channel.
Query	None
Request	None
Response	Succeeded: ***XML_TrafficEventTrigger*** Failed: ***XML_ResponseStatus***

Table A-34 PUT /ISAPI/Traffic/channels/<ID>/eventTrigger

Method	PUT
Description	Set ANPR alarm linkage action by channel.
Query	None
Request	***XML_TrafficEventTrigger***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the video channel ID.

A.21 /ISAPI/Traffic/channels/<ID>/licensePlate/filtration?format=json

Get or set the parameters of filtering duplicated license plate.

Request URI Definition

Table A-35 GET /ISAPI/Traffic/channels/<ID>/licensePlate/filtration?format=json

Method	GET
Description	Get the parameters of filtering duplicated license plate.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: ***JSON_Filtration*** Failed: ***JSON_ResponseStatus***

Table A-36 PUT /ISAPI/Traffic/channels/<ID>/licensePlate/filtration?format=json

Method	PUT
Description	Set the parameters of filtering duplicated license plate.
Query	**format**: determine the format of request or response message.
Request	***JSON_Filtration***
Response	***JSON_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to channel ID.

A.22 /ISAPI/Traffic/channels/<ID>/licensePlateAuditData

Export license plate list template (XML or EXCEL file) and import list.

Request URI Definition

Table A-37 GET /ISAPI/Traffic/channels/<ID>/licensePlateAuditData

Method	GET
Description	Export license plate list template.
Query	**fileType**: determine the format of exported file, if the value is "xml" (i.e., ***/ISAPI/Traffic/channels/<ID>/licensePlateAuditData?fileType=xml***), the exported file is in XML format, if the value is "excel" or the URI does not contain this query parameter, it will export an EXCEL file.
Request	None.
Response	Opaque data (binary data, in the EXCEL format)

Table A-38 PUT /ISAPI/Traffic/channels/<ID>/licensePlateAuditData

Method	PUT
Description	Import license plate list.
Query	**fileType**: determine the format of exported file, if the value is "xml" (i.e., ***/ISAPI/Traffic/channels/<ID>/licensePlateAuditData?fileType=xml***), the exported file is in XML format, if the value is "excel" or the URI does not contain this query parameter, it will export an EXCEL file.

Request	Opaque data (binary data, in the EXCEL format)
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the URI refers to the video channel ID.

A.23 /ISAPI/Traffic/channels/<ID>/picParam

Get or set the parameters of captured vehicle pictures by channel.

Request URI Definition

Table A-39 GET /ISAPI/Traffic/channels/<ID>/picParam

Method	GET
Description	Get the parameters of captured vehicle pictures by channel.
Query	None
Request	None
Response	Succeeded: ***XML_PicParam*** Failed: ***XML_ResponseStatus***

Table A-40 PUT /ISAPI/Traffic/channels/<ID>/picParam

Method	PUT
Description	Set the parameters of captured vehicle pictures by channel.
Query	None
Request	***XML_PicParam***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the video channel ID.

A.24 /ISAPI/Traffic/channels/<ID>/picParam/capabilities

Get captured picture configuration capability.

Request URI Definition

Table A-41 GET /ISAPI/Traffic/channels/<ID>/picParam/capabilities

Method	GET
Description	Get captured picture configuration capability.
Query	None
Request	None
Response	Succeeded: ***XML_Cap_PicParam*** Failed: ***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the channel ID.

A.25 /ISAPI/Traffic/channels/<ID>/searchLPListAudit

Search for license plate list by channel.

Request URI Definition

Table A-42 POST /ISAPI/Traffic/channels/<ID>/searchLPListAudit

Method	POST
Description	Search for license plate list by channel.
Query	None
Request	***XML_LPListAuditSearchDescription***
Response	***XML_LPListAuditSearchResult***

Remarks

The <**ID**> in the request URI refers to the channel ID.

A.26 /ISAPI/Traffic/channels/<ID>/vehicleDetect

Get or set vehicle detection parameters.

Request URI Definition

Table A-43 GET /ISAPI/Traffic/channels/<ID>/vehicleDetect

Method	GET
Description	Get vehicle detection parameters.
Query	None
Request	None
Response	Succeeded: ***XML_VehicleDetectCfg*** Failed: ***XML_ResponseStatus***

Table A-44 PUT /ISAPI/Traffic/channels/<ID>/vehicleDetect

Method	PUT
Description	Set vehicle detection parameters.
Query	None
Request	***XML_VehicleDetectCfg***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the channel ID.

A.27 /ISAPI/Traffic/channels/<ID>/vehicleDetect/<SID>

Get or set vehicle detection parameters at a specific scene.

Request URI Definition

Table A-45 GET /ISAPI/Traffic/channels/<ID>/vehicleDetect/<SID>

Method	GET
Description	Get vehicle detection parameters at a specific scene.
Query	None
Request	None
Response	Succeeded: ***XML_VehicleDetectScene*** Failed: ***XML_ResponseStatus***

Table A-46 PUT /ISAPI/Traffic/channels/<ID>/vehicleDetect/<SID>

Method	PUT
Description	Set vehicle detection parameters at a specific scene.
Query	None
Request	***XML_VehicleDetectScene***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the channel ID and the <**SID**> refers to the scene ID.

A.28 /ISAPI/Traffic/channels/<ID>/vehicleDetect/capabilities

Get the vehicle detection configuration capability.

Request URI Definition

Table A-47 GET /ISAPI/Traffic/channels/<ID>/vehicleDetect/capabilities

Method	GET
Description	Get the vehicle detection configuration capability.
Query	None
Request	None
Response	Succeeded: ***XML_Cap_VehicleDetectCfg*** Failed: ***XML_ResponseStatus***

A.29 /ISAPI/Traffic/channels/<ID>/vehicleDetect/config

Get or set vehicle detection configuration parameters.

Request URI Definition

Table A-48 GET /ISAPI/Traffic/channels/<ID>/vehicleDetect/config

Method	GET
Description	Get vehicle detection configuration parameters.
Query	None

Request	None
Response	Succeeded: ***XML_Configuration*** Failed: ***XML_ResponseStatus***

Table A-49 PUT /ISAPI/Traffic/channels/<ID>/vehicleDetect/config

Method	PUT
Description	Set vehicle detection configuration parameters.
Query	None
Request	***XML_Configuration***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the channel ID.

A.30 /ISAPI/Traffic/channels/<ID>/vehicleDetect/plates

Get or search for the captured picture information of vehicle detection.

Request URI Definition

Table A-50 GET /ISAPI/Traffic/channels/<ID>/vehicleDetect/plates

Method	GET
Description	Get the captured picture information of the vehicle detection.
Query	None
Request	None
Response	Succeeded: ***XML_Plates*** Failed: ***XML_ResponseStatus***

Table A-51 POST /ISAPI/Traffic/channels/<ID>/vehicleDetect/plates

Method	POST
Description	Search for the captured picture information of the vehicle detection.
Query	None
Request	***XML_AfterTime***
Response	Succeeded: ***XML_Plates*** Failed: ***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the channel ID.

A.31 /ISAPI/Traffic/MNPR/channels/<ID>

Get the manual license plate recognition result by channel.

Request URI Definition

Table A-52 GET /ISAPI/Traffic/MNPR/channels/<ID>

Method	GET
Description	Get the manual license plate recognition result by channel.
Query	None
Request	None
Response	Succeeded: ***XML_EventNotificationAlert_ANPRMsg*** and picture data in form format Failed: ***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the channel ID.

Example

Returned Picture Data in Form Format

```
GET /ISAPI/Traffic/MNPR/channels/<ID>

HTTP/1.1 200 OK
MIME-Version: 1.0
Content-Type: multipart/mixed; boundary=boundary
Content-Length: 9907

--boundary
Content-Disposition: form-data; name="anpr.xml";filename="anpr.xml";
Content-Type: text/xml
Content-Length: 150

<EventNotificationAlert/>
--boundary
Content-Disposition: form-data; name="licensePlatePicture.jpg";filename="licensePlatePicture.jpg";
Content-Type: image/pjpeg
Content-Length: 200

.....JFIF.....`.`.....C..... .
..
..... $.' ",#..(7),01444.'9=82<.342...C. ....
```

```
.2!.!2222222222222222222222222222222222222222222222222...
.....................}.........!1A..Qa."q.2....#B...R..$3br.
.....%&'()*456789:CDEFGHIJSTUVWXYZcdefghijstuvwxyz.............
.....................w.......!1..AQ.aq."2...B.... #3R..br.
.$4.
--boundary
Content-Disposition: form-data; name="detectionPicture.jpg";filename="detectionPicture.jpg";
Content-Type: image/pjpeg
Content-Length: 9907

......JFIF.....`.`.....C..... .
..
..... $.' ",#..(7),01444.'9=82<.342...C. ....

.2!.!2222222222222222222222222222222222222222222222222...
.....................}.........!1A..Qa."q.2....#B...R..$3br.
.....%&'()*456789:CDEFGHIJSTUVWXYZcdefghijstuvwxyz.............
.....................w.......!1..AQ.aq."2...B.... #3R..br.
.$4.
--boundary--
```

A.32 /ISAPI/Traffic/plateList

Import and export vehicle blacklist and whitelist.

Request URI Definition

Table A-53 GET /ISAPI/Traffic/plateList

Method	GET
Description	Export the vehicle blacklist and whitelist.
Query	None
Request	None
Response	Opaque data (binary data in the EXCEL format).

Table A-54 PUT /ISAPI/Traffic/plateList

Method	PUT
Description	Import the vehicle blacklist and whitelist.
Query	None
Request	Opaque data (binary data in the EXCEL format).
Response	***XML_ResponseStatus***

A.33 /ISAPI/Event/notification/alertStream

Get the uploaded heartbeat or alarm/event information.

Request URI Definition

Table A-55 GET /ISAPI/Event/notification/alertStream

Method	GET
Description	Get the heartbeat or uploaded alarm/event information.
Query	None.
Request	None.
Response	Option 1: ***XML_EventNotificationAlert_AlarmEventInfo*** or ***XML_EventNotificationAlert_HeartbeatInfo*** Option 2: ***JSON_EventNotificationAlert_Alarm/EventInfo*** **Note** The messages here only show the format of alarm/event information to be uploaded. For details, refer to the corresponding alarm/event configuration chapters.

Remarks

- After calling this URI, a persistent connection is set up between the device and the platform, and the alarm or event information will be uploaded from device continuously once the alarm is triggered or event occurred.
- You can check if the XML response message is the heartbeat information according to the nodes <**eventType**> and <**eventState**>. If the values of these two node are "videoloss" and "inactive", respectively, the returned message is the heartbeat information.

A.34 /ISAPI/Event/notification/httpHosts

Get or set parameters of all HTTP listening servers, add a HTTP listening server, and delete all HTTP listening servers.

Request URI Definition

Table A-56 GET /ISAPI/Event/notification/httpHosts

Method	GET
Description	Get parameters of all HTTP listening servers.

Query	**security**: the version No. of encryption scheme. When **security** does not exist, it indicates that the data is not encrypted; when **security** is 1, it indicates that the nodes of sensitive information in the message are encrypted in AES128 CBC mode; when **security** is 2, it indicates that the nodes of sensitive information in the message are encrypted in AES256 CBC mode.
Request	None
Response	Succeeded: ***XML_HttpHostNotificationList*** Failed: ***XML_ResponseStatus***

Table A-57 PUT /ISAPI/Event/notification/httpHosts

Method	PUT
Description	Set parameters of all HTTP listening servers.
Query	**security**: the version No. of encryption scheme. When **security** does not exist, it indicates that the data is not encrypted; when **security** is 1, it indicates that the nodes of sensitive information in the message are encrypted in AES128 CBC mode; when **security** is 2, it indicates that the nodes of sensitive information in the message are encrypted in AES256 CBC mode.
Request	***XML_HttpHostNotificationList***
Response	***XML_ResponseStatus***

Table A-58 POST /ISAPI/Event/notification/httpHosts

Method	POST
Description	Add a HTTP listening server.
Query	**security**: the version No. of encryption scheme. When **security** does not exist, it indicates that the data is not encrypted; when **security** is 1, it indicates that the nodes of sensitive information in the message are encrypted in AES128 CBC mode; when **security** is 2, it indicates that the nodes of sensitive information in the message are encrypted in AES256 CBC mode.
Request	***XML_HttpHostNotification***
Response	***XML_ResponseStatus***

Table A-59 DELETE /ISAPI/Event/notification/httpHosts

Method	DELETE
Description	Delete all HTTP listening servers.

Query	None
Request	None
Response	***XML_ResponseStatus***

A.35 /ISAPI/Event/notification/httpHosts/<ID>

Get or set the parameters of a HTTP listening server, and delete a HTTP listening server.

Request URI Definition

Table A-60 GET /ISAPI/Event/notification/httpHosts/<ID>

Method	GET
Description	Get the parameters of a HTTP listening server.
Query	**security**: the version No. of encryption scheme. When **security** does not exist, it indicates that the data is not encrypted; when **security** is 1, it indicates that the nodes of sensitive information in the message are encrypted in AES128 CBC mode; when **security** is 2, it indicates that the nodes of sensitive information in the message are encrypted in AES256 CBC mode.
Request	None
Response	Succeeded: ***XML_HttpHostNotification*** Failed: ***XML_ResponseStatus***

Table A-61 PUT /ISAPI/Event/notification/httpHosts/<ID>

Method	PUT
Description	Set the parameters of a HTTP listening server.
Query	**security**: the version No. of encryption scheme. When **security** does not exist, it indicates that the data is not encrypted; when **security** is 1, it indicates that the nodes of sensitive information in the message are encrypted in AES128 CBC mode; when **security** is 2, it indicates that the nodes of sensitive information in the message are encrypted in AES256 CBC mode.
Request	***XML_HttpHostNotification***
Response	***XML_ResponseStatus***

Table A-62 DELETE /ISAPI/Event/notification/httpHosts/<ID>

Method	DELETE
Description	Delete a HTTP listening server.
Query	**security**: the version No. of encryption scheme. When **security** does not exist, it indicates that the data is not encrypted; when **security** is 1, it indicates that the nodes of sensitive information in the message are encrypted in AES128 CBC mode; when **security** is 2, it indicates that the nodes of sensitive information in the message are encrypted in AES256 CBC mode.
Request	None
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the HTTP listening server No.

A.36 /ISAPI/Event/notification/httpHosts/<ID>/test

Check whether the HTTP listening server is working normally.

Request URI Definition

Table A-63 POST /ISAPI/Event/notification/httpHosts/<ID>/test

Method	POST
Description	Check whether the HTTP listening server is working normally.
Query	None
Request	***XML_HttpHostNotification***
Response	Succeeded: ***XML_HttpHostTestResult*** Failed: ***XML_ResponseStatus***

Remarks

The <**ID**> in the request URI refers to the HTTP listening server ID.

A.37 /ISAPI/Event/notification/httpHosts/capabilities

Get the configuration capabilities of all HTTP listening servers.

Request URI Definition

Table A-64 GET /ISAPI/Event/notification/httpHosts/capabilities

Method	GET
Description	Get the configuration capabilities of all HTTP listening servers.
Query	None
Request	None
Response	Succeeded: ***XML_HttpHostNotificationCap*** Failed: ***XML_ResponseStatus***

A.38 /ISAPI/Event/notification/httpServers/<ID>

Get or set the parameters of a specific HTTP server.

Request URI Definition

Table A-65 GET /ISAPI/Event/notification/httpServers/<ID>

Method	GET
Description	Get the parameters of a specific HTTP server.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: ***XML_HttpServer*** Failed: ***XML_ResponseStatus***

Table A-66 PUT /ISAPI/Event/notification/httpServers/<ID>

Method	PUT
Description	Set the parameters of a specific HTTP server.
Query	**format**: determine the format of request or response message.
Request	***XML_HttpServer***
Response	***XML_ResponseStatus***

A.39 http://<ipAddress>:<portNo>/<url>

HTTP listening sever sends alarm information to alarm center.

Request URL Definition

Table A-67 POST http://<ipAddress>:<portNo>/<url>

Method	POST
Description	HTTP listening sever sends alarm information to alarm center.
Query	None
Request	None
Response	Succeeded: ***XML_EventNotificationAlert_AlarmEventInfo*** or ***JSON_EventNotificationAlert_Alarm/EventInfo*** Failed: ***XML_ResponseStatus***

Remarks

- The <**ipAddress**> in the request URL refers to the IP address or domain name of HTTP listening server, the <**portNo**> is the port No. of HTTP listening server, and the <**url**> represents the streaming URL, which is configured via the HTTP listening server.
- The default port No. is 80, so the request URL without port No. is also valid.

Appendix B. Request and Response Messages

B.1 JSON_Filtration

Message about license plate filtration in JSON format

```
{
  "Filtration": {
    "enabled":
/*optional, boolean, whether to enable filtering duplicated license plate, by default, it is "false"*/
  }
}
```

B.2 JSON_ResponseStatus

JSON message about response status

```
{
  "requestURL":"",
/*optional, string, request URL*/
  "statusCode": ,
/*optional, int, status code*/
  "statusString":"",
/*optional, string, status description*/
  "subStatusCode":"",
/*optional, string, sub status code*/
  "errorCode": ,
/*required, int, error code, which corresponds to subStatusCode, this field is required when statusCode is not 1. The returned value is the transformed decimal number*/
  "errorMsg":"",
/*required, string, error details, this field is required when statusCode is not 1*/
  "MErrCode": "0xFFFFFFFF",
/*optional, string, error code categorized by functional modules*/
  "MErrDevSelfEx": "0xFFFFFFFF"
/*optional, string, extension of MErrCode. It is used to define the custom error code, which is categorized by functional modules*/
}
```

Note

- See ***Response Codes of Text Protocol*** for details about the status codes, sub status codes, error codes, and error descriptions.
- See ***Error Codes Categorized by Functional Modules*** for details about the error codes, error descriptions, and debugging suggestions.

B.3 XML_AfterTime

XML message about the condition of searching for the captured picture information

```
<?xml version="1.0" encoding="utf-8"?>
<AfterTime version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <picTime><!--required, xs:string, "201901311155254860", "yyymmddhhmmss"--></picTime>
</AfterTime>
```

B.4 XML_AlarmHttpPushProtocol

XML message about alarm receiving protocol

```
<AlarmHttpPushProtocol version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <baseLineProtocolEnabled>
  <!--required, xs:boolean, value: true, false-->
 </baseLineProtocolEnabled>
</AlarmHttpPushProtocol>
```

B.5 XML_BarrierGateCtrl

XML message about the control parameters of barrier gate

```
<BarrierGateCtrl version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <barrietGateNum>
  <!--opt, xs:integer, barrier gate No., which is between 1 and 2-->
 </barrietGateNum>
 <BarrierGateCtrlList>
  <barrietGateOper>
   <!--opt, xs:string, barrier gate control types: "off"-fall, "on"-rise, "stop"-stop at a certain position, "locked"-lock-->
  </barrietGateOper>
 </BarrierGateCtrlList>
</BarrierGateCtrl>
```

B.6 XML_BlackListScheduleList

BlackListScheduleList message in XML format

```
<BlackListScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <Schedule/><!--opt, see details in the message of XML_Schedule-->
</BlackListScheduleList>
```

See Also

XML_Schedule

B.7 XML_Cap_CapturePicOverlays

CapturePicOverlays capability message in XML format

```
<CapturePicOverlays version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <overlayInfoEnabled>
  <!--req, xs:boolean, whether to enable text overlay-->
 </overlayInfoEnabled>
 <OverlayInfoList size="50"><!--req-->
  <OverlayInfo><!--req-->
   <itemType opt="0,1,2,3,…">
    <!--req, xs:string, overlayed information type: 0-unknown, 1-place, 2-intersection No., 3-device No., 4-direction No., 5-direction, 6-lane No., 7-lane, 8-capture time (without millisecond), 9-capture time (with millisecond), 10-license plate number, 11-vehicle color, 12-vehicle type, 13-vehicle brand, 14-vehicle speed, 15-speed limit sign, 16-vehicle length (between 1 and 99 meters), 17-violation code (traffic violation information is more useful than code, e.g., normal, low speed, overspeed, reverse driving, running the red light, occupying lane, driving over yellow lane line, etc.), 18-camera information, 19-traffic violation, 20-overspeed ratio, 21-red light start time, 22-red light end time, 23-red light time, 24-security code, 25-capture No., 26-seatbelt, 27-reserved, 28-sun visor, 29-lane direction, 30-license plate color, 31-scene No., 32-scene name, 33-yellow label vehicle detection, 34-dangerous goods transport vehicle detection, 35-vehicle sub-brand detection, 36-vehicle direction, 37-window hangings, 38-making a call, 39-confidence, 40-verification unit, 41-verification certificate No., 42-calibration expiration date, 43-longitude and latitude, 44-tissue box detection, 45-baby in arm detection, 46-label detection, 47-decoration detection, 48-face score, 49-face No., 50-violation description, 51-marked speed limit, 52-segment speed, 53-segment distance, 54-segment overspeed ratio, 55-segment name, 56-segment ID, 57-traffic accident detection, 58-smoking, 59-wearing helmet, 60-manned, 61-congestion-->
   </itemType>
   <editAble opt="true,false">
    <!--req, xs:boolean, whether the overlayed information is editable-->
   </editAble>
   <itemOverlayEnabled opt="true,false">
    <!--req, xs:boolean, whether to overlay the item-->
   </itemOverlayEnabled>
   <customName min="0" max="32">
    <!--req, xs:string, custom overlaying name, the maximum length is 32 bytes (including '\0'). If this node is set to none or NULL, the default name will be overlayed-->
   </customName>
   <changeLineNum min="0" max="100">
    <!--req, xs:integer, number of line feeds, which is between 0 and 100 and the default value is 0-->
   </changeLineNum>
   <spaceNum min="0" max="255">
    <!--req, xs:integer, number of spaces, which is between 0 and 255 and the default value is 0-->
   </spaceNum>
   <startPosEnable opt="true,false">
    <!--dep, xs:boolean, whether to enable coordinate configuration, which is only valid for overlaying within the picture. After enabling coordinate configuration, the function of line feed and space will be invalid, so you are recommended to disable coordinate configuration-->
   </startPosEnable>
   <startPosTop>
    <!--req, xs:integer, start top coordinate, which is only valid for overlaying within the picture, the value is between 0 and the actual picture height, and the default value is 0-->
   </startPosTop>
```

```
    <startPosLeft>
     <!--req, xs:integer, start left coordinate, which is only valid for overlaying within the picture, the value is between 0 and the actual picture width, and the default value is 0-->
    </startPosLeft>
    <overlayInfoText>
     <!--dep, xs:string, overlay character string, which is valid when <itemType> is set to place, intersection No., device No., direction No., direction description, lane information and camera. The maximum string length of place is 128 bytes, the maximum string length of intersection No., device No., direction No., direction description and lane information is 32 bytes., the maximum string length of camera 1 is 44 bytes, and the maximum string length of verification unit, verification certificate No., calibration expiration date is 128 bytes-->
    </overlayInfoText>
    <overlayInfoText2>
     <!--dep, xs:string, overlay character string for camera 2, which is valid when <itemType> is set to camera, and the maximum string length of camera 2 is 32 bytes-->
    </overlayInfoText2>
   </OverlayInfo>
  </OverlayInfoList>
  <linePercent min="0" max="100">
   <!--req, xs:integer, percentage of overlaying lines, which is between 0 and 100 and the default value is 100-->
  </linePercent>
  <itemsStlye opt="horizontal,vertical">
   <!--req, xs:string, overlay mode: "horizontal" (default), "vertical"-->
  </itemsStlye>
  <charStyle>
   <!--req, xs:string, font type-->
  </charStyle>
  <charSize min="0" max="3">
   <!--req, xs:integer, character size: 0-16*16(Chinese)/8*16(English), 1-32*32(Chinese)/16*32(English), 2-48*48, 3-64*64(Chinese)/32*64(English)-->
  </charSize>
  <charPosition min="0" max="2">
   <!--req, xs:integer, text position overlayed on the picture: 0-overlayed on the picture, 1-overlayed outside the top edge of the picture, 2-overlayed outside the bottom edge of the picture-->
  </charPosition>
  <charInterval min="0" max="16">
   <!--req, xs:integer, character separation distance, which is between 0 and 16 and the default value is 0, unit: pixel-->
  </charInterval>
  <foreColor min="0" max=" 0xffffff">
   <!--req, xs:integer, foreground color, which is the RGB value directly obtained by the palette, the value is between 0 and 0xffffff and the default value is 0xffffff (white)-->
  </foreColor>
  <backColor min="0" max=" 0xffffff">
   <!--req, xs:integer, background color, which is the RGB value directly obtained by the palette, the value is between 0 and 0xffffff and the default value is 0x0 (black)-->
  </backColor>
  <colorAdapt>
   <!--dep, xs:boolean, whether to enable color self-adaption: 0-no, 1-yes-->
  </colorAdapt>
  <zeroizeEnable opt="true,false">
   <!--dep, xs:boolean, whether to enable zero filling for OSD overlay, which is used to enable zero filling for vehicle speed, speed limit, overspeed ratio and lane No. Zero filling is enabled by default-->
  </zeroizeEnable>
```

```
 <platePicOverlay>
  <!--dep, xs:boolean, whether to enable overlaying license plate thumbnail-->
 </platePicOverlay>
 <platePicPosTop>
  <!--req, xs:integer, start top coordinate, which is only valid for overlaying within the picture, the value is between 0 and the actual picture height, and the default value is 0-->
 </platePicPosTop>
 <platePicPosLeft>
  <!--req, xs:integer, start left coordinate, which is only valid for overlaying within the picture, the value is between 0 and the actual picture width, and the default value is 0-->
 </platePicPosLeft>
 <posPercentMode opt="true,false">
  <!--opt, xs:boolean, whether to enable percentage mode instead of pixel value mode: "true"-yes, "false"-no-->
 </posPercentMode>
 <startPosTopPercent min="0" max="100">
  <!--dep, xs:integer, this node is valid when <posPercentMode> is "true"-->
 </startPosTopPercent>
 <startPosLeftPercent min="0" max="100">
  <!--dep, xs:integer, this node is valid when <posPercentMode> is "true"-->
 </startPosLeftPercent>
 <itemsSpacesNumMode opt="true,false">
  <!--opt, xs:boolean-->
 </itemsSpacesNumMode>
 <itemsSpacesNum>
  <!--opt, xs:integer, number of spaces-->
 </itemsSpacesNum>
</CapturePicOverlays>
```

B.8 XML_Cap_MergePicOverlays

MergePicOverlays capability message in XML format

```
<MergePicOverlays version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <overlayInfoEnabled>
  <!--req, xs:boolean, whether to enable text overlay-->
 </overlayInfoEnabled>
 <OverlayInfoList size="50">
  <!--req-->
  <OverlayInfo>
   <!--req-->
   <itemType opt="0,1,2,3,...">
    <!--req, xs:string, overlayed information type: 0-unknown, 1-place, 2-intersection No., 3-device No., 4-direction No., 5-direction, 6-lane No., 7-lane, 8-capture time (without millisecond), 9-capture time (with millisecond), 10-license plate number, 11-vehicle color, 12-vehicle type, 13-vehicle brand, 14-vehicle speed, 15-speed limit sign, 16-vehicle length (between 1 and 99 meters), 17-violation code (traffic violation information is more useful than code, e.g., normal, low speed, overspeed, reverse driving, running the red light, occupying lane, driving over yellow lane line, etc.), 18-camera information, 19-traffic violation, 20-overspeed ratio, 21-red light start time, 22-red light end time, 23-red light time, 24-security code, 25-capture No., 26-seatbelt, 27-reserved, 28-sun visor, 29-lane direction, 30-license plate color, 31-scene No., 32-scene name, 33-yellow label vehicle detection, 34-dangerous goods transport vehicle detection, 35-vehicle sub-brand detection, 36-vehicle direction, 37-window hangings, 38-making a call, 39-confidence,
```

```
40-verification unit, 41-verification certificate No., 42-calibration expiration date, 43-longitude and latitude, 44-tissue box detection, 45-baby in arm detection, 46-label detection, 47-decoration detection, 48-face score, 49-face No., 50-violation description, 51-marked speed limit, 52-segment speed, 53-segment distance, 54-segment overspeed ratio, 55-segment name, 56-segment ID, 57-traffic accident detection, 58-smoking, 59-wearing helmet, 60-manned, 61-congestion-->
    </itemType>
    <editAble opt="true,false">
     <!--req, xs:boolean, whether the overlayed information is editable-->
    </editAble>
    <itemOverlayEnabled opt="true,false">
     <!--req, xs:boolean, whether to overlay the item-->
    </itemOverlayEnabled>
    <customName min="0" max="32">
     <!--req, xs:string, custom overlaying name, the maximum length is 32 bytes (including '\0'). If this node is set to none or NULL, the default name will be overlayed-->
    </customName>
    <changeLineNum min="0" max="100">
     <!--req, xs:integer, number of line feeds, which is between 0 and 100 and the default value is 0-->
    </changeLineNum>
    <spaceNum min="0" max="255">
     <!--req, xs:integer, number of spaces, which is between 0 and 255 and the default value is 0-->
    </spaceNum>
    <startPosEnable opt="true,false">
     <!--dep, xs:boolean, whether to enable coordinate configuration, which is only valid for overlaying within the picture. After enabling coordinate configuration, the function of line feed and space will be invalid, so you are recommended to disable coordinate configuration-->
    </startPosEnable>
    <startPosTop>
     <!--req, xs:integer, start top coordinate, which is only valid for overlaying within the picture, the value is between 0 and the actual picture height, and the default value is 0-->
    </startPosTop>
    <startPosLeft>
     <!--req, xs:integer, start left coordinate, which is only valid for overlaying within the picture, the value is between 0 and the actual picture width, and the default value is 0-->
    </startPosLeft>
    <overlayInfoText>
     <!--dep, xs:string, overlay character string, which is valid when <itemType> is set to place, intersection No., device No., direction No., direction description, lane information and camera. The maximum string length of place is 128 bytes, the maximum string length of intersection No., device No., direction No., direction description and lane information is 32 bytes., the maximum string length of camera 1 is 44 bytes, and the maximum string length of verification unit, verification certificate No., calibration expiration date is 128 bytes-->
    </overlayInfoText>
    <overlayInfoText2>
     <!--dep, xs:string, overlay character string for camera 2, which is valid when <itemType> is set to camera, and the maximum string length of camera 2 is 32 bytes-->
    </overlayInfoText2>
   </OverlayInfo>
  </OverlayInfoList>
  <linePercent min="0" max="100">
   <!--req, xs:integer, percentage of overlaying lines, which is between 0 and 100 and the default value is 100-->
  </linePercent>
  <itemsStlye opt=" horizontal,vertical">
```

```
  <!--req, xs:string, overlay mode: "horizontal" (default), "vertical"-->
 </itemsStlye>
 <charStyle>
  <!--req, xs:string, font type-->
 </charStyle>
 <charSize min="0" max="3">
  <!--req, xs:integer, character size: 0-16*16(Chinese)/8*16(English), 1-32*32(Chinese)/16*32(English), 2-48*48,
3-64*64(Chinese)/32*64(English)-->
 </charSize>
 <charPosition min="0" max="2">
  <!--req, xs:integer, text position overlayed on the picture: 0-overlayed on the picture, 1-overlayed outside the top
edge of the picture, 2-overlayed outside the bottom edge of the picture-->
 </charPosition>
 <charInterval min="0" max="16">
  <!--req, xs:integer, character separation distance, which is between 0 and 16 and the default value is 0, unit: pixel-->
 </charInterval>
 <foreColor min="0" max=" 0xffffff">
  <!--req, xs:integer, foreground color, which is the RGB value directly obtained by the palette, the value is between 0
and 0xffffff and the default value is 0xffffff (white)-->
 </foreColor>
 <backColor min="0" max=" 0xffffff">
  <!--req, xs:integer, background color, which is the RGB value directly obtained by the palette, the value is between 0
and 0xffffff and the default value is 0x0 (black)-->
 </backColor>
 <colorAdapt>
  <!--dep, xs:boolean, whether to enable color self-adaption: 0-no, 1-yes-->
 </colorAdapt>
 <zeroizeEnable opt="true,false">
  <!--dep, xs:boolean, whether to enable zero filling for OSD overlay, which is used to enable zero filling for vehicle
speed, speed limit, overspeed ratio and lane No. Zero filling is enabled by default-->
 </zeroizeEnable>
 <platePicOverlay>
  <!--dep, xs:boolean, whether to enable overlaying license plate thumbnail-->
 </platePicOverlay>
 <platePicPosTop>
  <!--req, xs:integer, start top coordinate, which is only valid for overlaying within the picture, the value is between 0
and the actual picture height, and the default value is 0-->
 </platePicPosTop>
 <platePicPosLeft>
  <!--req, xs:integer, start left coordinate, which is only valid for overlaying within the picture, the value is between 0
and the actual picture width, and the default value is 0-->
 </platePicPosLeft>
</MergePicOverlays>
```

B.9 XML_Cap_PicParam

PicParam capability message in XML format

```
<PicParam version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <PictureCfg>
```

```
  <mode opt="quality,size">
   <!--req,xs:string-->
  </mode>
  <pictureQuality min="1" max="100">
   <!--dep, xs:integer, picture quality, it is between 1 and 100. This node is required when <mode> is "quality"-->
  </pictureQuality>
  <pictureSize>
   <!--dep, xs:integer, picture size, unit:kb. This node is required when <mode> is "size"-->
  </pictureSize>
 </PictureCfg>
 <Overlap><!--OSD quick configuration, it is valid for captured pictures and combined pictures simultaneously. The
priority of <Overlap> is lower than that of <CapturePicOverlays> and <MergePicOverlays>-->
  <enabled>
   <!--req, xs:boolean-->
  </enabled>
  <OverlapItem
opt="positionNo,positionInfo,cameraNo,captureTime,plateNo,vehicleColor,sceneName,carType,vehicleLogo,sceneNo"
>
   <!--req, xs:string-->
  </OverlapItem>
  <fontColor>
   <!--opt, xs:hexBinary, foreground color-->
  </fontColor>
  <backColor>
   <!--opt, xs:hexBinary, background color-->
  </backColor>
 </Overlap>
 <CapturePicOverlays><!--opt, professional OSD configuration for captured pictures, currently this configuration is
only supported by capture cameras--></CapturePicOverlays>
 <MergePicOverlays><!--opt, professional OSD configuration for combined pictures, currently this configuration is only
supported by capture cameras--></MergePicOverlays>
 <PlateEnhancement><!--opt, license plate enhancement on captured picture-->
  <enabled opt="true,false" def="false"><!--opt, xs:boolean, whether to enable license plate enhancement on
captured picture, by default, it is set to false--></enabled>
  <level min="0" max="100" def="50"><!--opt, xs:integer, license plate enhancement level range: [0,100], by default:
50--></level>
 </PlateEnhancement>
</PicParam>
```

See Also

XML_Cap_CapturePicOverlays
XML_Cap_MergePicOverlays

B.10 XML_Cap_PlateRecognitionParam

PlateRecognitionParam capability message in XML format

```
<PlateRecognitionParam xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0">
 <isSupportdefaultCHN>
  <!--req, xs:string, whether to support province/state abbreviation-->
```

```
  </isSupportdefaultCHN>
  <isSupportfrontPlateReco>
    <!--opt, xs:boolean, whether to support front license plate recognition-->
  </isSupportfrontPlateReco>
  <isSupportrearPlateReco>
    <!--opt, xs:boolean, whether to support rear license plate recognition-->
  </isSupportrearPlateReco>
  <isSupportsmallPlateReco>
    <!--opt, xs:boolean, whether to support small license plate recognition-->
  </isSupportsmallPlateReco>
  <isSupportlargePlateReco>
    <!--opt, xs:boolean, whether to support large license plate recognition-->
  </isSupportlargePlateReco>
  <isSupportfarmVehicle>
    <!--opt, xs:boolean, whether to support agricultural vehicle recognition-->
  </isSupportfarmVehicle>
  <isSupportmotor>
    <!--opt, xs:boolean, whether to support motorcycle recognition-->
  </isSupportmotor>
  <isSupportfuzzyDisc>
    <!--opt, xs:boolean, whether to support fuzzy recognition-->
  </isSupportfuzzyDisc>
  <isSupportmicroPlateReg>
    <!--opt, xs:boolean, whether to support tiny license plate recognition-->
  </isSupportmicroPlateReg>
  <isSupportcAPlateRegEnabled>
    <!--opt, xs:boolean, whether to support civil aviation license plate recognition-->
  </isSupportcAPlateRegEnabled>
  <isSupporttiltPlateRegEnabled>
    <!--opt, xs:boolean, whether to support tilted license plate recognition-->
  </isSupporttiltPlateRegEnabled>
  <isSupportsuperPlateRecoEnabled>
    <!--opt, xs:boolean, whether to support oversized license plate recognition-->
  </isSupportsuperPlateRecoEnabled>
  <isSupportEmbassyPlateRecoEnabled>
    <!-- opt, xs: boolean, whether to support embassy license plate recognition-->
  </isSupportEmbassyPlateRecoEnabled>
</PlateRecognitionParam>
```

B.11 XML_Cap_VehicleDetectCfg

Vehicle detection capability message in XML format

```
<VehicleDetectCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--required, xs:boolean--></enabled>
  <nation opt="EU,ER,EUandCIS,ME"><!--optional, xs:string, country and region, "ER"-CIS Region, "EU"-Europe Region,
"ME"-Middle East, "AP"-Asia Pacific, "AfricaAndAmerica"-Africa and America, "All"-All Region--></nation>
  <stateOrProvince opt=""><!--optional, xs:string--></stateOrProvince>
  <VehicleDetectSceneList size="">
    <VehicleDetectScene><!--list-->
```

```
    <id><!--required, xs:integer--></id>
    <sceneName min="" max=""><!--optional, xs:string--></sceneName>
    <enabled><!--required, xs:boolean--></enabled>
    <PlateRecogParam>
     <PlateRecogRegionList size="">
      <PlateRecogRegion>
       <id><!--required, xs:string--></id>
       <RegionCoordinatesList size="">
        <RegionCoordinates>  <!--required-->
         <positionX><!--required, xs:integer, X-coordinate--></positionX>
         <positionY><!--required, xs:integer, Y-coordinate--></positionY>
        </RegionCoordinates>
       </RegionCoordinatesList>
      </PlateRecogRegion>
     </PlateRecogRegionList>
    </PlateRecogParam>
    <LaneConfig>
     <LaneList size="4">
      <Lane>
       <laneId min="1" max="4"><!--required, xs:integer--></laneId>
       <RegionCoordinatesList size=""><!--list, required-->
        <RegionCoordinates><!--minoccurs=2, maxoccurs=2-->
         <positionX><!--required, xs:integer--></positionX>
         <positionY><!--required, xs:integer--></positionY>
        </RegionCoordinates>
       </RegionCoordinatesList>
       <lineType opt="laneBoundaryLine,laneLine" ><!--optional, xs:string, lane line type: "laneBoundaryLine"-lane
border line, "laneLine"-lane line--></lineType>
       <carDriveDirect opt="unknow,up_to_down,down_to_up">
        <!--optional, xs:string, vehicle driving direction: "unknow"-unknown, "up_to_down"-from top to bottom,
"down_to_up"-from bottom to top-->
       </carDriveDirect>
      </Lane>
     </LaneList>
    </LaneConfig>
   </VehicleDetectScene>
  </VehicleDetectSceneList>
  <PlateDetectionRegion>
   <PlateSize>
    <minWidth min="" max=""><!--optional, xs:integer--></minWidth>
    <maxWidth min="" max=""><!--optional, xs:integer--></maxWidth>
   </PlateSize>
   <plateMode opt="small,large"><!--optional, xs:string, license plate mode--></plateMode>
  </PlateDetectionRegion>
  <RodeType><!--optional-->
   <type opt="entrance,city,custom,alarmInput"><!--optional, xs:string--></type>
   <Custom><!--dependent, custom-->
    <delayTime min="" max=""><!--optional, xs:integer, [0,15000]--></delayTime>
    <delayTimeUnit opt="ms"><!--optional, xs:string, unit: ms--></delayTimeUnit>
   </Custom>
  </RodeType>
  <AtRoadsideCalib><!--optional-->
```

```
   <RegionCoordinatesList size="">
   <RegionCoordinates><!--required-->
    <positionX><!--required, xs:integer, X-coordinate --></positionX>
    <positionY><!--required, xs:integer, Y-coordinate  --></positionY>
   </RegionCoordinates>
   <RegionCoordinatesList>
  </AtRoadsideCalib>
  <countryIndex opt="1,2,3,4,5,6,7,8,12,14,17,18,19,20,23,39,44,55"><!--optional, xs:integer, country/region No.--></
countryIndex>
  <supportCountryIndex opt="1,2,3,4,5,6,7,8,11,12,14,17,18,19,20,21,23,39,44,46,55,73"><!--optional, xs:integer,
country/region No.--></supportCountryIndex>
  <!--compatibility between countryIndex and CRIndex-->
  <!--device: both fields will be returned, when the value of CRIndex is smaller than or equal to 255, the value of
countryIndex is the same as that of CRIndex; when the value of CRIndex is larger than 255, the value of countryIndex
is 253 (the field countryIndex is invalid)-->
  <!--integration flow: for new users, CRIndex has higher priority over countryIndex and the field countryIndex is used
only when countryIndex does not exist; when the value of countryIndex is 253, additional logic processing should be
adopted to use CRIndex field-->
  <CRIndex
opt="0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,25,26,28,29,30,31,33,34,35,36,37,38,39,40,42,43,
44,45,46,47,49,51,53,55,59,60,62,65,68,70,71,72,73,76,77,84,87,89,90,94,95,91,104,107,108,110,114,115,130,137,13
9,140,144,145,146,151,156,157,169,174,175,177,180,181,188,206,210,215,216,217,218,219,220,221,222,227,228,25
6">
    <!--optional, xs:integer, country/region No., when the value is 0, it indicates that no country/region is specified-->
  </CRIndex>
</VehicleDetectCfg>
```

B.12 XML_Configuration

XML message about vehicle detection configuration parameters

```
<?xml version="1.0" encoding="utf-8"?>
<Configuration version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <needAuth><!--required, xs:boolean--></needAuth>
  <dir><!--read-only, xs:string--></dir>
  <picTime><!--read-only, xs:string--></picTime>
  <picDisplay><!--required, xs:boolean--></picDisplay>
</Configuration>
```

B.13 XML_CurVehicleDetectMode

CurVehicleDetectMode message in XML format

```
<CurVehicleDetectMode version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <CurMode><!--req, xs: string,"hvtVehicleDetection, vehicleDetection"--></CurMode>
</CurVehicleDetectMode>
```

B.14 XML_EntranceCap

XML message about the entrance and exit capability

```
<EntranceCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <supportEntrance>
    <!--opt, xs:boolean-->
  </supportEntrance>
  <supportBarrierGateNum>
    <!--opt, xs:integer-->
  </supportBarrierGateNum>
  <supportAlarmINNum>
    <!--opt, xs:integer-->
  </supportAlarmINNum>
  <supportRelayNum>
    <!--opt, xs:integer-->
  </supportRelayNum>
  <isSupportWizardDeviceInfo>
    <!--req, xs:boolean, whether to support configuring device information in wizard-->
  </isSupportWizardDeviceInfo>
  <isSupportWizardFirstLogin>
    <!--req, xs:boolean, whether to support judging if it is login for the first time in wizard-->
  </isSupportWizardFirstLogin>
  <supportEntranceParam>
    <!--opt, xs:integer-->
  </supportEntranceParam>
</EntranceCap>
```

B.15 XML_EventNotificationAlert_ANPRMsg

XML message about ANPR results

```
<EventNotificationAlert version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ipAddress><!--dependent, xs:string, IPv4 address--></ipAddress>
  <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
  <portNo><!--optional, xs:integer, device's communication port No.--></portNo>
  <protocol><!--optional, xs:string, transport protocol type: HTTP, HTTPS, EHome--></protocol>
  <macAddress><!--optional, xs:string, MAC address--></macAddress>
  <dynChannelID><!--optional, xs:string, digital channel No.--></dynChannelID>
  <channelID><!--dependent, xs:string, channel No.--></channelID>
  <releatedChannelList><!--optional, xs:string, list of alarm related channels, which are of the same camera with
channelID; this parameter is used for live view or playback on the platform; multiple channel numbers are separated
by commas--></releatedChannelList>
  <dateTime>
    <!--required, xs:datetime, event occurred time, which is in IOS 8601 format, e.g., 2017-04-22T15:39:01+08:00-->
  </dateTime>
  <activePostCount><!--required, xs:integer, event occurred times--></activePostCount>
  <eventType><!--required, xs:string, event types, here it should be "ANPR"--></eventType>
  <eventState><!--required, xs:string, event status (for persistent event): active, inactive--></eventState>
```

```
 <eventDescription><!--required, xs:string, event description--></eventDescription>
 <channelName><!--optional, xs:string, channel name--></channelName>
 <deviceID><!--optional, xs:string, device ID--></deviceID>
 <ANPR><!--dependent, this node is valid only when <eventType> is "ANPR"-->
  <region><!--optional, xs:string, region, see details in Region Code--></region>
  <country><!--optional, xs:string, country or region, see details in Country/Region Code--></country>
  <area><!--optional, xs:string, province or state--></area>
  <licensePlate><!--required, xs:string, license plate number, e.g., "123456"--></licensePlate>
  <line><!--required, xs:integer, recognized lane No.--></line>
  <direction><!--optional, xs:string, license plate recognition direction: "reverse", "forward", "unknown"--></
direction>
  <confidenceLevel><!--required, xs:integer, confidence level, which ranges from 0 to 100--></confidenceLevel>
  <plateType><!--optional, xs:string, license plate type: "unknown"--></plateType>
  <plateColor>
   <!--optional, xs:string, license plate color: "white", "yellow", "blue", "black", "green", "newEnergyGreen"-new
energy green, "newEnergyYellowGreen"-new energy flavogreen, "other"-other color-->
  </plateColor>
  <licenseBright>
   <!--optional, xs:integer, license plate brightness, which ranges from 0 to 255-->
  </licenseBright>
  <Rect><!--optional, coordinates of the license plate thumbnail in the matched picture-->
   <height><!--required, xs:float, height--></height>
   <width><!--required, xs:float, width--></width>
   <x><!--required, xs:float, x-coordinate of the upper-left point--></x>
   <y><!--required, xs:float, Y-coordinate of the upper-left point--></y>
  </Rect>
  <pilotsafebelt>
   <!--optional, xs:string, whether the driver is wearing safety belt: "unknown, yes, no"-->
  </pilotsafebelt>
  <vicepilotsafebelt>
   <!--optional, xs:string, whether the co-driver is wearing safety belt: "unknown, yes, no"-->
  </vicepilotsafebelt>
  <pilotsunvisor>
   <!--optional, xs:string, whether the driver room's sun visor is open: "unknown, yes, no"-->
  </pilotsunvisor>
  <vicepilotsunvisor>
   <!--required, xs:string, whether the co-driver room's sun visor is open: "unknown, yes, no"-->
  </vicepilotsunvisor>
  <envprosign><!--optional, xs:string, whether it is a yellow-label vehicle: "unknown,yes,no"--></envprosign>
  <dangmark>
   <!--optional, xs:string, whether it is dangerous goods vehicle: "unknown, yes, no"-->
  </dangmark>
  <uphone>
   <!--optional, xs:string, whether the driver is making call: "unknown, yes, no"-->
  </uphone>
  <pendant>
   <!--optional, xs:string, whether there is window hangings detected: "unknown, yes, no"-->
  </pendant>
  <tissueBox>
   <!--optional, xs:string, whether there is tissue box detected: "unknown, yes, no"-->
  </tissueBox>
  <frontChild>
```

```
    <!--optional, xs:string, whether the co-driver is with baby in arm: "unknown, yes, no"-->
   </frontChild>
   <label>
    <!--optional, xs:string, whether there is label detected: "unknown, yes, no"-->
   </label>
   <decoration>
    <!--optional, xs:string, whether there is decoration detected: "unknown, yes, no"-->
   </decoration>
   <smoking>
    <!--optional, xs:string, whether there is smoking detected: "unknown, yes, no"-->
   </smoking>
   <perfumeBox>
    <!--optional, xs:string, whether there is perfume box detected: "unknown, yes, no"-->
   </perfumeBox>
   <pdvs>
    <!--optional, xs:string, whether there is a person sticking out of sunroof: "unknown, yes, no"-->
   </pdvs>
   <helmet>
    <!--optional, xs:string, whether there is helmet detected: "unknown, yes, no"-->
   </helmet>
   <twoWheelVehicle>
    <!--optional, xs:string, whether there is two-wheel detected: "unknown, yes, no"-->
   </twoWheelVehicle>
   <threeWheelVehicle>
    <!--optional, xs:string, whether there is three-wheel detected: "unknown, yes, no"-->
   </threeWheelVehicle>
   <blackness>
    <!--optional, xs:integer, Ringelmann emittance, which is used for smoke detection-->
   </blackness>
   <plateCharBelieve>
    <!--optional, xs:string, confidence of each character in the recognized license plate-->
   </plateCharBelieve>
   <speedLimit>
    <!--optional, xs:integer, maximum speed limit, this node is valid only when overspeeding occurred-->
   </speedLimit>
   <illegalInfo>
    <!--optional, illegal action information-->
    <illegalCode>
     <!--required, xs:string, illegal action code-->
    </illegalCode>
    <illegalName>
     <!--required, xs:string, illegal action name-->
    </illegalName>
    <illegalDescription>
     <!--optional, xs:string, illegal action description-->
    </illegalDescription>
   </illegalInfo>
   <vehicleType>
    <!--optional, xs:string, vehicle type: "unknown, largeBus, truck, vehicle, van, buggy, pedestrian, twoWheelVehicle,
threeWheelVehicle, SUVMPV, mediumBus, motorVehicle, nonmotorVehicle, smallCar, miniCar, pickupTruck"-->
   </vehicleType>
   <postPicFileName>
```

```
    <!--optional, xs:string, name of the picture selected as the checkpoint picture when illegal action occurs, "none" refers to not selecting any picture-->
   </postPicFileName>
   <featurePicFileName>
    <!--optional, xs:string, name of the picture selected as the close-up picture when running the red light in the intersection violation system is detected, "none" refers to not selecting any picture-->
   </featurePicFileName>
   <detectDir>
    <!--optional, xs:integer, detection direction: 1-upward, 2-downward, 3-bidirectional, 4-westward, 5-northward, 6-eastward, 7-southward, 8-other-->
   </detectDir>
   <detectType>
    <!--optional, xs:integer, detection type: 1-inductive loop trigger, 2-video trigger, 3-multiple-frame recognition, 4-radar trigger-->
   </detectType>
   <barrierGateCtrlType>
    <!--optional, xs:integer, whether to enable elapsed time: 0-enabled, 1-disabled-->
   </barrierGateCtrlType>
   <alarmDataType>
    <!--optional, xs:integer, 0-real-time data, 1-history data-->
   </alarmDataType>
   <dwIllegalTime>
    <!--optional, xs:integer, illegal action duration, which is the difference between the capture time of the last picture and the capture time of the first picture, unit: millisecond-->
   </dwIllegalTime>
   <vehicleInfo>
    <index>
     <!--required, xs:integer, vehicle No.-->
    </index>
    <vehicleType>
     <!--optional, xs:integer, vehicle type: 0-other vehicle, 1-small-sized vehicle, 2-large-sized vehicle, 3-pedestrian trigger, 4-two wheeler trigger, 5-tricycle trigger-->
    </vehicleType>
    <colorDepth>
     <!--required, xs:integer, shade of the vehicle color: 0-deep color, 1-light color-->
    </colorDepth>
    <color>
     <!--required, xs:string, vehicle color: "unknown", "white", "silver"-silvery, "gray", "blacks"-balck, "red", "deepBlue"-dark blue, "blue", "yellow", "green", "brown", "pink", "purple", "deepGray"-dark gray, "cyan", "orange"-->
    </color>
    <speed>
     <!--required, xs:integer, vehicle speed, unit: km/h-->
    </speed>
    <length>
     <!--required, xs:integer, length of the former vehicle, unit: decimeter-->
    </length>
    <vehicleLogoRecog>
     <!--required, xs:integer, vehicle parent brand-->
    </vehicleLogoRecog>
    <vehileSubLogoRecog>
     <!--optional, xs:integer, vehicle sub-brand-->
    </vehileSubLogoRecog>
```

```
    <vehileModel>
     <!--optional, xs:integer, time to market of the vehicle sub-brand-->
    </vehileModel>
    <vehicleTypeByWeight>
     <!--optional, xs:integer, 1-class one vehicle (buses with seven or less seats, trucks with capacity of 2 tons or less), 2-class two vehicle (buses with 8 to 19 seats, trucks with capacity of 2 to 5 (included) tons), 3-class three vehicle (buses with 20 to 39 seats, trucks with capacity of 5 to 10 (included) tons), 4-class four vehicle (buses with 40 or more seats, trucks with capacity of 10 to 15 (included) tons), 5-class five vehicle (trucks with capacity of more than 15 tons)-->
    </vehicleTypeByWeight>
   </vehicleInfo>
   <EntranceInfo>
    <!--optional-->
    <parkingID>
     <!--optional, xs:string, parking space No.-->
    </parkingID>
    <gateID>
     <!--optional, xs:string, entrance and exit No.-->
    </gateID>
    <direction>
     <!--optional, xs:string, entering and exiting direction-->
    </direction>
    <cardNo>
     <!--optional, xs:string, card No.-->
    </cardNo>
    <parkType>
     <!--optional, xs:string, parking type: "permanent", "temporary"-->
    </parkType>
   </EntranceInfo>
   <pictureInfoList><!--required-->
    <pictureInfo><!--required, xs:list-->
     <fileName>
      <!--required, xs:string, picture name, which must correspond to the picture name transmitted with the alarm message-->
     </fileName>
     <type>
      <!--required, xs:string, picture type: "detectionPicture, licensePlatePicture, pilotPicture, copilotPicture, compositePicture, plateBinaryPicture, nonMotorPicture, pedestrianDetectionPicture, pedestrianPicture"-->
     </type>
     <dataType>
      <!--required, xs:integer, data type: 0-upload data, 1-upload URL-->
     </dataType>
     <picRecogMode>
      <!--optional, xs:integer, 0-front license plate recognition, 1-rear license plate recognition-->
     </picRecogMode>
     <redLightTime>
      <!--optional, xs:integer, red light time elapsed, unit: second-->
     </redLightTime>
     <vehicleHead>
      <!--optional, xs:integer, "unknown", "forward"-front license plate recognition, "back"-rear license plate recognition-->
     </vehicleHead>
```

```
      <absTime>
       <!--optional, xs:time, absolute time, format: yyyyMMddHHmmssxxx, e.g.: 20090810235959999, the last three
number is time in millisecond-->
      </absTime>
      <plateRect>
       <!--dependent, the normalized value is the current image size in percentage multiplying 1000 and it is accurate
to three decimal places. This node is valid only when <type> is "detectionPicture"-->
       <X>
        <!--required, xs:integer, X-coordinate of the upper-left corner of the boundary frame-->
       </X>
       <Y>
        <!--required, xs:integer, Y-coordinate of the upper-left corner of the boundary frame-->
       </Y>
       <width>
        <!--required, xs:integer, width of the boundary frame-->
       </width>
       <height>
        <!--required, xs:integer, height of the boundary frame-->
       </height>
      </plateRect>
      <vehicelRect>
       <!--dependent, the normalized value is the current image size in percentage multiplying 1000. This node is valid
only when <type> is "detectionPicture"-->
       <X><!--required, xs:integer, X-coordinate of the upper-left point of the boundary frame-->
       </X>
       <Y><!--required, xs:integer, Y-coordinate of the upper-left point of the boundary frame-->
       </Y>
       <width>
        <!--required, xs:integer, width of the boundary frame-->
       </width>
       <height>
        <!--required, xs:integer, height of the boundary frame-->
       </height>
      </vehicelRect>
      <pictureURL>
       <!--dependent, xs:string, picture URL, which is valid only when <dataType> is "URL"-->
      </pictureURL>
      <pId><!--optional, xs:string, the recommended generation rule is (device serial No.)+(time since the device is
booted)+(random number), the string size is 32 bytes--></pId>
     </pictureInfo>
    </pictureInfoList>
    <hasMoreData>
     <!--optional, xs:boolean, whether there is more data. This node is used to report the license plate information first,
and then report XML message with picture data; the XM message with picture data and license plate information are
linked by UUID-->
    </hasMoreData>
    <originalLicensePlate>
     <!--optional, xs:string, original license plate number, When the license plate number is a minor language, return
the original license plate number-->
    </originalLicensePlate>
    <CRIndex>
     <!--optional, xs:integer, country or region index-->
```

```
    </CRIndex>
    <VehicelGPSInfo><!--optional, GPS information of the vehicle-->
     <longitudeType><!--required, xs:string, longitude, "E,W"--></longitudeType>
     <latitudeType><!--required, xs:string, latitude, "S,N"--></latitudeType>
     <Longitude><!--required, longitude information-->
      <degree><!--required, xs:integer--></degree>
    <minute><!--required, xs:integer--></minute>
    <sec><!--required, xs:float, accurate to 6 decimal places--></sec>
     </Longitude>
     <Latitude><!--required, latitude information-->
    <degree><!--required, xs:integer--></degree>
    <minute><!--required, xs:integer,--></minute>
    <sec><!--required, xs:float, accurate to 6 decimal places--></sec>
     </Latitude>
    </VehicelGPSInfo>
    <vehiclePositionControl><!--optional, xs:string, arming type: "vehicleMonitor"-intelligent arming of vehicle (PUT /
ISAPI/Traffic/channels/<ID>/vehicleMonitor/<taskID>/startTask), "manualVehicleMonitor"-manual arming of vehicle
(PUT /ISAPI/Traffic/channels/<ID>/manualVehicleMonitor), "dailyVehicleMonitor"-daily arming of vehicle (you can
check whether this arming type is supported via the node isSupportDailyVehicleMonitor in the capability message
returned by /ISAPI/Traffic/channels/<ID>/vehicleDetect/capabilities; when daily arming of vehicle is enabled, both
alarm of ANPR and intelligent arming of vehicle will be uploaded; if this node is not returned, it is normal vehicle
detection--></vehiclePositionControl>
    <vehicleMonitorTaskID><!--optional, xs:string, task ID of intelligent arming of vehicle, the maximum size is 64 bytes,
this node is returned when the value of vehiclePositionControl is "vehicleMonitor"--></vehicleMonitorTaskID>
    <vehicleListName><!--optional, xs:string, name of the list that the vehicle belongs to, the maximum size is 128
bytes--></vehicleListName>
  </ANPR>
  <UUID>
    <!--optional, xs:string, common ID, which is used to link the same capture across multiple servers-->
  </UUID>
  <picNum>
    <!--optional, xs:integer, number of pictures-->
  </picNum>
  <monitoringSiteID>
    <!--optional, xs:string, camera No.-->
  </monitoringSiteID>
  <deviceID>
    <!--optional, xs:string, device ID-->
  </deviceID>
  <ePlateUUID>
    <!--optional, xs:string, electronic license plate ID. If this node is configured with a value, it indicates that an
electronic license plate is linked-->
  </ePlateUUID>
  <isDataRetransmission><!--optional, xs:boolean, data retransmission mark--></isDataRetransmission>
</EventNotificationAlert>
```

See Also

Region Code
Country/Region Code

B.16 XML_EventTrigger

Linkage parameter message in XML format

```
<EventTrigger version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--required, xs:string, ID--></id>
  <eventType>
    <!--required, xs:string, see details in the "Remarks" below-->
  </eventType>
  <eventDescription><!--optional, xs:string--></eventDescription>
  <inputIOPortID><!--dependent, xs:string, alarm input ID--></inputIOPortID>
  <dynInputIOPortID><!--dependent, xs:string, dynamic alarm input ID--></dynInputPortID>
  <videoInputChannelID>
    <!--dependent, xs:string, video input channel ID, it is valid when <eventType> is "VMD, videoloss, tamperdetection,
regionEntrance, regionExiting, loitering, group, rapidMove, parking, unattendedBaggage, attendedBaggage"-->
  </videoInputChannelID>
  <dynVideoInputChannelID><!--dependent, xs:string, dynamic video input channel ID--></dynVideoInputChannelID>
  <intervalBetweenEvents><!--optional, xs:integer, event time interval, unit: second--></intervalBetweenEvents>
  <WLSensorID><!--dependent, xs:string, ID--></WLSensorID>
  <EventTriggerNotificationList/><!--optional, alarm/event linkage actions, see details in the message of
XML_EventTriggerNotificationList-->
</EventTrigger>
```

Remarks

The node <**eventType**> can be the following values: IO, VMD, videoloss, raidfailure, recordingfailure, badvideo, POS, analytics, fanfailure, overheat, tamperdetection, diskfull, diskerror, nicbroken, ipconflict, illaccess, videomismatch, resolutionmismatch, radifailure, PIR, WLSensor, spareException, poePowerException, heatmap, counting, linedetection, fielddetection, regionEntrance, regionExiting, loitering, group,rapidMove, parking, unattendedBaggage, attendedBaggage, HUMANATTRIBUTE, blackList, whitelist, peopleDetection, allVehicleList, otherVehicleList, vehicledetection, storageDetection, shipsDetection, humanAttribute, faceContrast, blackListFaceContrast, whiteListFaceContrast, faceSnap, faceLib, personDensityDetection, personQueueDetecton, mixedTargetDetection, HVTVehicleDetection, illegalParking, pedestrian, trafficAccident, construction, roadblock, abandonedObject, parallelParking, parkingState, congestion, intersectionAnalysis, heatMap, thermometry, shipsFlowDetection, dredgerDetection, reverseEntrance, luma, highHDTemperature, lowHDTemperature, hdImpact, hdBadBlock, SevereHDFailure, safetyHelmetDetection, vibrationDetection, HBDLib,TMPA,faceThermometry,noMaskDetection

See Also

XML_EventTriggerNotificationList

B.17 XML_EventTriggerCapType

XML message about capability of alarm linkage action types

```
<EventTriggerCapType version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <isSupportCenter><!--optional, xs:boolean--></isSupportCenter>
 <isSupportRecord><!--optional, xs:boolean--></isSupportRecord>
 <isSupportMonitorAlarm><!--optional, xs:boolean--></isSupportMonitorAlarm>
 <isSupportBeep><!--optional, xs: boolean, whether it supports audible warning--></isSupportBeep>
 <isSupportIO><!--optional, xs:boolean--></isSupportIO>
 <isSupportFTP><!--optional, xs:boolean--></isSupportFTP>
 <isSupportEmail><!--optional, xs:boolean--></isSupEmail>
 <isSupportLightAudioAlarm><!--optional, xs:boolean--></isSupportLightAudioAlarm>
 <isSupportFocus><!--optional, xs:boolean--></isSupportFocus>
 <isSupportPTZ><!--optional, xs:boolean--></isSupportPTZ>
 <maxPresetActionNum>
  <!--dependent, xs:integer, it is valid only when <isSupportPTZ> is "true"-->
 </maxPresetActionNum>
 <maxPatrolActionNum>
  <!--dependent, xs:integer, it is valid only when <isSupportPTZ> is "true"-->
 </maxPatrolActionNum>
 <maxPatternActionNum>
  <!--dependent, xs:integer, it is valid only when <isSupportPTZ> is "true"-->
 </maxPatternActionNum>
 <isSupportTrack><!--optional, xs:boolean, whether it supports PTZ linked tracking--></isSupportTrack>
 <isSupportWhiteLight>
  <!--optional, xs: boolean, whether it supports supplement light alarm linkage-->
 </isSupportWhiteLight>
 <isSupportCloud><!--optional, xs:boolean, whether it supports upload to the cloud--></isSupportCloud>
 <targetNotificationInterval max="1000" min="0" default="30"><!--xs:integer, range: [0, 1000], the default value is 30,
unit: seconds, this node is valid for <MotionDetectionTriggerCap> and <TamperDetectionTriggerCap> and this node is
valid when <isSupportPTZ> is "true"--></targetNotificationInterval>
 <direction opt="both,forward,reverse"><!--xs:string, triggering direction, this node is valid for the node
<BlackListTriggerCap>, <WhiteListTriggerCap>, and <VehicleDetectionTriggerCap>--></direction>
 <presetDurationTime min="" max=""><!--dependent, xs:integer--></presetDurationTime>
 <isSupportSMS><!--optional, xs:boolean, whether to support SMS (Short Message Service)--></isSupportSMS>
 <maxCellphoneNum><!--dependent, xs:integer, the maximum number of cellphones, which is node is valid only
when <isSupportSMS> is "true"--></maxCellphoneNum>
 <isSupportOSD><!--optional, xs:boolean--></isSupportOSD>
 <isSupportAudio><!--optional, xs:boolean, whether it supports setting audio alarm independently. If this node is set
to "true", audio alarm and buzzer alarm can be linked separately, and the linage method is audio--></isSupportAudio>
 <AudioAction><!--dependent, this node is valid when <isSupportBeep> is "true" or <isSupportAudio> is "true"-->
  <audioTypeList>
   <audioType><!--list-->
    <audioID><!--required, xs:integer, alarm sound type--></audioID>
    <audioDescription><!--required, xs:string, alarm sound description, it should correspond to the alarm sound type--
></audioDescription>
   </audioType>
  </audioTypeList>
  <alarmTimes opt="0,1,2,3,4,5,6,7,8,9,255"><!--required, xs:integer, alarm times, it is between 0 and 9, 255-
continuous alarm, unit: time--></alarmTimes>
 </AudioAction>
 <isSupportSMS><!--optional, xs:boolean --></isSupportSMS>
 <maxCellphoneNum><!--dependent, if <isSupportSMS> is true, xs:integer--></maxCellphoneNum>
 <isNotSupportCenterModify><!--optional, xs:boolean, whether editing configuration parameters of the surveillance
center is not supported: "true"-yes (configuration parameters of the surveillance center cannot be edited), "false" or
```

```
this node is not returned-no (configuration parameters of the surveillance center can be edited)--></
isNotSupportCenterModify>
  <isSupportMessageConfig>
    <!--optional, xs:boolean, whether it supports SMS configuration, if supports, set cellphoneNumber to null-->
  </isSupportMessageConfig>
  <isSupportAnalogOutput><!--optional, xs:boolean, whether it supports IO output of linkage analog channel--></
isSupportAnalogOutput>
  <isSupportIOOutputUnify><!--optional, xs:boolean, whether it supports configuration of IO output--></
isSupportIOOutputUnify>
  <isSupportFaceContrast><!--optional, xs:boolean, whether it supports face picture comparison linkage--></
isSupportFaceContrast>
  <isSupportSiren><!--optional, xs:boolean, whether it supports siren linkage--></isSupportSiren>
  <isSupportOutput><!--optional, xs:boolean, whether it supports relay linkage--></isSupportOutput>
</EventTriggerCapType>
```

B.18 XML_EventTriggerNotification

Event linkage notification message in XML format

```
<EventTriggerNotification><!--opt-->
  <id><!--required, xs:string, device ID--></id>
  <notificationMethod>
    <!--required, xs:string, linkage actions, opt="email,IM,IO,syslog,HTTP,FTP,beep,ptz,record, monitorAlarm, center,
LightAudioAlarm,focus,trace,cloud,SMS,whiteLight,audio,whiteLight,faceContrast,siren,output"-->
  </notificationMethod>
  <notificationRecurrence>
    <!--optional, xs:string, "beginning,beginningandend,recurring"-->
  </notificationRecurrence>
  <notificationInterval><!--dependent, xs:integer, unit: millisecond--></notificationInterval>
  <outputIOPortID><!--dependent, xs:string, video output No., it is required only when notificationMethod is "IO"--></
outputIOPortID>
  <dynOutputIOPortID><!--dependent, xs:string, dynamic video output No., it is required only when
notificationMethod is "IO"--></dynOutputIOPortID>
  <videoInputID><!--dependent, xs:string, video input No., it is required only when notificationMethod is "record"--></
videoInputID>
  <dynVideoInputID><!--dependent, xs:string, dynamic video input No., it is required only when notificationMethod is
"record"--></dynVideoInputID>
  <ptzAction><!--dependent, it is required only when notificationMethod is "ptz"-->
    <ptzChannelID><!--required, xs:string, PTZ channel ID--></ptzChannelID>
    <actionName><!--required, xs:string, PTZ control type: "preset", "pattern", "patrol"--></actionName>
    <actionNum><!--dependent, xs:integer></actionNum>
  </ptzAction>
  <WhiteLightAction><!--dependent, white light linkage parameters, this node is valid when notificationMethod is
"whiteLight"-->
    <whiteLightDurationTime><!--required, xs:integer, white light flashing duration, it is between 1 and 60, unit:
second--></whiteLightDurationTime>
  </WhiteLightAction>
  <cellphoneNumber><!--dependent, xs:string, min="0" max="11",cellphone number--></cellphoneNumber-->
</EventTriggerNotification>
```

B.19 XML_EventTriggerNotificationList

EventTriggerNotificationList message in XML format

```
<EventTriggerNotificationList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <EventTriggerNotification/><!--opt, see details in the message of XML_EventTriggerNotification-->
</EventTriggerNotificationList>
```

See Also

XML_EventTriggerNotification

B.20 XML_EventTriggersCap

XML message about linkage capabilities of different alarm categories

```
<EventTriggersCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <DiskfullTriggerCap><!--optional, xs: EventTriggerCapType--></DiskfullTriggerCap>
  <DiskerrorTriggerCap><!--optional, xs: EventTriggerCapType--></DiskerrorTriggerCap>
  <NicbrokenTriggerCap><!--optional, xs: EventTriggerCapType--></NicbrokenTriggerCap>
  <IpconflictTriggerCap><!--optional, xs: EventTriggerCapType--></IpconflictTriggerCap>
  <IllaccesTriggerCap><!--optional, xs: EventTriggerCapType--></IllaccesTriggerCap>
  <BadvideoTriggerCap><!--optional, xs: EventTriggerCapType--></BadvideoTriggerCap>
  <VideomismatchTriggerCap><!--optional, xs: EventTriggerCapType--></VideomismatchTriggerCap>
  <IOTriggerCap><!--optional, xs: EventTriggerCapType--></IOTriggerCap>
  <LineDetectTriggerCap><!--optional, xs: EventTriggerCapType--></LineDetectTriggerCap>
  <RegionEntranceTriggerCap><!--optional, xs: EventTriggerCapType--></RegionEntranceTriggerCap>
  <RegionExitingTriggerCap><!--optional, xs: EventTriggerCapType--></RegionExitingTriggerCap>
  <LoiteringTriggerCap><!--optional, xs: EventTriggerCapType--></LoiteringTriggerCap>
  <GroupDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></GroupDetectionTriggerCap>
  <RapidMoveTriggerCap><!--optional, xs: EventTriggerCapType--></RapidMoveTriggerCap>
  <ParkingTriggerCap><!--optional, xs: EventTriggerCapType--></ParkingTriggerCap>
  <UnattendedBaggageTriggerCap><!--optional, xs: EventTriggerCapType--></UnattendedBaggageTriggerCap>
  <AttendedBaggageTriggerCap><!--optional, xs: EventTriggerCapType--></AttendedBaggageTriggerCap>
  <FireDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></FireDetectionTriggerCap>
  <FireDetectionCap><!--optional, xs: EventTriggerCapType--></FireDetectionCap>
  <StorageDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></StorageDetectionTriggerCap>
  <ShipsDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></ShipsDetectionTriggerCap>
  <ThermometryCap><!--optional, xs: EventTriggerCapType--></ThermometryCap>
  <VandalProofTriggerCap><!--optional, xs: EventTriggerCapType--></VandalProofTriggerCap>
  <BlackListTriggerCap><!--opt, xs: EventTriggerCapType, configuration capability of blocklist arming linkage--></
BlackListTriggerCap>
  <WhiteListTriggerCap><!--opt, xs: EventTriggerCapType, configuration capability of allowlist arming linkage--></
WhiteListTriggerCap>
  <AllVehicleListTriggerCap><!--optional,xs:EventTriggerCapType, configuration capability of other list arming linkage--
></AllVehicleListTriggerCap>
  <OtherVehicleListTriggerCap><!--optional,xs:EventTriggerCapType--></OtherVehicleListTriggerCap>
  <PeopleDetectionTriggerCap><!--optional,xs:EventTriggerCapType--></PeopleDetectionTriggerCap>
  <PIRAlarmCap><!--optional, xs: EventTriggerCapType--></PIRAlarmCap>
```

```
<TamperDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></TamperDetectionTriggerCap>
<DefocusDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></DefocusDetectionTriggerCap>
<FaceDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></FaceDetectionTriggerCap>
<SceneChangeDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></SceneChangeDetectionTriggerCap>
<VandalProofAlarmCap><!--optional, xs: EventTriggerCapType--></VandalProofAlarmCap>
<JudgmentTriggerCap><!--optional, xs: EventTriggerCapType--></JudgmentTriggerCap>
<FightingTriggerCap><!--optional, xs: EventTriggerCapType--></FightingTriggerCap>
<RisingTriggerCap><!--optional, xs: EventTriggerCapType--></RisingTriggerCap>
<DozingTriggerCap><!--optional, xs: EventTriggerCapType--></DozingTriggerCap>
<CountingTriggerCap><!--optional, xs: EventTriggerCapType--></CountingTriggerCap>
<VideoLossTriggerCap><!--optional, xs: EventTriggerCapType--></VideoLossTriggerCap>
<HideTriggerCap><!--optional, xs:EventTriggerCapType--></HideTriggerCap>
<AlarmInTriggerCap><!--optional, xs: EventTriggerCapType--></AlarmInTriggerCap>
<VehicleDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></VehicleDetectionTriggerCap>
<AudioExceptionCap><!--optional, xs: EventTriggerCapType--></AudioExceptionCap>
<FiledDetectTriggerCap><!--optional, xs: EventTriggerCapType--></FiledDetectTriggerCap>
<MotionDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></MotionDetectionTriggerCap>
<TemperatureCap><!--optional, xs: EventTriggerCapType--></TemperatureCap>
<IntelligentTriggerCap><!--optional, xs: EventTriggerCapType--></IntelligentTriggerCap>
<FaceContrastTriggerCap><!--optional, xs: EventTriggerCapType, face picture comparison alarm linkage--></
FaceContrastTriggerCap>
<PersonDensityDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></PersonDensityDetectionTriggerCap>
<PersonQueueDetectionTriggerCap><!--optional, xs: EventTriggerCapType, queue management alarm linkage--></
PersonQueueDetectionTriggerCap>
<HumanRecognitionTriggerCap><!--optional,xs: EventTriggerCapType--></HumanRecognitionTriggerCap>
<FaceSnapTriggerCap><!--optional, xs: EventTriggerCapType--></FaceSnapTriggerCap>
<isSupportWhiteLightAction>
  <!--dependent, xs: boolean, see details in EventTriggerCapType, it is valid when isSupportWhiteLight is "true"-->
</isSupportWhiteLightAction>
<isSupportAudioAction>
  <!--dependent, xs: boolean, see details in EventTriggerCapType, it is valid when isSupportBeep is "true"-->
</isSupportAudioAction>
<HFPDTriggerCap><!--optional, xs: EventTriggerCapType--></HFPDTriggerCap>
<MixedTargetDetectionCap><!--optional, xs: EventTriggerCapType--></MixedTargetDetectionCap>
<HVTVehicleDetectionTriggerCap><!--optional, xs: EventTriggerCapType--></HVTVehicleDetectionTriggerCap>
<VCATriggerCap><!--optional, xs: EventTriggerCapType--></VCATriggerCap>
<PIRCap><!--optional, xs: EventTriggerCapType--></PIRCap>
<IllegalParkingTriggerCap><!--optional, xs: EventTriggerCapType, whether it supports illegal parking detection--></
IllegalParkingTriggerCap>
<PedestrianTriggerCap><!--optional, xs: EventTriggerCapType, whether it supports pedestrian detection--></
PedestrianTriggerCap>
<TrafficAccidentTriggerCap><!--optional, xs: EventTriggerCapType, whether it supports traffic accident detection--></
TrafficAccidentTriggerCap>
<ConstructionTriggerCap><!--optional, xs: EventTriggerCapType, whether it supports construction detection--></
ConstructionTriggerCap>
<RoadBlockTriggerCap><!--optional, xs: EventTriggerCapType, whether it supports roadblock detection--></
RoadBlockTriggerCap>
<AbandonedObjectTriggerCap><!--optional, xs: EventTriggerCapType, whether it supports objects dropped down
detection--></AbandonedObjectTriggerCap>
<ParallelParkingTriggerCap><!--optional, xs: EventTriggerCapType, whether it supports parallel parking detection--></
ParallelParkingTriggerCap>
<ParkingStateTriggerCap><!--optional, xs: EventTriggerCapType, whether it supports parking space status detection,
```

```
currently this node is not supported--></ParkingStateTriggerCap>
 <CongestionTriggerCap><!--optional, xs: EventTriggerCapType, whether it supports congestion detection--></
CongestionTriggerCap>
 <IntersectionAnalysisCap><!--optional, xs: EventTriggerCapType, whether it supports intersection analysis--></
IntersectionAnalysisCap>
 <ShipsFlowDetectionTriggerCap><!--optional,xs:EventTriggerCapType, ship flow detection--></
ShipsFlowDetectionTriggerCap>
 <dredgerDetectionTriggerCap><!--optional,xs:EventTriggerCapType, dredger detection--></
dredgerDetectionTriggerCap>
 <voltageInstableTriggerCap><!--optional,xs:EventTriggerCapType, supply voltage exception--></
voltageInstableTriggerCap>
 <HighHDTemperatureTriggerCap><!--optional, xs:EventTriggerCapType, HDD high temperature detection--></
HighHDTemperatureTriggerCap>
 <LowHDTemperatureTriggerCap><!--optional, xs:EventTriggerCapType, HDD low temperature detection--></
LowHDTemperatureTriggerCap>
 <HDImpactTriggerCap><!--optional, xs:EventTriggerCapType, HDD impact detection--></HDImpactTriggerCap>
 <HDBadBlockTriggerCap><!--optional, xs:EventTriggerCapType, HDD bad sector detection--></
HDBadBlockTriggerCap>
 <SevereHDFailureTriggerCap><!--optional, xs:EventTriggerCapType, HDD severe fault detection--></
SevereHDFailureTriggerCap>
 <HUMANATTRIBUTECap><!--optional, xs:EventTriggerCapType--></HUMANATTRIBUTECap>
 <HumanAttributeTriggerCap><!--optional, xs:EventTriggerCapType, human body attribute--></
HumanAttributeTriggerCap>
 <BlackListFaceContrastTriggerCap><!--opt, xs:EventTriggerCapType, alarm linkage capability of blocklist face
comparison--></BlackListFaceContrastTriggerCap>
 <FaceLibTriggerCap><!--optional, xs:EventTriggerCapType--></FaceLibTriggerCap>
 <SafetyHelmetDetectionTriggerCap><!--optional, xs:EventTriggerCapType, alarm linkage capability of hard hat
detection--></SafetyHelmetDetectionTriggerCap>
 <VibrationDetectionTriggerCap><!--optional, xs:EventTriggerCapType, alarm linkage capability of vibration detection--
></VibrationDetectionTriggerCap>
 <RadarLineDetectionTriggerCap><!--optional, xs:EventTriggerCapType, alarm linkage capability of radar line crossing
detection--></RadarLineDetectionTriggerCap>
 <RadarFieldDetectionTriggerCap><!--optional, xs:EventTriggerCapType, alarm linkage capability of radar intrusion
detection--></RadarFieldDetectionTriggerCap>
 <HBDLibTriggerCap><!--optional, xs:EventTriggerCapType, alarm linkage capability of human body picture library--></
HBDLibTriggerCap>
 <FaceThermometryCap><!--optional, xs:EventTriggerCapType--></FaceThermometryCap>
 <NoMaskDetectionTriggerCap><!--optional, xs:EventTriggerCapType, alarm linkage capability of no wearing mask
detection--></NoMaskDetectionTriggerCap>
 <TMPATriggerCap><!--optional, xs:EventTriggerCapType, alarm linkage capability of temperature measurement pre-
alarm--></TMPATriggerCap>
 <FireEscapeDetectionTriggerCap><!--optional, xs:EventTriggerCapType, alarm linkage capability of fire engine access
detection--></FireEscapeDetectionTriggerCap>
 <TakingElevatorDetectionTriggerCap><!--optional, xs:EventTriggerCapType, alarm linkage capability of elevator
detection--></TakingElevatorDetectionTriggerCap>
 <RuleTriggerCap><!--optional, linkage capability of rule triggered alarm -->
  <isSupportCityManagement>
   <!--optional, xs:boolean, whether the city management supports setting linkage actions by area; if supports, the
value is true, otherwise, this node will not be returned-->
  </isSupportCityManagement>
 </RuleTriggerCap>
 <ThermalCalibrationFileExceptionCap><!--optional, xs:EventTriggerCapType, alarm linkage capability of
```

```
thermography calibration file exception--></ThermalCalibrationFileExceptionCap>
</EventTriggersCap>
```

See Also

XML_EventTriggerCapType

B.21 XML_IOCap

IOCap capability message in XML format

```
<IOCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <IOInputPortNums>
  <!--opt, xs:integer-->
 </IOInputPortNums>
 <IOOutputPortNums>
  <!--optional, xs:integer, number of output ports in the local device-->
 </IOOutputPortNums>
 <isSupportStrobeLamp>
  <!--opt, xs:integer-->
 </isSupportStrobeLamp>
 <SoftIOInputPortNums>
  <!--opt, xs:integer-->
 </SoftIOInputPortNums>
 <isSupportIOOutputAdvanceParameter>
  <!--opt, xs:boolean, whether supports configuration of alarm input advanced parameters-->
 </isSupportIOOutputAdvanceParameter>
 <isSupportCombinationAlarm>
  <!--opt, xs:boolean, whether supports composite alarm-->
 </isSupportCombinationAlarm>
</IOCap>
```

B.22 XML_IOPortData

XML message about triggering parameters of alarm output

```
<?xml version="1.0" encoding="utf-8"?>
<IOPortData xmlns="http://www.isapi.org/ver20/XMLSchema">
 <outputState><!--required, xs:string, output level: "high, low"--></outputState>
</IOPortData>
```

B.23 XML_ITCCap

XML message about intelligent traffic capability

```
<ITCCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <isSupportITC><!—dependent, xs:boolean--></isSupportITC>
```

```
<isSupportITCStatus>
  <!--req, xs:boolean, whether it supports device status-->
</isSupportITCStatus>
<isSupportIllegalDictionary>
  <!--req, xs:boolean, whether it supports traffic violation dictionary-->
</isSupportIllegalDictionary>
<isSupportVehicleDetection>
  <!--dep, xs: boolean, whether it supports vehicle detection-->
</isSupportVehicleDetection>
<isSupportHVTVehicleDetection><!--dependent, xs:boolean--><isSupportHVTVehicleDetection>
<isSupportlicencePlateAuditData><!--optional, xs:boolean--><isSupportlicencePlateAuditData>
<isSupportSearchLPListAudit><!--optional, xs:boolean--></isSupportSearchLPListAudit>
<isSupportEvidenceDictionary>
  <!--req, xs: boolean, whether it supports traffic law enforcement dictionary-->
</isSupportEvidenceDictionary>
<isSupportITCSetUp>
  <!--req, xs:boolean, whether it supports installation parameters-->
</isSupportITCSetUp>
<isSupportTrafficParam>
  <!--req, xs:boolean, whether it supports vehicle counting statistics-->
</isSupportTrafficParam>
<isSupportManualCap>
  <!--req, xs:boolean, whether it supports manual capture-->
</isSupportManualCap>
<isSupportIllegalUploadPic>
  <!--req, xs:boolean, whether it supports uploading pictures-->
</isSupportIllegalUploadPic>
<isSupportContinueCap>
  <!--req, xs:boolean, whether it supports continuous capture-->
</isSupportContinueCap>
<isSupportWiper>
  <!--req, xs:boolean, whether it supports wiper-->
</isSupportWiper>
<isSupportEntranceCap>
  <!--optional, xs:boolean, whether it supports entrance and exit functions-->
</isSupportEntranceCap>
<isSupportPlateRecognitionParam>
  <!--req, xs:boolean, whether it supports license plate recognition parameters-->
</isSupportPlateRecognitionParam>
<isSupportSyncSignalOutput>
  <!--req, xs:boolean,whether it supports output parameters-->
</isSupportSyncSignalOutput>
<isSupportSyncPower>
  <!--req, xs:boolean, whether it supports signal light synchronization-->
</isSupportSyncPower>
<isSupportImageMerge>
  <!--req, xs:boolean, whether it supports picture composition-->
</isSupportImageMerge>
<isSupportCabinetParam>
  <!--req, xs:boolean, whether it supports device cabinet alarm-->
</isSupportCabinetParam>
<isSupportCarFeatureParam>
```

```
  <!--req, xs:boolean, whether it supports vehicle features-->
 </isSupportCarFeatureParam>
 <isSupportLightCorrect>
  <!--req, xs:boolean, whether it supports exporting illegal action codes-->
 </isSupportLightCorrect>
 <isSupportSnapshot>
  <!--req, xs:boolean, whether it supports image capture resolution-->
 </isSupportSnapshot>
 <isSupportIllegalCodeData>
  <!--req, xs:boolean, whether it supports signal light correction-->
 </isSupportIllegalCodeData>
 <isSupportNetStorage>
  <!--req, xs:boolean, whether it supports network storage-->
 </isSupportNetStorage>
 <isSupportAlgorithmsVersion>
  <!--req, xs:boolean, whether it supports getting algorithm library status-->
 </isSupportAlgorithmsVersion>
 <isSupportAlgorithmsState>
  <!--req, xs:boolean, whether it supports getting algorithm library version-->
 </isSupportAlgorithmsState>
 <isSupportPlateCorrection>
  <!--opt, xs:boolean, whether it supports manual license plate correction-->
 </isSupportPlateCorrection>
 <isSupportRadarSetUp>
  <!--req, xs:boolean, whether it supports radar construction parameters-->
 </isSupportRadarSetUp>
 <isSupportRadarMeasurement>
  <!--opt, xs:boolean, whether it supports radar measurement configuration-->
 </isSupportRadarMeasurement>
</ITCCap>
```

B.24 XML_LPListAuditSearchDescription

LPListAuditSearchDescription message in XML format

```
<LPListAuditSearchDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <searchID><!--req, xs: string--></searchID>
 <searchResultPosition><!--req, xs: integer--></searchResultPosition>
 <maxResults><!--req, xs: integer--></maxResults>
</LPListAuditSearchDescription>
```

B.25 XML_LPListAuditSearchResult

LPListAuditSearchResult message in XML format

```
<LPListAuditSearchResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <searchID><!--req, xs: string--></searchID>
 <responseStatus></responseStatus>
 <responseStatusStrg></responseStatusStrg>
```

```
 <numOfMatches><!--req, xs: integer--></numOfMatches>
 <totalMatches><!--req, xs: integer--></totalMatches>
 <LicensePlateInfoList>
  <LicensePlateInfo>
   <id><!--req, xs: string --></id>
   <LicensePlate><!--opt, xs: string--></LicensePlate>
   <type><!--opt, xs: string, "blackList,whitelist,allVehicleList,otherVehicleList"--></type>
   <createTime><!--opt, xs: string, time in ISO8601 format--></createTime>
   <direction><!--opt, xs: string, "forward,reverse,unknown"--></direction>
   <laneNo><!--opt, xs: integer--></laneNo>
  </LicensePlateInfo>
 </LicensePlateInfoList>
</LPListAuditSearchResult>
```

B.26 XML_PicParam

PicParam message in XML format

```
<PicParam version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <PictureCfg>
  <mode> <!--req, xs:string,"quality,size"--> </mode>
  <pictureQuality> <!--dep, xs:integer,1-100 --> </pictureQuality>
  <pictureSize> <!--dep, xs:integer,unit:kb --> </pictureSize>
 </PictureCfg>
 <Overlap>
  <enabled> <!--req, xs: boolean> </enabled>
  <OverlapItemList >
   <OverlapItem>
    <id><!--req, xs:interger --><id>
    <item opt="">
     <!--req, xs:string, "positionNo, positionInfo, cameraNo, captureTime, plateNo, vehicleColor, sceneName, carType,
vehicleLogo, sceneNo, direction, validity"-->
    </item>
   </OverlapItem>
  </OverlapItemList >
  <fontColor> <!--opt, xs: hexBinary;color --> </fontColor>
  <backColor> <!--opt, xs: hexBinary;color --> </backColor>
 </Overlap>
 <PlateEnhancement><!--opt, license plate enhancement on captured picture-->
  <enabled><!--opt, xs:boolean, whether to enable license plate enhancement on captured picture, by default, it is
set to false--></enabled>
  <level><!--opt, xs:integer, license plate enhancement level range: [0,100], by default, it is set to 50--></level>
 </PlateEnhancement>
</PicParam>
```

Note

The node **pictureQulity** is required when the node **mode** is set to "quality", and the node **pictureSize** is required when the node **mode** is set to "size".

B.27 XML_PlateRecognitionParam

PlateRecognitionParam message in XML format

```
<PlateRecognitionParam xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0">
 <defaultCHN>
  <!--req, xs:string, province/state abbreviation-->
 </defaultCHN>
 <frontPlateRecoEnabled>
  <!--dep, xs:boolean, front license plate recognition-->
 </frontPlateRecoEnabled>
 <rearPlateRecoEnabled>
  <!--dep, xs:boolean, rear license plate recognition-->
 </rearPlateRecoEnabled>
 <smallPlateRecoEnabled>
  <!--dep, xs:boolean, small license plate recognition-->
 </smallPlateRecoEnabled>
 <largePlateRecoEnabled>
  <!--dep, xs:boolean, large license plate recognition-->
 </largePlateRecoEnabled>
 <farmVehicleEnabled>
  <!--dep, xs:boolean, agricultural vehicle recognition-->
 </farmVehicleEnabled>
 <motorEnabled>
  <!--dep, xs:boolean, motorcycle recognition-->
 </motorEnabled>
 <fuzzyDiscEnabled>
  <!--dep, xs:boolean, fuzzy recognition-->
 </fuzzyDiscEnabled>
 <microPlateRegEnabled>
  <!--dep, xs:boolean, tiny license plate recognition-->
 </microPlateRegEnabled>
 <cAPlateRegEnabled>
  <!--dep, xs:boolean, civil aviation license plate recognition-->
 </cAPlateRegEnabled>
 <tiltPlateRegEnabled>
  <!--dep, xs:boolean, tilted license plate recognition-->
 </tiltPlateRegEnabled>
 <superPlateRecoEnabled>
  <!--dep, xs:boolean, oversized license plate recognition-->
 </superPlateRecoEnabled>
 <embassyPlateRecoEnabled>
  <!--dep, xs:boolean, embassy license plate recognition-->
 </embassyPlateRecoEnabled>
</PlateRecognitionParam>
```

B.28 XML_Plates

XML message about the captured picture information

```
<?xml version="1.0" encoding="utf-8"?>
<Plates version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <Plate>
  <captureTime><!--required, xs:datetime--></captureTime>
  <plateNumber><!--required, xs:string--></plateNumber>
  <picName><!--required, xs:string--></picName>
  <country><!--required, xs:string, "BLR,...."--></country>
  <laneNo><!--required, xs:integer--></laneNo>
  <direction><!--required, xs:string,  "Forward,Reverse,Unknown"--></direction>
  <matchingResult><!--optional, xs:string, "whitelist", "blacklist", "otherlist"--></matchingResult>
  <area><!--required, xs:string--></area>
  <countryIndex><!--optional, xs:integer--></countryIndex>
 </Plate>
</Plates>
```

B.29 XML_ResponseStatus

XML message about response status

```
<?xml version="1.0" encoding="utf-8"?>
<ResponseStatus version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
 <requestURL>
  <!--required, read-only, xs:string, request URL-->
 </requestURL>
 <statusCode>
  <!--required, read-only, xs:integer, status code: 0,1-OK, 2-Device Busy, 3-Device Error, 4-Invalid Operation, 5-Invalid XML Format, 6-Invalid XML Content, 7-Reboot Required, 9-Additional Error-->
 </statusCode>
 <statusString>
  <!--required, read-only, xs:string, status description: OK, Device Busy, Device Error, Invalid Operation, Invalid XML Format, Invalid XML Content, Reboot, Additional Error-->
 </statusString>
 <subStatusCode>
  <!--required, read-only, xs:string, describe the error reason in detail-->
 </subStatusCode>
 <MErrCode>
  <!--optional, xs:string, error code categorized by functional modules, e.g., 0x12345678-->
 </MErrCode>
 <MErrDevSelfEx>
  <!--optional, xs:string, extension field of MErrCode. It is used to define the custom error code, which is categorized by functional modules-->
 </MErrDevSelfEx>
</ResponseStatus>
```

Note

- See ***Response Codes of Text Protocol*** for details about sub status codes and corresponding error codes.
- See ***Error Codes Categorized by Functional Modules*** for details about the error codes, error descriptions, and debugging suggestions.

B.30 XML_Schedule

Schedule message in XML format

```
<Schedule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, xs:string, ID--></id>
 <eventType>
  <!--optional, xs:string, alarm/event types, see details in the "Remarks" below-->
 </eventType>
 <inputIOPortID><!--read-only, dependent, xs:string, alarm input No.--></inputIOPortID>
 <outputIOPortID><!--read-only, dependent, xs:string, alarm output No.--></inputIOPortID>
 <videoInputChannelID><!--read-only, dependent, xs:string, video input channel ID--></videoInputChannelID>
 <TimeBlockList size="8"><!--required-->
  <TimeBlock><!--list-->
   <dayOfWeek>
    <!--optional, xs:integer, day of the week based on ISO8601, "1"=Monday, ...-->
   </dayOfWeek>
   <TimeRange><!--required-->
    <beginTime><!--required, xs:time, ISO8601 time--></beginTime>
    <endTime><!--required, xs:time, ISO8601 time--></endTime>
   </TimeRange>
   <CustomExtension>
    <vehicleDetectSceneID>
     <!--required, xs:interger-->
    </vehicleDetectSceneID>
   </CustomExtension>
  </TimeBlock>
 </TimeBlockList>
 <HolidayBlockList><!--optional-->
  <TimeBlock><!--list-->
   <TimeRange><!--required-->
    <beginTime><!--required, xs:time, ISO8601 time--></beginTime>
    <endTime><!--required, xs:time, ISO8601 time--></endTime>
   </TimeRange>
  </TimeBlock>
 </HolidayBlockList>
</Schedule>
```

Remarks

The node <**eventType**> can be set to the following values: IO, VMD,videoloss, PIR,linedetection, fielddetection, audioexception, facedetection, regionEntrance, regionExiting, loitering, group,

rapidMove, parking, unattendedBaggage,attendedBaggage, storageDetection, shipsDetection, HUMANATTRIBUTE, humanAttribute, faceContrast, faceSnap, faceLib, whiteListFaceContrast, personDensityDetection, personQueueDetection, mixedTargetDetection, fireDetection, illegalParking, pedestrian, trafficAccident,construction, roadblock, abandonedObject, parallelParking, parkingState, congestion, intersectionAnalysis, heatMap, reverseEntrance, vehicledetect, safetyHelmetDetection, vibrationDetection, TMPA, faceThermometry, HBDLib.

B.31 XML_SetVCLData

SetVCLData message in XML format

```
<SetVCLData version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <VCLDataList>
  <singleVCLData>
   <id>
    <!--req, xs:integer, list No., which is between 0 and 128-->
   </id>
   <disabled><!--opt, xs: boolean, if this node does not exist, it represents enabled, otherwise, "true" represents enabled--></disabled>
   <runNum>
    <!--opt, xs:integer, data serial No., which is a mark used for platform data synchronization and is between 1 and 4294836225, the value configured by the control is 0-->
   </runNum>
   <listType>
    <!--req, xs:integer, list type: 0-whitelist, 1-blacklist-->
   </listType>
   <plateNum>
    <!--req, xs:string, license plate number, the maximum length is 16 bytes-->
   </plateNum>
   <plateColor>
    <!--req, xs: integer, license plate color: 0-blue, 1-yellow, 2-white, 3-black, 4-green, 0xff-other-->
   </plateColor>
   <plateType>
    <!--req, xs: integer, license plate type: 0-standard civil vehicle and military vehicle, 1-standard 02 civil vehicle, 2-armed police vehicle, 3-police vehicle, 4-civil vehicle with two-line license plate, 5-embassy vehicle license plate, 6-agricultural vehicle license plate, 7-motorcycle license plate-->
   </plateType>
   <cardNo>
    <!--opt, xs:string, card No., the maximum length is 48 bytes-->
   </cardNo>
   <startTime>
    <!--opt, xs:datetime, valid start time, e.g., 2009-06-10T12:00:00Z-->
   </startTime>
   <endTime>
    <!--opt, xs:datetime, valid end time, e.g., 2014-06-10T12:00:00Z-->
   </endTime>
   <startDay>
    <!--opt, xs: string, start date, e.g., 2018-05-16-->
   </startDay>
   <endDay>
```

```
      <!--opt, xs: string, end time, e.g., 2018-05-16-->
     </endDay>
     <startTimeOfDay>
      <!--opt, xs: string, start time of the daytime, e.g., 08:00-->
     </startTimeOfDay>
     <endTimeOfDay>
      <!--opt, xs: string, end time of the daytime, e.g., 18:00-->
     </endTimeOfDay>
    </singleVCLData>
  </VCLDataList>
</SetVCLData>
```

B.32 XML_TrafficChannelCap

Traffic channel capability message in XML format

```
<TrafficChannelCap version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <deviceTypeSupport>
  <!--optional, xs: integer, device type: 0-video monitoring, 1-loop detection, 2-video analysis, 3-reserved, 4-video analysis (event + traffic enforcement + traffic data collection), 5-video analysis + capture (event + traffic enforcement + traffic data collection), 6-video structurization, 7-speed dome for dynamic tracking and capture, 8-speed dome for non-dynamic tracking and capture-->
 </deviceTypeSupport>
 <isPTZSupport><!--optional, xs:boolean, whether it supports configuring PTZ type, PTZ address, PTZ control speed, and zooming speed--><isPTZSupport>
 <isEvidenceGettingSupport>
  <!--optional, xs: boolean, whether it supports violation enforcement, setting scenes, and scene auto-switch-->
 </isEvidenceGettingSupport>
 <isBasicSupport>
  <!--optional, xs: boolean, whether it supports setting basic parameters-->
 </isBasicSupport>
 <isImageMergeSupport>
  <!--optional, xs: boolean, whether it supports picture overlay-->
 </isImageMergeSupport>
 <isOverlapSupport>
  <!--optional, xs: boolean, whether it supports text overlay-->
 </isOverlapSupport>
 <isEdfAlgSupport>
  <!--optional, xs: boolean, whether it supports setting analysis parameters-->
 </isEdfAlgSupport>
 <isAutoTraceSupport>
  <!--required, xs: boolean, whether it supports auto-tracking-->
 </isAutoTraceSupport>
 <isEdfManualItsCapSupport>
  <!--optional, xs: boolean, whether it supports setting manual enforcement parameters-->
 </isEdfManualItsCapSupport>
 <isViolationTypeStdSupport>
  <!--optional, xs: boolean, whether it supports violation code-->
 </isViolationTypeStdSupport>
 <isEDFRemoteHostSupport>
```

```
   <!--optional, xs: boolean, whether it supports remote host-->
  </isEDFRemoteHostSupport>
  <isANRSupport>
   <!--optional, xs: boolean, whether it supports ANR-->
  </isANRSupport>
  <isvoiceTriggerSupport>
   <!--optional, xs: boolean, whether it supports audible linkage-->
  </isvoiceTriggerSupport>
  <uploadDataTypesSupport>
   <!--optional, xs: string, uploaded data types:
"illegalParking,wrongDirection,crossLane,congestion,parkingEvidence,crossLaneEvidence,wrongDirectionEvidence,lane
Change,turnRound,laneChangeEvidence,turnRoundEvidence,vehicleexist,vehicleexistEvidence,edfManualEvidence,obj
ectDroppedDown,smoke"-->
  </uploadDataTypesSupport>
  <aidTypeSupport>
   <!--optional, xs:string, traffic incident types:
"illegalParking,wrongDirection,crossLane,laneChange,turnRound,congestion,vehicleexist,pedestrian,objectDroppedDo
wn,smoke,edfManual,trafficAccident,construction,roadBlock,abandonedObject,fogDetection"-->
  </aidTypeSupport>
  <isIntellMonitorSupport>
   <!--optional, xs: boolean, whether it supports smart surveillance-->
  </isIntellMonitorSupport>
  <isVCRSupport>
   <!--optional, xs: boolean, whether it supports vehicle statistics-->
  </isVCRSupport>
  <isEdfManualTrackSupport>
   <!--optional, xs: boolean, whether it support manual tracking and enforcement-->
  </isEdfManualTrackSupport>
  <videoEvidenceTypeSupport
opt="illegalParking,wrongDirection,crossLane,laneChange,turnRound,vehicleexist,edfManualEvidence">
   <!--optional, xs: string, uploaded video evidence types-->
  </videoEvidenceTypeSupport>
  <isRecordParamSupport>
   <!--optional, xs: boolean, whether it supports setting recording parameters-->
  </isRecordParamSupport>
  <AIDEventSupport opt="abandonedObject, pedestrian, congestion, roadBlock, construction, trafficAccident,
fogDetection, wrongDirection, illegalParking, SSharpDriving, lowSpeed, dragRacing">
   <!--optional, xs: string, supported traffic incident type: "abandonedObject"-objects dropped down, "pedestrian"-
pedestrian, "congestion"-congestion, "roadBlock"-roadblock, "construction"-construction, "trafficAccident"-traffic
accident, "fogDetection"-fog, "wrongDirection"-wrong-way driving, "illegalParking"-illegal parking, "SSharpDriving"-
slalom driving, "lowSpeed"-driving in low speed, "dragRacing"-street racing-->
  </AIDEventSupport>
  <TFSEventSupport opt="illegalParking, wrongDirection, crossLane, laneChange, vehicleExist, turnRound,
parallelParking, notKeepDistance, notSlowZebraCrossing, overtakeRightSide, lowSpeed, dragRacing,
changeLaneContinuously, SSharpDriving, largeVehicleOccupyLine, jamCrossLine">
   <!--optional, xs: string, supported enforcement event type: "illegalParking"-illegal parking, "wrongDirection"-wrong-
way driving, "crossLane"-driving on the lane line, "laneChange"-illegal lane change, "vehicleExist"-motor vehicle on
non-motor vehicle lane, "turnRound"-illegal U-turn, "parallelParking"-parallel parking, "notKeepDistance"-not keeping
vehicle distance, "notSlowZebraCrossing"-not slowing down at zebra corssing, "overtakeRightSide"-overtaking on the
right, "lowSpeed"-driving in low speed, "dragRacing"-street racing, "changeLaneContinuously"-continuous lane
change, "SSharpDriving"-slalom driving, "largeVehicleOccupyLine"-lane occupation by large-sized vehicle,
"jamCrossLine"-queue jumping-->
```

```
 </TFSEventSupport>
 <isVehicleStatisticsSupport>
  <!--optional, xs: boolean, whether it supports setting parameters for traffic data collection-->
 </isVehicleStatisticsSupport>
 <isLaneRuleSupport>
  <!--optional, xs: boolean, whether it supports setting lane rules-->
 </isLaneRuleSupport>
 <isSupportPlateListEvidence>
  <!--optional, xs: boolean, whether it supports setting parameters for blocklist and allowlist ANPR enforcement-->
 </isSupportPlateListEvidence>
 <isSupportMixedTargetDetection>
  <!--optional, xs: boolean, whether it supports multi-target-type detection-->
 </isSupportMixedTargetDetection>
 <isSupportVideoOverlays>
  <!--optional, xs: boolean, whether it supports overlaying information on video-->
 </isSupportVideoOverlays>
 <isSupportAddrInfo>
  <!--optional, xs:boolean, whether it supports overlaying address information-->
 </isSupportAddrInfo>
 <VehiclePositionControl><!--optional, whether it supports vehicle direction control-->
  <license min="0" max="16"><!--required, xs:string, license plate number--></license>
  <intervalTime min="0" max="65535" def="1"><!--required, xs:integer, upload interval, unit: s, by default it is 1--></
intervalTime>
 </VehiclePositionControl>
 <isSupportLicensePlateExposure><!--optional, xs:boolean, whether it supports license plate exposure, return "true" if
it supports, and this node will not be returned if the device does not supports this function--></
isSupportLicensePlateExposure>
 <isSupportFiltration><!--optional, xs:boolean, whether it supports filtering duplicated license plate, return "true" if it
supports, and this node will not be returned if the device does not support the function--></isSupportFiltration>
</TrafficChannelCap>
```

Example

TrafficChannelCap Message Example

```
<TrafficChannelCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <isEvidenceGettingSupport>false</isEvidenceGettingSupport>
 <isBasicSupport>true</isBasicSupport>
 <isImageMergeSupport>true</isImageMergeSupport>
 <isOverlapSupport>true</isOverlapSupport>
 <isEdfAlgSupport>true</isEdfAlgSupport>
 <isEdfManualItsCapSupport>false</isEdfManualItsCapSupport>
 <isEDFRemoteHostSupport>true</isEDFRemoteHostSupport>
 <isANRSupport>true</isANRSupport>
 <isvoiceTriggerSupport>false</isvoiceTriggerSupport>
 <uploadDataTypesSupport></uploadDataTypesSupport>

<aidTypeSupport>wrongDirection,turnRound,vehicleexist,congestion,crossLane,laneChange,pedestrian,roadBlock,aba
ndonedObject,construction,trafficAccident,fogDetection</aidTypeSupport>
 <isIntellMonitorSupport>false</isIntellMonitorSupport>
 <isVCRSupport>false</isVCRSupport>
 <isEdfManualTrackSupport>false</isEdfManualTrackSupport>
 <videoEvidenceTypeSupport></videoEvidenceTypeSupport>
```

```
 <TFSEventSupport>wrongDirection,turnRound,vehicleexist,crossLane,laneChange</TFSEventSupport>
 <AIDEventSupport>congestion,pedestrian,roadBlock,abandonedObject,construction,trafficAccident,fogDetection</
AIDEventSupport>
 <isVehicleStatisticsSupport>true</isVehicleStatisticsSupport>
 <isLaneRuleSupport>true</isLaneRuleSupport>
 <isSupportPlateListEvidence>true</isSupportPlateListEvidence>
</TrafficChannelCap>
```

B.33 XML_TrafficEventTrigger

TrafficEventTrigger message in XML format.

```
<TrafficEventTrigger version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <EventType><!--req,-->
  <allVehicleList><!--opt,xs:boolen--></allVehicleList>
 </EventType>
</TrafficEventTrigger>
```

B.34 XML_VCLData

VCLData message in XML format

```
<VCLData version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <currentUpNum>
  <!--req, xs:integer, number of currently uploaded lists-->
 </currentUpNum>
 <totalNum>
  <!--req, xs:integer, total number of searched lists-->
 </totalNum>
 <VCLDataList>
  <singleVCLData>
   <id>
    <!--req, xs:integer, list No.-->
   </id>
   <disabled><!--opt, xs: boolean, if this node does not exist, it represents enabled, otherwise, "true" represents
enabled--></disabled>
   <runNum>
    <!--req, xs:integer, data serial No., which is mark used for platform data synchronization and is between 1 and
4294836225, the value configured by the control is 0-->
   </runNum>
   <listType>
    <!--req, xs:integer, list type: 0-whitelist, 1-blacklist-->
   </listType>
   <plateNum>
    <!--req, xs:string, license plate number, the maximum length is 16 bytes-->
   </plateNum>
   <plateColor>
    <!--req, xs:integer, license plate color: 0-blue, 1-yellow, 2-white, 3-black, 4-green, 0xff-other-->
   </plateColor>
```

```
    <plateType>
      <!--req, xs:integer, license plate type: 0-standard civil vehicle and military vehicle, 1-standard 02 civil vehicle, 2-armed police vehicle, 3-police vehicle, 4-civil vehicle with two-line license plate, 5-embassy vehicle license plate, 6-agricultural vehicle license plate, 7-motorcycle license plate-->
    </plateType>
    <cardNo>
      <!--reg, xs:string, card No., the maximum length is 48 bytes-->
    </cardNo>
    <startTime>
      <!--reg, xs:datetime, valid start time, e.g., 2009-06-10T12:00:00Z-->
    </startTime>
    <endTime>
      <!--reg, xs:datetime, valid end time, e.g., 2014-06-10T12:00:00Z-->
    </endTime>
    <startDay>
      <!--opt, xs: string, start date, e.g., 2018-05-16-->
    </startDay>
    <endDay>
      <!--opt, xs: string, end time, e.g., 2018-05-16-->
    </endDay>
    <startTimeOfDay>
      <!--opt, xs: string, start time of the daytime, e.g., 08:00-->
    </startTimeOfDay>
    <endTimeOfDay>
      <!--opt, xs: string, end time of the daytime, e.g., 18:00-->
    </endTimeOfDay>
   </singleVCLData>
  </VCLDataList>
</VCLData>
```

B.35 XML_VCLDelCond

VCLDelCond message in XML format

```
<VCLDelCond version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <delVCLCond>
    <!--reg, xs:integer, list deleting condition: 0-all, 1-license plate number, 2-card No., 3-license plate color, 4-license plate type, 5-license plate number and license plate color, 6-ID-->
  </delVCLCond>
  <plateNum>
    <!--dep, xs:string, license plate number, the maximum length is 16 bytes-->
  </plateNum>
  <plateColor>
    <!--dep, xs: integer, license plate color: 0-blue, 1-yellow, 2-white, 3-black, 4-green, 0xff-other-->
  </plateColor>
  <plateType>
    <!--dep, xs: integer, license plate type: 0-standard civil vehicle and military vehicle, 1-standard 02 civil vehicle, 2-armed police vehicle, 3-police vehicle, 4-civil vehicle with two-line license plate, 5-embassy vehicle license plate, 6-agricultural vehicle license plate, 7-motorcycle license plate-->
  </plateType>
```

```
 <cardNo>
  <!--dep, xs:string, card No., the maximum length is 48 bytes-->
 </cardNo>
 <id><!--req, xs: integer--></id>
 <startDay>
  <!--opt, xs: string, start date, e.g., 2018-05-16-->
 </startDay>
 <endDay>
  <!--opt, xs: string, end time, e.g., 2018-05-16-->
 </endDay>
 <startTimeOfDay>
  <!--opt, xs: string, start time of the daytime, e.g., 08:00-->
 </startTimeOfDay>
 <endTimeOfDay>
  <!--opt, xs: string, end time of the daytime, e.g., 18:00-->
 </endTimeOfDay>
</VCLDelCond>
```

B.36 XML_VCLGetCond

VCLGetCond message in XML format

```
<VCLGetCond version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <getVCLNum>
  <!--reg, xs:integer, maximum number of lists that can be obtained, which is the number of data that can be obtained
specified by the control-->
 </getVCLNum>
 <startOffSet>
  <!--reg, xs:integer, starting position of searching in the list-->
 </startOffSet>
 <getVCLCond>
  <!--reg, xs:integer, list getting condition: 0-all, 1-license plate number, 2-card No., 3-list type-->
 </getVCLCond>
 <listType>
  <!--dep, xs:integer, list type: 0-whitelist, 1-blacklist-->
 </listType>
 <plateNum>
  <!--dep, xs:string, license plate number, the maximum length is 16 bytes-->
 </plateNum>
 <cardNo>
  <!--dep, xs:string, card No., the maximum length is 48 bytes-->
 </cardNo>
 <startDay>
  <!--opt, xs: string, start date, e.g., 2018-05-16-->
 </startDay>
 <endDay>
  <!--opt, xs: string, end time, e.g., 2018-05-16-->
 </endDay>
 <startTimeOfDay>
  <!--opt, xs: string, start time of the daytime, e.g., 08:00-->
```

```
  </startTimeOfDay>
  <endTimeOfDay>
    <!--opt, xs: string, end time of the daytime, e.g., 18:00-->
  </endTimeOfDay>
</VCLGetCond>
```

B.37 XML_VehicleDetectCfg

Vehicle detection configuration message in XML format

```
<VehicleDetectCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--required, xs:boolean--></enabled>
  <nation><!--optional, xs:string, "ER"-CIS Region, "EU"-Europe Region, "ME"-Middle East, "AP"-Asia Pacific,
"AfricaAndAmerica"-Africa and America, "All"-All Region--></nation>
  <stateOrProvince> <!--optional, xs:string--> </stateOrProvince>
  <bestDetectionSize> <!--optional, xs:string--> </bestDetectionSize>
  <VehicleDetectSceneList>
    <VehicleDetectScene/>
  </VehicleDetectSceneList>
  <PlateDetectionRegion>
    <PlateSize>
      <minWidth> <!--optional, xs:interger--> </minWidth>
      <maxWidth> <!--optional, xs:interger--> </maxWidth>
    </PlateSize>
    <plateMode><!--optional,xs:string, "small,large", License plate mode--></plateMode>
  </PlateDetectionRegion>
  <RodeType><!--optional-->
    <type><!--optional, xs:string,"entrance,city,custom,alarmInput"--> </type>
    <Custom><!--dependent, custom-->
      <delayTime><!--optional, xs:interger,[0,15000]--></delayTime>
      <delayTimeUnit><!--optional, xs:string, "ms"--></delayTimeUnit>
    </Custom>
  </RodeType>
  <countryIndex><!--optional, xs:integer, country/region No.--></countryIndex>
  <!--compatibility between countryIndex and CRIndex-->
  <!--device: both fields will be returned, when the value of CRIndex is smaller than or equal to 255, the value of
countryIndex is the same as that of CRIndex; when the value of CRIndex is larger than 255, the value of countryIndex
is 253 (the field countryIndex is invalid)-->
  <!--integration flow: for new users, CRIndex has higher priority over countryIndex and the field countryIndex is used
only when countryIndex does not exist; when the value of countryIndex is 253, additional logic processing should be
adopted to use CRIndex field-->
  <CRIndex><!--optional, xs:integer, country/region No., when the value is 0, it indicates that no country/region is
specified--></CRIndex>
</VehicleDetectCfg>
```

B.38 XML_VehicleDetectScene

XML message about vehicle detection parameters at a specific scene

```
<?xml version="1.0" encoding="utf-8"?>
<VehicleDetectScene version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, xs:integer, ID--></id>
 <sceneName><!--optional, xs:string, scene name--></sceneName>
 <enabled><!--required, xs:boolean, whether to enable the scene--></enabled>
 <PlateRecogParam>
  <PlateRecogRegionList>
   <PlateRecogRegion><!--list-->
    <id><!--required, xs:string, ID--></id>
    <RegionCoordinatesList>
     <RegionCoordinates><!--list, coordinate of the license plate recognition region-->
      <positionX><!--required, xs:integer, X-coordinate--></positionX>
      <positionY><!--required, xs:integer, Y-coordinate--></positionY>
     </RegionCoordinates>
    </RegionCoordinatesList>
   </PlateRecogRegion>
  </PlateRecogRegionList>
 </PlateRecogParam>
 <LaneConfig>
  <LaneList size="">
   <Lane><!--list-->
    <laneId><!--required, xs:integer, lane ID--></laneId>
    <RegionCoordinatesList><!--required, here only left lane line coordinate is required if the node RightLaneLine is
returned-->
     <RegionCoordinates><!--list, lane line coordinate, minoccurs=2, maxoccurs=2-->
      <positionX><!--required, xs:integer--></positionX>
      <positionY><!--required, xs:integer--></positionY>
     </RegionCoordinates>
    </RegionCoordinatesList>
    <lineType><!--optional, xs:string, line type: "laneBoundaryLine" (lane boundary line), "laneLine" (lane line)--></
lineType>
    <carDriveDirect><!--dependent, xs:string, vehicle driving direction, this node is supported when the value of
lineType is "laneLine": "unknow", "up_to_down", "down_to_up"--></carDriveDirect>
    <RightLaneLine><!--optional, right lane line coordinate. When this node is returned, it indicates that both left and
right lane lines are required to be configured for each lane line-->
     <RegionCoordinatesList size="2"> <!--required-->
      <RegionCoordinates><!--list-->
       <positionX><!--required, xs:integer, X-coordinate--></positionX>
       <positionY><!--required, xs:integer, Y-coordinate--></positionY>
      </RegionCoordinates>
     </RegionCoordinatesList>
    </RightLaneLine>
   </Lane>
  </LaneList>
 </LaneConfig>
 <AtRoadsideCalib><!--optional-->
  <RegionCoordinatesList>
   <RegionCoordinates><!--list, required-->
    <positionX><!--required, xs:integer, X-coordinate--></positionX>
    <positionY><!--required, xs:integer, Y-coordinate--></positionY>
   </RegionCoordinates>
  </RegionCoordinatesList>
```

```
 </AtRoadsideCalib>
 <ParkingDetection><!--optional, vehicle parking detection-->
  <enabled><!--required, xs:boolean--></enabled>
  <duration><!--required, xs:integer，detection interval, unit: second--></duration>
  <alarmIntervalTime><!--required, xs:integer，uploading interval, unit: second--></alarmIntervalTime>
 </ParkingDetection>
 <AboveRoadCalib><!--optional-->
  <RegionCoordinatesList>
   <RegionCoordinates><!--list，required-->
    <positionX><!--required, xs:integer，X-coordinate--></positionX>
    <positionY><!--required, xs:integer，Y-coordinate--></positionY>
   </RegionCoordinates>
  </RegionCoordinatesList>
 </AboveRoadCalib>
 <RelatedLaneParam><!--optional, related lane parameters-->
  <RelatedLaneNoList><!--required, list of related lane No.s, the maximum number can be 6-->
   <relatedLaneNo><!--required, xs:integer，related lane No., and the value is between 1 and 6--></relatedLaneNo>
  </RelatedLaneNoList>
 </RelatedLaneParam>
</VehicleDetectScene>
```

B.39 XML_VehicleDetectScheduleList

VehicleDetectScheduleList message in XML format

```
<VehicleDetectScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <Schedule>
  <id><!--req, xs:string; id --></id>
  <inputIOPortID><!--ro, dep, xs:string; id--></inputIOPortID>
  <outputIOPortID><!--ro, dep, xs:string; id--></inputIOPortID>
  <videoInputChannelID><!--ro, dep, xs:string; id--></videoInputChannelID>
  <TimeBlockList> <!--req-->
   <TimeBlock>
    <dayOfWeek>
     <!--opt, xs:integer, ISO8601 weekday number, 1=Monday, … -->
    </dayOfWeek>
    <TimeRange><!--req-->
     <beginTime><!--req, xs:time, ISO8601 time--></beginTime>
     <endTime><!--req, xs:time, ISO8601 time--></endTime>
    </TimeRange>
    <CustomExtension>
     <vehicleDetectSceneID><!--req, xs:interger--></vehicleDetectSceneID>
    </CustomExtension>
   </TimeBlock>
  </TimeBlockList>
 </Schedule>
</VehicleDetectScheduleList>
```

B.40 XML_WhiteListScheduleList

WhiteListScheduleList message in XML format

```
<WhiteListScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Schedule/><!--opt, see details in the message of XML_Schedule-->
</WhiteListScheduleList>
```

See Also

XML_Schedule

B.41 JSON_EventNotificationAlert_Alarm/EventInfo

EventNotificationAlert message with alarm or event information in JSON format.

```
{
  "ipAddress": "",
/*required, device IPv4 address , string, the maximum size is 32 bytes*/
  "ipv6Address": "",
/*optional, device IPv6 address, string, the maximum size is 128 bytes*/
  "portNo": ,
/*optional, device port No., integer32*/
  "protocol": "",
/*optional, protocol type, "HTTP, HTTPS", string, the maximum size is 32 bytes*/
  "macAddress": "",
/*optional, MAC address, string, the maximum size is 32 bytes, e.g., 01:17:24:45:D9:F4*/
  "channelID": "",
/*optional, device channel No., integer32*/
  "dateTime": "",
/*optional, string, alarm/event triggered or occurred time based on ISO8601, the maximum size is 32 bytes, e.g.,
2009-11-14T15:27Z*/
  "activePostCount": "",
/*required, alarm/event frequency, integer32*/
  "eventType": "",
/*required, alarm/event type, "captureResult, faceCapture,...", string, the maximum size is 128 bytes*/
  "eventState": "",
/*required, string, the maximum size is 32 bytes, durative alarm/event status: "active"-valid, "inactive"-invalid*/
  "eventDescription": "",
/*required, event description, string, the maximum size is 128 bytes*/
  "deviceID":"",
/*string type, device ID*/
  "uuid":"",
/*string type, event UUID, which is used to uniquely identify an event, the standard UUID format is xxxxxxxx-xxxx-xxxx-
xxxx-xxxxxxxxxxxx*/
  ...
/*optional, for different alarm/event types, the nodes are different, see the message examples in different
applications*/
}
```

B.42 XML_EventNotificationAlert_AlarmEventInfo

EventNotificationAlert message with alarm/event information in XML format.

```
<EventNotificationAlert version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <ipAddress><!--dep, xs:string, device IPv4 address--></ipAddress>
 <ipv6Address><!--dep, xs:string, device IPv6 address--></ipv6Address>
 <portNo><!--opt, xs:integer, device port number--></portNo>
 <protocol><!--opt, xs:string, protocol type for uploading alarm/event information, "HTTP,HTTPS"--></protocol>
 <macAddress><!--opt, xs:string, MAC address--></macAddress>
 <channelID><!--dep, xs:string, device channel No., starts from 1--></channelID>
 <dateTime><!--req, alarm/event triggered or occurred time, format: 2017-07-19T10:06:41+08:00--></dateTime>
 <activePostCount><!--req, xs:integer, alarm/event frequency, starts from 1--></activePostCount>
 <eventType><!--req, xs:string, alarm/event type, "peopleCounting, ANPR,..."--></eventType>
 <eventState>
  <!--req, xs:string, durative alarm/event status: "active"-valid, "inactive"-invalid, e.g., when a moving target is
detected,
   the alarm/event information will be uploaded continuously unit the status is set to "inactive"-->
 </eventState>
 <eventDescription><!--req, xs:string, alarm/event description--></eventDescription>
 <...><!--opt, for different alarm/event types, the nodes are different, see the message examples in different
applications--></...>
</EventNotificationAlert>
```

B.43 XML_EventNotificationAlert_HeartbeatInfo

EventNotificationAlert message with heartbeat information (when there is no alarm is triggered) in XML format

```
<EventNotificationAlert version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <ipv6Address><!--dep, xs:string, device IPv6 address--></ipv6Address>
 <portNo><!--opt, xs:integer, device port number--></portNo>
 <protocol><!--opt, xs:string, protocol type for uploading alarm/event information, "HTTP,HTTPS"--></protocol>
 <macAddress><!--opt, xs:string, MAC address--></macAddress>
 <channelID><!--dep, xs:string, device channel No., starts from 1--></channelID>
 <dateTime><!--req, heartbeat uploaded time, format: 2017-07-19T10:06:41+08:00--></dateTime>
 <activePostCount><!--req, xs:integer, heartbeat frequency, starts from 1--></activePostCount>
 <eventType><!--req, xs:string, for heartbeat, it is "videoloss"--></eventType>
 <eventState>
  <!--req, xs:string, for heartbeat, it is "inactive"-->
 </eventState>
 <eventDescription><!--req, xs: string, description--></eventDescription>
</EventNotificationAlert>
```

Remarks

- For network camera or network speed dome with the version 5.5.0 and lower, the heartbeat frequency is 300 ms per heartbeat.
- For network camera or network speed dome with the version 5.5.0 and higher, the heartbeat frequency is 10 s per heartbeat. If no heartbeat received for continuous 30 s, it indicates that the heartbeat is timed out.

Example

Message Example of Heartbeat

```
<EventNotificationAlert version="2.0" xmlns="http://www.isapi.com/ver20/XMLSchema">
 <ipAddress>10.17.133.46</ipAddress>
 <portNo>80</portNo>
 <protocol>HTTP</protocol>
 <macAddress>44:19:b6:6d:24:85</macAddress>
 <channelID>1</channelID>
 <dateTime>2017-05-04T11:20:02+08:00</dateTime>
 <activePostCount>0</activePostCount>
 <eventType>videoloss</eventType>
 <eventState>inactive</eventState>
 <eventDescription>videoloss alarm</eventDescription>
</EventNotificationAlert>
```

B.44 XML_HttpHostNotification

XML message about parameters of a HTTP listening server

```
<HttpHostNotification version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, xs:string, ID--></id>
 <url><!--required, xs:string, the absolute path, e.g., http://<ipAddress>:<portNo>/<uri>--></url>
 <protocolType><!--required, xs:string, "HTTP,HTTPS,EHome"--></protocolType>
 <parameterFormatType><!--required, xs:string, alarm/event information format, "XML,JSON"--></
parameterFormatType>
 <addressingFormatType><!--required, xs:string, "ipaddress,hostname"--></addressingFormatType>
 <hostName><!--dependent, xs:string--></hostName>
 <ipAddress><!--dependent, xs:string--></ipAddress>
 <ipv6Address><!--dependent, xs:string--></ipv6Address>
 <portNo><!--optional, xs:integer--></portNo>
 <userName><!--dependent, xs:string--></userName>
 <password><!--dependent, xs:string--></password>
 <httpAuthenticationMethod><!--required, xs:string, "MD5digest,none"--></httpAuthenticationMethod>
 <ANPR><!--optional-->
  <detectionUpLoadPicturesType>
   <!--optional, xs:string, types of alarm picture to be uploaded: "all, licensePlatePicture, detectionPicture"-->
  </detectionUpLoadPicturesType>
 </ANPR>
 <eventType optional="AID,TFS,TPS"><!--required, xs:string--></eventType>
 <uploadImagesDataType>
  <!--optional, xs:string, "URL", "binary" (default), for cloud storage, only "URL" is supported-->
```

```
  </uploadImagesDataType>
  <eventMode><!--optional, xs:string, "all,list"--></eventMode>
  <EventList><!--dependent, it is valid only when eventMode is "list"-->
    <Event><!--required-->
      <type><!--required, xs:string--></type>
    </Event>
  </EventList>
  <channels><!--optional, xs:string, "1,2,3,4..."--></channels>
  <SubscribeEvent/><!--optional, event subscription parameters, see details in the message of XML_SubscribeEvent-->
</HttpHostNotification>
```

B.45 XML_HttpHostNotificationCap

XML message about capability of HTTP listening server

```
<?xml version="1.0" encoding="utf-8"?>
<HttpHostNotificationCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <hostNumber>2</hostNumber>
  <urlLen max=""/>
  <protocolType opt="HTTP,HTTPS,EHome"/>
  <parameterFormatType opt="XML,querystring,JSON"/>
  <addressingFormatType opt="ipaddress,hostname"/>
  <ipAddress opt="ipv4,ipv6"/>
  <portNo min="" max=""/>
  <userNameLen min="" max=""/>
  <passwordLen min="" max=""/>
  <httpAuthenticationMethod opt="MD5digest,none"/>
  <Extensions>
    <intervalBetweenEvents min="" max=""/>
  </Extensions>
  <uploadImagesDataType opt="URL,binary"/>
  <ANPR><!--optional-->
    <detectionUpLoadPicturesType opt="all,licensePlatePicture,detectionPicture..."/><!--optional, xs:string, types of
alarm pictures to be uploaded-->
    <alarmHttpPushProtocol opt="baseline,custom"/>
  </ANPR>
  <httpBroken opt="true,false" def="true" ><!--optional, xs:boolean, whether to enable global ANR: true, false--></
httpBroken>
  <SubscribeEventCap>
    <heartbeat min="" max=""/><!--optional, heartbeat time interval, unit: second-->
    <channelMode opt="all,list"/><!--required, all-subscribe events of all channels, list-subscribe event by channel-->
    <eventMode opt="all,list"/><!--required, event subscription mode: all-subscribe all events of all channels, list-
subscribe events by type, channel, and target-->
    <!--if the values of the two nodes channelMode and eventMode are both "all", it indicates that the device does not
support subscribe events by type and channel-->
    <EventList><!--dependent, alarm uploading mode, this node is valid only when eventMode is "list"-->
      <Event><!--required-->
    <type><!--required, xs:string, event types--></type>
        <pictureURLType opt="binary,localURL,cloudStorageURL" def=""/>
        <!--optional, xs:string, transmission format of alarm picture: "binary"-picture binary data, "localURL"-picture URL
```

```
from local device, "cloudStorageURL"-picture URL from cloud storage-->
     </Event>
   </EventList>
   <pictureURLType opt="binary,localURL,cloudStorageURL" def=""/>
   <!--optional, xs:string, transmission format of all alarm pictures: "binary"-picture binary data (default for camera),
"localURL"-picture URL from local device (default for NVR/DVR), "cloudStorageURL"-picture URL from cloud storage;
this node is in highest priority-->
   <ChangedUploadSub>
    <interval/><!--optional, xs:integer, the life cycle of arming GUID, unit: second, the default life cycle is 5 minutes; if
the reconnection is not started during the life cycle, a new GUID will be generated-->
     <StatusSub>
   <all/><!--optional, xs:boolean, whether to subscribe all-->
   <channel/><!--optional, xs:boolean, subscribe channel status, this node is not required when the node all is "true"--
>
   <hd/><!--optional, xs:boolean, subscribe the HDD status, this node is not required when the node all is "true"-->
   <capability/><!--optional, xs:boolean, subscribe the capability changed status, this node is not required when the
node all is "true"-->
     </StatusSub>
   </ChangedUploadSub>
  </SubscribeEventCap>
</HttpHostNotificationCap>
```

B.46 XML_HttpHostNotificationList

HttpHostNotificationList message in XML format

```
<HttpHostNotificationList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <HttpHostNotification>
   <id><!--req, xs:string, ID--></id>
   <url><!--req, xs:string--></url>
   <protocolType><!--req, xs:string, "HTTP,HTTPS"--></protocolType>
   <parameterFormatType><!--req, xs:string, alarm/event information format, "XML,JSON"--></parameterFormatType>
   <addressingFormatType><!--req, xs:string, "ipaddress,hostname"--></addressingFormatType>
   <hostName><!--dep, xs:string--></hostName>
   <ipAddress><!--dep, xs:string--></ipAddress>
   <ipv6Address><!--dep, xs:string--></ipv6Address>
   <portNo><!--opt, xs:integer--></portNo>
   <userName><!--dep, xs:string--></userName>
   <password><!--dep, xs:string--></password>
   <httpAuthenticationMethod><!--req, xs:string, "MD5digest,none"--></httpAuthenticationMethod>
   <uploadImagesDataType>
    <!--opt, xs:string, "URL", "binary" (default), for cloud storage, only "URL" is supported-->
   </uploadImagesDataType>
   <eventMode><!--opt, xs:string, "all,list"--></eventMode>
   <EventList><!--dep, it is valid only when eventMode is "list"-->
    <Event><!--req-->
     <type><!--req, xs:string--></type>
    </Event>
   </EventList>
   <channels><!--opt, xs:string, "1,2,3,4..."--></channels>
```

```
  </HttpHostNotification>
</HttpHostNotificationList>
```

Example

HttpHostNotificationList Message Example

```
<HttpHostNotificationList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <HttpHostNotification>
    <id>1</id>
    <url></url>
    <protocolType>HTTP</protocolType>
    <parameterFormatType>XML</parameterFormatType>
    <addressingFormatType>ipaddress</addressingFormatType>
    <ipAddress>0.0.0.0</ipAddress>
    <portNo>80</portNo>
    <userName></userName>
    <httpAuthenticationMethod>none</httpAuthenticationMethod>
  </HttpHostNotification>
</HttpHostNotificationList>
```

B.47 XML_HttpHostTestResult

HttpHostTestResult message in XML format.

```
<HttpHostTestResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <errorDescription>
    <!--req, xs:string-->
  </errorDescription>
</HttpHostTestResult>
```

B.48 XML_HttpServer

XML message about the parameters of a specific HTTP server

```
<HttpServer version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--required, xs:string, ID--></id>
  <url><!--required, xs:string, URL--></url>
  <enabled><!--required, xs:boolean, whether to enable--></enabled>
  <protocolType><!--optional, xs:string, protocol type: "HTTP"--></protocolType>
  <parameterFormatType><!--optional, xs:string, parameter format: "XML", "querystring"--></parameterFormatType>
  <addressingFormatType><!--required, xs:string, address type: "ipaddress", "hostname"--></addressingFormatType>
  <hostName><!--dependent, xs:string, HTTP server name--></hostName>
  <ipAddress><!--dependent, xs:string, IPv4 address--></ipAddress>
  <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
  <portNo><!--optional, xs:integer, port No.--></portNo>
  <userName><!--dependent, xs:string, user name--></userName>
  <password><!--dependent, xs:string, password--></password>
  <httpAuthenticationMethod><!--required, xs:string, HTTP authentication method: "none", "basic"--></
httpAuthenticationMethod>
```

```
  <uploadPicture><!--optional, xs:boolean, whether to upload the picture--></uploadPicture>
  <pictureType><!--required, xs:string, picture type: "all", "big", "small"--></pictureType>
</HttpServer>
```

Appendix C. Response Codes of Text Protocol

The response codes returned during the text protocol integration is based on the status codes of HTTP. 7 kinds of status codes are predefined, including 1 (OK), 2 (Device Busy), 3 (Device Error), 4 (Invalid Operation), 5 (Invalid Message Format), 6 (Invalid Message Content), and 7 (Reboot Required). Each kind of status code contains multiple sub status codes, and the response codes are in a one-to-one correspondence with the sub status codes.

StatusCode=1

SubStatusCode	Error Code	Description
ok	0x1	Operation completed.
riskPassword	0x10000002	Risky password.
armProcess	0x10000005	Arming process.

StatusCode=2

Sub Status Code	Error Code	Description
noMemory	0x20000001	Insufficient memory.
serviceUnavailable	0x20000002	The service is not available.
upgrading	0x20000003	Upgrading.
deviceBusy	0x20000004	The device is busy or no response.
reConnectIpc	0x20000005	The video server is reconnected.
transferUpgradePackageFailed	0x20000006	Transmitting device upgrade data failed.
startUpgradeFailed	0x20000007	Starting upgrading device failed.
getUpgradeProcessfailed.	0x20000008	Getting upgrade status failed.
certificateExist	0x2000000B	The Authentication certificate already exists.

StatusCode=3

Sub Status Code	Error Code	Description
deviceError	0x30000001	Hardware error.
badFlash	0x30000002	Flash operation error.
28181Uninitialized	0x30000003	The 28181 configuration is not initialized.
socketConnectError	0x30000005	Connecting to socket failed.
receiveError	0x30000007	Receive response message failed.
deletePictureError	0x3000000A	Deleting picture failed.
pictureSizeExceedLimit	0x3000000C	Too large picture size.
clearCacheError	0x3000000D	Clearing cache failed.
updateDatabasError	0x3000000F	Updating database failed.
searchDatabaseError	0x30000010	Searching in the database failed.
writeDatabaseError	0x30000011	Writing to database failed.
deleteDatabaseError	0x30000012	Deleting database element failed.
searchDatabaseElementError	0x30000013	Getting number of database elements failed.
cloudAutoUpgradeException	0x30000016	Downloading upgrade packet from cloud and upgrading failed.
HBPException	0x30001000	HBP exception.
UDEPException	0x30001001	UDEP exception
elasticSearchException	0x30001002	Elastic exception.
kafkaException	0x30001003	Kafka exception.
HBaseException	0x30001004	Hbase exception.
sparkException	0x30001005	Spark exception.
yarnException	0x30001006	Yarn exception.
cacheException	0x30001007	Cache exception.

Sub Status Code	Error Code	Description
trafficException	0x30001008	Monitoring point big data server exception.
faceException	0x30001009	Human face big data server exception.
SSDFileSystemIsError	0x30001013	SSD file system error (Error occurs when it is non-Ext4 file system)
insufficientSSDCapacityForFPD	0x30001014	Insufficient SSD space for person frequency detection.
wifiException	0x3000100A	Wi-Fi big data server exception
structException	0x3000100D	Video parameters structure server exception.
noLinkageResource	0x30001015	Insufficient linkage resources.
noArmingResource	0x30001016	Insufficient arming resources.
calibrationTimeout	0x30002051	Calibration timed out.
captureTimeout	0x30006000	Data collection timed out.
lowScore	0x30006001	Low quality of collected data.
uploadingFailed	0x30007004	Uploading failed.

StatusCode=4

Sub Status Code	Error Code	Description
notSupport	0x40000001	Not supported.
lowPrivilege	0x40000002	No permission.
badAuthorization	0x40000003	Authentication failed.
methodNotAllowed	0x40000004	Invalid HTTP method.
notSetHdiskRedund	0x40000005	Setting spare HDD failed.
invalidOperation	0x40000006	Invalid operation.
notActivated	0x40000007	Inactivated.
hasActivated	0x40000008	Activated.
certificateAlreadyExist	0x40000009	The certificate already exists.
operateFailed	0x4000000F	Operation failed.

Sub Status Code	Error Code	Description
USBNotExist	0x40000010	USB device is not connected.
upgradePackageMorethan2GB	0x40001000	Up to 2GB upgrade package is allowed to be uploaded.
IDNotexist	0x40001001	The ID does not exist.
interfaceOperationError	0x40001002	API operation failed.
synchronizationError	0x40001003	Synchronization failed.
synchronizing	0x40001004	Synchronizing.
importError	0x40001005	Importing failed.
importing	0x40001006	Importing.
fileAlreadyExists	0x40001007	The file already exists.
invalidID	0x40001008	Invalid ID.
backupnodeNotAlloweLog	0x40001009	Accessing to backup node is not allowed.
exportingError	0x4000100A	Exporting failed.
exporting	0x4000100B	Exporting.
exportEnded	0x4000100C	Exporting stopped.
exported	0x4000100D	Exported.
IPOccupied	0x4000100E	The IP address is already occupied.
IDAlreadyExists	0x4000100F	The ID already exists.
exportItemsExceedLimit	0x40001010	No more items can be exported.
noFiles	0x40001011	The file does not exist.
beingExportedByAnotherUser	0x40001012	Being exported by others.
needReAuthentication	0x40001013	Authentication is needed after upgrade.
unitAddNotOnline	0x40001015	The added data analysis server is offline.
unitControl	0x40001016	The data analysis server is already added.
analysis unitFull	0x40001017	No more data analysis server can be added.
unitIDError	0x40001018	The data analysis server ID does not exist.

Sub Status Code	Error Code	Description
unitExit	0x40001019	The data analysis server already exists in the list.
unitSearch	0x4000101A	Searching data analysis server in the list failed.
unitNotOnline	0x4000101B	The data analysis server is offline.
unitInfoEror	0x4000101C	Getting data analysis server information failed.
unitGetNodeInfoError	0x4000101D	Getting node information failed.
unitGetNetworkInfoError	0x4000101E	Getting the network information of data analysis server failed
unitSetNetworkInfoError	0x4000101F	Setting the network information of data analysis server failed
setSmartNodeInfoError	0x40001020	Setting node information failed.
setUnitNetworkInfoError	0x40001021	Setting data analysis server network information failed.
unitRestartCloseError	0x40001022	Rebooting or shutting down data analysis server failed.
virtualIPnotAllowed	0x40001023	Adding virtual IP address is not allowed.
unitInstalled	0x40001024	The data analysis server is already installed.
badSubnetMask	0x40001025	Invalid subnet mask.
uintVersionMismatched	0x40001026	Data analysis server version mismatches.
deviceMOdelMismatched	0x40001027	Adding failed. Device model mismatches.
unitAddNotSelf	0x40001028	Adding peripherals is not allowed.
noValidUnit	0x40001029	No valid data analysis server.
unitNameDuplicate	0x4000102A	Duplicated data analysis server name.
deleteUnitFirst	0x4000102B	Delete the added data analysis server of the node first.
getLocalInfoFailed	0x4000102C	Getting the server information failed.
getClientAddedNodeFailed	0x4000102D	Getting the added node information of data analysis server failed.
taskExit	0x4000102E	The task already exists.

Sub Status Code	Error Code	Description
taskInitError	0x4000102F	Initializing task failed.
taskSubmitError	0x40001030	Submiting task failed.
taskDelError	0x40001031	Deleting task failed.
taskPauseError	0x40001032	Pausing task failed.
taskContinueError	0x40001033	Starting task failed.
taskSeverNoCfg	0x40001035	Full-text search server is not configured.
taskPicSeverNoCfg	0x40001036	The picture server is not configured.
taskStreamError	0x40001037	Streaming information exception.
taskRecSDK	0x40001038	History recording is not supported.
taskCasaError	0x4000103A	Cascading is not supported.
taskVCARuleError	0x4000103B	Invalid VCA rule.
taskNoRun	0x4000103C	The task is not executed.
unitLinksNoStorageNode	0x4000103D	No node is linked with the data analysis server. Configure the node first.
searchFailed	0x4000103E	Searching video files failed.
searchNull	0x4000103F	No video clip.
userScheOffline	0x40001040	The task scheduler service is offline.
updateTypeUnmatched	0x40001041	The upgrade package type mismatches.
userExist	0x40001043	The user already exists.
userCannotDelAdmin	0x40001044	The administrator cannot be deleted.
userInexistence	0x40001045	The user name does not exist.
userCannotCreatAdmin	0x40001046	The administrator cannot be created.
monitorCamExceed	0x40001048	Up to 3000 cameras can be added.
monitorCunitOverLimit	0x40001049	Adding failed. Up to 5 lower-levels are supported by the control center.
monitorReginOverLimit	0x4000104A	Adding failed. Up to 5 lower-levels are supported by the area.

Sub Status Code	Error Code	Description
monitorArming	0x4000104B	The camera is already armed. Disarm the camera and try again.
monitorSyncCfgNotSet	0x4000104C	The system parameters are not configured.
monitorFdSyncing	0x4000104E	Synchronizing. Try again after completing the synchronization.
monitorParseFailed	0x4000104F	Parsing camera information failed.
monitorCreatRootFailed	0x40001050	Creating resource node failed.
deleteArmingInfo	0x40001051	The camera is already . Disarm the camera and try again.
cannotModify	0x40001052	Editing is not allowed. Select again.
cannotDel	0x40001053	Deletion is not allowed. Select again.
deviceExist	0x40001054	The device already exists.
IPErrorConnectFailed	0x40001056	Connection failed. Check the network port.
cannotAdd	0x40001057	Only the capture cameras can be added.
serverExist	0x40001058	The server already exists.
fullTextParamError	0x40001059	Incorrect full-text search parameters.
storParamError	0x4000105A	Incorrect storage server parameters.
picServerFull	0x4000105B	The storage space of picture storage server is full.
NTPUnconnect	0x4000105C	Connecting to NTP server failed. Check the parameters.
storSerConnectFailed	0x4000105D	Connecting to storage server failed. Check the network port.
storSerLoginFailed	0x4000105E	Logging in to storage server failed. Check the user name and password.
searchSerConnectFailed	0x4000105F	Connecting to full-text search server failed. Check the network port.
searchSerLoginFailed	0x40001060	Logging in to full-text search server failed. Check the user name and password.
kafkaConnectFailed	0x40001061	Connecting to Kafka failed. Check the network port.

Sub Status Code	Error Code	Description
mgmtConnectFailed	0x40001062	Connecting to system failed. Check the network port.
mgmtLoginFailed	0x40001063	Logging in to system failed. Check the user name and password.
TDAConnectFailed	0x40001064	Connecting to traffic data access server failed. Checking the server status.
86sdkConnectFailed	0x40001065	Connecting to listening port of iVMS-8600 System failed. Check the parameters.
nameExist	0x40001066	Duplicated server name.
batchProcessFailed	0x40001067	Processing in batch failed.
IDNotExist	0x40001068	The server ID does not exist.
serviceNumberReachesLimit	0x40001069	No more service can be added.
invalidServiceType.	0x4000106A	Invalid service type.
clusterGetInfo	0x4000106B	Getting cluster group information failed.
clusterDelNode	0x4000106C	Deletion node failed.
clusterAddNode	0x4000106D	Adding node failed.
clusterInstalling	0x4000106E	Creating cluster…Do not operate.
clusterUninstall	0x4000106F	Reseting cluster…Do not operate.
clusterInstall	0x40001070	Creating cluster failed.
clusterIpError	0x40001071	Invalid IP address of task scheduler server.
clusterNotSameSeg	0x40001072	The master node and slave node must be in the same network segment.
clusterVirIpError	0x40001073	Automatically getting virtual IP address failed. Enter manually.
clusterNodeUnadd	0x40001074	The specified master(slave) node is not added.
clusterNodeOffline	0x40001075	The task scheduler server is offline.
nodeNotCurrentIP	0x40001076	The analysis node of the current IP address is required when adding master and slave nodes.
addNodeNetFailed	0x40001077	Adding node failed. The network disconnected.

Sub Status Code	Error Code	Description
needTwoMgmtNode	0x40001078	Two management nodes are required when adding master and slave nodes.
ipConflict	0x40001079	The virtual IP address and data analysis server's IP address conflicted.
ipUsed	0x4000107A	The virtual IP address has been occupied.
cloudAlalyseOnline	0x4000107B	The cloud analytic server is online.
virIP&mainIPnotSameNetSegment	0x4000107C	The virtual IP address is not in the same network segment with the IP address of master/slave node.
getNodeDispatchInfoFailed	0x4000107D	Getting node scheduler information failed.
unableModifyManagementNetworkIP	0x4000107E	Editing management network interface failed. The analysis board is in the cluster.
notSpecifyVirtualIP	0x4000107F	Virtual IP address should be specified for master and slave cluster.
armingFull	0x40001080	No more device can be armed.
armingNoFind	0x40001081	The arming information does not exist.
disArming	0x40001082	Disarming failed.
getArmingError	0x40001084	Getting arming information failed.
refreshArmingError	0x40001085	Refreshing arming information failed.
ArmingPlateSame	0x40001086	The license plate number is repeatedly armed.
ArmingParseXLSError	0x40001087	Parsing arming information file failed.
ArmingTimeError	0x40001088	Invalid arming time period.
ArmingSearchTimeError	0x40001089	Invalid search time period.
armingRelationshipReachesLimit	0x4000108A	No more relation can be created.
duplicateAarmingName	0x4000108B	The relation name already exists.
noMoreArmingListAdded	0x4000108C	No more blacklist library can be armed.
noMoreCamerasAdded	0x4000108D	No more camera can be armed.

Sub Status Code	Error Code	Description
noMoreArmingListAddedWithCamera	0x4000108E	No more library can be linked to the camera.
noMoreArmingPeriodAdded	0x4000108F	No more time period can be added to the arming schedule.
armingPeriodsOverlapped	0x40001090	The time periods in the arming schedule are overlapped.
noArmingAlarmInfo	0x40001091	The alarm information does not exist.
armingAlarmUnRead	0x40001092	Getting number of unread alarms failed.
getArmingAlarmError	0x40001093	Getting alarm information failed.
searchByPictureTimedOut	0x40001094	Searching picture by picture timeout. Search again.
comparisonTimeRangeError	0x40001095	Comparison time period error.
selectMonitorNumberUpperLimit	0x40001096	No more monitoring point ID can be filtered.
noMoreComparisonTasksAdded	0x40001097	No more comparison task can be executed at the same time.
GetComparisonResultFailed	0x40001098	Getting comparison result failed.
comparisonTypeError	0x40001099	Comparison type error.
comparisonUnfinished	0x4000109A	The comparison is not completed.
facePictureModelInvalid	0x4000109B	Invalid face model.
duplicateLibraryName.	0x4000109C	The library name already exists.
noRecord	0x4000109D	No record found.
countingRecordsFailed.	0x4000109E	Calculate the number of records failed.
getHumanFaceFrameFailed	0x4000109F	Getting face thumbnail from the picture failed.
modelingFailed.	0x400010A0	Modeling face according to picture URL failed.
1V1FacePictureComparisonFailed	0x400010A1	Comparison 1 VS 1 face picture failed.
libraryArmed	0x400010A2	The blacklist library is armed.

Sub Status Code	Error Code	Description
licenseExeedLimit	0x400010A3	Dongle limited.
licenseExpired	0x400010A4	Dongle expired.
licenseDisabled	0x400010A5	Unavailable dongle.
licenseNotExist	0x400010A6	The dongle does not exist.
SessionExpired	0x400010A7	Session expired .
beyondConcurrentLimit	0x400010A8	Out of concurrent limit.
stopSync	0x400010A9	Synchronization stopped.
getProgressFaild	0x400010AA	Getting progress failed.
uploadExtraCaps	0x400010AB	No more files can be uploaded.
timeRangeError	0x400010AC	Time period error.
dataPortNotConnected	0x400010AD	The data port is not connected.
addClusterNodeFailed	0x400010AE	Adding to the cluster failed. The device is already added to other cluster.
taskNotExist	0x400010AF	The task does not exist.
taskQueryFailed	0x400010B0	Searching task failed.
modifyTimeRuleFailed	0x400010B2	The task already exists. Editing time rule is not allowed.
modifySmartRuleFailed	0x400010B3	The task already exists. Editing VAC rule is not allowed.
queryHistoryVideoFaile d	0x400010B4	Searching history video failed.
addDeviceFailed	0x400010B5	Adding device failed.
addVideoFailed	0x400010B6	Adding video files failed.
deleteAllVideoFailed	0x400010B7	Deleting all video files failed.
createVideoIndexFailed	0x400010B8	Indexing video files failed.
videoCheckTypeFailed	0x400010B9	Verifying video files types failed.
configStructuredAddressFailed	0x400010BA	Configuring IP address of structured server failed.
configPictureServerAddressFailed	0x400010BB	Configuring IP address of picture storaged server failed.

Sub Status Code	Error Code	Description
storageServiceIPNotExist	0x400010BD	The storage server IP address does not exist.
syncBackupDatabaseFailed	0x400010BE	Synchronizing slave database failed. Try again.
syncBackupNTPTimeFailed	0x400010BF	Synchronizing NTP time of slave server failed.
clusterNotSelectLoopbackAddress	0x400010C0	Loopbacl address is not supported by the master or slave cluster.
addFaceRecordFailed	0x400010C1	Adding face record failed.
deleteFaceRecordFailed	0x400010C2	Deleting face record failed.
modifyFaceRecordFailed	0x400010C3	Editing face record failed.
queryFaceRecordFailed	0x400010C4	Searching face record failed.
faceDetectFailed	0x400010C5	Detecting face failed.
libraryNotExist	0x400010C6	The library does not exist.
blackListQueryExporting	0x400010C7	Exporting matched blacklists.
blackListQueryExported	0x400010C8	The matched blacklists are exported.
blackListQueryStopExporting	0x400010C9	Exporting matched blacklists is stopped.
blackListAlarmQueryExporting	0x400010CA	Exporting matched blacklist alarms.
blackListAlarmQueryExported	0x400010CB	The matched blacklists alarms are exported.
blackListAlarmQueryStopExporting	0x400010CC	Exporting matched blacklist alarms is stopped.
getBigDataCloudAnalysisFailed	0x400010CD	Getting big data cloud analytic information failed.
setBigDataCloudAnalysisFailed	0x400010CE	Configuring big data cloud analytic failed.

Sub Status Code	Error Code	Description
submitMapSearchFailed	0x400010CF	Submitting search by picture task failed.
controlRelationshipNotExist	0x400010D0	The relation does not exist.
getHistoryAlarmInfoFailed	0x400010D1	Getting history alarm information failed.
getFlowReportFailed	0x400010D2	Getting people counting report failed.
addGuardFailed	0x400010D3	Adding arming configuration failed.
deleteGuardFailed	0x400010D4	Deleting arming configuration failed.
modifyGuardFailed	0x400010D5	Editing arming configuration failed.
queryGuardFailed	0x400010D6	Searching arming configurations failed.
uploadUserSuperCaps	0x400010D7	No more user information can be uploaded.
bigDataServerConnectFailed	0x400010D8	Connecting to big data server failed.
microVideoCloudRequestInfoBuildFailed	0x400010D9	Adding response information of micro video cloud failed.
microVideoCloudResponseInfoBuildFailed	0x400010DA	Parsing response information of micro video cloud failed.
transcodingServerRequestInfoBuildFailed	0x400010DB	Adding response information of transcoding server failed.
transcodingServerResponseInfoParseFailed	0x400010DC	Parsing response information of transcoding server failed.
transcodingServerOffline	0x400010DD	Transcoding server is offline.
microVideoCloudOffline	0x400010DE	Micro video cloud is offline.
UPSServerOffline	0x400010DF	UPS monitor server is offline.
statisticReportRequestInfoBuildFailed	0x400010E0	Adding response information of statistics report failed.
statisticReportResponseInfoParseFailed	0x400010E1	Parsing response information of statistics report failed.
DisplayConfigInfoBuildFailed	0x400010E2	Adding display configuration information failed.

Sub Status Code	Error Code	Description
DisplayConfigInfoParseFailed	0x400010E3	Parsing display configuration information failed.
DisplayConfigInfoSaveFailed	0x400010E4	Saving display configuration information failed.
notSupportDisplayConfigType	0x400010E5	The display configuration type is not supported.
passError	0x400010E7	Incorrect password.
upgradePackageLarge	0x400010EB	Too large upgrade package.
sesssionUserReachesLimit	0x400010EC	No more user can log in via session.
ISO 8601TimeFormatError	0x400010ED	Invalid ISO8601 time format.
clusterDissolutionFailed	0x400010EE	Deleting cluster failed.
getServiceNodeInfoFailed	0x400010EF	Getting service node information failed.
getUPSInfoFailed	0x400010F0	Getting UPS configuration information failed.
getDataStatisticsReportFailed	0x400010F1	Getting data statistic report failed.
getDisplayConfigInfoFailed	0x400010F2	Getting display configuration failed.
namingAnalysisBoardNotAllowed	0x400010F3	Renaming analysis board is not allowed.
onlyDrawRegionsOfConvexPolygon	0x400010F4	Only drawing convex polygon area is supported.
bigDataServerResponseInfoParseFailed	0x400010F5	Parsing response message of big data service failed.
bigDataServerReturnFailed	0x400010F6	No response is returned by big data service.
microVideoReturnFailed	0x400010F7	No response is returned by micro video cloud service.
transcodingServerRetunrnFailed	0x400010F8	No response is returned by transcoding service.

Sub Status Code	Error Code	Description
UPSServerReturnFailed	0x400010F9	No response is returned by UPS monitoring service.
forwardingServer ReturnFailed	0x400010FA	No response is returned by forwarding service.
storageServer ReturnFailed	0x400010FB	No response is returned by storage service.
cloudAnalysisServerRet urnFailed	0x400010FC	No response is returned by cloud analytic service.
modelEmpty	0x400010FD	No model is obtained.
mainAndBackupNodeC annotModifyManagem entNetworkInterfaceIP	0x400010FE	Editing the management interface IP address of master node and backup node is not allowed.
IDTooLong	0x400010FF	The ID is too long.
pictureCheckFailed	0x40001100	Detecting picture failed.
pictureModelingFailed	0x40001101	Modeling picture failed.
setCloudAnalsisDefault ProvinceFailed	0x40001102	Setting default province of cloud analytic service failed.
InspectionAreasNumbe rExceedLimit	0x40001103	No more detection regions can be added.
picturePixelsTooLarge	0x40001105	The picture resolution is too high.
picturePixelsTooSmall	0x40001106	The picture resolution is too low.
storageServiceIPEmpty	0x40001107	The storage server IP address is required.
bigDataServerRequestI nfoBuildFail	0x40001108	Creating request message of big data service failed.
analysiTimedOut	0x40001109	Analysis time out.
high-performanceModeDisa bled.	0x4000110A	Please enable high-performance mode.
configuringUPSMonito ringServerTimedOut	0x4000110B	Configurating the UPS monitoring server time out. Check IP address.
cloudAnalysisRequestI nformationBuildFailed	0x4000110C	Creating request message of cloud analytic service failed.

Sub Status Code	Error Code	Description
cloudAnalysisResponseInformationParseFailed	0x4000110D	Parsing response message of cloud analytic service failed.
allCloudAnalysisInterfaceFailed	0x4000110E	Calling API for cloud analytic service failed.
cloudAnalysisModelCompareFailed	0x4000110F	Model comparison of cloud analytic service failed.
cloudAnalysisFacePictureQualityRatingFailed	0x40001110	Getting face quality grading of cloud analytic service failed.
cloudAnalysisExtractFeaturePointsFailed	0x40001111	Extracting feature of cloud analytic service failed.
cloudAnalysisExtractPropertyFailed	0x40001112	Extracting property of cloud analytic service failed.
getAddedNodeInformationFailed	0x40001113	Getting the added nodes information of data analysis server failed.
noMoreAnalysisUnitsAdded	0x40001114	No more data analysis servers can be added.
detectionAreaInvalid	0x40001115	Invalid detection region.
shieldAreaInvalid	0x40001116	Invalid shield region.
noMoreShieldAreasAdded	0x40001117	No more shield region can be drawn.
onlyAreaOfRectangleShapeAllowed	0x40001118	Only drawing rectangle is allowed in detection area.
numberReachedLlimit	0x40001119	Number reached the limit.
wait1~3MinutesGetIPAfterSetupDHCP	0x4000111A	Wait 1 to 3 minutes to get IP address after configuring DHCP.
plannedTimeMustbeHalfAnHour	0x4000111B	Schedule must be half an hour.
oneDeviceCannotBuildCluster	0x4000111C	Creating master and backup cluster requires at least two devices.
updatePackageFileNotUploaded	0x4000111E	Upgrade package is not uploaded.

Sub Status Code	Error Code	Description
highPerformanceTasksNotSupportDrawingDetectionRegions	0x4000111F	Drawing detection area is not allowed under high-performance mode.
controlCenterIDDoesNotExist	0x40001120	The control center ID does not exist.
regionIDDoesNotExist	0x40001121	The area ID does not exist.
licensePlateFormatError	0x40001122	Invalid license plate format.
managementNodeDoesNotSupportThisOperation	0x40001123	The operation is not supported.
searchByPictureResourceNotConfiged	0x40001124	The conditions for searching picture by picture are not configured.
videoFileEncapsulationFormatNotSupported	0x40001125	The video container format is not supported.
videoPackageFailure	0x40001126	Converting video container format failed.
videoCodingFormatNotSupported	0x40001127	Video coding format is not supported.
monitorOfDeviceArmingdeleteArmingInfo	0x40001129	The camera is armed. Disarm it and try again.
getVideoSourceTypeFailed	0x4000112A	Getting video source type failed.
smartRulesBuildFailed	0x4000112B	Creating VAC rule failed.
smartRulesParseFailed	0x4000112C	Parsing VAC rule failed.
timeRulesBuildFailed	0x4000112D	Creating time rule failed.
timeRulesParseFailed	0x4000112E	Parsing time rule failed.
monitoInfoInvalid	0x4000112F	Invalid camera information.
addingFailedVersionMismatches	0x40001130	Adding failed. The device version mismatches.
theInformationReturnedAfterCloudAnalysisIsEmpty	0x40001131	No response is returned by the cloud analytic service.

Sub Status Code	Error Code	Description
selectingIpAddressOfHostAndSpareNodeFailedCheckTheStatus	0x40001132	Setting IP address for master node and backup node failed. Check the node status.
theSearchIdDoesNotExist	0x40001133	The search ID does not exist.
theSynchronizationIdDoesNotExist	0x40001134	The synchronization ID does not exist.
theUserIdDoesNotExist	0x40001136	The user ID does not exist.
theIndexCodeDoesNotExist	0x40001138	The index code does not exist.
theControlCenterIdDoesNotExist	0x40001139	The control center ID does not exist.
theAreaIdDoesNotExist	0x4000113A	The area ID does not exist.
theArmingLinkageIdDoesNotExist	0x4000113C	The arming relationship ID does not exist.
theListLibraryIdDoesNotExist	0x4000113D	The list library ID does not exist.
invalidCityCode	0x4000113E	Invalid city code.
synchronizingThePasswordOfSpareServerFailed	0x4000113F	Synchronizing backup system password failed.
editingStreamingTypeIsNotSupported	0x40001140	Editing streaming type is not supported.
switchingScheduledTaskToTemporaryTaskIsNotSupported	0x40001141	Switching scheduled task to temporary task is not supported.
switchingTemporaryTaskToScheduledTaskIsNotSupported	0x40001142	Switching temporary task to scheduled task is not supported.
theTaskIsNotDispatchedOrItIsUpdating	0x40001143	The task is not dispatched or is updating.
thisTaskDoesNotExist	0x40001144	This task does not exist in the cloud analytic serice.
duplicatedSchedule	0x40001145	Schedule period cannot be overlapped.

Sub Status Code	Error Code	Description
continuousScheduleWithSameAlgorithmTypeShouldBeMerged	0x40001146	The continuous schedule periods with same algorithm type should be merged.
invalidStreamingTimeRange	0x40001147	Invalid streaming time period.
invalidListLibraryType	0x40001148	Invalid list library type.
theNumberOfMatchedResultsShouldBeLargerThan0	0x40001149	The number of search results should be larger than 0.
invalidValueRangeOfSimilarity	0x4000114A	Invalid similarity range.
invalidSortingType	0x4000114B	Invalid sorting type.
noMoreListLibraryCanBeLinkedToTheDevice	0x4000114C	No more lists can be added to one device.
InvalidRecipientAddressFormat	0x4000114D	Invalid address format of result receiver.
creatingClusterFailedTheDongleIsNotPluggedIn	0x4000114E	Insert the dongle before creating cluster.
theURLIsTooLong	0x4000114F	No schedule configured for the task.
noScheduleIsConfiguredForTheTask	0x40001150	No schedule configured for the task.
theDongleIsExpiried	0x40001151	Dongle has expired.
dongleException	0x40001152	Dongle exception.
invalidKey	0x40001153	Invalid authorization service key.
decryptionFailed	0x40001154	Decrypting authorization service failed.
encryptionFailed	0x40001155	Encrypting authorization service failed.
AuthorizeServiceResponseError	0x40001156	Authorization service response exception.
incorrectParameter	0x40001157	Authorization service parameters error.
operationFailed	0x40001158	Operating authorization service error.
noAnalysisResourceOrNoDataInTheListLibrary	0x40001159	No cloud analytic resources or no data in the list library.

Sub Status Code	Error Code	Description
calculationException	0x4000115A	Calculation exception.
allocatingList	0x4000115B	Allocating list.
thisOperationIsNotSupportedByTheCloudAnalytics	0x4000115C	This operation is not supported by the cloud analytic serice.
theCloudAnalyticsIsInterrupted	0x4000115D	The operation of cloud analytic serice is interrupted.
theServiceIsNotReady	0x4000115E	The service is not ready.
searchingForExternalApiFailed	0x4000115F	Searching external interfaces failed.
noOnlineNode	0x40001160	No node is online.
noNodeAllocated	0x40001161	No allocated node.
noMatchedList	0x40001162	No matched list.
allocatingFailedTooManyFacePictureLists	0x40001163	Allocation failed. Too many lists of big data service.
searchIsNotCompletedSearchAgain	0x40001164	Current searching is not completed. Search again.
allocatingListIsNotCompleted	0x40001165	Allocating list is not completed.
searchingForCloudAnalyticsResultsFailed	0x40001166	Searching cloud analytic serice overtime.
noDataOfTheCurrentLibraryFound	0x40001167	No data in the current library. Make sure there is data in the Hbase.
noFacePictureLibraryIsArmed	0x40001168	No face picture library is armed for big data service.
noAvailableDataSlicingVersionInformationArmFirstAndSliceTheData	0x40001169	Invalid standard version information.
duplicatedOperationDataSlicingIsExecuting	0x4000116A	Slicing failed. Duplicated operation.
slicinDataFailedNoArmedFacePictureLibrary	0x4000116B	Slicing failed. No arming information in the face big data.

Sub Status Code	Error Code	Description
GenerateBenchmarkFileFailedSlicingAgain	0x4000116C	Generating sliced file failed. Slice again.
NonprimaryNodeIsProhibitedFromSlcingData	0x4000116D	Slicing is not allowed by the backup node.
NoReadyNodeToClusterServers	0x4000116E	Creating the cluster failed. No ready node.
NodeManagementServiceIsOffline	0x4000116F	The node management server is offline.
theCamera(s)OfTheControlCenterAreAlreadyArmed.DisarmThemFirst	0x40001170	Some cameras in control center are already armed. Disarm them and try again.
theCamera(s)OfTheAreaAreAlreadyArmed.DisarmThemFirst	0x40001171	Some cameras in this area are already armed. Disarm them and try again.
configuringHigh-frequencyPeopleDetectionFailed	0x40001172	Configuring high frequency people detection failed.
searchingForHigh-frequencyPeopleDetectionLogsFailed.	0x40001173	Searching detection event logs of high-frequency people detection failed.
gettingDetailsOfSearchedHigh-frequencyPeopleDetectionLogsFailed.	0x40001174	Getting the search result details of high frequency alarms failed.
theArmedCamerasAlreadyExistInTheControlCenter	0x40001175	Some cameras in control center are already armed.
disarmingFailedTheCameraIsNotArmed	0x40001177	Disarming failed. The camera is not armed.
noDataReturned	0x40001178	No response is returned by the big data service.
preallocFailure	0x40001179	Pre-allocating algorithm resource failed.
overDogLimit	0x4000117A	Configuration failed. No more resources can be pre-allocated.

Sub Status Code	Error Code	Description
analysisServicesDoNotSupport	0x4000117B	Not supported.
commandAndDispatchServiceError	0x4000117C	Scheduling service of cloud analytic serice error.
engineModuleError	0x4000117D	Engine module of cloud analytic serice error.
streamingServiceError	0x4000117E	Streaming component of cloud analytic serice error.
faceAnalysisModuleError	0x4000117F	Face analysis module of cloud analytic serice error.
vehicleAnalysisModuleError	0x40001180	Vehicle pictures analytic module of cloud analytic serice error.
videoStructuralAnalysisModuleError	0x40001181	Video structuring module of cloud analytic serice error.
postprocessingModuleError	0x40001182	Post-processing module of cloud analytic serice error.
frequentlyAppearedPersonAlarmIsAlreadyConfiguredForListLibrary	0x40001183	High frequency alarm is already armed for blacklist library.
creatingListLibraryFailed	0x40001184	Creating list library failed.
invalidIdentiryKeyOfListLibrary	0x40001185	Invalid identity key of list library.
noMoreDevicesCanBeArmed	0x40001186	No more camera can be added.
settingAlgorithmTypeForDeviceFailed	0x40001187	Allocating task resource failed.
gettingHighFrequencyPersonDetectionAlarmInformationFailed	0x40001188	Setting high frequency alarm failed.
invalidSearchConfition	0x40001189	Invalid result.
theTaskIsNotCompleted	0x4000118B	The task is not completed.
resourceOverRemainLimit	0x4000118C	No more resource can be pre-allocated.

Sub Status Code	Error Code	Description
frequentlyAppearedPersonAlarmIsAlreadyConfiguredForTheCameraDisarmFirstAndTryAgain	0x4000118D	The high frequency alarm of this camera is configured. Delete the arming information and try again.
switchtimedifflesslimit	0x4000123b	Time difference between power on and off should be less than 10 minutes.
associatedFaceLibNumOverLimit	0x40001279	Maximum number of linked face picture libraries reached.
noMorePeopleNumChangeRulesAdded	0x4000128A	Maximum number of people number changing rules reached.
noMoreViolentMotionRulesAdded	0x4000128D	Maximum number of violent motion rules reached.
noMoreLeavePositionRulesAdded	0x4000128E	Maximum number of leaving position rules reached.
SMRDiskNotSupportRaid	0x40001291	SMR disk does not support RAID.
OnlySupportHikAndCustomProtocol	0x400012A3	IPv6 camera can only be added via Device Network SDK or custom protocols.
vehicleEnginesNoResource	0x400012A6	Insufficient vehicle engine resources.
noMoreRunningRulesAdded	0x400012A9	Maximum number of running rules reached.
noMoreGroupRulesAdded	0x400012AA	Maximum number of people gathering rules reached.
noMoreFailDownRulesAdded	0x400012AB	Maximum number of people falling down rules reached.
noMorePlayCellphoneRulesAdded	0x400012AC	Maximum number of playing cellphone rules reached.
ruleEventTypeDuplicate	0x400012C8	Event type duplicated.
noMoreRetentionRulesAdded	0x400015AD	Maximum number of people retention rules reached.

Sub Status Code	Error Code	Description
noMoreSleepOnDutyRulesAdded	0x400015AE	Maximum number of sleeping on duty rules reached.
polygonNotAllowCrossing	0x400015C2	Polygons are not allowed to cross.
NotAssociatedWithOwnChannel	0x400019C1	Current channel is not linked.
AITargetBPCaptureFail	0x400019C5	Capturing reference picture for AI target comparison failed.
AITargetBPToDSPFail	0x400019C6	Sending reference picture to DSP for AI target comparison failed.
AITargetBPDuplicateName	0x400019C7	Duplicated name of reference picture for AI target comparison.
audioFileNameWrong	0x400019D0	Incorrect audio file name.
audioFileImportFail	0x400019D1	Importing audio file failed.
NonOperationalStandbyMachine	0x400019F0	Non-operational hot spare.
MaximumNumberOfDevices	0x400019F1	The maximum number of devices reached.
StandbyMmachineCannotBeDeleted	0x400019F2	The hot spare cannot be deleted.
alreadyRunning	0x40002026	The application program is running.
notRunning	0x40002027	The application program is stopped.
packNotFound	0x40002028	The software packet does not exist.
alreadyExist	0x40002029	The application program already exists.
noMemory	0x4000202A	Insufficient memory.
invalLicense	0x4000202B	Invalid License.
noClientCertificate	0x40002036	The client certificate is not installed.
noCACertificate	0x40002037	The CA certificate is not installed.
authenticationFailed	0x40002038	Authenticating certificate failed. Check the certificate.
clientCertificateExpired	0x40002039	The client certificate is expired.

Sub Status Code	Error Code	Description
clientCertificateRevocation	0x4000203A	The client certificate is revoked.
CACertificateExpired	0x4000203B	The CA certificate is expired.
CACertificateRevocation	0x4000203C	The CA certificate is revoked.
connectFail	0x4000203D	Connection failed.
loginNumExceedLimit	0x4000203F	No more user can log in.
HDMIResolutionIllegal	0x40002040	The HDMI video resolution cannot be larger than that of main and sub stream.
hdFormatFail	0x40002049	Formatting HDD failed.
formattingFailed	0x40002056	Formatting HDD failed.
encryptedFormattingFailed	0x40002057	Formatting encrypted HDD failed.
wrongPassword	0x40002058	Verifying password of SD card failed. Incorrect password.
audioIsPlayingPleaseWait	0x40002067	Audio is playing. Please wait.
twoWayAudioInProgressPleaseWait	0x40002068	Two-way audio in progress. Please wait.
calibrationPointNumFull	0x40002069	The maximum number of calibration points reached.
completeTheLevelCalibrationFirst	0x4000206A	The level calibration is not set.
completeTheRadarCameraCalibrationFirst	0x4000206B	The radar-camera calibration is not set.
pointsOnStraightLine	0x4000209C	Calibrating failed. The calibration points cannot be one the same line.
TValueLessThanOrEqualZero	0x4000209D	Calibration failed. The T value of the calibration points should be larger than 0.
HBDLibNumOverLimit	0x40002092	The number of human body picture libraries reaches the upper limit

Sub Status Code	Error Code	Description
theShieldRegionError	0x40002093	Saving failed. The shielded area should be the ground area where the shielded object is located.
theDetectionAreaError	0x40002094	Saving failed. The detection area should only cover the ground area.
invalidLaneLine	0x40002096	Saving failed. Invalid lane line.
enableITSFunctionOfThisChannelFirst	0x400020A2	Enable ITS function of this channel first.
noCloudStorageServer	0x400020C5	No cloud storage server
NotSupportWithVideoTask	0x400020F3	This function is not supported.
noDetectionArea	0x400050df	No detection area
armingFailed	0x40008000	Arming failed.
disarmingFailed	0x40008001	Disarming failed.
clearAlarmFailed	0x40008002	Clearing alarm failed.
bypassFailed	0x40008003	Bypass failed.
bypassRecoverFailed	0x40008004	Bypass recovery failed.
outputsOpenFailed	0x40008005	Opening relay failed.
outputsCloseFailed	0x40008006	Closing relay failed.
registerTimeOut	0x40008007	Registering timed out.
registerFailed	0x40008008	Registering failed.
addedByOtherHost	0x40008009	The peripheral is already added by other security control panel.
alreadyAdded	0x4000800A	The peripheral is already added.
armedStatus	0x4000800B	The partition is armed.
bypassStatus	0x4000800C	Bypassed.
zoneNotSupport	0x4000800D	This operation is not supported by the zone.
zoneFault	0x4000800E	The zone is in fault status.
pwdConflict	0x4000800F	Password conflicted.
audioTestEntryFailed	0x40008010	Enabling audio test mode failed.

Sub Status Code	Error Code	Description
audioTestRecoveryFailed	0x40008011	Disabling audio test mode failed.
addCardMode	0x40008012	Adding card mode.
searchMode	0x40008013	Search mode.
addRemoterMode	0x40008014	Adding keyfob mode.
registerMode	0x40008015	Registration mode.
exDevNotExist	0x40008016	The peripheral does not exist.
theNumberOfExDevLimited	0x40008017	No peripheral can be added.
sirenConfigFailed	0x40008018	Setting siren failed.
chanCannotRepeatedBinded	0x40008019	This channel is already linked by the zone.
inProgramMode	0x4000801B	The keypad is in programming mode.
inPaceTest	0x4000801C	In pacing mode.
arming	0x4000801D	Arming.
masterSlaveIsEnable	0x4000802c	The master-slave relationship has taken effect, the slave radar does not support this operation.
forceTrackNotEnabled	0x4000802d	Mandatory tracking is disabled.
isNotSupportZoneConfigByLocalArea	0x4000802e	This area does not support the zone type.
alarmLineCross	0x4000802f	Trigger lines are overlapped.
zoneDrawingOutOfRange	0x40008030	The drawn zone is out of detection range.
alarmLineDrawingOutOfRange	0x40008031	The drawn alarm trigger line is out of detection range.
hasTargetInWarningArea	0x40008032	The warning zone already contains targets. Whether to enable mandatory arming?
radarMoudleConnectFail	0x40008033	Radar module communication failed.
importCfgFilePasswordErr	0x40008034	Incorrect password for importing configuration files.

Sub Status Code	Error Code	Description
overAudioFileNumLimit	0x40008038	The number of audio files exceeds the limit.
audioFileNameIsLong	0x40008039	The audio file name is too long.
audioFormatIsWrong	0x4000803a	The audio file format is invalid.
audioFileIsLarge	0x4000803b	The size of the audio file exceeds the limit.
pircamCapTimeOut	0x4000803c	Capturing of pircam timed out.
pircamCapFail	0x4000803d	Capturing of pircam failed.
pircamIsCaping	0x4000803e	The pircam is capturing.
audioFileHasExisted	0x4000803f	The audio file already exists.
subscribeTypeErr	0x4000a016	This metadata type is not supported to be subscribed.
startAppFail	/	Starting running application program failed.
yuvconflict	/	The raw video stream conflicted.
overMaxAppNum	/	No more application program can be uploaded.
noFlash	/	Insufficient flash.
noFlash	/	The platform mismatches.

StatusCode=5

Sub Status Code	Error Code	Description
badXmlFormat	0x50000001	Invalid XML format.

StatusCode=6

Sub Status Code	Error Code	Description
badParameters	0x60000001	Invalid parameter.
badHostAddress	0x60000002	Invalid host IP address.
badXmlContent	0x60000003	Invalid XML content.
badIPv4Address	0x60000004	Invalid IPv4 address.
badIPv6Address	0x60000005	Invalid IPv6 address.
conflictIPv4Address	0x60000006	IPv4 address conflicted.
conflictIPv6Address	0x60000007	IPv6 address conflicted.

Sub Status Code	Error Code	Description
badDomainName	0x60000008	Invalid domain name.
connectSreverFail	0x60000009	Connecting to server failed.
conflictDomainName	0x6000000A	Domain name conflicted.
badPort	0x6000000B	Port number conflicted.
portError	0x6000000C	Port error.
exportErrorData	0x6000000D	Importing data failed.
badNetMask	0x6000000E	Invalid sub-net mask.
badVersion	0x6000000F	Version mismatches.
badDevType	0x60000010	Device type mismatches.
badLanguage	0x60000011	Language mismatches.
incorrentUserNameOrPassword	0x600000012	Incorrect user name or password.
invalidStoragePoolOfCloudServer	0x600000013	Invalid storage pool. The storage pool is not configured or incorrect ID.
noFreeSpaceOfStoragePool	0x600000014	Storage pool is full.
riskPassword	0x600000015	Risky password.
UnSupportCapture	0x600000016	Capturing in 4096*2160 or 3072*2048 resolution is not supported when H.264+ is enabled.
userPwdLenUnder8	0x60000023	At least two kinds of characters, including digits, letters, and symbols, should be contained in the password.
userPwdNameSame	0x60000025	Duplicated password.
userPwdNameMirror	0x60000026	The password cannot be the reverse order of user name.
beyondARGSRangeLimit	0x60000027	The parameter value is out of limit.
DetectionLineOutofDetectionRegion	0x60000085	The rule line is out of region.

Sub Status Code	Error Code	Description
DetectionRegionError	0x60000086	Rule region error. Make sure the rule region is convex polygon.
DetectionRegionOutOfCountingRegion	0x60000087	The rule region must be marked as red frame.
PedalAreaError	0x60000088	The pedal area must be in the rule region.
DetectionAreaABError	0x60000089	The detection region A and B must be in the a rule frame.
ABRegionCannotIntersect	0x6000008a	Region A and B cannot be overlapped.
customHBPIDError	0x6000008b	Incorrect ID of custom human body picture library
customHBPIDRepeat	0x6000008c	Duplicated ID of custom human body picture library
dataVersionsInHBDLibMismatches	0x6000008d	Database versions mismatches of human body picture library
invalidHBPID	0x6000008e	Invalid human body picture PID
invalidHBDID	0x6000008f	Invalid ID of human body picture library
humanLibraryError	0x60000090	Error of human body picture library
humanLibraryNumError	0x60000091	No more human body picture library can be added
humanImagesNumError	0x60000092	No more human body picture can be added
noHumanInThePicture	0x60000093	Modeling failed, no human body in the picture
analysisEnginesNoResourceError	0x60001000	No analysis engine.
analysisEnginesUsageExcced	0x60001001	The engine usage is overloaded.
PicAnalysisNoResourceError	0x60001002	No analysis engine provided for picture secondary recognition.

Sub Status Code	Error Code	Description
analysisEnginesLoadingError	0x60001003	Initializing analysis engine.
analysisEnginesAbnormaError	0x60001004	Analysis engine exception.
analysisEnginesFacelibImporting	0x60001005	Importing pictures to face picture library. Failed to edit analysis engine parameters.
analysisEnginesAssociatedChannel	0x60001006	The analysis engine is linked to channel.
smdEncodingNoResource	0x60001007	Insufficient motion detection encoding resources.
smdDecodingNoResource	0x60001008	Insufficient motion detection decoding resources.
diskError	0x60001009	HDD error.
diskFull	0x6000100a	HDD full.
facelibDataProcessing	0x6000100b	Handling face picture library data.
capturePackageFailed	0x6000100c	Capturing packet failed.
capturePackageProcessing	0x6000100d	Capturing packet.
noSupportWithPlaybackAbstract	0x6000100e	This function is not supported. Playback by video synopsis is enabled.
insufficientNetworkBandwidth	0x6000100f	Insufficient network bandwidth.
tapeLibNeedStopArchive	0x60001010	Stop the filing operation of tape library first.
identityKeyError	0x60001011	Incorrect interaction command.
identityKeyMissing	0x60001012	The interaction command is lost.
noSupportWithPersonDensityDetect	0x60001013	This function is not supported. The people density detection is enabled.
ipcResolutionOverflow	0x60001014	The configured resolution of network camera is invalid.

Sub Status Code	Error Code	Description
ipcBitrateOverflow	0x60001015	The configured bit rate of network camera is invalid.
tooGreatTimeDifference	0x60001016	Too large time difference between device and server.
noSupportWithPlayback	0x60001017	This function is not supported. Playback is enabled.
channelNoSupportWithSMD	0x60001018	This function is not supported. Motion detection is enabled.
channelNoSupportWithFD	0x60001019	This function is not supported. Face capture is enabled.
illegalPhoneNumber	0x6000101a	Invalid phone number.
illegalCertificateNumber	0x6000101b	Invalid certificate No.
linkedCameraOutLimit	0x6000101c	Connecting camera timed out.
achieveMaxChannelLimit	0x6000101e	No more channels are allowed.
humanMisInfoFilterEnabledChannNumError	0x6000101f	No more channels are allowed to enable preventing false alarm.
humanEnginesNoResource	0x60001020	Insufficient human body analysis engine resources.
taskNumberOverflow	0x60001021	No more tasks can be added.
collisionTimeOverflow	0x60001022	No more comparison duration can be configured.
invalidTaskID	0x60001023	Invalid task ID.
eventNotSupport	0x60001024	Event subscription is not supported.
invalidEZVIZSecretKey	0x60001034	Invalid verification code for Hik-Connect.
needDoubleVerification	0x60001042	Double verification required
noDoubleVerificationUser	0x60001043	No double verification user
timeSpanNumOverLimit	0x60001044	Max. number of time buckets reached
channelNumOverLimit	0x60001045	Max. number of channels reached

Sub Status Code	Error Code	Description
noSearchIDResource	0x60001046	Insufficient searchID resources
noSupportDeleteStrangerLib	0x60001051	Deleting stranger library is not supported
noSupportCreateStrangerLib	0x60001052	Creating stranger library is not supported
behaviorAnalysisRuleInfoError	0x60001053	Behavior analysis rule parameters error.
safetyHelmetParamError	0x60001054	Hard hat parameters error.
OneChannelOnlyCanBindOneEngine	0x60001077	No more engines can be bound.
engineTypeMismatch	0x60001079	Engine type mismatched.
badUpgradePackage	0x6000107A	Invalid upgrade package.
AudioFileNameDuplicate	0x60001135	Duplicated audio file name.
CurrentAudioFileAIRuleInUseAlreadyDelete	0x60001136	The AI rule linkage related to current audio file has been deleted.
TransitionUseEmmc	0x60002000	Starting device failed. The EMMC is overused.
AdaptiveStreamNotEnabled	0x60002001	The stream self-adaptive function is not enabled.
AdaptiveStreamAndVariableBitrateEnabled	0x60002002	Stream self-adptive and variable bitrate function cannot be enabled at the same time.
noSafetyHelmetRegion	0x60002023	The hard hat detection area is not configured (if users save their settings without configuring the arming area, they should be prompted to configure one).
unclosedSafetyHelmet	0x60002024	The hard hat detection is enabled (If users save their settings after deleting the arming area, they should be prompted to disable hard hat

Sub Status Code	Error Code	Description
		detection first and then delete the arming area).
width/ heightRatioOfPictureError	0x6000202C	The width/height ratio of the uploaded picture should be in the range from 1:2 to 2:1.
PTZNotInitialized	0x6000202E	PTZ is not initialized.
PTZSelfChecking	0x6000202F	PTZ is self-checking.
PTZLocked	0x60002030	PTZ is locked.
advancedParametersError	0x60002031	Auto-switch interval in advanced parameters cannot be shorter than parking tolerance for illegal parking detection in speed dome rule settings.
resolutionError	0x60005003	Invalid resolution
deployExceedMax	0x60006018	The arming connections exceed the maximum number.
detectorTypeMismatch	0x60008000	The detector type mismatched.
nameExist	0x60008001	The name already exists.
uploadImageSizeError	0x60008016	The size of the uploaded picture is larger than 5 MB.
laneAndRegionOverlap	/	The lanes are overlapped.
unitConfigurationNotInEffect	/	Invalid unit parameter.
ruleAndShieldingMaskConflict	/	The line-rule region overlaps with the shielded area.
wholeRuleInShieldingMask	/	There are complete temperature measurement rules in the shielded area.
LogDiskNotSetReadOnlyInGroupMode	0x60001100	The log HDD in the HDD group cannot be set to read-only.
LogDiskNotSetReDundancyInGroupMode	0x60001101	The log HDD in the HDD group cannot be set to redundancy.

StatusCode=7

SubStatusCode	Error Code	Description
rebootRequired	0x70000001	Reboot to take effect.

Appendix D. Error Codes Categorized by Functional Modules

The error codes returned during the text protocol integration is categorized by different functional modules. See the error codes, error descriptions, and debugging suggestions in the table below.

Public Function Module (Error Codes Range: 0x00000000, from 0x00100001 to 0x001fffff)

Error String	Error Code	Description	Debugging Suggestion
success	0x00000000	Succeeded.	
deviceNotActivated	0x00100001	The device is not activated.	Activate the device.
deviceNoPermission	0x00100002	Device operation failed. No permission.	Update user's permission.
deviceNotSupport	0x00100003	This function is not supported.	Check the device capability set and call the API corresponding to supported function.
deviceResourceNotEnough	0x00100004	Insufficient resources.	Release resources.
dataFormatError	0x00100005	Invalid message format.	
resetError	0x00100006	Restoring to factory settings failed. Reactivating device is required after the device is reboot as the Reset button may be stuck.	
parameterError	0x00100007	Incorrect parameter	
	0x00100100	Invalid channel	Check if the channel is valid.
	0x00100101	NPQ live view is not supported for stream encryption.	Replace streaming mode for stream encryption.
	0x00100102	No more channels are allowed for NPQ streaming.	Reduce NPQ streaming channels and try again.
	0x00100103	The stream type is not supported.	Check the requested stream type.

Error String	Error Code	Description	Debugging Suggestion
	0x00100104	The number of connections exceeded limit.	Reduce the number of streaming clients and try again.
	0x00100105	Not enough bandwidth.	Reduce the number of remote streaming channels.

User Function Module (Error Codes Range: from 0x00200001 to 0x002fffff)

Error String	Error Code	Description	Debugging Suggestion
passwordError	0x00200001	Incorrect user name or password.	Check if the password is correct.
userNameNotExist	0x00200002	The account does not exist.	Check if the account exists, or add the account.
userNameLocked	0x00200003	The account is locked.	Wait for the device to unlock.
userNumLimited	0x00200004	The number of users allowed to log in exceeded the upper limit.	Log out.
lowPrivilege	0x00200005	No permissions for this operation	For users operations, check the following situations: • Deleting your own account is not allowed. • Editing your own level or permission is not allowed. • Getting information about users with higher permission is not allowed. • Elevating the user's level or permission is not allowed. For other operations, check according to the following measures: If operations unrelated to user's permission configuration failed, you can check the user type and permission, if not solved, contact the developers.
incorrentUserNameOrPassword	0x00200006	Incorrect user name or password	Check if the configured user name and password are

Error String	Error Code	Description	Debugging Suggestion
			matched. If not, contact the administrator to configure again. If the administrator forgets the password, reset the password of the device.
riskPassword	0x00200007	Risk password	Low password strength. Change password again.
passwordMustContainMorethan8Characters	0x00200008	The password length must be greater than or equal to 8.	Check if the password length is greater than or equal to 8. If not, change password again.
passwordLenNoMoreThan16	0x00200009	The password length cannot be greater than 16.	Check if the password length is greater than16. If yes, change password again.
adminUserNotAllowedModify	0x0020000a	Editing admin information is not allowed.	Check if the edited account is admin.
confirmPasswordError	0x0020000b	Incorrect confirm password.	Check the confirm password.
passwordMustContainMorethan2Types	0x0020000c	The password must contain at least two or more of followings: numbers, lowercase, uppercase, and special characters.	Check if the configured password conforms the requirements.
passwordContainUserName	0x0020000d	The password cannot contain the user name.	Check if the password contains the user name.
userPwdNameMirror	0x0020000e	The password cannot be reversed user name.	Check if the password is reversed user name.

Time Function Module (Error Codes Range: from 0x00300001 to 0x003fffff)

Error String	Error Code	Description	Debugging Suggestion
manualAdjustmentFailed	0x00300001	Time synchronization failed.	
NTPError	0x00300002	Invalid NTP server address.	Check if the NTP server address is valid.
timeFormatError	0x00300003	Incorrect time format during time calibration.	Incorrect message format or incorrect time format.

Error String	Error Code	Description	Debugging Suggestion
		For example, the time in ISO 8601 format should be "2018-02-01T19:54:04", but the applied time is "2018-02-01 19:54:04".	
beyondTimeRangeLimit	0x00300004	The calibration time is not within the time range supported by the device.	Get the device capability and check if the configured time is within the time range supported by the device.
endtimeEarlierThanBegintime	0x00300005	The start time of the validity period cannot be later than the end time.	Check if the start time and end time are valid.

Network Function Module (Error Codes Range: from 0x00400001 to 0x004fffff)

Error String	Error Code	Description	Debugging Suggestion
domainNameParseFailed	0x00400001	Parsing domain name failed.	
PPPOEConnectedFailed	0x00400002	Connecting PPPOE to the network failed.	
FTPConnectedFailed	0x00400003	The FTP server is disconnected.	
deviceIPConflicted	0x00400004	IP addresses of devices conflicted.	
libraryConnectedFailed	0x00400005	The image and video library is disconnected.	
fileUploadFailed	0x00400006	Uploading failed.	Check if the network connection is normal. If yes, contact after-sales.
storSerDownloadFileFailed	0x00400007	Downloading failed.	Check if the network connection is normal. If yes, contact after-sales.
storSerDownloadFileSizeZero	0x00400008	The size of file downloaded from the storage service is 0.	Check if the network connection is normal. If yes, contact after-sales.

Error String	Error Code	Description	Debugging Suggestion
storSerNotConfig	0x00400009	Storage service is not configured.	Check if the configuration is correct.
badHostAddress	0x0040000a	Host address error	Check if the configuration is correct.
badIPv4Address	0x0040000b	Incorrect IPv4 address.	Check if the configuration is correct.
badIPv6Address	0x0040000c	Incorrect IPv6 address.	Check if the configuration is correct.
conflictIPv4Address	0x0040000d	IPv4 address conflict.	Check the configuration status of IPV4 in the network.
conflictIPv6Address	0x0040000e	IPv6 address conflict	Check the configuration status of IPV6 in the network.
badDomainName	0x0040000f	Incorrect domain name.	Check if the configuration is correct.
connectSreverFail	0x00400010	Connecting to server failed.	Check if the network is normal and check if the configuration is correct.
conflictDomainName	0x00400011	Domain name conflict.	Check if the configuration is correct.
badPort	0x00400012	Port conflict.	Check if the configuration is correct.
portError	0x00400013	Port error	Check if the configuration is correct.
badNetMask	0x00400014	Subnet mask error	Check if the configuration is correct.
badVersion	0x00400015	Version mismatch	Check if the version is correct.
badDns	0x00400016	DNS error	Check if the configuration is correct.
badMTU	0x00400017	MTU error	Check if the configuration is correct.

Error String	Error Code	Description	Debugging Suggestion
badGateway	0x00400018	Wrong gateway	Check if the configuration is correct.
urlDownloadFail	0x00400019	Downloading via URL failed.	Check if the network is normal and check if the URL is correct.
deployExceedMax	0x0040001a	The number of armed channels exceeds the maximum number of connections.	Get the supported maximum number of arming and the number of armed channels.

Maintenance Function Module (Error Codes Range: from 0x00500001 to 0x005fffff)

Error String	Error Code	Description	Debugging Suggestion
upgradeXMLFormatError	0x00500001	Incorrect XML upgrading request.	Check if the upgrade file is correct. If the file is correct, try the local upgrade.
upgradeContentError	0x00500002	Incorrect upgrading request content.	Check if the upgrade file is correct. If the file is correct, try the local upgrade.
noUpgradePermission	0x00500003	No upgrade permission.	Switch to admin account or ask admin for advanced operation permission.
upgrading	0x00500004	Upgrading…	Wait for the upgrade to complete.
receiveUpgradePackageError	0x00500005	Receiving upgrade package failed.	Check if the network is normal.
upgradePackageLanguageMismatch	0x00500006	Upgrade package language mismatch.	Check the language type of upgrade package and the device.
upgradePackageMismatch	0x00500007	Upgrade file does not match with the device type.	Check the type of upgrade package and device.
OEMCodeMismatch	0x00500008	Upgrade package error. The OEM code mismatch.	Contact after-sales to get the correct upgrade package.
versionMismatch	0x00500009	Upgrade file version mismatch.	Contact after-sales to get the correct upgrade package.

Error String	Error Code	Description	Debugging Suggestion
upgradeHalfFailed	0x0050000c	Error occurred in the halfway of device upgrading. Flash error or cache error.	
deviceParameterImportFailed	0x0050000d	Importing device parameters failed. Device model, version, or platform mismatches.	
deviceEncryptionError	0x0050000e	Upgrade package mismatches. Device encryption error.	
SDCardFormatError	0x00500025	Formatting SD card failed.	
SDCardLoadFailed	0x00500026	Loading page failed after the SD card is inserted.	
NASFailed	0x00500027	Mounting NAS failed.	
hardDiskError	0x00500028	HDD exception (possible reasons: HDD does not exist, incompatible, encrypted, insufficient capacity, formatting exception, array exception, array incompatible, etc.)	
upgradeError	0x00500030	Upgrade error	
upgradePackageSizeMismath	0x00500032	Mismatch between the actual size of the downloaded upgrade package and the size in the upgrading request.	
upgradePackageSizeExceeded	0x00500033	The size of the package exceeded that of the partition.	
domainNameParseFailedForDownload	0x00500034	Parsing the domain name of the address for downloading failed.	

Error String	Error Code	Description	Debugging Suggestion
netWorkUnstable	0x00500035	Unstable network. Downloading timed out or the maximum number of attempts reached.	
digestValueMismatch	0x00500036	Mismatched digest value.	
signatureVerifyFailed	0x00500037	Verifying the signature failed.	
innerFormatError	0x00500038	Incorrect inner format of the upgrade package.	
memoryNotEnough	0x00500039	Insufficient memory.	
burnFailed	0x0050003a	Burning firmware failed.	
unknownError	0x0050003b	Unknown error occurred in the underlying APIs.	
userCancel	0x0050003c	User requested cancel of current operation.	
systemResume	0x0050003d	Upgrading failed. You can resume via the backup system or minimum system.	
	0x00500080	Upgrade file is not found.	Check if the upgrade package path is too long or if there is a correct upgrade package under the upgrade package path.
	0x00500081	Upgrade file does not match with the engine type.	Select the upgrade package matched with the device engine type.
	0x00500082	Parsing camera domain name failed.	Confirm if the device is correctly configured DNS service and if the camera domain is valid.
	0x00500083	Camera network is unreachable.	Confirm if the local network can access the network where the added channel located.

Live View Module (Error Codes Range: from 0x00600001 to 0x006fffff)

Error String	Error Code	Description	Debugging Suggestion
liveViewFailed	0x00600001	Live view failed. The number of streaming channels exceeded limit.	
	0x00600002	Request packaging format exception.	Check the packaging format of requested live view.
	0x00600003	NPQ will be unavailable after enabling EHome 2.x.	When EHome 2.x is enable, use other live view mode.
	0x00600005	NPQ live view is not supported for channel-zero.	User other live view mode for channel-zero.
	0x00600007	Only virtual stream supports NPQ live view.	Switch to virtual strem.
	0x0060000A	The IP channel is offline.	Check if the IP channel is online and try again.
	0x0060000B	Live view transcoding is not supported by the device.	Use other stream type for live view.
	0x0060000C	Channel-zero is not enabled.	Enable channel-zero before starting live view of channel-zero.
	0x0060000D	Transcoding capability exceeded limit.	Reduce camera resolution or the number of transcoding channels.
	0x00600010	The channel does not have sub-stream.	Use main stream mode for live view.
	0x00600011	NPQ live view is not supported by the device.	Switch to other live view mode.
	0x00600012	NPQ function is disabled.	Enable NPQ function or switch to other live view mode.

Playback Module (Error Codes Range: from 0x00700001 to 0x007fffff)

Error String	Error Code	Description	Debugging Suggestion
	0x00700001	Playback failed. Up to one channel's playback is supported.	
	0x00700002	The speed of playback displayed on video wall is not supported.	Reduce the playback speed.
	0x00700003	The transmission rate of playback stream is too high.	Reduce the transmission rate of playback stream.
	0x00700004	The encoding type of playback stream is not supported.	Provide the stream with encoding type supported by device.
	0x00700005	The container format of playback stream is not supported.	Provide the stream with container format supported by device.
	0x00700007	Exception occurred when decoding playback stream Possible reasons: displaying on video wall exception, image exception, display exception, decoding exception, image is stuck, black screen, invalid stream type, live view is stuck, audio decoding exception, and blurred screen.	
	0x00700008	Playback video does not exit, or searching failed.	Search again or check if HDD is normal.
	0x00700009	Playback time parameter error.	Check if the time period of searched video is correct and try again.
	0x0070000A	Invalid video type.	Select the correct video type to search.
	0x0070000B	Invalid time type.	Select the correct time type to search.

Error String	Error Code	Description	Debugging Suggestion
	0x0070000C	Invalid event parameter.	Select the correct event parameter to search.
	0x0070000D	Invalid event type.	Select the correct event type to search.
	0x0070000E	The device does not support smart search.	Select the non smart search mode to search.
	0x0070000F	Invalid smart event type.	Select the correct smart event type to search.
	0x00700010	Invalid dynamic analysis sensitivity.	Select the correct sensitivity to search video.
	0x00700011	Reverse playback is not supported.	Select the correct playback mode.
	0x00700012	Invalid file status.	Select the correct file status to search.
	0x00700013	Invalid searching start position.	Use the correct searching start position to search.
	0x00700014	Invalid maximum number of searching.	Use the correct maximum number of searching to search.

Capture Module (Error Codes Range: from 0x00800001 to 0x008fffff)

Error String	Error Code	Description	Debugging Suggestion
	0x00800001	Manual capture failed.	

Two-Way Audio Module (Error Codes Range: from 0x00900001 to 0x009fffff)

Error String	Error Code	Description	Debugging Suggestion
startFailed	0x00900001	Starting two-way audio failed. Audio loss or driver error.	
codingFormatNotMatch	0x00900002	The encoding format of the intercom is inconsistent, and the negotiation fails	Check or capture the packets on the platform, then analyze if the audio encoding formats negotiated by both sides are consistent.

Error String	Error Code	Description	Debugging Suggestion
dialedIsBusy	0x00900003	The intercom party is already in the intercom and can no longer respond to the intercom	Check if the intercom party is already in the intercom, if not, get the protocol message and analyze the response message.
destinationLongNumberError	0x00900004	The requested destination long number is wrong	Check or capture the packets on the platform, then analyze the long number.

Video Storage Module (Error Codes Range: from 0x00a00001 to 0x00afffff)

Error String	Error Code	Description	Debugging Suggestion
videoSearchFailed	0x00a00001	Searching videos failed.	No resource stored in the device.
notFindStorageMedium	0x00a00002	No storage medium found.	
videoDownloadFailed	0x00a00003	Downloading videos failed.	

Picture Storage Module (Error Codes Range: from 0x00b00001 to 0x00bfffff)

Error String	Error Code	Description	Debugging Suggestion
	0x00b00001	Searching pictures failed.	No picture resource.

IO Function Modele (Error Codes Range: from 0x00c00001 to 0x00cfffff)

Error String	Error Code	Description	Debugging Suggestion
	0x00c00001	Invalid alarm input No.	
	0x00c00002	Invalid alarm output No.	

Event Function Module (Error Codes Range: from 0x00d00001 to 0x00dfffff)

Error String	Error Code	Description	Debugging Suggestion
	0x00d00001	Incorrect event rule.	Refer to the manual for correct configuration.

Parking Service Module (Error Codes Range: from 0x00e00001 to 0x00effff)

Error String	Error Code	Description	Debugging Suggestion
	0x00e00001	The vehicle with parking pass already exists.	Parking pass is created by license plate, you need to check if the parking pass for this license plate already created.
	0x00e00002	The license plate number is required.	

General Function Module (Error Codes Range: from 0x00f00001 to 0x00ffffff)

Error String	Error Code	Description	Debugging Suggestion
noMemory	0x00f00001	Insufficient device memory (heap space allocation failed).	Check the free memory and send logs to the developer for analysis.
deviceBusy	0x00f00002	The device is busy or the device is not responding.	Send logs to the developers for analysis. For fingerprint collection, face collection, file application, and file uploading services, check if the last operation is completed.
notSupport	0x00f00003	The URL is not supported by the device.	Capture the packets, check if the applied URL exists in the PMP platform. If yes, send the URL to the developer for analysis.
methodNotAllowed	0x00f00004	HTTP method is not allowed.	Capture the packets, check the method corresponding to the URL in the PMP platform.
invalidOperation	0x00f00005	Invalid operation of API command.	
IDNotexist	0x00f00006	The ID does not exist (the URL should contain ID, but	Capture the packets and check if the ID included in the URL is correct.

Error String	Error Code	Description	Debugging Suggestion
		the actual URL does not contain the ID).	
invalidID	0x00f00007	Invalid ID (the ID in the URL exceeds the capability set or the ID format is invalid).	Capture the packets and check if the ID included in the URL is correct. Get the capabilities of URL and check the ID range.
invalidIURL	0x00f00008	The content after the "? " in the URL is wrong.	Capture the packets and check if the URL is correct.
deviceAckTimeOut	0x00f00009	Device response timed out.	If the communication with the external module timed out, check if the external module is offline. When the above situation is eliminated, send logs to the developer for analysis.
badXmlFormat	0x00f0000a	XML format error	
badJsonFormat	0x00f0000b	JSON format error	
badURLFormat	0x00f0000c	URL format error	Get the URL and check if it is correct.
badXmlContent	0x00f0000d	XML message error: • The message contains only URL but no message body • The required node is not configured. • Node value exceeds the range limit (incorrect node value).	
badJsonContent	0x00f0000e	JSON message error:	

Error String	Error Code	Description	Debugging Suggestion
		• The message contains only URL but no message body • The required node is not configured. • Node value exceeds the range limit (incorrect node value).	
messageParameterrsLack	0x00f0000f	The required node does not exists.	
invalidSearchConditions	0x00f00010	Invalid search condition, search again.	Check if searchID is correct.
operObjectNotExist	0x00f00011	The object does not exist (for the operations about door, alarm IO, the object is not added).	Check if door lock is connected.

Door Control Module (Error Codes Range: from 0x01000001 to 0x010ffffff)

Error String	Error Code	Description	Debugging Suggestion
multiAuthentication Failed	0x01000001	Multi-factor authentication status operation failed.	
securityModuleOffline	0x01000002	The safety door control module is offline and fails to open the door.	Check if the safety door control is offline.

Schedule Template Module (Error Codes Range: from 0x01100001 to 0x011fffff)

Error String	Error Code	Description	Debugging Suggestion
planNumberConflict	0x01100001	Plan number conflict.	
timeOverlap	0x01100002	Time period conflict.	Check the message to find out if there is a time overlap of different time periods in one day.

Person Information Module (Error Codes Range: from 0x01200001 to 0x012fffff)

Error String	Error Code	Description	Debugging Suggestion

Certificate Module (Error Codes Range: from 0x01300001 to 0x013fffff)

Error String	Error Code	Description	Debugging Suggestion

Security Function Module (Error Codes Range: from 0x01400001 to 0x014fffff)

Error String	Error Code	Description	Debugging Suggestion
decryptFailed	0x01400001	Decryption failed, when decrypting sensitive information fields or importing data files.	The import secret key should be consistent with the export.
certificateNotmatch	0x01400003	Certificates mismatched, SSL/TLS public and private keys need to be matched in pairs.	The public and private keys need to be generated at the same time.
notActivated	0x01400004	Device is not activated.	Activate the device by tools such as SADP before use.
hasActivated	0x01400005	Device has been activated.	
forbiddenIP	0x01400006	IP address is banned	IP address is banned when illegal login attempts exceed the upper limit.
bondMacAddressNotMatch	0x01400007	The MAC address does not match the user.	Check if the specific MAC address has linked to the user.
bondIpAddressNotMatch	0x01400008	IP address does not match the user.	Check if the specific IP address has linked to the user.
badAuthorization	0x01400009	Triggered by illegal login	Incorrect password triggered the illegal login.

Advertising Function Module (Error Codes Range: from 0x01500001 to 0x015fffff)

Error String	Error Code	Description	Debugging Suggestion
materialDownloadFailed	0x01500001	Material download failed.	• Check if the network connection is normal. • Check if the device is running normally. • Check the log print.
materialNumberIsOver	0x01500002	The number of materials in the program list reached the upper limit.	Check if the number of materials in applied program list exceeded the limit.

Appendix E. Region Code

Here is the code list of the regions that are supported by the algorithm library for license plate recognition.

region (Region Code)	Description
ER	Russian Region
EU	Europe Region
EUandCIS	EU&CIS
ME	Middle East
other	Other
APAC	Asia-Pacific Region
AFandAM	Africa and America
THAandLA	Thailand and Laos
HKandMO	Hong Kong and Macao
India	India
All	All regions

Appendix F. Country/Region Code

Here is the code list of the countries and regions that are supported by the algorithm library for license plate recognition.

CRIndex (Country/Region Code)	Description
0	Not supported by the algorithm
1	Czech Republic
2	France
3	Germany
4	Spain
5	Italy
6	Netherlands
7	Poland
8	Slovakia
9	Belarus
10	Moldova
11	Russia
12	Ukraine
13	Belgium
14	Bulgaria
15	Denmark
16	Finland
17	United Kingdom
18	Greece
19	Croatia
20	Hungary
21	Israel
22	Luxembourg
23	Macedonia (changed to North Macedonia in 2018)

CRIndex (Country/Region Code)	Description
24	Norway
25	Portuga
26	Romania
27	Serbia
28	Azerbaijan
29	Georgia
30	Kazakhstan
31	Lithuania
32	Turkmenistan
33	Uzbekistan
34	Latvia
35	Estonia
36	Albania
37	Austria
38	Bosnia and Herzegovina
39	Ireland
40	Iceland
41	Vatican
42	Malta
43	Sweden
44	Switzerland
45	Cyprus
46	Turkey
47	Slovenia
48	Montenegro
49	Kosovo
50	Andorra
51	Armenia
52	Monaco

CRIndex (Country/Region Code)	Description
53	Liechtenstein
54	San Marino
55	Reserved
56	Reserved
57	Reserved
58	Reserved
59	China
60	Bahrain
61	South Korea
62	Lebanon
63	Nepal
64	Thailand
65	Pakistan
66	United Arab Emirates
67	Bhutan
68	Oman
69	North Korea
70	Philippines
71	Cambodia
72	Qatar
73	Kyrgyzstan
74	Maldives
75	Malaysia
76	Mongolia
77	Saudi Arabia
78	Brunei
79	Laos
80	Japan
81	Turkey

CRIndex (Country/Region Code)	Description
82	Palestinian
83	Tajikistan
84	Kuwait
85	Syria
86	India
87	Indonesia
88	Afghanistan
89	Sri Lanka
90	Iraq
91	Vietnam
92	Iran
93	Yemen
94	Jordan
95	Myanmar
96	Sikkim
97	Bangladesh
98	Singapore
99	Democratic Republic of Timor-Leste
100	Reserved
101	Reserved
102	Reserved
103	Reserved
104	Egypt
105	Libya
106	Sudan
107	Tunisia
108	Algeria
109	Morocco
110	Ethiopia

CRIndex (Country/Region Code)	Description
111	Eritrea
112	Somalia Democratic
113	Djibouti
114	Kenya
115	Tanzania
116	Uganda
117	Rwanda
118	Burundi
119	Seychelles
120	Chad
121	Central African
122	Cameroon
123	Equatorial Guinea
124	Gabon
125	Congo
126	Democratic Republic of the Congo
127	Sao Tome and Principe
128	Mauritania
129	Western Sahara
130	Senegal
131	Gambia
132	Mali
133	Burkina Faso
134	Guinea
135	Guinea-Bissau
136	Cape Verde
137	Sierra Leone
138	Liberia
139	Ivory Coast

CRIndex (Country/Region Code)	Description
140	Ghana
141	Togo
142	Benin
143	Niger
144	Zambia
145	Angola
146	Zimbabwe
147	Malawi
148	Mozambique
149	Botswana
150	Namibia
151	South Africa
152	Swaziland
153	Lesotho
154	Madagasca
155	Comoros
156	Mauritius
157	Nigeria
158	South Sudan
159	Saint Helena
160	Mayotte
161	Reunion
162	Canary Islands
163	AZORES
164	Madeira
165	Reserved
166	Reserved
167	Reserved
168	Reserved

CRIndex (Country/Region Code)	Description
169	Canada
170	Greenland Nuuk
171	Pierre and Miquelon
172	United State
173	Bermuda
174	Mexico
175	Guatemala
176	Belize
177	El Salvador
178	Honduras
179	Nicaragua
180	Costa Rica
181	Panama
182	Bahamas
183	Turks and Caicos Islands
184	Cuba
185	Jamaica
186	Cayman Islands
187	Haiti
188	Dominican
189	Puerto Rico
190	United States Virgin Islands
191	British Virgin Islands
192	Anguilla
193	Antigua and Barbuda
194	Collectivité de Saint-Martin
195	Autonomous country
196	Saint-Barthélemy
197	Saint Kitts and Nevis

CRIndex (Country/Region Code)	Description
198	Montserrat
199	Guadeloupe
200	Dominica
201	Martinique
202	St. Lucia
203	Saint Vincent and the Grenadines
204	Grenada
205	Barbados
206	Trinidad and Tobago
207	Curaçao
208	Aruba
209	Netherlands Antilles
210	Colombia
211	Venezuela
212	Guyana
213	Suriname
214	Guyane Francaise
215	Ecuador
216	Peru
217	Bolivia
218	Paraguay
219	Chile
220	Brazil
221	Uruguay
222	Argentina
223	Reserved
224	Reserved
225	Reserved
226	Reserved

CRIndex (Country/Region Code)	Description
227	Australia
228	New Zealand
229	Papua New Guinea
230	Salomonen
231	Vanuatu
232	New Caledonia
233	Palau
234	Federated States of Micronesia
235	Marshall Island
236	Northern Mariana Islands
237	Guam
238	Nauru
239	Kiribati
240	Fidschi
241	Tonga
242	Tuvalu
243	Wallis et Futuna
244	Samoa
245	Eastern Samoa
246	Tokelau
247	Niue
248	Cook Islands
249	French Polynesia
250	Pitcairn Islands
251	Hawaii State
252	Reserved
253	Reserved
254	Unrecognized
255	ALL

CRIndex (Country/Region Code)	Description
256	Taiwan (China)
257	Hong Kong (China)
258	Macau (China)