Device Network SDK (Information Release)

Developer Guide

Legal Information

Contents

Chapter 1 Overview

1.1 Introduction

Information release system consists of information release server (hereinafter referred to as the server) , information release player (hereinafter referred to as the terminal) and information release client (hereinafter referred to as the client) . It is widely applied to information release (such as video, text, document) in the industry of entertainment, finance, traffic, etc.

Integration developers can have access to the information release server to implement the functions of material management, program management, program schedule management, terminal management, organization and user management.

1.2 Update History

Summary of Changes in Version 6.1.7.15_Aug., 2021

Related Product: DS-K1T673 Series Face Recognition Terminal with Software Version 3.3.1

1. Extended the program dynamic capability message ***XML_ProgramDynamicCap*** (related URI: ***/ISAPI/Publish/ProgramMgr/program/dynamicCap*** ; related API: ***NET_DVR_STDXMLConfig***): added a program type "character" (welcome words) to the sub node **programType** of the node **ProgramCap** of **ProgramCapList**;
    added four sub nodes to the sub node **WinCapList** of the node **ProgramCap** of **ProgramCapList**: **x** (X-coordinate of the window's upper-left corner), **y** (Y-coordinate of the window's upper-left corner), **characterType** (character type), and **characterMode** (character mode).
2. Extended the message about the program configuration capability ***XML_Cap_Program*** (related URI: ***/ISAPI/Publish/ProgramMgr/program/<ID>/capabilities*** ; related API: ***NET_DVR_STDXMLConfig***):
    added a program type "character" (welcome words) to the node **programType**.
3. Extended the parameter message of a program ***XML_Program*** (related URIs: ***/ISAPI/Publish/ProgramMgr/program*** and ***/ISAPI/Publish/ProgramMgr/program/<ID>*** ; related API: ***NET_DVR_STDXMLConfig***):
    added a program type "character" (welcome words) to the node **programType**.
4. Extended the message about the page configuration capability ***XML_Cap_Page*** and the parameter message of a page ***XML_Page*** (related URIs: ***/ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>/capabilities*** , ***/ISAPI/Publish/ProgramMgr/program/<ID>/page*** , and ***/ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>*** ; related API: ***NET_DVR_STDXMLConfig***):
    added a node **characterMode** (welcome word mode on the page).

Summary of Changes in Version 6.1.5.X_Aug., 2020

New document.

Chapter 2 Typical Applications

2.1 Manage Terminal

⊡Note

This function is supported only when <**isSupportTerminalMgr**> in **_XML_PublishServerCap_** is "true" (related API: **_/ISAPI/Publish/capabilities_**).

For integration via Device Network SDK, the related text protocol data should be transmitted by the specific API (i.e., **_NET_DVR_STDXMLConfig_**) to realize the applications. Refer to **_Integrate by Transmitting Text Protocol_** for details.

Terminal Configuration

Function	Request URI
Add terminal	POST **_/ISAPI/Publish/TerminalMgr/terminals_**
Search for terminal	• Get terminal search capability: GET **_/ISAPI/Publish/TerminalMgr/terminalSearch/profile_** • Search for terminal: POST **_/ISAPI/Publish/TerminalMgr/terminalSearch_**
Configure all terminals	• Get batch configuration capability: GET **_/ISAPI/Publish/TerminalMgr/terminalsBatchInfo/capabilities_** • Set terminal parameters in a batch: **_/ISAPI/Publish/TerminalMgr/terminalsBatchInfo_** • Get information: GET **_/ISAPI/Publish/TerminalMgr/terminals_** • Get the capabilities of specific parameters: GET **_/ISAPI/Publish/TerminalMgr/terminals/batchconfig/capabilities_** • Set specific parameters: PUT **_/ISAPI/Publish/TerminalMgr/terminals/batchconfig_**
Configure a specific terminal	• Get the parameter capabilities: GET **_/ISAPI/Publish/TerminalMgr/terminals/<ID>/capabilities_** • Get, set parameters: GET **_/ISAPI/Publish/TerminalMgr/terminals/<ID>_** • Delete a specific terminal: DELETE **_/ISAPI/Publish/TerminalMgr/terminals/<ID>_** • Get the capabilities of specific parameters: GET **_/ISAPI/Publish/TerminalMgr/terminals/config/<ID>/capabilities_** • Get or set specific parameters: GET or PUT **_/ISAPI/Publish/TerminalMgr/terminals/config/<ID>_**

Function	Request URI
Configure SADP	• Get terminal SADP configuration capability: GET ***/ISAPI/Publish/TerminalMgr/terminals/discovery/capabilities*** • Set SADP parameters: PUT ***/ISAPI/Publish/TerminalMgr/terminals/discovery*** • Get the SADP parameters of a specific terminal: GET ***/ISAPI/Publish/TerminalMgr/terminals/discovery/<ID>***
Configure output resolution	• Get resolution capability set: GET ***/ISAPI/Publish/TerminalMgr/terminals/resolution/capabilities?format=json*** • Set resolution: PUT ***/ISAPI/Publish/TerminalMgr/terminals/resolution?format=json*** • Get the resolution of a specific terminal: GET ***/ISAPI/Publish/TerminalMgr/terminals/resolution/<ID>?format=json***
Configure time zone	• Get the capability of terminal time zone configuration: GET ***/ISAPI/Publish/TerminalMgr/timeZone/capabilities*** • Set the time zone parameters: PUT ***/ISAPI/Publish/TerminalMgr/timeZone*** • Get time zone configuration of a specific terminal: GET ***/ISAPI/Publish/TerminalMgr/timeZone/<ID>***
NTP time sync	• Get NTP configuration capability: GET ***/ISAPI/Publish/TerminalMgr/ntpServers/capabilities?format=json*** • Set NTP server parameters: PUT ***/ISAPI/Publish/TerminalMgr/ntpServers?format=json*** • Get NTP server parameters of a specific terminal: GET ***/ISAPI/Publish/TerminalMgr/ntpServers/<ID>?format=json***
Check add-on information	• Get the configuration capability set of add-on information: GET ***/ISAPI/Publish/TerminalMgr/terminals/moduleVersion/capabilities?format=json*** • Get the add-on information of a specific terminal: GET ***/ISAPI/Publish/TerminalMgr/terminals/moduleVersion/<ID>?format=json***

Function	Request URI
Configure auto-switch schedule	• Get auto-switch schedule capability: GET **/ISAPI/Publish/TerminalMgr/inputPlanCfg/capabilities** • Set parameters of auto-switch schedules in a batch: PUT **/ISAPI/Publish/TerminalMgr/inputPlanCfg** • Get auto-switch schedule parameters of a specific terminal: GET **/ISAPI/Publish/TerminalMgr/inputPlanCfg/<ID>/inputPlan**
Bind network cameras	• Get the capability of binding network cameras: GET **/ISAPI/Publish/TerminalMgr/bindIPC/capabilities** • Bind a specific terminal to a network camera to: PUT **/ISAPI/Publish/TerminalMgr/bindIPC/<ID>** • Get the configuration information of binding a specific terminal to a network camera: GET **/ISAPI/Publish/TerminalMgr/bindIPC/<ID>**

Terminal Operations

Function	Request URI
Control configuration	• Get terminal control capability: GET **/ISAPI/Publish/TerminalMgr/terminals/control/capabilities** • Set terminal control parameters: PUT **/ISAPI/Publish/TerminalMgr/terminals/control**
Startup and Shutdown	• Get the capability of startup and shutdown schedule parameters: GET **/ISAPI/Publish/TerminalMgr/switchPlanCfg/capabilities** • Set startup and shutdown schedule in a batch: PUT **/ISAPI/Publish/TerminalMgr/switchPlanCfg** • Get the startup and shutdown schedule configuration of a specific terminal: GET **/ISAPI/Publish/TerminalMgr/switchPlanCfg/<ID>/switchPlan**
Adjust volume	• Get the capability of volume adjustment schedule parameters: GET **/ISAPI/Publish/TerminalMgr/volumePlanCfg/capabilities** • Set volume adjustment schedules in a batch: PUT **/ISAPI/Publish/TerminalMgr/switchPlanCfg** • Get the volume adjustment schedule of a specific terminal: GET **/ISAPI/Publish/TerminalMgr/volumePlanCfg/<ID>/volumePlan**

Function	Request URI
Delete playing information	PUT ***/ISAPI/Publish/TerminalMgr/playInfo/Del?format=json***
Search for release progress	• Get the capabilities of parameters about terminal releasing progress: GET ***/ISAPI/Publish/TerminalMgr/terminals/ batchProgress/capabilities?format=json*** • Search for the terminal release progress in a batch: POST ***/ ISAPI/Publish/TerminalMgr/terminals/batchProgress? format=json***
Control text message	Get capabilities of terminal text message parameters: ***/ISAPI/ Publish/TerminalMgr/insertCharacterCfg/capabilities***
Capture	Capture images: ***/ISAPI/Publish/TerminalMgr/screenShot/<ID>***

Terminal Maintenance

Function	Request URI
Upgrade terminal	• Get the ID of terminal upgrade package: POST ***/ISAPI/Publish/ TerminalMgr/terminals/upgrade*** • Upgrade terminal: PUT ***/ISAPI/Publish/TerminalMgr/ terminals/<ID>/upgrade*** • Get upgrade progress: GET ***/ISAPI/Publish/TerminalMgr/ terminals/<ID>/upgradeStatus*** • Search for terminal upgrade progress in a batch: POST ***/ISAPI/ Publish/TerminalMgr/terminals/batchUpgradeProgress? format=json***
Debug terminal with ADB	• Set ADB debugging parameters in a batch: ***/ISAPI/Publish/ TerminalMgr/terminals/adbDebug/batch?format=json*** • Get the ADB debugging parameter capability of a specific terminal: POST ***/ISAPI/Publish/TerminalMgr/terminals/ adbDebug/<ID>/capabilities*** • Get or set the ADB debugging parameters of a specific terminal: GET or PUT ***/ISAPI/Publish/TerminalMgr/ terminals/adbDebug/<ID>***
Configure network parameters	• Get the capabilities of network parameters: GET ***/ISAPI/ Publish/TerminalMgr/terminals/addressCfg/<ID>/ capabilities*** • Get or set network parameters: GET or PUT ***/ISAPI/Publish/ TerminalMgr/terminals/addressCfg/<ID>***

Function	Request URI
Configure terminal server address	• Get the configuration capability of the terminal server: GET **/ISAPI/Publish/TerminalMgr/publishServerAddr/capabilities** • Set terminal server address: PUT **/ISAPI/Publish/TerminalMgr/publishServerAddr**
Get status of a specific terminal	GET **/ISAPI/Publish/TerminalMgr/terminals/state/<ID>**

2.2 Manage Organization and User

[i]**Note**

This function is supported only when <**isSupportOrgMgr**> in **XML_PublishServerCap** is "true" (related API: **/ISAPI/Publish/capabilities**).

For integration via Device Network SDK, the related text protocol data should be transmitted by the specific API (i.e., **NET_DVR_STDXMLConfig**) to realize the applications. Refer to **Integrate by Transmitting Text Protocol** for details.

Organization Management

Function	Request URI
Get the capability of organization management parameters	GET **/ISAPI/Publish/orgMgr/organization/<ID>/capabilities**
Configure a specific organization	• Get configuration capability: GET **/ISAPI/Publish/orgMgr/organization/<ID>/capabilities** • Get or set parameters: GET or PUT **/ISAPI/Publish/orgMgr/organization/<ID>**
Delete organization	• Delete a specific organization: DELETE **/ISAPI/Publish/orgMgr/organization/<ID>** • Delete organizations in a batch: PUT **/ISAPI/Publish/orgMgr/organization/delBatch**

User Management

Function	Request URI
Add user	POST **/ISAPI/Security/users**
Get information of all users	GET **/ISAPI/Security/users**

Function	Request URI
Configure a specific user	• Get the configuration capability of a specific user: GET **/ISAPI/Security/users/<ID>/capabilities** • Get, set, or delete a specific user: GET, PUT, or DELETE **/ISAPI/Security/users/<ID>**
Configure user permission	• Get user permission capability: GET **/ISAPI/Security/UserPermission/<ID>/remotePermission/capabilities** • Get permissions of all users: GET **/ISAPI/Security/UserPermission/remotePermission** • Get or set the remote permission of a specified user: GET or PUT **/ISAPI/Security/UserPermission/<ID>/remotePermission**
Search for user	POST **/ISAPI/Security/users/search?format=json**

2.3 Manage Material

[i]**Note**

This function is supported only when <**isSupportMaterialMgr>**> in **XML_PublishServerCap** is "true" (related API: **/ISAPI/Publish/capabilities**).

For integration via Device Network SDK, the related text protocol data should be transmitted by the specific API (i.e., **NET_DVR_STDXMLConfig**) to realize the applications. Refer to **Integrate by Transmitting Text Protocol** for details.

Function	Request URI
Get the capability of material management parameters	GET **/ISAPI/Publish/material/<ID>/capabilities**
Create a specific material	POST **/ISAPI/Publish/MaterialMgr/material**
Get, set or delete a specific material	GET, PUT, or DELETE **/ISAPI/Publish/MaterialMgr/material/<ID>**
Delete multiple materials	DELETE **/ISAPI/Publish/MaterialMgr/material**
Set materials in a batch	• Get the capability of material batch configuration: GET **/ISAPI/Publish/MaterialMgr/materialBatchInfo/capabilities** • Set materials in a batch: PUT **/ISAPI/Publish/MaterialMgr/materialBatchInfo**

Function	Request URI
Search for material	• Get the capability of material search parameters GET ***/ISAPI/Publish/MaterialMgr/materialSearch/profile*** • Search for materials by multiple conditions: POST ***/ISAPI/Publish/MaterialMgr/materialMoreSearch***
Download material thumbnail	GET ***/ISAPI/Publish/MaterialMgr/material/<ID>/thumbnail/download?format=json***
Download local material	GET ***/ISAPI/Publish/MaterialMgr/material/<ID>/download***

2.3.1 Download Local Material

You can download the local materials from the terminal according to the material No.

Before You Start
Make sure you have called ***NET_DVR_Init*** and ***NET_DVR_Login_V40*** to initialize the development environment and log in to the device.

Steps
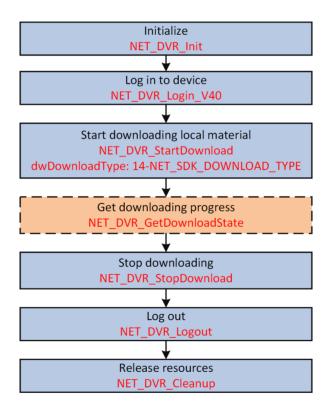
Figure 2-1 API Calling Flow of Downloading Local Material

1. Call **_NET_DVR_StartDownload_** , set **dwDownloadType** to 14
   (NET_SDK_DOWNLOAD_PUBLISH_MATERIAL), and set **lpInBuffer** as a four-byte material No. for
   starting downloading local materials.
2. **Optional:** Call **_NET_DVR_GetDownloadState_** to get the downloading progress.
3. Call **_NET_DVR_StopDownload_** to stop downloading local materials.

What to do next
Call **_NET_DVR_Logout_** and **_NET_DVR_Cleanup_** to log out and release the resources.

2.3.2 Upload or Replace Local Material

You can upload the local material to the terminal or quickly replace a local material with the same-
name material. If a material has been used by multiple programs, it will be replaced synchronously.

Before You Start
Make sure you have called **_NET_DVR_Init_** and **_NET_DVR_Login_V40_** to initialize the development
environment and log in to the device.

Steps
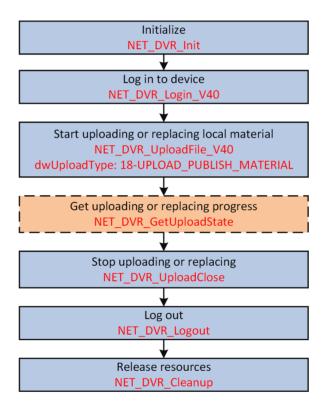
Figure 2-2 API Calling Flow of Uploading or Replacing Local Material

1. Call **_NET_DVR_UploadFile_V40_** , set **dwUploadType** to 18 (UPLOAD_PUBLISH_MATERIAL), and
   set **lpInBuffer** to **_XML_Material_** to start uploading or replacing local material.

ⓘ Note

If you want to replace the material, the value of node <**replaceTerminal**> in **_XML_Material_** should be set to true.

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2. Call **_NET_DVR_GetUploadState_** to get the uploading or replacing progress.

3. Call **_NET_DVR_UploadClose_** to stop uploading or replacing local material.

What to do next
Call **_NET_DVR_Logout_** and **_NET_DVR_Cleanup_** to log out and release the resources.

2.4 Manage Program

ⓘ Note

This function is supported only when <**isSupportProgramMgr**> in **_XML_PublishServerCap_** is "true" (related API: **_/ISAPI/Publish/capabilities_**).
For integration via Device Network SDK, the related text protocol data should be transmitted by the specific API (i.e., **_NET_DVR_STDXMLConfig_**) to realize the applications. Refer to **_Integrate by Transmitting Text Protocol_** for details.

Function	Request URI
Get capability	• Get program capabilities: GET **_/ISAPI/Publish/ProgramMgr/ program/dynamicCap_** • Get program management capability set: GET **_/ISAPI/Publish/ ProgramMgr/capabilities?format=json_** • Get window capabilities: GET **_/ISAPI/Publish/ProgramMgr/ program/page/windows/dynamicCap_** • Get the program capability of touch window: GET **_/ISAPI/ Publish/ProgramMgr/program/page/windows/touch/ capabilities_**
Get all programs' parameters	GET **_/ISAPI/Publish/ProgramMgr/program_**
Create program	POST **_/ISAPI/Publish/ProgramMgr/program_**
Configure a specific program	• Get the configuration capability of a specific program: GET **_/ ISAPI/Publish/ProgramMgr/program/<ID>/capabilities_** • Get, set or delete a specific program: GET, PUT, or DELETE **_/ ISAPI/Publish/ProgramMgr/program/<ID>_**
Configure programs in a batch	• Get the capability of program batch configuration: GET **_/ ISAPI/Publish/ProgramMgr/programBatchInfo/capabilities_** • Set programs in a batch: PUT **_/ISAPI/Publish/ProgramMgr/ programBatchInfo_**

Function	Request URI
Search for program	• Get the capability of program search parameters GET ***/ISAPI/Publish/ProgramMgr/programSearch/profile*** • Search for programs by multiple conditions: ***/ISAPI/Publish/ProgramMgr/programMoreSearch***
Download program thumbnail	GET ***/ISAPI/Publish/ProgramMgr/program/<ID>/thumbnail/download?format=json***
Upload program thumbnail	PUT ***/ISAPI/Publish/ProgramMgr/program/<ID>/thumbnail/upload?format=json***
Configure page	Get page configuration capability GET ***/ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>/capabilities***
	Get information of all pages GET ***/ISAPI/Publish/ProgramMgr/program/<ID>/page***
	Create a new page POST ***/ISAPI/Publish/ProgramMgr/program/<ID>/page***
	Get a specific page of a specific program GET ***/ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>***
	Edit the information of a page PUT ***/ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>***
	Delete a page DELETE ***/ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>***

2.4.1 Cut in Programs

You can cut in programs to terminals, and the cut-in programs will be played once the terminal receives cut-in release instruction.

Steps

```
                          ┌─────────┐
                          │  Start  │
                          └─────────┘
                               │
                               ▼
        ┌──────────────────────────────────────────────┐
        │        Get the terminal management capability │
        │ GET /ISAPI/Publish/TerminalMgr/capabilities?format=json │
        └──────────────────────────────────────────────┘
                               │
                               ▼
        ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
          Get the capability of configuring cut-in parameters
        │ GET /ISAPI/Publish/TerminalMgr/insertPlay/   │
                      capabilities?format=json
        └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
                               │
                               ▼
        ┌──────────────────────────────────────────────┐
        │          Configure the cut-in parameters      │
        │ PUT /ISAPI/Publish/TerminalMgr/insertPlay?format=json │
        └──────────────────────────────────────────────┘
                               │
                               ▼
        ┌──────────────────────────────────────────────┐
        │    Manage materials and release programs as required │
        └──────────────────────────────────────────────┘
                               │
                               ▼
        ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
                          Cancel cut-in
        │ PUT /ISAPI/Publish/TerminalMgr/insertPlay/   │
                        control?format=json
        └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
                               │
                               ▼
                          ┌─────────┐
                          │   End   │
                          └─────────┘
```

Figure 2-3 API Calling Flow of Cutting in a Program
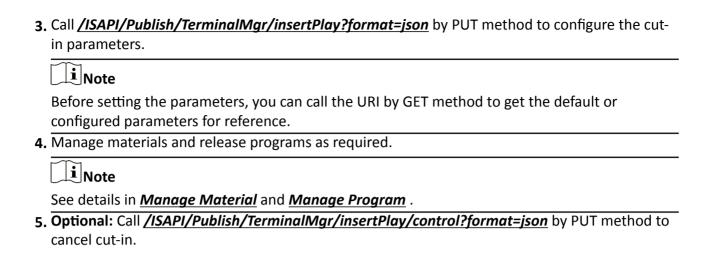
1. Call ***/ISAPI/Publish/TerminalMgr/capabilities?format=json*** by GET method to get the terminal management capability.

   Note

   If the node "**isSupportInsertPlay**" is returned in the message ***JSON_TerminalMgrCap*** and its value is true, it indicates that cut-in configuration is supported and you can continue the following steps; otherwise, please end this task.

2. **Optional:** Call ***/ISAPI/Publish/TerminalMgr/insertPlay/capabilities?format=json*** by GET method to get the capability of configuring cut-in parameters.

   The capability is returned in the message ***JSON_InsertPlayCap*** .

3. Call ***/ISAPI/Publish/TerminalMgr/insertPlay?format=json*** by PUT method to configure the cut-in parameters.

$\boxed{\mathbf{i}}$**Note**

Before setting the parameters, you can call the URI by GET method to get the default or configured parameters for reference.

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4. Manage materials and release programs as required.

$\boxed{\mathbf{i}}$**Note**

See details in ***Manage Material*** and ***Manage Program*** .

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5. **Optional:** Call ***/ISAPI/Publish/TerminalMgr/insertPlay/control?format=json*** by PUT method to cancel cut-in.

2.5 Manage Program Schedule

$\boxed{\mathbf{i}}$**Note**

This function is supported only when <**isSupportScheduleMgr**> in ***XML_PublishServerCap*** is "true" (related API: ***/ISAPI/Publish/capabilities***).
For integration via Device Network SDK, the related text protocol data should be transmitted by the specific API (i.e., ***NET_DVR_STDXMLConfig***) to realize the applications. Refer to ***Integrate by Transmitting Text Protocol*** for details.

Function	Request URI
Get schedule capabilities	GET ***/ISAPI/Publish/ScheduleMgr/releaseTerminals/ capabilities***
Get schedule management capability set	GET ***/ISAPI/Publish/ScheduleMgr/capabilities?format=json***
Create schedule	POST ***/ISAPI/Publish/ScheduleMgr/playSchedule***
Delete multiple schedules	DELETE ***/ISAPI/Publish/ScheduleMgr/playSchedule/ batchDelete***
Configure a specific schedule	• Get the configuration capability of a specific schedule: GET ***/ ISAPI/Publish/ScheduleMgr/playSchedule/<ID>/capabilities*** • Get, set or delete a specific schedule: GET, PUT, or DELETE ***/ ISAPI/Publish/ScheduleMgr/playSchedule/<ID>***

Function	Request URI
Configure schedules in a batch	• Get the capability of schedule batch configuration: GET **/ISAPI/Publish/ScheduleMgr/playScheduleBatchInfo/capabilities** • Set schedules in a batch: PUT **/ISAPI/Publish/ScheduleMgr/playScheduleBatchInfo**
Release schedule	• Get schedule release capability: GET **/ISAPI/Publish/ScheduleMgr/release/capabilities** • Release schedule: PUT **/ISAPI/Publish/ScheduleMgr/release** • Cancel the schedule release: PUT **/ISAPI/Publish/ScheduleMgr/release/cancel** • Get the schedule release progress: POST **/ISAPI/Publish/ScheduleMgr/playSchedule/status**
Search for schedule	• Get the capability of schedule search parameters GET **/ISAPI/Publish/ScheduleMgr/planSearch/profile** • Search for schedule: POST **/ISAPI/Publish/ScheduleMgr/scheduleMoreSearch**

2.6 Integrate by Transmitting Text Protocol

The Device Network SDK support transmitting text protocol, including operation methods, request URIs, query parameters, and request or response messages, without any process between the platform or system and devices to extend the integration applications.

Before You Start

• Make sure you have called **NET_DVR_Init** to initialize the programming environment.
• Make sure you have called **NET_DVR_Login_V40** to log in to the device.

Steps
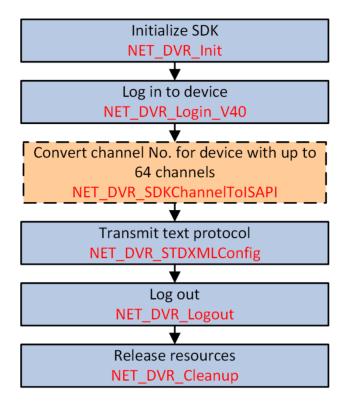
Figure 2-4 API Calling Flow of Integrating by Transmitting Text Protocol

1. **Optional:** Call **NET_DVR_SDKChannelToISAPI** to convert the device channel No. when integrating based on Device Network SDK and text protocol transmission.

ⓘ Note

- This step is only available for rear-end devices with up to 64 network channels.
- For the integration based on text protocol transmission, the channel No. starts from 1, for the integration based on Device Network SDK, the channel No. of device with up to 64 network channels starts from 33, so when the SDK's API is called by the platform or system for transmitting text protocol to device, the channel No. returned by device starts from 1, but the start channel No. of platform or system should starts from 33, this may cause the problem.

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2. Call **NET_DVR_STDXMLConfig** to transmit text protocol, including operation methods, request URIs, query parameters, and request or response messages, for realizing the corresponding applications.

What to do next
Call **NET_DVR_Logout** and **NET_DVR_Cleanup** to log out and release resources.

Chapter 3 API Reference

3.1 NET_DVR_Cleanup

Release the resources after the program is ended.

API Definition

```
BOOL NET_DVR_Cleanup(
);
```

Return Values

Returns *TURE* for success, and returns *FALSE* for failure.
If *FALSE* is returned, you can call **NET_DVR_GetLastError** to get the error code.
The available error codes may be returned by this API are 0 and 3. See details in **Device Network SDK Errors** .

Remarks

- When calling this API, you cannot call other APIs at the same time.
- **NET_DVR_Init** and this API should be called by pair. That is, once the NET_DVR_Init is called, you should call NET_DVR_Cleanup to release the resources when exiting the program.

3.2 NET_DVR_GetDownloadState

Get the file downloading progress and status.

API Definition

```
LONG NET_DVR_GetDownloadState(
  LONG     lDownloadHandle,
  DWORD    *pProgress
);
```

Parameters

lDownloadHandle

[IN] Handle for downloading files, which is returned by **NET_DVR_StartDownload** .

pProgress

[OUT] Returned progress value, which is ranging from 1 to 100.

Return Values

Returns *-1* for calling failed, and returns other values as the downloading status codes: 1-Downloaded, 2-Downloading, 3-Downloading Failed, 4-Network Disconnected, Unknown Status. If returning failed, you can call ***NET_DVR_GetLastError*** to get the error code.

3.3 NET_DVR_GetErrorMsg

Return the error information of the last operation.

API Definition

```
char *NET_DVR_GetErrorMsg(
  LONG  *pErrorNo
);
```

Parameters

pErrorNo

　　[OUT] Error code pointer.

Return Values

The return values are the pointers of error information, see ***Device Network SDK Errors*** for details.

Remarks

You can call ***NET_DVR_GetLastError*** to get the error codes.

3.4 NET_DVR_GetLastError

Return the error code of the last operation.

API Definition

```
DWORD NET_DVR_GetLastError(
);
```

Return Values

The return values are error codes, see ***Device Network SDK Errors*** for details.

Remarks

You can also call ***NET_DVR_GetErrorMsg*** to directly get the error information.

3.5 NET_DVR_GetUploadState

Get the file uploading progress and status.

API Definition

```
LONG NET_DVR_GetUploadState(
  LONG     lUploadHandle,
  DWORD    *pProgress
);
```

Parameters

lUploadHandle

[IN] Handling for uploading files, which is returned by **NET_DVR_UploadFile_V40** .

pProgress

[OUT] Returned progress value.

Return Values

Return *-1* for failure, and return other values as the uploading status codes, see details in the following table.

Table 3-1 Uploading Status Code

Return Value	Description
1	Uploaded successfully.
2	Uploading.
3	Uploading failed.
4	Network disconnected. Unknown status.
6	HDD error.
7	No HDD for saving inquest files.
8	Insufficient capacity.
9	Insufficient device resource.
10	No more files can be uploaded.
11	Too large file size.
15	File type error.
19	Invalid file format.
20	Incorrect file content.

Return Value	Description
21	The uploaded audio sampling rate is not supported.
22	Insufficient storage in the face library.
26	Name error.
27	Invalid picture resolution.
28	Too many targets on the picture.
29	No target is recognized on the picture.
30	Picture recognition failed.
31	Analysis engine exception.
32	Analyzing additional information on the picture failed.
33	Thumbnail modeling failed.
34	Incorrect security verification key.
35	Downloading picture via URL has not started.
36	Duplicate custom ID of different persons.
37	Person ID error (The ID is saved in **customHumanID** of **FaceAppendData**).
38	Modeling failed. Device inner error.
39	Modeling failed. Face modeling error.
40	Modeling failed. Face score error.
41	Modeling failed. Feature collection error.
42	Modeling failed. Attribute collection error.
43	Picture data error.
44	Picture additional information error.
45	Certificate has already existed.

3.6 NET_DVR_Init

Initialize the programming environment before calling other APIs.

API Definition

```
BOOL NET_DVR_Init(
);
```

Return Values

Returns *TURE* for success, and returns *FALSE* for failure.
If *FALSE* is returned, you can call **_NET_DVR_GetLastError_** to get the error code.
The available error codes of this API are 0, 41, and 53. See details in **_Device Network SDK Errors_** .

Remarks

Before initializing, you can call **_NET_DVR_SetSDKInitCfg_** to set the initialization parameters, such as supported capabilities, loading path of component libraries (only supported by Linux system), and so on.

See Also

_NET_DVR_Cleanup_

3.7 NET_DVR_Login_V40

Log in to the device (supports asynchronous login).

API Definition

```
LONG NET_DVR_Login_V40(
 NET_DVR_USER_LOGIN_INFO   pLoginInfo,
 NET_DVR_DEVICEINFO_V40   lpDeviceInfo
);
```

Parameters

pLoginInfo

   [IN] Login parameters, including device address, user name, password, and so on. See details in the structure **_NET_DVR_USER_LOGIN_INFO_** .

lpDeviceInfo

   [OUT] Device information. See details in the structure **_NET_DVR_DEVICEINFO_V40_** .

Return Values

- For asynchronous login, the callback function (***fLoginResultCallBack***) configured in the structure (***NET_DVR_USER_LOGIN_INFO***) returns the asynchronous login status, user ID and device information.
- For synchronous login, this API returns *-1* for logging failed, and returns other values for the returned user IDs. The user ID is unique, and it helps to realize the further device operations.
- If *-1* is returned, you can call ***NET_DVR_GetLastError*** to get the error code.

Remarks

- When **bUseAsynLogin** in **pLoginInfo** is 0, it indicates that login is in synchronous mode; when **bUseAsynLogin** in **pLoginInfo** is 1, it indicates that login is in asynchronous mode.
- Up to 2048 users are allowed to log in to HCNetSDK at same time, and the values of returned **UserID** are ranging from 0 to 2047.

See Also

NET_DVR_Logout

3.8 NET_DVR_Logout

Log out from devices.

API Definitions

```
BOOL NET_DVR_Logout(
  LONG   lUserID
);
```

Parameters

lUserID

[IN] User ID, which is returned by ***NET_DVR_Login_V40*** .

Return Values

Returns *TURE* for success, and returns *FALSE* for failure.
If *FALSE* is returned, you can call ***NET_DVR_GetLastError*** to get the error code.
The available error codes may be returned by this API are 0, 3, 7, 8, 9, 10, 14, 17, 41, 44, 47, 72, and 73. See details in ***Device Network SDK Errors*** .

3.9 NET_DVR_SDKChannelToISAPI

Convert channel No. between the private protocol and a text protocol.

API Definition

```
BOOL NET_DVR_SDKChannelToISAPI(
  LONG    lUserID,
  LONG    lInChannel,
  BOOL    bSDKToISAPI
);
```

Parameters

lUserID

[IN] Value returned by **_NET_DVR_Login_V40_** .

lInChannel

[IN] Channel No.

bSDKToISAPI

[OUT] Channel No. conversion type: "TRUE"-convert channel No. of private protocol to that of text protocol, "FALSE"-convert channel No. of text protocol to that of private protocol.

Return Values

Returns *TRUE* for success, and returns *FALSE* for failure.
If *FALSE* is returned, you can call **_NET_DVR_GetLastError_** to get the error code.

3.10 NET_DVR_SetSDKInitCfg

Set initialization parameters.

API Parameters

```
BOOL NET_DVR_SetSDKInitCfg(
  NET_SDK_INIT_CFG_TYPE    enumType,
  void* const            lpInBuff
);
```

Parameters

enumType

[IN] Initialization parameter type. Different type values correspond to different parameters, see details in the table below.

Table 3-2 NET_SDK_INIT_CFG_TYPE

enumType	Value	Description	lpInBuff
NET_SDK_INIT_CFG_ ABILITY	1	Capability supported by SDK.	***NET_DVR_INIT_CFG_A BILITY***
NET_SDK_INIT_CFG_ SDK_PATH	2	Set loading path for component libraries (supported by both Linux and Windows system).	***NET_DVR_LOCAL_SDK _PATH***
NET_SDK_INIT_CFG_ LIBEAY_PATH	3	Set path (including library name) for libeay32.dll (Windows), libcrypto.so (Linux), and libcrypto.dylib (Mac) of OpenSSL in version 1.1.1 and 1.0.2.	Path in string format, e.g., ***C:\\libeay32.dll***.
NET_SDK_INIT_CFG_ SSLEAY_PATH	4	Set path (including library name) for ssleay32.dll (Windows), libssl.so (Linux), libssl.dylib (Mac) of OpenSSL in version 1.1.1 and 1.0.2.	Path in string format, e.g., ***C:\\ssleay32.dll***.

lpInBuff

[IN] Input parameter. Different parameter types correspond to different structures, see details in the table above.

Return Values

Returns *TURE* for success, and returns *FALSE* for failure.
If *FALSE* is returned, you can call ***NET_DVR_GetLastError*** to get the error code.

Remarks

This API should be called before calling ***NET_DVR_Init*** to initialize and check the dependent libraries or capabilities.

3.11 NET_DVR_StartDownload

Start downloading files

API Definition

```
LONG NET_DVR_StartDownload(
  LONG        lUserID,
  DWORD        dwDownloadType,
  LPVOID       lpInBuffer,
  DWORD        dwInBufferSize,
  char const   *sFileName
);
```

Parameters

lUserID

[IN] Value returned by ***NET_DVR_Login_V40*** .

dwDownloadType

[IN] Downloading commands which specify the file type to download, see details in the enumeration ***NET_SDK_DOWNLOAD_TYPE*** .

lpInBuffer

[IN] Input parameters, which are different according to different downloading commands.

dwInBufferSize

[IN] Input buffer size.

sFileName

[IN] Path for saving downloaded files (absolute path, includes file name).

Return Values

Returns -*1* for failure, and returns other values as the parameters of ***NET_DVR_StopDownload*** and ***NET_DVR_GetDownloadState*** .
If returning failed, you can call ***NET_DVR_GetLastError*** to get the error code.

3.12 NET_DVR_STDXMLConfig

Transmit request URL with XML or JSON format to implement some typical functions.

API Definition

```
BOOL NET_DVR_STDXMLConfig(
  LONG                     lUserID,
  const NET_DVR_XML_CONFIG_INPUT     *lpInputParam,
  NET_DVR_XML_CONFIG_OUTPUT        *lpOutputParam
);
```

Parameters

lUserID

[IN] Value returned by **_NET_DVR_Login_V40_** .

lpInputParam

[IN] Input parameters, refer to the structure **_NET_DVR_XML_CONFIG_INPUT_** for details.

lpOutputParam

[IN][OUT] Output parameters, refer to the structure **_NET_DVR_XML_CONFIG_OUTPUT_** for details.

Return Values

Return *TRUE* for success, and return *FALSE* for failure.
If *FALSE* is returned, you can call **_NET_DVR_GetLastError_** to get the error code.

Remarks

The input parameter **lpInputParam** and output parameter **lpOutputParam** are different when transmitting text protocol for implementing different functions, and each parameter corresponds to a component of text protocol, see the relations below:

Parameter of NET_DVR_STDXMLConfig		Component of Text Protocol
lpInputParam	**lpRequestUrl** (see in structure **_NET_DVR_XML_CONFIG_INPUT_**)	Method+URL E.g., GET /ISAPI/System/ capabilities
	lpInBuffer (see in structure **_NET_DVR_XML_CONFIG_INPUT_**)	Request Message
lpOutputParam	**lpOutBuffer** (see in structure **_NET_DVR_XML_CONFIG_OUTPUT_**)	Response Message
	lpStatusBuffer (see in structure **_NET_DVR_XML_CONFIG_OUTPUT_**)	Response Message

3.13 NET_DVR_StopDownload

Stop downloading files.

API Definition

```
BOOL NET_DVR_StopDownload(
  LONG   lHandle
);
```

Parameters

lHandle

[IN] Handle for downloading files, which is returned by ***NET_DVR_StartDownload*** .

Return Values

Returns *TRUE* for success, and returns *FALSE* for failure.
If *FALSE* is returned, you can call ***NET_DVR_GetLastError*** to get the error code.

3.14 NET_DVR_UploadClose

Stop uploading files.

API Definition

```
BOOL NET_DVR_UploadClose(
  LONG   lUploadHandle
);
```

Parameters

lUploadHandle

[IN] Handle for uploading files, which is returned by ***NET_DVR_UploadFile_V40*** .

Return Values

Return *TRUE* for success, and return *FALSE* for failure.
If *FALSE* is returned, you can call ***NET_DVR_GetLastError*** to get the error code.

3.15 NET_DVR_UploadFile_V40

Upload file.

API Definition

```
LONG NET_DVR_UploadFile_V40(
  LONG     lUserID,
  DWORD    dwUploadType,
  LPVOID   lpInBuffer,
  DWORD    dwInBufferSize,
```

```
 char     *sFileName,
 LPVOID   lpOutBuffer,
 DWORD    dwOutBufferSize
);
```

Parameters

lUserID

[IN] Value returned by **_NET_DVR_Login_V40_** .

dwUploadType

[IN] Uploading commands, which specify the file type to upload, see details in the enumeration **_NET_SDK_UPLOAD_TYPE_** .

lpInBuffer

[IN] Input parameters, which are different according to different uploading commands.

dwInBufferSize

[IN] Input buffer size.

sFileName

[IN] Name of the file to be uploaded. For the complete file path (including the file name), the maximum size is 128 bytes, and the maximum size of the file name is 32 bytes.

lpOutBuffer

[OUT] Output parameters, which are different according to different uploading commands.

dwOutBufferSize

[OUT] Output buffer size.

Return Values

Return -1 for failure, and return other values as the parameter of **_NET_DVR_UploadClose_** and **_NET_DVR_GetUploadState_** .
If -1 is returned, you can call **_NET_DVR_GetLastError_** to get the error code.

3.16 Callback Function

3.16.1 fLoginResultCallBack

Login Status Callback Function

Member	Data Type	Description
lUserID	LONG	User ID, which is returned by **_NET_DVR_Login_V40_** .
dwResult	DWORD	Login status: 0-asynchronously logging in failed, 1-asynchronously logged in.
lpDeviceInfo	**_NET_DVR_DEVICEINFO_V40_**	Device information, such as serial No., channel, capability, and so on.
pUser	void*	User data.

Appendix A. Data Structure

A.1 NET_DVR_DEVICEINFO_V30

Device parameter structure (V30).

Device Parameter Structure (V30)

Member	Data Type	Description
sSerialNumber	BYTE	Device serial No.
byAlarmInPortNum	BYTE	Number of analog alarm inputs
byAlarmOutPortNum	BYTE	Number of analog alarm outputs
byDiskNum	BYTE	Number of HDDs
byDVRType	BYTE	Device type
byChanNum	BYTE	Number of analog channels
byStartChan	BYTE	Start No. of analog channel, which starts from 1.
byAudioChanNum	BYTE	Number of two-way audio channels
byIPChanNum	BYTE	Number of digital channels, low 8-bit.
byZeroChanNum	BYTE	Number of channel-zero
byMainProto	BYTE	Transmission protocol type of main stream: 0-private protocol (default), 1-RTSP, 2-private protocol+RTSP
bySubProto	BYTE	Transmission protocol type of sub-stream: 0-private protocol (default), 1-RTSP, 2-private protocol+RTSP
bySupport	BYTE	Capabilities, if the result of bitwise operation is 0, it refers that the capability is not supported, if the result is 1, it indicates that the capability is supported. • bySupport&0x1: whether supports VCA search. • bySupport&0x2: whether supports backup. • bySupport&0x4: whether supports getting encoding parameters.

Member	Data Type	Description
		• bySupport&0x8: whether supports dual-NIC. • bySupport&0x10: whether supports remote SADP. • bySupport&0x20: whether supports RAID card. • bySupport&0x40: whether supports searching in IPSAN directory. • bySupport&0x80: whether supports RTP over RTSP.
bySupport1	BYTE	Extended capabilities, if the result of bitwise operation is 0, it refers that the capability is not supported, if the result is 1, it indicates that the capability is supported. • bySupport1&0x1: whether supports SNMP with version 30. • bySupport1&0x2: whether supports playback and downloading video files. • bySupport1&0x4: whether supports setting the arming priority. • bySupport1&0x8: whether supports extending the arming time period. • bySupport1&0x10: whether supports multiple HDDs (more than 33). • bySupport1&0x20: whether supports RTP over RTSP. • bySupport1&0x80: whether supports license plate recognition alarm.
bySupport2	BYTE	Extended capabilities, if the result of bitwise operation is 0, it refers that the capability is not supported, if the result is 1, it indicates that the capability is supported. • bySupport2&0x1: whether supports getting stream via URL. • bySupport2&0x2: whether supports FTP with version 40. • bySupport2&0x4: whether supports ANR.

Member	Data Type	Description
		• bySupport2&0x20: whether supports getting device status. • bySupport2&0x40: whether supports encrypting stream.
wDevType	WORD	Device model
bySupport3	BYTE	Extended capabilities, if the result of bitwise operation is 0, it refers that the capability is not supported, while, if the result is 1, it indicates that the capability is supported. • bySupport3&0x1: whether supports multi-stream. • bySupport3&0x4: whether supports configuring by group (e.g., image, alarm input, alarm output, user, device status, JPEG picture capture, continuous and scheduled capture, .HDD group management, and so on). • bySupport3&0x20: whether supports getting stream via DDNS.
byMultiStreamProto	BYTE	Whether supports multi-stream, if the result of bitwise operation is 0, it refers to not support, if the result is 1, it refers to support. • byMultiStreamProto&0x1: whether supports third-stream. • byMultiStreamProto&0x2: whether supports fourth-stream. • byMultiStreamProto&0x40: whether supports main stream. • byMultiStreamProto&0x80: whether supports sub-stream.
byStartDChan	BYTE	Start No. of digital channel, 0-no digital channel (e.g., DVR, network camera).
byStartDTalkChan	BYTE	Start No. of two-way audio channel, 0-no two-way audio channel.
byHighDChanNum	BYTE	Number of digital channels, high 8-bit.
bySupport4	BYTE	Extended capabilities, if the result of bitwise operation is 0, it refers that the capability is not

Member	Data Type	Description
		supported, if the result is 1, it indicates that the capability is supported. • bySupport4&0x01: whether all stream types support RTSP and private protocol. • bySupport4&0x02: whether the device supports transmitting form format data via API (NET_DVR_STDXMLConfig). • bySupport4&0x10: whether supports loading network disk by domain name.
byLanguageType	BYTE	Supported language types, if the result of bitwise operation is 0, it refers to not support, if the result is 1, it refers to support. • byLanguageType ==0: this field is not supported by device. • byLanguageType&0x1: whether supports Chinese. • byLanguageType&0x2: whether supports English.
byVoiceInChanNum	BYTE	Number of audio input channels
byStartVoiceInChanNo	BYTE	Start No. of audio input channel, 0-invalid.
byRes3	Array of BYTE	Reserved, set to 0.
byMirrorChanNum	BYTE	Number of mirror channels
wStartMirrorChanNo	WORD	Start No. of mirror channel
byRes2	Array of BYTE	Reserved, set to 0.

Remarks

• The maximum number of digital channels equal to byIPChanNum+byHighDChanNum*256.
• For login via text protocol, the following parameters are not supported: **byMainProto**, **bySubProto**, **bySupport**, **bySupport1**, **bySupport2**, **bySupport3**, **bySupport4**, **bySupport5**, **bySupport6**, **bySupport7**, **byMultiStreamProto**, **byStartDTalkChan**, **byVoiceInChanNum**, **byStartVoiceInChanNo**, **byMirrorChanNum**, and **wStartMirrorChanNo**.

See Also

NET_DVR_DEVICEINFO_V40

A.2 NET_DVR_DEVICEINFO_V40

Device Parameter Structure (V40)

Member	Data Type	Description
struDeviceV30	***NET_DVR_DEVICEINFO_V30***	Device parameters
bySupportLock	BYTE	Whether supports locking function: 1-support.
byRetryLoginTime	BYTE	Remaining login attempts, it is valid when the user name or password is incorrect and the **bySupportLock** is 1.
byPasswordLevel	BYTE	Password strength: 0-invalid, 1-default password, 2-valid password, 3-risky password. For default password or risky password, the users are reminded to change password.
byProxyType	BYTE	Proxy type: 0-no proxy, 1-standard proxy, 2-EHome proxy.
dwSurplusLockTime	DWORD	Remaining locking time, unit: second. It is valid only when **bySupportLock** is 1. During the locing time, if the user try to log in to again, the remaining locking time will resume to 30 minutes.
byCharEncodeType	BYTE	Character encodings. 0-no decoding information, 1-GB2312 (Simplified Chinese), 2-GBK, 3-BIG5 (Traditional Chinese), 4-Shift_JIS (Japanese), 5-EUC-KR (Korean), 6-UTF-8, 7-ISO8859-1, 8-ISO8859-2, 9-ISO8859-3, …, 21-ISO8859-15 (Western European)
bySupportDev5	BYTE	Whether to support getting the parameters of devices that support HCNetSDK version 5.0 or above, the size of device name and type name are extended to 64 bytes.
bySupport	BYTE	Whether it supports uploading changes, it depends on the result of bitwise AND (&) operation: 0-not support, 1-support. The result of **bySupport**&0x1 indicates that this member is reserved; the result of **bySupport**&0x2 indicates

Member	Data Type	Description
		that whether it supports uploading changes: 0-not support, 1-support. This member is the capability set extension.
byLoginMode	BYTE	Login mode: 0-login via private protocol, 1-login via text protocol. For private protocol, the default login port number is 8000, and for text protocol, the default login port number is 80 or 443.
dwOEMCode	DWORD	OEM code.
iResidualValidity	int	Remaining valid days of the user's password, unit: day. If the negative number is returned, it indicates that the password being used has expired. For example, if -3 is returned, it indicates that the password being used has expired for three days.
byResidualValidity	BYTE	Whether the member **iResidualValidity** is valid: 0-invalid, 1-valid.
bySingleStartDTalkChan	BYTE	Start channel No. for connecting independent audio tracks to the device. The value 0 is reserved and invalid. The channel No. of audio tracks cannot start from 0.
bySingleDTalkChanNums	BYTE	Total number of channels of the device connected with independent tracks, 0-not support.
byPassWordResetLevel	BYTE	Whether to prompt the non-admin user to change the password: 0 (invalid), 1 (If the administrator creates a non-admin user account with an initial password, the non-admin user will be prompted "Please change the initial password" each time he/she logs in to the device until he/she changes the initial password), 2(If the non-admin user's password has been changed by the administrator, the non-admin user will be prompted "Please set a new password" each time he/she logs in to the device until he/she changes the password).

Member	Data Type	Description
bySupportStreamEncrypt	BYTE	Whether it supports stream encryption, it depends on the result of bitwise AND (&) operation: 0-no, 1-yes. The result of **bySupportStreamEncrypt**&0x1 indicates whether to support RTP/TLS streaming, the result of **bySupportStreamEncrypt**&0x2 indicates whether to support SRTP/UDP streaming, and the result of **bySupportStreamEncrypt**&0x4 indicates whether to support SRTP/MULTICAST streaming.
byRes2	Array of BYTE	Reserved, set to 0.

Remarks

- Four character types are allowed in the password, including digits, lowercase letters, uppercase letters and symbols. The maximum password length is 16 bits, and there are four password strength levels, see details below:
  - Level 0 (Risky Password): The password length is less than 8 bits, or only contains one kind of the character types. Or the password is the same with the user name, or is the mirror writing of the user name.
  - Level 1 (Weak Password): The password length is more than or equal to 8 bits, and contains two kinds of the character types. Meanwhile, the combination should be (digits + lowercase letters) or (digits + uppercase letters).
  - Level 2 (Medium Password): The password length is more than or equal to 8 bits, and contains two kinds of the character types. Meanwhile, the combination cannot be (digits + lowercase letters) and (digits + uppercase letters).
  - Level 3 (Strong Password): The password length is more than or equal to 8 bits, and at least contains three kinds of the character types.
- For login via text protocol, the following parameters are not supported: **bySupportLock**, **byRetryLoginTime**, **byPasswordLevel**, **byProxyType**, **dwSurplusLockTime**, **byCharEncodeType**, and **bySupportDev5**.

A.3 NET_DVR_INIT_CFG_ABILITY

Initialization Capability Structure

Member	Data Type	Description
enumMaxLoginUsersNum	INIT_CFG_MAX_NUM	Maximum number of users can log in, see details below: enum _INIT_CFG_MAX_NUM_{ INIT_CFG_NUM_2048 = 2048, INIT_CFG_NUM_5120 = 5120, INIT_CFG_NUM_10240 = 10240, INIT_CFG_NUM_15360 = 15360, INIT_CFG_NUM_20480 = 20480 }INIT_CFG_MAX_NUM
enumMaxAlarmNum	INIT_CFG_MAX_NUM	Maximum number of alarm channels, see details below: enum _INIT_CFG_MAX_NUM_{ INIT_CFG_NUM_2048 = 2048, INIT_CFG_NUM_5120 = 5120, INIT_CFG_NUM_10240 = 10240, INIT_CFG_NUM_15360 = 15360, INIT_CFG_NUM_20480 = 20480 }INIT_CFG_MAX_NUM
byRes	Array of BYTE	Reserved, set to 0.

Remarks

By default, up to 2048 channels are supported. More channels require higher computer performance and network bandwidth.

See Also

NET_DVR_SetSDKInitCfg

A.4 NET_DVR_IPADDR_UNION

IP Address Union

Member	Data Type	Description
szIPv4	char[]	IPv4 address. The maximum length is 16 bytes.
szIPv6	char[]	IPv6 address. The maximum length is 256 bytes.

A.5 NET_DVR_LOCAL_SDK_PATH

Path Information Structure for Loading Component Libraries

Member	Data Type	Description
sPath	Array of char	Component libraries' addresses
byRes	Array of BYTE	Reserved.

Remarks

If the path of HCNetSDKCom folder and HCNetSDK libraries are same, but the path of executable programs are different, you can call **_NET_DVR_SetSDKInitCfg_** to specify the path of HCNetSDKCom folder to make sure the component libraries are loaded normally.

A.6 NET_DVR_MIME_UNIT

Input Content Details Structure of Message Transmission API (NET_DVR_STDXMLConfig)

Member	Data Type	Description
szContentType	Array of char	Content type (corresponds to **Content-Type** field in the message), e.g., text/json. text/xml, and so on. The content format must be supported by HTTP.
szName	Array of char	Content name (corresponds to **name** field in the message), e.g., name="upload".
szFilename	Array of char	Content file name (corresponds to **filename** field in the message), e.g., filename="C:\Users\test\Desktop\11.txt".
dwContentLen	DWORD	Content size
pContent	char*	Data point
bySelfRead	BYTE	0-External file, 1-Internal data, whose address is specified by **szFilename**.
byRes	Array of BYTE	Reserved. Set to 0. Maximum: 15 bytes.

See Also

A.7 NET_DVR_USER_LOGIN_INFO

Structure About Login Parameters

Member	Data Type	Description
sDeviceAddress	char	Device IP address, or domain name.
byUseTransport	BYTE	Enable capability transmission or not: 0-no (default), 1-yes.
wPort	WORD	Device port number, e.g., 8000 (when login by private protocol), 80 (when login by text protocol).
sUserName	char	User name for logging in to device.
sPassword	char	Login password.
cbLoginResult	*fLoginResultCallBack*	Callback function used to return login status, it is valid only when **bUseAsynLogin** is "1".
pUser	void*	User data.
bUseAsynLogin	BOOL	Whether to enable asynchronous login: 0-no, 1-yes.
byProxyType	BYTE	Proxy server type: 0-no proxy, 1-standard proxy, 2-EHome proxy.
byUseUTCTime	BYTE	0-not convert (default), 1-input or output UTC time, 2-input or output local time.
byLoginMode	BYTE	Login mode: 0-login by private protocol, 1-login by text protocol, 2-self-adaptive (it is available when the protocol type supported by device is unknown, and this mode does not support asynchronous login).
byHttps	BYTE	Whether to enable TLS for login (by private protocol or by text protocol): 0-no, 1-yes, 2-self-adaptive (which is usually used when the protocol type supported by device is unknown. Both HTTP and HTTPS requests will be sent).

Member	Data Type	Description
iProxyID	LONG	Proxy server No.
byVerifyMode	BYTE	Whether to enable verification mode: 0-no, 1-bidirectional verification (currently not available), 2-unidirectional verification (it is valid when **byLoginMode** is 0 and **byHttps** is 1); when **byVerifyMode** is 0, CA certificate is not required, when **byVerifyMode** is 2, you should call NET_DVR_SetSDKLocalCfg to load CA certificate, and the enumeration value is "NET_SDK_LOCAL_CFG_CERTIFICATION".
byRes3	BYTE[]	Reserved, the maximum length is 119 bytes.

A.8 NET_DVR_XML_CONFIG_INPUT

Input Parameter Structure of Message Transmission API (NET_DVR_STDXMLConfig)

Member	Data Type	Description
dwSize	DWORD	Structure size.
lpRequestUrl	void*	Request URL (command) for implement different functions, and it is in string format.
dwRequestUrlLen	DWORD	Request URL size.
lpInBuffer	void*	Buffer for storing input parameters (request messages), see the input content details structure in ***NET_DVR_MIME_UNIT***.
dwInBufferSize	DWORD	Input buffer size.
dwRecvTimeOut	DWORD	Receiving timeout, unit: ms, 0-5000ms (default).
byForceEncrpt	BYTE	Whether to enable force encryption (the messages will be encrypted by AES algorithm for transmission): 0-no, 1-yes.
byNumOfMultiPart	BYTE	Number of message segments: 0-invalid; other values-number of message segments, which is

Member	Data Type	Description
		transmitted by the parameter **lpInBuffer** in the structure *NET_DVR_MIME_UNIT* .
byRes	Array of BYTE	Reserved, set to 0.

Related API

NET_DVR_STDXMLConfig

A.9 NET_DVR_XML_CONFIG_OUTPUT

Output Parameter Structure of Message Transmission API (NET_DVR_STDXMLConfig)

Member	Data Type	Description
dwSize	DWORD	Structure size.
lpOutBuffer	void*	Buffer for storing output parameters (response messages), which is allocated when passing through URL by GET method.
dwOutBufferSize	DWORD	Output buffer size.
dwReturnedXMLSize	DWORD	Actual size of response message.
lpStatusBuffer	void*	Response status (ResponseStatus message). This parameter will not be assigned if performing GET operation succeeded, and you can also set it to "NULL" if not required.
dwStatusSize	DWORD	Size of response status buffer.
lpDataBuffer	HPR_VOIDPTR	Buffer for transmitted data. This parameter is valid when the value of **byNumOfMultiPart** is larger than 0.
byNumOfMultiPart	HPR_UINT8	Number of parts that the message is divided into.
byRes [23]	BYTE	Reserved, set to 0.

Related API

NET_DVR_STDXMLConfig

Appendix B. Enumeration

B.1 NET_SDK_DOWNLOAD_TYPE

Enumerate file types to be downloaded.

Enumeration Definition

```
typedef enum {
  NET_SDK_DOWNLOAD_CERT                          = 0,
  NET_SDK_DOWNLOAD_IPC_CFG_FILE                  = 1,
  NET_SDK_DOWNLOAD_BASELINE_SCENE_PIC            = 2,
  NET_SDK_DOWNLOAD_VQD_ALARM_PIC                 = 3,
  NET_SDK_DOWNLOAD_CONFIGURATION_FILE            = 4,
  NET_SDK_DOWNLOAD_SCENE_CONFIGURATION_FILE      = 5,
  NET_SDK_DOWNLOAD_FILE_FORM_DB                  = 6,
  NET_SDK_DOWNLOAD_TME_FILE                      = 7,
  NET_SDK_DOWNLOAD_VEHICLE_BLOCKALLOWLIST_FILE   = 8,
  NET_SDK_DOWNLOAD_GUID_FILE                     = 9,
  NET_SDK_DOWNLOAD_FILE_FORM_CLOUD               = 10,
  NET_SDK_DOWNLOAD_PICTURE                       = 11,
  NET_SDK_DOWNLOAD_VIDEO                         = 12,
  NET_DVR_DOWNLOAD_SCREEN_FILE                   = 13,
  NET_SDK_DOWNLOAD_PUBLISH_MATERIAL              = 14,
  NET_SDK_DOWNLOAD_THERMOMETRIC_FILE             = 15,
  NET_SDK_DOWNLOAD_LED_CHECK_FILE                = 16,
  NET_SDK_DOWNLOAD_VEHICLE_INFORMATION           = 17,
  NET_SDK_DOWNLOAD_CERTIFICATE_BLOCKLIST_TEMPLET = 18,
  NET_SDK_DOWNLOAD_LOG_FILE                      = 19,
  NET_SDK_DOWNLOAD_FILEVOLUME_DATA               = 20,
  NET_SDK_DOWNLOAD_FD_DATA                       = 21,
  NET_SDK_DOWNLOAD_SECURITY_CFG_FILE             = 22,
  NET_SDK_DOWNLOAD_PUBLISH_SCHEDULE              = 23,
  NET_SDK_DOWNLOAD_RIGHT_CONTROLLER_AUDIO        = 24,
  NET_SDK_DOWNLOAD_MODBUS_CFG_FILE               = 25,
  NET_SDK_DOWNLOAD_RS485_PROTOCOL_DLL_FILE       = 26,
  NET_SDK_DOWNLOAD_CLUSTER_MAINTENANCE_LOG       = 27,
  NET_SDK_DOWNLOAD_SQL_ARCHIVE_FILE              = 28,
  NET_SDK_DOWNLOAD_SUBWIND_STREAM                = 29,
  NET_SDK_DOWNLOAD_DEVTYPE_CALIBFILE             = 30,
  NET_SDK_DOWNLOAD_HD_CAMERA_CORRECT_TABLE       = 31,
  NET_SDK_DOWNLOAD_CLIENT_CALIBFILE              = 32,
  NET_SDK_DOWNLOAD_FOUE_CAMERAS_PICTURES         = 33,
  NET_SDK_DOWNLOAD_DOOR_CONTENT                  = 34,
  NET_SDK_DOWNLOAD_PUBLISH_MATERIAL_THUMBNAIL    = 35,
  NET_SDK_DOWNLOAD_PUBLISH_PROGRAM_THUMBNAIL     = 36,
  NET_SDK_DOWNLOAD_PUBLISH_TEMPLATE_THUMBNAIL    = 37,
  NET_SDK_DOWNLOAD_DARK_FIGHTER_X_CORRECT_TABLE_MAIN   = 38,
  NET_SDK_DOWNLOAD_DARK_FIGHTER_X_CORRECT_TABLE_BACKUP = 39,
```

```
NET_SDK_DOWNLOAD_OFFLINE_CAPTURE_INFO_TEMPLATE    = 40,
NET_SDK_DOWNLOAD_CAPTURE_DATA                = 41,
NET_SDK_DOWNLOAD_HD_CAMERA_CORRECT_TABLE_FILE     = 42,
NET_SDK_DOWNLOAD_CLIENT_CALIBFILE_FILE       = 43,
NET_SDK_DOWNLOAD_FOUR_CAMERAS_PICTURES_FILE       = 44,
NET_SDK_DOWNLOAD_SCENE_FILE                  = 45,
NET_SDK_DOWNLOAD_OPEN_SOURCE_CERT              = 46,
NET_SDK_DOWNLOAD_RATIOSTITCHING_FILE           = 47,
NET_SDK_DOWNLOAD_LENS_PARAM_FILE             = 48,
NET_SDK_DOWNLOAD_SELECT_DEVTYPE_CALIBFILE        = 49
} NET_SDK_DOWNLOAD_TYPE;
```

Enumeration Type

NET_SDK_DOWNLOAD_CERT

Certificate.

NET_SDK_DOWNLOAD_IPC_CFG_FILE

Network camera configuration file.

NET_SDK_DOWNLOAD_BASELINE_SCENE_PIC

Base scene picture.

NET_SDK_DOWNLOAD_VQD_ALARM_PIC

VQD (video quality diagnosis) alarm picture.

NET_SDK_DOWNLOAD_CONFIGURATION_FILE

Configuration file.

NET_SDK_DOWNLOAD_SCENE_CONFIGURATION_FILE

Scene configuration file.

NET_SDK_DOWNLOAD_FILE_FORM_DB

File in the image and video library.

NET_SDK_DOWNLOAD_TME_FILE

Entrance and exit management file.

NET_SDK_DOWNLOAD_VEHICLE_BLOCKALLOWLIST_FILE

Blocklist and allowlist configuration file.

NET_SDK_DOWNLOAD_GUID_FILE

GUID file.

NET_SDK_DOWNLOAD_FILE_FORM_CLOUD

Picture in the cloud storage.

NET_SDK_DOWNLOAD_PICTURE

Picture.

NET_SDK_DOWNLOAD_VIDEO

Video.

NET_DVR_DOWNLOAD_SCREEN_FILE

Screen server file.

NET_SDK_DOWNLOAD_PUBLISH_MATERIAL

Local material file of information release.

NET_SDK_DOWNLOAD_THERMOMETRIC_FILE

Thermometry calibration file.

NET_SDK_DOWNLOAD_LED_CHECK_FILE

LED correction file.

NET_SDK_DOWNLOAD_VEHICLE_INFORMATION

Vehicle information to be exported.

NET_SDK_DOWNLOAD_CERTIFICATE_BLOCKLIST_TEMPLET

ID card blocklist template.

NET_SDK_DOWNLOAD_LOG_FILE

Log to be exported.

NET_SDK_DOWNLOAD_FILEVOLUME_DATA

File volume data file, currently it is only supported by CVR (central video recorder) devices.

NET_SDK_DOWNLOAD_FD_DATA

Data in a specific face picture library to be exported.

NET_SDK_DOWNLOAD_SECURITY_CFG_FILE

Configuration file to be securely exported.

NET_SDK_DOWNLOAD_PUBLISH_SCHEDULE

Schedule to be exported.

NET_SDK_DOWNLOAD_RIGHT_CONTROLLER_AUDIO

Audio file of the main controller.

NET_SDK_DOWNLOAD_MODBUS_CFG_FILE

Configuration file of Modbus protocol.

NET_SDK_DOWNLOAD_RS485_PROTOCOL_DLL_FILE

Dynamic library file of RS-485 protocol.

NET_SDK_DOWNLOAD_CLUSTER_MAINTENANCE_LOG

Cluster maintenance log to be exported.

NET_SDK_DOWNLOAD_SQL_ARCHIVE_FILE

Archived record in the database to be exported.

NET_SDK_DOWNLOAD_SUBWIND_STREAM

Sub-window stream to be exported.

NET_SDK_DOWNLOAD_DEVTYPE_CALIBFILE

Model calibration file to be exported (*.cal).

NET_SDK_DOWNLOAD_HD_CAMERA_CORRECT_TABLE

24 MP/32 MP correction list to be exported (*.cal).

NET_SDK_DOWNLOAD_CLIENT_CALIBFILE

Client calibration file to be exported (*.pto).

NET_SDK_DOWNLOAD_FOUE_CAMERAS_PICTURES

Four-channel picture package to be exported (.tar).

NET_SDK_DOWNLOAD_DOOR_CONTENT

Door contact information.

NET_SDK_DOWNLOAD_PUBLISH_MATERIAL_THUMBNAIL

Thumbnail of local information release material.

NET_SDK_DOWNLOAD_PUBLISH_PROGRAM_THUMBNAIL

Thumbnail of information release program.

NET_SDK_DOWNLOAD_PUBLISH_TEMPLATE_THUMBNAIL

Thumbnail of information release template.

NET_SDK_DOWNLOAD_DARK_FIGHTER_X_CORRECT_TABLE_MAIN

DarkfighterX correction list file (main partition).

NET_SDK_DOWNLOAD_DARK_FIGHTER_X_CORRECT_TABLE_BACKUP

DarkfighterX correction list file (backup partition).

NET_SDK_DOWNLOAD_OFFLINE_CAPTURE_INFO_TEMPLATE

User list template of collection.

NET_SDK_DOWNLOAD_CAPTURE_DATA

Offline collected data.

NET_SDK_DOWNLOAD_HD_CAMERA_CORRECT_TABLE_FILE

HD camera correction sheet (CAL format).

NET_SDK_DOWNLOAD_CLIENT_CALIBFILE_FILE

User calibration file (PTO format).

NET_SDK_DOWNLOAD_FOUR_CAMERAS_PICTURES_FILE

Channel pictures package (TAR format).

NET_SDK_DOWNLOAD_SCENE_FILE

Scene file.

NET_SDK_DOWNLOAD_OPEN_SOURCE_CERT

Open source license compliance.

NET_SDK_DOWNLOAD_RATIOSTITCHING_FILE

Ratio stitching file.

NET_SDK_DOWNLOAD_LENS_PARAM_FILE

Lens parameters file.

NET_SDK_DOWNLOAD_SELECT_DEVTYPE_CALIBFILE

Calibration file in CAL format.

B.2 NET_SDK_UPLOAD_TYPE

Enumeration about File Types to Be Uploaded

Enumeration Type	Macro Definition Value	Description
UPGRADE_CERT_FILE	0	Certificate file to be upgraded.
UPLOAD_CERT_FILE	1	Certificate file to be uploaded.
TRIAL_CERT_FILE	2	Trial license file.
CONFIGURATION_FILE	3	Configuration file.
UPLOAD_RECORD_FILE	4	Video file.
SCENE_CONFIGURATION_FILE	5	Scene configuration file.
UPLOAD_PICTURE_FILE	6	Picture file.
UPLOAD_VIOLATION_FILE	7	Violation dictionary file.
UPLOAD_TG_FIL	8	Timing generator file.
UPLOAD_DATA_TO_DB	9	File to be uploaded to picture and video library.
UPLOAD_BACKGROUND_PIC	10	Background picture.
UPLOAD_CALIBRATION_FILE	11	Calibration file.
UPLOAD_TME_FILE	12	Entrance and exiting management file.
UPLOAD_VEHICLE_BLOCKALLOWLST_ FILE	13	Vehicle blocklist file.
UPLOAD_PICTURE_TO_CLOUD	15	Picture file to be uploaded to cloud storage.

Enumeration Type	Macro Definition Value	Description
UPLOAD_VIDEO_FILE	16	Video file.
UPLOAD_SCREEN_FILE	17	Screen server file.
UPLOAD_PUBLISH_MATERIAL	18	Local material file of information release system.
UPLOAD_PUBLISH_UPGRADE_FILE	19	Upgrade file of information release system.
UPLOAD_RING_FILE	20	Ringtone file.
UPLOAD_ENCRYPT_CERT	21	Encryption certificate.
UPLOAD_THERMOMETRIC_FILE	22	Calibration file for temperature measurement.
UPLOAD_SUBBRAND_FILE	23	Vehicle sub brand file.
UPLOAD_LED_CHECK_FILE	24	LED correction file.
BATCH_UPLOAD_PICTURE_FILE	25	Picture files for uploading in batch.
UPLOAD_EDID_CFG_FILE	26	EDID configuration file.
UPLOAD_PANORAMIC_STITCH	27	Panorama stitching configuration file.
UPLOAD_BINOCULAR_COUNTING	28	Binocular counting correction sheet.
UPLOAD_AUDIO_FILE	29	Audio file.
UPLOAD_PUBLISH_THIRD_PARTY_FILE	30	Third-party file.
UPLOAD_DEEPEYES_BINOCULAR	31	TX1 binocular correction sheet.
UPLOAD_CERTIFICATE_BLOCKLIST	32	ID card blocklist.
UPLOAD_HD_CAMERA_CORRECT_TABLE	33	HD camera correction sheet (CAL format).
UPLOAD_FD_DATA	35	Face data file to be imported to face picture library.
UPLOAD_FACE_DATA	36	Face picture file to be imported to face picture library.
UPLOAD_FACE_ANALYSIS_DATA	37	Picture file to be imported to picture recognition target.
UPLOAD_FILEVOLUME_DATA	38	File volume file

Enumeration Type	Macro Definition Value	Description
IMPORT_DATA_TO_FACELIB	39	Face data (face picture and picture additional information) to be imported to face picture library of device.
UPLOAD_LEFTEYE_4K_CALIBFILE	40	Camera calibration parameter file.
UPLOAD_SECURITY_CFG_FILE	41	Configuration file to be securely imported.
UPLOAD_RIGHT_CONTROLLER_ AUDIO	42	Audio file of main controller.
UPLOAD_MODBUS_CFG_FILE	43	Configuration file of Modbus protocol.
UPLOAD_NOTICE_VIDEO_DATA	44	Bulletin video file.
UPLOAD_RS485_PROTOCOL_DLL_ FILE	45	Dynamic library file of RS485 protocol.
UPLOAD_PIC_BY_BUF	46	Picture file for importing by picture cache.
UPLOAD_CLIENT_CALIBFILE	47	User calibration file (PTO format).
UPLOAD_HD_CAMERA_CORRECT_ TABLE_3200W	48	HD camera correction sheet (CAL format).
UPLOAD_DOOR_CONTENT	49	Contact information of the door at the building unit.
UPLOAD_ASR_CONTROL_FILE	50	Speech recognition control file.
UPLOAD_APP_FILE	51	Application program file.
UPLOAD_AI_ALGORITHM_MODEL	52	Algorithm model in binary format.
UPLOAD_AI_BASE_PICTURE	55	Reference pictures in binary format for AI target comparison.
UPLOAD_OFFLINE_CAPTURE_INFO	56	User list of offline collection to be imported.
IMPORT_DATA_TO_HBDLIB	60	Import human body picture with linked information to library.
UPLOAD_SCENE_FILE	61	Scene file to be imported.

Enumeration Type	Macro Definition Value	Description
UPLOAD_RATIOSTITCHING_FILE	62	Ratio stitching file to be imported.
UPLOAD_LENS_PARAM_FILE	63	Lens parameters file to be imported.

Appendix C. Device Network SDK Errors

The errors that may occur during the device network SDK integration are listed here for reference. You can search for the error descriptions according to the error codes or names returned by a specific API (NET_DVR_GetLastError or NET_DVR_GetErrorMsg).

General Errors

Error Name	Error Code	Error Description
NET_DVR_NOERROR	0	No error.
NET_DVR_PASSWORD_ERROR	1	Incorrect user name or password.
NET_DVR_NOENOUGHPRI	2	No permission.
NET_DVR_NOINIT	3	Uninitialized.
NET_DVR_CHANNEL_ERROR	4	Incorrect channel No.
NET_DVR_OVER_MAXLINK	5	No more device can be connected.
NET_DVR_VERSIONNOMATCH	6	Version mismatches.
NET_DVR_NETWORK_FAIL_CONNECT	7	Connecting to device failed. The device is offline or network connection timed out.
NET_DVR_NETWORK_SEND_ERROR	8	Sending data to device failed.
NET_DVR_NETWORK_RECV_ERROR	9	Receiving data from device failed.
NET_DVR_NETWORK_RECV_TIMEOUT	10	Receiving data from device timed out.
NET_DVR_NETWORK_ERRORDATA	11	The data sent to the device is illegal, or the data received from the device error. E.g. The input data is not supported by the device for remote configuration.
NET_DVR_ORDER_ERROR	12	API calling order error.
NET_DVR_OPERNOPERMIT	13	No permission for this operation.
NET_DVR_COMMANDTIMEOUT	14	Executing device command timed out.
NET_DVR_ERRORSERIALPORT	15	Incorrect serial port No. The specified serial port does not exist.

Error Name	Error Code	Error Description
NET_DVR_ERRORALARMPORT	16	Alarm port No. error. The alarm input or output port of the specified device does not exist.
NET_DVR_PARAMETER_ERROR	17	Incorrect parameter. The input or output parameters of the SDK API is empty, or the parameter value or format is invalid.
NET_DVR_CHAN_EXCEPTION	18	Device channel is in exception status.
NET_DVR_NODISK	19	No HDD in the device.
NET_DVR_ERRORDISKNUM	20	Incorrect HDD No.
NET_DVR_DISK_FULL	21	HDD full.
NET_DVR_DISK_ERROR	22	HDD error.
NET_DVR_NOSUPPORT	23	Device does not support this function.
NET_DVR_BUSY	24	Device is busy.
NET_DVR_MODIFY_FAIL	25	Failed to edit device parameters.
NET_DVR_PASSWORD_FORMAT_ERROR	26	Invalid password format.
NET_DVR_DISK_FORMATING	27	HDD is formatting. Failed to startup.
NET_DVR_DVRNORESOURCE	28	Insufficient device resources.
NET_DVR_DVROPRATEFAILED	29	Device operation failed.
NET_DVR_OPENHOSTSOUND_FAIL	30	Failed to collect local audio data or open audio output during two-way audio and broadcast.
NET_DVR_DVRVOICEOPENED	31	Two-way audio channel is occupied.
NET_DVR_TIMEINPUTERROR	32	Incorrect time input.
NET_DVR_NOSPECFILE	33	No video file for playback.
NET_DVR_CREATEFILE_ERROR	34	Failed to create a file during local recording, saving picture, getting configuration file or downloading video file remotely.
NET_DVR_FILEOPENFAIL	35	Failed to open a file. The file does not exist or directory error.

Error Name	Error Code	Error Description
NET_DVR_OPERNOTFINISH	36	Operation conflicted.
NET_DVR_GETPLAYTIMEFAIL	37	Failed to get the current played time.
NET_DVR_PLAYFAIL	38	Failed to play.
NET_DVR_FILEFORMAT_ERROR	39	Invalid file format.
NET_DVR_DIR_ERROR	40	File directory error.
NET_DVR_ALLOC_RESOURCE_ERROR	41	Allocating resources failed.
NET_DVR_AUDIO_MODE_ERROR	42	Invalid sound card mode error. The opened sound play mode and configured mode mismatched.
NET_DVR_NOENOUGH_BUF	43	Insufficient buffer for receiving data or saving picture.
NET_DVR_CREATESOCKET_ERROR	44	Failed to create SOCKET.
NET_DVR_SETSOCKET_ERROR	45	Failed to set SOCKET.
NET_DVR_MAX_NUM	46	No more registrations and live views can be connected.
NET_DVR_USERNOTEXIST	47	The user doest not exist. The user ID is logged out or unavailable.
NET_DVR_WRITEFLASHERROR	48	Writing FLASH error during device upgrade.
NET_DVR_UPGRADEFAIL	49	Failed to upgrade device. Network problem or language mismatches.
NET_DVR_CARDHAVEINIT	50	The decoding card is already initialized.
NET_DVR_PLAYERFAILED	51	Failed to call the function of player SDK.
NET_DVR_MAX_USERNUM	52	No more users can log in to.
NET_DVR_GETLOCALIPANDMACFAIL	53	Failed to get the IP address or physical address of local PC.
NET_DVR_NOENCODEING	54	The decoding function of this channel is not enabled.
NET_DVR_IPMISMATCH	55	IP address mismatches.

Error Name	Error Code	Error Description
NET_DVR_MACMISMATCH	56	MAC address mismatches.
NET_DVR_UPGRADELANGMISMATCH	57	The language of upgrade file mismatches.
NET_DVR_MAX_PLAYERPORT	58	No more channels can be started to play.
NET_DVR_NOSPACEBACKUP	59	Insufficient space to back up file.
NET_DVR_NODEVICEBACKUP	60	No backup device found.
NET_DVR_PICTURE_BITS_ERROR	61	Picture pixel bit mismatches. Only 24 bits are allowed.
NET_DVR_PICTURE_DIMENSION_ERROR	62	Too large picture. The height*width should be less than 128x256.
NET_DVR_PICTURE_SIZ_ERROR	63	Too large picture. The picture size should be smaller than 100K.
NET_DVR_LOADPLAYERSDKFAILED	64	Failed to load the player(PlayCtrl.dll, SuperRender.dll, AudioRender.dll) to the current directory.
NET_DVR_LOADPLAYERSDKPROC_ERROR	65	Failed to find the function in player SDK.
NET_DVR_LOADDSSDKFAILED	66	Failed to load the DS SDK to the current directory.
NET_DVR_LOADDSSDKPROC_ERROR	67	Failed to find the function in the DS SDK.
NET_DVR_DSSDK_ERROR	68	Failed to call the API in the hardware decoding library.
NET_DVR_VOICEMONOPOLIZE	69	The sound card is exclusive.
NET_DVR_JOINMULTICASTFAILED	70	Failed to join to multicast group.
NET_DVR_CREATEDIR_ERROR	71	Failed to create log file directory.
NET_DVR_BINDSOCKET_ERROR	72	Failed to bind socket.
NET_DVR_SOCKETCLOSE_ERROR	73	Socket disconnected. Network disconnected or the destination is unreachable.

Error Name	Error Code	Error Description
NET_DVR_USERID_ISUSING	74	Operation is executing. Failed to log out.
NET_DVR_SOCKETLISTEN_ERROR	75	Failed to listen.
NET_DVR_PROGRAM_EXCEPTION	76	Program exception.
NET_DVR_WRITEFILE_FAILED	77	Failed to write file during local recording, downloading file remotely or saving picture.
NET_DVR_FORMAT_READONLY	78	The HDD is read-only. Formatting is forbidden.
NET_DVR_WITHSAMEUSERNAME	79	The user name already exists.
NET_DVR_DEVICETYPE_ERROR	80	Device model mismatches when importing parameters.
NET_DVR_LANGUAGE_ERROR	81	Language mismatches when importing parameters.
NET_DVR_PARAVERSION_ERROR	82	Software version mismatches when importing parameters.
NET_DVR_IPCHAN_NOTALIVE	83	The external IP channel is offline live view.
NET_DVR_RTSP_SDK_ERROR	84	Failed to load StreamTransClient.dll.
NET_DVR_CONVERT_SDK_ERROR	85	Failed to load SystemTransform.dll.
NET_DVR_IPC_COUNT_OVERFLOW	86	No more IP channels can access to.
NET_DVR_MAX_ADD_NUM	87	No more video tags can be added.
NET_DVR_PARAMMODE_ERROR	88	Invalid parameter mode of image enhancement.
NET_DVR_CODESPITTER_OFFLINE	89	Code distributer is offline.
NET_DVR_BACKUP_COPYING	90	Device is backing up.
NET_DVR_CHAN_NOTSUPPORT	91	This operation is not supported by the channel.
NET_DVR_CALLINEINVALID	92	The height line is too concentrated, or the length line is not inclined enough.

Error Name	Error Code	Error Description
NET_DVR_CALCANCELCONFLICT	93	Cancel calibration conflict, if the rule and global actual size filter are configured.
NET_DVR_CALPOINTOUTRANGE	94	The calibration point is out of limitation.
NET_DVR_FILTERRECTINVALID	95	The size filter does not meet the requirement.
NET_DVR_DDNS_DEVOFFLINE	96	Device has not registered to DDNS.
NET_DVR_DDNS_INTER_ERROR	97	DDNS internal error.
NET_DVR_FUNCTION_NOT_ SUPPORT_OS	98	This function is not supported by this Operating system.
NET_DVR_DEC_CHAN_REBIND	99	Decoding channel binding display output is limited.
NET_DVR_INTERCOM_SDK_ERROR	100	Failed to load the two-way audio SDK of the current directory.
NET_DVR_NO_CURRENT_UPDATEFILE	101	No correct upgrade packet.
NET_DVR_USER_NOT_SUCC_LOGIN	102	Login failed.
NET_DVR_USE_LOG_SWITCH_FILE	103	The log switch file is under using.
NET_DVR_POOL_PORT_EXHAUST	104	No port can be bound in the port pool.
NET_DVR_PACKET_TYPE_NOT_ SUPPORT	105	Incorrect stream packaging format.
NET_DVR_IPPARA_IPID_ERROR	106	Incorrect IPID for IP access configuration.
NET_DVR_LOAD_HCPREVIEW_SDK_ ERROR	107	Failed to load the live view component.
NET_DVR_LOAD_HCVOICETALK_SDK_ ERROR	108	Failed to load the audio component.
NET_DVR_LOAD_HCALARM_SDK_ ERROR	109	Failed to load the alarm component.
NET_DVR_LOAD_HCPLAYBACK_SDK_ ERROR	110	Failed to load the playback component.

Error Name	Error Code	Error Description
NET_DVR_LOAD_HCDISPLAY_SDK_ERROR	111	Failed to load the display component.
NET_DVR_LOAD_HCINDUSTRY_SDK_ERROR	112	Failed to load application component.
NET_DVR_LOAD_HCGENERALCFGMGR_SDK_ERROR	113	Failed to load the general configuration management component.
NET_DVR_CORE_VER_MISMATCH	121	Component version and core version mismatched when loading the component singly.
NET_DVR_CORE_VER_MISMATCH_HCPREVIEW	122	Live view component version and core version mismatched.
NET_DVR_CORE_VER_MISMATCH_HCVOICETALK	123	Audio component version and the core version mismatched.
NET_DVR_CORE_VER_MISMATCH_HCALARM	124	Alarm component version and the core version mismatched.
NET_DVR_CORE_VER_MISMATCH_HCPLAYBACK	125	Playback component version and the core version mismatched.
NET_DVR_CORE_VER_MISMATCH_HCDISPLAY	126	Display component version and the core version mismatched.
NET_DVR_CORE_VER_MISMATCH_HCINDUSTRY	127	Application component version and the core version mismatched.
NET_DVR_CORE_VER_MISMATCH_HCGENERALCFGMGR	128	General configuration management component version and the core version mismatched.
NET_DVR_COM_VER_MISMATCH_HCPREVIEW	136	Live view component version and SDK version mismatched.
NET_DVR_COM_VER_MISMATCH_HCVOICETALKy	137	Audio component version and SDK version mismatched.
NET_DVR_COM_VER_MISMATCH_HCALARM	138	Alarm component version and SDK version mismatched.
NET_DVR_COM_VER_MISMATCH_HCPLAYBACK	139	Playback component version and SDK version mismatched.

Error Name	Error Code	Error Description
NET_DVR_COM_VER_MISMATCH_ HCDISPLAY	140	Display component version and SDK version mismatched.
NET_DVR_COM_VER_MISMATCH_ HCINDUSTRY	141	Application component version and SDK version mismatched.
NET_DVR_COM_VER_MISMATCH_ HCGENERALCFGMGR	142	General configuration management component version and SDK version mismatched.
NET_DVR_ALIAS_DUPLICATE	150	Duplicated alias(for HiDDNS configuration).
NET_DVR_USERNAME_NOT_EXIST	152	User name does not exist (error code of network camera and network speed dome with version from 5.1.7 to 5.3.1).
NET_ERR_USERNAME_LOCKED	153	The user name is locked.
NET_DVR_INVALID_USERID	154	Invalid user ID.
NET_DVR_LOW_LOGIN_VERSION	155	The version is too low.
NET_DVR_LOAD_LIBEAY32_DLL_ ERROR	156	Failed to load libeay32.dl.l
NET_DVR_LOAD_SSLEAY32_DLL_ ERROR	157	Failed to load ssleay32.dll.
NET_ERR_LOAD_LIBICONV	158	Failed to load libiconv.dll.
NET_ERR_SSL_CONNECT_FAILED	159	Connecting to SSL failed.
NET_DVR_TEST_SERVER_FAIL_ CONNECT	165	Failed to connect to test server.
NET_DVR_NAS_SERVER_INVALID_DIR	166	Failed to load NAS server to the directory, Invalid directory, or incorrect user name and password.
NET_DVR_NAS_SERVER_ NOENOUGH_PRI	167	Failed to load NAS server th the directory. No permission.
NET_DVR_EMAIL_SERVER_NOT_ CONFIG_DNS	168	The server uses domain name without configuring DNS, the domain name may be invalid.

Error Name	Error Code	Error Description
NET_DVR_EMAIL_SERVER_NOT_ CONFIG_GATEWAY	169	No gateway configured. Sending email may be failed.
NET_DVR_TEST_SERVER_PASSWORD_ ERROR	170	Incorrect user name or password of test server.
NET_DVR_EMAIL_SERVER_CONNECT_ EXCEPTION_WITH_SMTP	171	Interaction exception between device and SMTP server.
NET_DVR_FTP_SERVER_FAIL_ CREATE_DIR	172	FTP server creating directory failed.
NET_DVR_FTP_SERVER_NO_WRITE_ PIR	173	FTP server has no wirting permission.
NET_DVR_IP_CONFLICT	174	IP conflicted.
NET_DVR_INSUFFICIENT_ STORAGEPOOL_SPACE	175	Storage pool space is full.
NET_DVR_STORAGEPOOL_INVALID	176	Invalid cloud storage pool. No storage pool configured or incorrect storage pool ID.
NET_DVR_EFFECTIVENESS_REBOOT	177	Restart to take effect.
NET_ERR_ANR_ARMING_EXIST	178	The ANR arming connection already exists(the error will be returned when arming with ANR function if the private SDK protocol arming connection is established).
NET_ERR_UPLOADLINK_EXIST	179	The ANR uploading connection already exists(the error will be returned when EHome protocol and private SDK protocol do not support ANR at the same time).
NET_ERR_INCORRECT_FILE_FORMAT	180	The imported file format is incorrect.
NET_ERR_INCORRECT_FILE_CONTENT	181	The imported file content is incorrect.
NET_ERR_MAX_HRUDP_LINK	182	No more HRUDP can be connected to device.
NET_ERR_MAX_PORT_MULTIPLEX	183	Maximum number of multiplexed ports reaches.
NET_ERR_CREATE_PORT_MULTIPLEX	184	Creating port multiplier failed.

Error Name	Error Code	Error Description
NET_DVR_NONBLOCKING_CAPTURE_ NOTSUPPORT	185	Non-blocking picture capture is not supported.
NET_SDK_ERR_FUNCTION_INVALID	186	Invalid function. The asynchronous mode is enabled.
NET_SDK_ERR_MAX_PORT_ MULTIPLEX	187	Maximum number of multiplex ports reached.
NET_DVR_INVALID_LINK	188	Link has not been created or the link is invalid.
NET_DVR_NAME_NOT_ONLY	200	This name already exists.
NET_DVR_OVER_MAX_ARRAY	201	The number of RAID reaches the upper-limit.
NET_DVR_OVER_MAX_VD	202	The number of virtual disk reaches the upper-limit.
NET_DVR_VD_SLOT_EXCEED	203	The virtual disk slots are full.
NET_DVR_PD_STATUS_INVALID	204	The physical disk for rebuilding RAID is error.
NET_DVR_PD_BE_DEDICATE_SPARE	205	The physical disk for rebuilding RAID is specified as hot spare.
NET_DVR_PD_NOT_FREE	206	The physical disk for rebuilding RAID is busy.
NET_DVR_CANNOT_MIG2NEWMODE	207	Failed to migrate the current RAID type to the new type.
NET_DVR_MIG_PAUSE	208	Migration is paused.
NET_DVR_MIG_ABOUTED	209	Migration is cancelled.
NET_DVR_EXIST_VD	210	Failed to delete RAID. Virtual disk exists in the RAID.
NET_DVR_TARGET_IN_LD_ FUNCTIONAL	211	Target physical disk is a part of the virtual disk and it is working normally.
NET_DVR_HD_IS_ASSIGNED_ ALREADY	212	The specified physical disk is allocated as virtual disk.
NET_DVR_INVALID_HD_COUNT	213	The number of physical disks and specified RAID level mismatched.

Error Name	Error Code	Error Description
NET_DVR_LD_IS_FUNCTIONAL	214	The RAID is normal. Failed to rebuild.
NET_DVR_BGA_RUNNING	215	Background task is executing.
NET_DVR_LD_NO_ATAPI	216	Failed to create virtual disk by ATAPI disk.
NET_DVR_MIGRATION_NOT_NEED	217	There is no need to migrate the RAID.
NET_DVR_HD_TYPE_MISMATCH	218	The physical disk type is not allowed.
NET_DVR_NO_LD_IN_DG	219	No virtual disk. Operation failed.
NET_DVR_NO_ROOM_FOR_SPARE	220	Insufficient disk space. Failed to allocate the disk as hot spare.
NET_DVR_SPARE_IS_IN_MULTI_DG	221	The disk is already allocated as the hot spare of one RAID.
NET_DVR_DG_HAS_MISSING_PD	222	No disk in the RAID.
NET_DVR_NAME_EMPTY	223	The name is empty.
NET_DVR_INPUT_PARAM	224	Incorrect input parameters.
NET_DVR_PD_NOT_AVAILABLE	225	The physical disk is not available.
NET_DVR_ARRAY_NOT_AVAILABLE	226	The RAID is not available.
NET_DVR_PD_COUNT	227	Incorrect number of physical disks.
NET_DVR_VD_SMALL	228	Insufficient virtual disk space.
NET_DVR_NO_EXIST	229	Not exist.
NET_DVR_NOT_SUPPORT	230	This operation is not supported.
NET_DVR_NOT_FUNCTIONAL	231	The RAID status is exception.
NET_DVR_DEV_NODE_NOT_FOUND	232	The device node of virtual disk does not exist.
NET_DVR_SLOT_EXCEED	233	No more slots are allowed.
NET_DVR_NO_VD_IN_ARRAY	234	No virtual disk exists in the RAID.
NET_DVR_VD_SLOT_INVALID	235	Invalid virtual disk slot.
NET_DVR_PD_NO_ENOUGH_SPACE	236	Insufficient physical disk space.
NET_DVR_ARRAY_NONFUNCTION	237	Only the RAID in normal status supports to be migrated.

Error Name	Error Code	Error Description
NET_DVR_ARRAY_NO_ENOUGH_ SPACE	238	Insufficient RAID space.
NET_DVR_STOPPING_SCANNING_ ARRAY	239	Pulling disk out safely or rescanning.
NET_DVR_NOT_SUPPORT_16T	240	Creating RAID with size larger than 16T is not supported.
NET_DVR_ERROR_DEVICE_NOT_ ACTIVATED	250	The device is not activated (login failed.)
NET_DVR_ERROR_RISK_PASSWORD	251	Risky password.
NET_DVR_ERROR_DEVICE_HAS_ ACTIVATED	252	The device is already activated.
NET_DVR_ID_ERROR	300	The configured ID is invalid.
NET_DVR_POLYGON_ERROR	301	Invalid polygon shape.
NET_DVR_RULE_PARAM_ERROR	302	Invalid rule parameters.
NET_DVR_RULE_CFG_CONFLICT	303	Configured information conflicted.
NET_DVR_CALIBRATE_NOT_READY	304	No calibration information.
NET_DVR_CAMERA_DATA_ERROR	305	Invalid camera parameters.
NET_DVR_CALIBRATE_DATA_UNFIT	306	Invalid inclination angle for calibration.
NET_DVR_CALIBRATE_DATA_ CONFILICT	307	Calibration error.
NET_DVR_CALIBRATE_CALC_FAIL	308	Failed to calculate calibration parameter values of camera.
NET_DVR_CALIBRATE_LINE_OUT_ RECT	309	The inputted calibration line exceeds the external sample rectangle.
NET_DVR_ENTER_RULE_NOT_READY	310	No region entrance is configured.
NET_DVR_AID_RULE_NO_INCLUDE_ LANE	311	No lane configured in the traffic event rull(especially for traffic jam or driving against the traffic).
NET_DVR_LANE_NOT_READY	312	Lane not configured.
NET_DVR_RULE_INCLUDE_TWO_WAY	313	Two different directions are contained in event rule.

Error Name	Error Code	Error Description
NET_DVR_LANE_TPS_RULE_CONFLICT	314	Lane and data rule conflicted.
NET_DVR_NOT_SUPPORT_EVENT_TYPE	315	This event type is not supported.
NET_DVR_LANE_NO_WAY	316	The lane has no direction.
NET_DVR_SIZE_FILTER_ERROR	317	Invalid size of filter frame.
NET_DVR_LIB_FFL_NO_FACE	318	No face picture exists in the image inputted when positioning feature point.
NET_DVR_LIB_FFL_IMG_TOO_SMALL	319	The inputted image is too small when positioning feature point.
NET_DVR_LIB_FD_IMG_NO_FACE	320	No face picture exists in the image inputted when detecting single face picture.
NET_DVR_LIB_FACE_TOO_SMALL	321	Face picture is too small when building model.
NET_DVR_LIB_FACE_QUALITY_TOO_BAD	322	The face picture quality is too poor when building model.
NET_DVR_KEY_PARAM_ERR	323	The configured advanced parameter is incorrect.
NET_DVR_CALIBRATE_DATA_ERR	324	Calibration sample number error, or data value error, or the sample points are beyond the horizontal line.
NET_DVR_CALIBRATE_DISABLE_FAIL	325	Canceling calibration is not allowed for configured rules.
NET_DVR_VCA_LIB_FD_SCALE_OUTRANGE	326	The minimum width and height of maximum filter frame are twice or more larger than the maximum width and height of minimum filter frame.
NET_DVR_LIB_FD_REGION_TOO_LARGE	327	Too large detection region. The maximum region should be 2/3 of the image.
NET_DVR_TRIAL_OVERDUE	328	Trial period is ended.
NET_DVR_CONFIG_FILE_CONFLICT	329	Device type and configuration file conflicted.

Error Name	Error Code	Error Description
NET_DVR_FR_FPL_FAIL	330	Failed to positioning face feature points.
NET_DVR_FR_IQA_FAIL	331	Failed to test face picture quality.
NET_DVR_FR_FEM_FAIL	332	Failed to extract the face feature points.
NET_DVR_FPL_DT_CONF_TOO_LOW	333	The face detection validity is too low when positioning face feature points.
NET_DVR_FPL_CONF_TOO_LOW	334	The validity of feature points positionong is too low.
NET_DVR_E_DATA_SIZE	335	Data size mismatches.
NET_DVR_FR_MODEL_VERSION_ERR	336	Incorrect model version in face model library.
NET_DVR_FR_FD_FAIL	337	Failed to detect face in the face recognition library.
NET_DVR_FA_NORMALIZE_ERR	338	Failed to normalize face attribute.
NET_DVR_DOG_PUSTREAM_NOT_MATCH	339	Dongle type and camera type mismatched.
NET_DVR_DEV_PUSTREAM_NOT_MATCH	340	Camera version mismatches.
NET_DVR_PUSTREAM_ALREADY_EXISTS	341	This camera is already added to other channels of devices.
NET_DVR_SEARCH_CONNECT_FAILED	342	Failed to connect to face retrieval server.
NET_DVR_INSUFFICIENT_DISK_SPACE	343	Insufficient storage space.
NET_DVR_DATABASE_CONNECTION_FAILED	344	Failed to connect to database.
NET_DVR_DATABASE_ADM_PW_ERROR	345	Incorrect database user name and password.
NET_DVR_DECODE_YUV	346	Decoding failed.
NET_DVR_IMAGE_RESOLUTION_ERROR	347	Invalid picture resolution

Error Name	Error Code	Error Description
NET_DVR_CHAN_WORKMODE_ ERROR	348	Invalid channel working mode.
NET_ERROR_TRUNK_LINE	711	Sub system is configured as the trunk line.
NET_ERROR_MIXED_JOINT	712	Mixed joint is not supported.
NET_ERROR_DISPLAY_SWITCH	713	Switch of display channel is not supported.
NET_ERROR_USED_BY_BIG_SCREEN	714	Decoded resource is occupied by the big screen.
NET_ERROR_USE_OTHER_DEC_ RESOURCE	715	Using resources of other sub system is not allowed.
NET_ERROR_SCENE_USING	717	The scene is being used.
NET_ERR_NO_ENOUGH_DEC_ RESOURCE	718	Insufficient resources for decoding.
NET_ERR_NO_ENOUGH_FREE_ SHOW_RESOURCE	719	Insufficient resources for display.
NET_ERR_NO_ENOUGH_VIDEO_ MEMORY	720	Insufficient video storage resources.
NET_ERR_MAX _VIDEO_NUM	721	Insufficient resources for multiple channels.
NET_ERR_WINDOW_COVER_FREE_ SHOW_AND_NORMAL	722	Windows cover free display output channel and normal output channel.
NET_ERR_FREE_SHOW_WINDOW_ SPLIT	723	Window division is not supported for free display windows.
NET_ERR_INAPPROPRIATE_ WINDOW_FREE_SHOW	724	For the windows whose number is not integral multiple of the number of output channels, free display is not supported.
NET_DVR_TRANSPARENT_WINDOW_ NOT_SUPPORT_SPLIT	725	For windows whose transparency configuration is enabled, window division is not supported.
NET_DVR_SPLIT_WINDOW_NOT_ SUPPORT_TRANSPARENT	726	For windows whose window division is enabled, transparency configuration is not supported.

Error Name	Error Code	Error Description
NET_ERR_TERMINAL_BUSY	780	The terminal busy.
NET_DVR_FUNCTION_RESOURCE_ USAGE_ERROR	791	Failed to enable this function. The resources is occupied by other functions.
NET_DVR_DEV_NET_OVERFLOW	800	Network traffic is out of the limitation.
NET_DVR_STATUS_RECORDFILE_ WRITING_NOT_LOCK	801	Failed to lock. The video file is recording.
NET_DVR_STATUS_CANT_FORMAT_ LITTLE_DISK	802	Failed to format HDD. The HDD space is too small.
NET_SDK_ERR_REMOTE_DISCONNEC	803	Failed to connect to the remote terminal.
NET_SDK_ERR_RD_ADD_RD	804	Spare server cannot be added to spare server.
NET_SDK_ERR_BACKUP_DISK_EXCEPT	805	Backup disk exception.
NET_SDK_ERR_RD_LIMIT	806	No more spare server can be added.
NET_SDK_ERR_ADDED_RD_IS_WD	807	The added spare server is a working server.
NET_SDK_ERR_ADD_ORDER_WRONG	808	Adding flow error.
NET_SDK_ERR_WD_ADD_WD	809	Working server cannot be added to working server.
NET_SDK_ERR_WD_SERVICE_EXCETP	810	CVR service exception (For N+1 mode, it refers to CVR working server exception).
NET_SDK_ERR_RD_SERVICE_EXCETP	811	Spare CVR server exception.
NET_SDK_ERR_ADDED_WD_IS_RD	812	The added working server is spare server.
NET_SDK_ERR_PERFORMANCE_LIMIT	813	The performance reaches the upper-limit.
NET_SDK_ERR_ADDED_DEVICE_EXIST	814	This device already exists.
NET_SDK_ERR_INQUEST_RESUMING	815	Inquest resuming.
NET_SDK_ERR_RECORD_BACKUPING	816	Inquest video backing up.

Error Name	Error Code	Error Description
NET_SDK_ERR_DISK_PLAYING	817	Playing.
NET_SDK_ERR_INQUEST_STARTED	818	Inquest started.
NET_SDK_ERR_LOCAL_OPERATING	819	Locally operating.
NET_SDK_ERR_INQUEST_NOT_START	820	Inquest is not started.
NET_SDK_ERR_CHAN_AUDIO_BIND	821	The channel is not bound or binding two-way audio failed.
NET_DVR_N_PLUS_ONE_MODE	822	Ddevice is in N+1 mode. Cloud storage is not supported.
NET_DVR_CLOUD_STORAGE_OPENED	823	Cloud storage mode is enbaled.
NET_DVR_ERR_OPER_NOT_ALLOWED	824	Operation failed. The device is in N+0 taken over status.
NET_DVR_ERR_NEED_RELOCATE	825	The device is in N+0 taken over status. Get re-positioning information and try again.
NET_SDK_ERR_IR_PORT_ERROR	830	IR output error.
NET_SDK_ERR_IR_CMD_ERROR	831	IR output port command number error
NET_SDK_ERR_NOT_INQUESTING	832	Device is not in inquest status.
NET_SDK_ERR_INQUEST_NOT_ PAUSED	833	Device is not in paused status.
NET_DVR_CHECK_PASSWORD_ MISTAKE_ERROR	834	Incorrect verification code.
NET_DVR_CHECK_PASSWORD_NULL_ ERROR	835	Verification code is required.
NET_DVR_UNABLE_CALIB_ERROR	836	Failed to calibrate.
NET_DVR_PLEASE_CALIB_ERROR	837	Calibration first.
NET_DVR_ERR_PANORAMIC_CAL_ EMPTY	838	Panoramic calibration is empty in Flash.
NET_DVR_ERR_CALIB_FAIL_ PLEASEAGAIN	839	Calibration failed, please try again.

Error Name	Error Code	Error Description
NET_DVR_ERR_DETECTION_LINE	840	Rule line configuration error. Please try again and make sure the line is within the red region.
NET_DVR_EXCEED_FACE_IMAGES_ ERROR	843	No more face pictures can be added.
NET_DVR_ANALYSIS_FACE_IMAGES_ ERROR	844	Picture recognition failed.
NET_ERR_ALARM_INPUT_OCCUPIED	845	A<-1 alarm number is used for triggering vehicle capture.
NET_DVR_FACELIB_DATABASE_ERROR	846	Database version in face picture library mismatched.
NET_DVR_FACELIB_DATA_ERROR	847	Face picture library data error.
NET_DVR_FACE_DATA_ID_ERROR	848	Invalid face data PID.
NET_DVR_FACELIB_ID_ERROR	849	Invalid face picture library ID.
NET_DVR_EXCEED_FACE_LIBARY_ ERROR	850	No more face picture libraries can be established..
NET_DVR_PIC_ANALYSIS_NO_ TARGET_ERROR	851	No target recognized in the picture.
NET_DVR_SUBPIC_ANALYSIS_ MODELING_ERROR	852	Sub picture modeling failed.
NET_DVR_PIC_ANALYSIS_NO_ RESOURCE_ERROR	853	No VCA engine supports picture secondary recognition.
NET_DVR_ANALYSIS_ENGINES_NO_ RESOURCE_ERROR	854	No VCA engine.
NET_DVR_ANALYSIS_ENGINES_ USAGE_EXCEED_ERROR	855	Overload. The engine CPU reached 100%.
NET_DVR_EXCEED_HUMANMISINFO_ FILTER_ENABLED_ERROR	856	No more false alarm channel can be enabled.
NET_DVR_NAME_ERROR	857	Name error.
NET_DVR_NAME_EXIST_ERROR	858	The name already exists.
NET_DVR_FACELIB_PIC_IMPORTING_ ERROR	859	The pictures is importing to face picture library.

Error Name	Error Code	Error Description
NET_DVR_PIC_FORMAT_ERROR	864	Invalid picture format.
NET_DVR_PIC_RESOLUTION_ INVALID_ERROR	865	Invalid picture resolution.
NET_DVR_PIC_SIZE_EXCEED_ERROR	866	The picture size is too large.
NET_DVR_PIC_ANALYSIS_TARGRT_ NUM_EXCEED_ERROR	867	Too many targets in the picture.
NET_DVR_ANALYSIS_ENGINES_ LOADING_ERROR	868	Initializing analysis engine.
NET_DVR_ANALYSIS_ENGINES_ ABNORMA_ERROR	869	Analysis engine exception.
NET_DVR_ANALYSIS_ENGINES_ FACELIB_IMPORTING	870	Analysis engine is importing pictures to face picture library.
NET_DVR_NO_DATA_FOR_ MODELING_ERROR	871	No data for modeling.
NET_DVR_FACE_DATA_MODELING_ ERROR	872	Device is modeling picture. Concurrent processing is not supported.
NET_ERR_FACELIBDATA_OVERLIMIT	873	No more face picture can be added to the device (the data of imported face picture library)
NET_DVR_ANALYSIS_ENGINES_ ASSOCIATED_CHANNEL	874	Channel is linked to the analysis engine.
NET_DVR_ERR_CUSTOMID_LEN	875	The minimum length of upper layer custom ID is 32 bytes.
NET_DVR_ERR_CUSTOMFACELIBID_ REPEAT	876	The applied custom face picture library ID is duplicated
NET_DVR_ERR_CUSTOMHUMANID_ REPEAT	877	The applied custom person ID is duplicated.
NET_DVR_ERR_URL_DOWNLOAD_ FAIL	878	URL download failed.
NET_DVR_ERR_URL_DOWNLOAD_ NOTSTART	879	URL download has not started.

Error Name	Error Code	Error Description
NET_DVR_CFG_FILE_SECRETKEY_ERROR	880	The security verification key of configuration file is error.
NET_DVR_THERMOMETRY_REGION_OVERSTEP_ERROR	883	Invalid thermometry region
NET_DVR_ERR_TOO_SHORT_CALIBRATING_TIME	894	Too short time for calibration.
NET_DVR_ERR_AUTO_CALIBRATE_FAILED	895	Auto calibration failed.
NET_DVR_ERR_VERIFICATION_FAILED	896	Verification failed.
NET_DVR_NO_TEMP_SENSOR_ERROR	897	No temperature sensor.
NET_DVR_PUPIL_DISTANCE_OVERSIZE_ERROR	898	The pupil distance is too large.
NET_ERR_WINCHAN_IDX	901	Window channel index error.
NET_ERR_WIN_LAYER	902	Window layer number error(the count of window layers on a single screen exceeds the max number).
NET_ERR_WIN_BLK_NUM	903	Window block number error(the count of screens that single window overlays exceeds the max number).
NET_ERR_OUTPUT_RESOLUTION	904	The output resolution error.
NET_ERR_LAYOUT	905	Layout index error.
NET_ERR_INPUT_RESOLUTION	906	The input resolution is not supported.
NET_ERR_SUBDEVICE_OFFLINE	907	The sub-device is off-line.
NET_ERR_NO_DECODE_CHAN	908	There is no free decoding channel.
NET_ERR_MAX_WINDOW_ABILITY	909	The upper limit of window number.
NET_ERR_ORDER_ERROR	910	Calling order error.
NET_ERR_PLAYING_PLAN	911	Be playing plan.
NET_ERR_DECODER_USED	912	Decoder board is being used.
NET_ERR_OUTPUT_BOARD_DATA_OVERFLOW	913	Output board data overflow
NET_ERR_SAME_USER_NAME	914	Duplicate user name

Error Name	Error Code	Error Description
NET_ERR_INVALID_USER_NAME	915	Invalid user name
NET_ERR_MATRIX_USING	916	Input matrix is in use.
NET_ERR_DIFFERENT_CHAN_TYPE	917	Different channel type (the type of matrix output channel mismatches that of the controller input channel)
NET_ERR_INPUT_CHAN_BINDED	918	Input channel has been bound by other matrix
NET_ERR_BINDED_OUTPUT_CHAN_OVERFLOW	919	The matrix output channels in use exceeded the number bound by matrix and controller
NET_ERR_MAX_SIGNAL_NUM	920	Number of input signals reached upper limit
NET_ERR_INPUT_CHAN_USING	921	Input channel is in use
NET_ERR_MANAGER_LOGON	922	Administrator has logged in, operation failed
NET_ERR_USERALREADY_LOGON	923	The user has logged in, operation failed
NET_ERR_LAYOUT_INIT	924	Scene is initializing, operation failed
NET_ERR_BASEMAP_SIZE_NOT_MATCH	925	Base image size does not match
NET_ERR_WINDOW_OPERATING	926	Window is in other operation, operation failed
NET_ERR_SIGNAL_UPLIMIT	927	Number of signal source window reached upper limit
NET_ERR_WINDOW_SIZE_OVERLIMIT	943	The window size exceeds the limit.
NET_ERR_MAX_WIN_OVERLAP	951	The number of windows overlap has reached the maximum limit.
NET_ERR_STREAMID_CHAN_BOTH_VALID	952	stream ID and channel number are both valid.
NET_ERR_NO_ZERO_CHAN	953	The device has no zero channel.
NEED_RECONNECT	955	Need redirection (for transcoding system)

Error Name	Error Code	Error Description
NET_ERR_NO_STREAM_ID	956	The stream ID does not exist.
NET_DVR_TRANS_NOT_START	957	The transcoding has not been started.
NET_ERR_MAXNUM_STREAM_ID	958	The number of stream ID has reached the maximum limit.
NET_ERR_WORKMODE_MISMATCH	959	The work mode does not match with the requirement.
NET_ERR_MODE_IS_USING	960	It Has been working in current mode.
NET_ERR_DEV_PROGRESSING	961	The device is in processing
NET_ERR_PASSIVE_TRANSCODING	962	It is in transcoding.
NET_DVR_ERR_WINDOW_SIZE_PLACE	975	Wrong window position.
NET_DVR_ERR_RGIONAL_RESTRICTIONS	976	Screen distance exceeds the limit.
NET_DVR_ERR_CLOSE_WINDOWS	984	Operation failed. Close the window first.
NET_DVR_ERR_MATRIX_LOOP_ABILITY	985	Beyond the cycle decoding capacity.
NET_DVR_ERR_MATRIX_LOOP_TIME	986	Invalid cycle decoding time.
NET_DVR_ERR_LINKED_OUT_ABILITY	987	No more linked camera can be added.
NET_ERR_RESOLUTION_NOT_SUPPORT_ODD_VOUT	990	The resolution is not supported (odd No.).
NET_ERR_RESOLUTION_NOT_SUPPORT_EVEN_VOUT	991	The resolution is not supported (even No.).
NET_ERR_UnitConfig_Failed	998	Unit configuration failed.
XML_ABILITY_NOTSUPPORT	1000	Getting capability node is not supported
XML_ANALYZE_NOENOUGH_BUF	1001	Not enough output memory
XML_ANALYZE_FIND_LOCALXML_ERROR	1002	Failed to find related local xml
XML_ANALYZE_LOAD_LOCALXML_ERROR	1003	Loading local xml error

Error Name	Error Code	Error Description
XML_NANLYZE_DVR_DATA_FORMAT_ERROR	1004	Device capability data format error
XML_ANALYZE_TYPE_ERROR	1005	Capability set type error
XML_ANALYZE_XML_NODE_ERROR	1006	XML capability node format error
XML_INPUT_PARAM_ERROR	1007	Input capability XML node value error
XML_VERSION_MISMATCH	1008	XML version does not match
NET_ERR_TRANS_CHAN_START	1101	Transparent channel has been open, operation failed
NET_ERR_DEV_UPGRADING	1102	Device is upgrading
NET_ERR_MISMATCH_UPGRADE_PACK_TYPE	1103	Upgrade pack type does not match
NET_ERR_DEV_FORMATTING	1104	Device is formatting
NET_ERR_MISMATCH_UPGRADE_PACK_VERSION	1105	Upgrade pack version does not match
NET_ERR_PT_LOCKED	1106	PT is locked.
NET_DVR_ERR_ILLEGAL_VERIFICATION_CODE	1111	Illegal verification code. Change the verification code.
NET_DVR_ERR_LACK_VERIFICATION_CODE	1112	No verification code. Enter the verification code.
NET_DVR_ERR_FORBIDDEN_IP	1113	The IP address cannot be configured.
NET_DVR_ERR_HTTP_BKN_EXCEED_ONE	1125	Up to one channel's ANR function can be enabled.
NET_DVR_ERR_FORMATTING_FAILED	1131	Formatting HDD failed.
NET_DVR_ERR_ENCRYPTED_FORMATTING_FAILED	1132	Formatting encrypted HDD failed.
NET_DVR_ERR_WRONG_PASSWORD	1133	Verifying password of SD card failed. Incorrect password.
NET_ERR_SEARCHING_MODULE	1201	Searching peripherals.
NET_ERR_REGISTERING_MODULE	1202	Registering external module
NET_ERR_GETTING_ZONES	1203	Getting arming region parameter
NET_ERR_GETTING_TRIGGERS	1204	Getting trigger

Error Name	Error Code	Error Description
NET_ERR_ARMED_STATUS	1205	System is in arming status
NET_ERR_PROGRAM_MODE_STATUS	1206	System is in programming mode
NET_ERR_WALK_TEST_MODE_STATUS	1207	System is in pacing measuring mode
NET_ERR_BYPASS_STATUS	1208	Bypass status
NET_ERR_DISABLED_MODULE_STATUS	1209	Function not enabled
NET_ERR_NOT_SUPPORT_OPERATE_ZONE	1210	Operation is not supported by arming region
NET_ERR_NOT_SUPPORT_MOD_MODULE_ADDR	1211	Module address cannot be modified
NET_ERR_UNREGISTERED_MODULE	1212	Module is not registered
NET_ERR_PUBLIC_SUBSYSTEM_ASSOCIATE_SELF	1213	Public sub system associate with its self
NET_ERR_EXCEEDS_ASSOCIATE_SUBSYSTEM_NUM	1214	Number of associated public sub system reached upper limit
NET_ERR_BE_ASSOCIATED_BY_PUBLIC_SUBSYSTEM	1215	Sub system is associated by other public sub system
NET_ERR_ZONE_FAULT_STATUS	1216	Arming region is in failure status
NET_ERR_SAME_EVENT_TYPE	1217	Same event type exists in enable event trigger alarm output and disable event trigger alarm output
NET_ERR_ZONE_ALARM_STATUS	1218	Arming region is in alarm status
NET_ERR_EXPANSION_BUS_SHORT_CIRCUIT	1219	Extension bus short-circuit
NET_ERR_PWD_CONFLICT	1220	Password conflict, e.g., lock password is identical with duress password
NET_ERR_DETECTOR_GISTERED_BY_OTHER_ZONE	1221	Detector has been registered by other arming regions
NET_ERR_DETECTOR_GISTERED_BY_OTHER_PU	1222	Detector has been registered by other hosts
NET_ERR_DETECTOR_DISCONNECT	1223	Detector offline
NET_ERR_CALL_BUSY	1224	Device in call

Error Name	Error Code	Error Description
NET_ERR_FILE_NAME	1357	File name error, empty or invalid
NET_ERR_BROADCAST_BUSY	1358	Device in broadcast
NET_DVR_ERR_LANENUM_EXCEED	1400	Over the number of lanes.
NET_DVR_ERR_PRAREA_EXCEED	1401	Recognition area is too large.
NET_DVR_ERR_LIGHT_PARAM	1402	Signal lamp access parameters error.
NET_DVR_ERR_LANE_LINE_INVALID	1403	Lane configuration error.
NET_DVR_ERR_STOP_LINE_INVALID	1404	Stop line configuration error.
NET_DVR_ERR_LEFTORRIGHT_LINE_ INVALID	1405	Turn left / right boundary configuration error.
NET_DVR_ERR_LANE_NO_REPEAT	1406	Overlay lane number repetition.
NET_DVR_ERR_PRAREA_INVALID	1407	The polygon does not meet the requirements.
NET_DVR_ERR_LIGHT_NUM_EXCEED	1408	Video detection of traffic light signal exceeds the maximum number of.
NET_DVR_ERR_SUBLIGHT_NUM_ INVALID	1409	Video detection of traffic signal lamp lights are not legitimate
NET_DVR_ERR_LIGHT_AREASIZE_ INVALID	1410	The size of the video detection of traffic light input signal lamp is not valid.
NET_DVR_ERR_LIGHT_COLOR_ INVALID	1411	The color of the video detection of traffic light input signal lamp color is not legitimate.
NET_DVR_ERR_LIGHT_DIRECTION_ INVALID	1412	The direction property of the video detection of traffic light input light is not valid.
NET_DVR_ERR_LACK_IOABLITY	1413	Lack of IO ablity.
NET_DVR_ERR_FTP_PORT	1414	FTP port error.
NET_DVR_ERR_FTP_CATALOGUE	1415	FTP catalogue error.
NET_DVR_ERR_FTP_UPLOAD_TYPE	1416	FTP upload type error.
NET_DVR_ERR_FLASH_PARAM_ WRITE	1417	Setting param flash write error.

Error Name	Error Code	Error Description
NET_DVR_ERR_FLASH_PARAM_READ	1418	Getting param flash read error.
NET_DVR_ERR_PICNAME_DELIMITER	1419	Pic name delimiter error.
NET_DVR_ERR_PICNAME_ITEM	1420	Pic name item error.
NET_DVR_ERR_PLATE_RECOGNIZE_ TYPE	1421	Plate recognize type error.
NET_DVR_ERR_CAPTURE_TIMES	1422	Capture times error.
NET_DVR_ERR_LOOP_DISTANCE	1423	Loop distance error.
NET_DVR_ERR_LOOP_INPUT_STATUS	1424	Loop input status error.
NET_DVR_ERR_RELATE_IO_CONFLICT	1425	Related IO conflict.
NET_DVR_ERR_INTERVAL_TIME	1426	Interval time error.
NET_DVR_ERR_SIGN_SPEED	1427	Sign speed error.
NET_DVR_ERR_PIC_FLIP	1428	Flip is used.
NET_DVR_ERR_RELATE_LANE_ NUMBER	1429	Related lane number error.
NET_DVR_ERR_TRIGGER_MODE	1430	Trigger mode error.
NET_DVR_ERR_DELAY_TIME	1431	Delay time error.
NET_DVR_ERR_EXCEED_RS485_ COUNT	1432	Exceed RS485 count.
NET_DVR_ERR_RADAR_TYPE	1433	Radar type error.
NET_DVR_ERR_RADAR_ANGLE	1434	Radar angle error.
NET_DVR_ERR_RADAR_SPEED_ VALID_TIME	1435	Radar speed valid time error.
NET_DVR_ERR_RADAR_LINE_ CORRECT	1436	Radar line correct error.
NET_DVR_ERR_RADAR_CONST_ CORRECT	1437	Radar const correct error.
NET_DVR_ERR_RECORD_PARAM	1438	Record param error.
NET_DVR_ERR_LIGHT_WITHOUT_ COLOR_AND_DIRECTION	1439	Light number and other param error.

Error Name	Error Code	Error Description
NET_DVR_ERR_LIGHT_WITHOUT_ DETECTION_REGION	1440	Light number and detection region error.
NET_DVR_ERR_RECOGNIZE_ PROVINCE_PARAM	1441	Plate recognize Province param error.
NET_DVR_ERR_SPEED_TIMEOUT	1442	IO Speed TimeOut Param error.
NET_DVR_ERR_NTP_TIMEZONE	1443	NTP TimeZone Param error.
NET_DVR_ERR_NTP_INTERVAL_TIME	1444	NTP Interval Time error.
NET_DVR_ERR_NETWORK_CARD_ NUM	1445	Network Card Num error.
NET_DVR_ERR_DEFAULT_ROUTE	1446	Default Route error.
NET_DVR_ERR_BONDING_WORK_ MODE	1447	Banding Work Mode error.
NET_DVR_ERR_SLAVE_CARD	1448	Sub-Card error.
NET_DVR_ERR_PRIMARY_CARD	1449	Primary Card error.
NET_DVR_ERR_DHCP_PPOE_WORK	1450	DHCP and PPOE not Meanwhile start.
NET_DVR_ERR_NET_INTERFACE	1451	Net Interface invalid.
NET_DVR_ERR_MTU	1452	Invalid MTU parameters.
NET_DVR_ERR_NETMASK	1453	Netmask address invalid.
NET_DVR_ERR_IP_INVALID	1454	IP address invalid.
NET_DVR_ERR_MULTICAST_IP_ INVALID	1455	Multicast IP address invalid.
NET_DVR_ERR_GATEWAY_INVALID	1456	Gateway address invalid.
NET_DVR_ERR_DNS_INVALID	1457	DNS Param invalid.
NET_DVR_ERR_ALARMHOST_IP_ INVALID	1458	AlarmHost IP invalid.
NET_DVR_ERR_IP_CONFLICT	1459	IP address Conflict.
NET_DVR_ERR_NETWORK_SEGMENT	1460	IP not support Multi Network segment.
NET_DVR_ERR_NETPORT	1461	NetPort error.
NET_DVR_ERR_PPPOE_NOSUPPORT	1462	PPPoE is not supported.

Error Name	Error Code	Error Description
NET_DVR_ERR_DOMAINNAME_ NOSUPPORT	1463	Not Support Domain Name.
NET_DVR_ERR_NO_SPEED	1464	Speed Not Enabled.
NET_DVR_ERR_IOSTATUS_INVALID	1465	IO Status invalid.
NET_DVR_ERR_BURST_INTERVAL_ INVALID	1466	Burst Interval invalid.
NET_DVR_ERR_RESERVE_MODE	1467	Reserve Mode invalid.
NET_DVR_ERR_LANE_NO	1468	Lane No error.
NET_DVR_ERR_COIL_AREA_TYPE	1469	Coil Area Type error.
NET_DVR_ERR_TRIGGER_AREA_ PARAM	1470	Trigger Area Param error.
NET_DVR_ERR_SPEED_LIMIT_PARAM	1471	Speed Limit Param error.
NET_DVR_ERR_LANE_PROTOCOL_ TYPE	1472	Lane Protocol Type error.
NET_DVR_ERR_INTERVAL_TYPE	1473	Capture Interval Type error.
NET_DVR_ERR_INTERVAL_DISTANCE	1474	Capture Interval Distance error.
NET_DVR_ERR_RS485_ASSOCIATE_ DEVTYPE	1475	Rs485 Associate DevType error.
NET_DVR_ERR_RS485_ASSOCIATE_ LANENO	1476	Rs485 Associate LaneNo error.
NET_DVR_ERR_LANENO_ASSOCIATE_ MULTIRS485	1477	LaneNo Associate MulitRs485 error.
NET_DVR_ERR_LIGHT_DETECTION_ REGION	1478	Light Detection Region error.
NET_DVR_ERR_DN2D_NOSUPPORT	1479	UnSupport Capture Frame 2D Noise Reduction.
NET_DVR_ERR_IRISMODE_ NOSUPPORT	1480	UnSupport scene Mode.
NET_DVR_ERR_WB_NOSUPPORT	1481	UnSupport White Balance Mode.
NET_DVR_ERR_IO_EFFECTIVENESS	1482	IO Effectiveness invalid.

Error Name	Error Code	Error Description
NET_DVR_ERR_LIGHTNO_MAX	1483	Access Detector Lights Red / Yellow Overrun.
NET_DVR_ERR_LIGHTNO_CONFLICT	1484	Access Detector Lights Red / Yellow Conflict.
NET_DVR_ERR_CANCEL_LINE	1485	Trigger straight line error.
NET_DVR_ERR_STOP_LINE	1486	Subject line area stop line error.
NET_DVR_ERR_RUSH_REDLIGHT_LINE	1487	Red light trigger lines error.
NET_DVR_ERR_IOOUTNO_MAX	1488	IO out port error.
NET_DVR_ERR_IOOUTNO_ AHEADTIME_MAX	1489	IO out ahead time error.
NET_DVR_ERR_IOOUTNO_ IOWORKTIME	1490	IO out inwork time error.
NET_DVR_ERR_IOOUTNO_ FREQMULTI	1491	IO out frequency multiplication error.
NET_DVR_ERR_IOOUTNO_DUTYRATE	1492	IO out duty rate error.
NET_DVR_ERR_VIDEO_WITH_ EXPOSURE	1493	IO out work mode error.
NET_DVR_ERR_PLATE_BRIGHTNESS_ WITHOUT_FLASHDET	1494	Plate enable in plate compensate mode on.
NET_DVR_ERR_RECOGNIZE_TYPE_ PARAM	1495	Recognize Type error.
NET_DVR_ERR_PALTE_RECOGNIZE_ AREA_PARAM	1496	Plate Recognize Area Param error.
NET_DVR_ERR_PORT_CONFLICT	1497	Port Conflict.
NET_DVR_ERR_LOOP_IP	1498	IP cannot be the loopback address.
NET_DVR_ERR_DRIVELINE_SENSITIVE	1499	Driveline sensitivity error.
NET_ERR_VQD_TIME_CONFLICT	1500	The time period conflict.
NET_ERR_VQD_PLAN_NO_EXIST	1501	The diagnostic plan of VQD dese not exist.
NET_ERR_VQD_CHAN_NO_EXIST	1502	The channel dese not exist.

Error Name	Error Code	Error Description
NET_ERR_VQD_CHAN_MAX	1503	The total number of VQD plans exceeds the max limit.
NET_ERR_VQD_TASK_MAX	1504	The total number of VQD tasks exceeds the max limit.
NET_DVR_ERR_EXCEED_MAX_ CAPTURE_TIMES	1600	Capture times exceed 2 in flash mode.
NET_DVR_ERR_REDAR_TYPE_ CONFLICT	1601	Radar type conflict.
NET_DVR_ERR_LICENSE_PLATE_NULL	1602	The license plate is null.
NET_DVR_ERR_WRITE_DATABASE	1603	Failed to write data into the database.
NET_DVR_ERR_LICENSE_EFFECTIVE_ TIME	1604	The effective time of license plate error.
NET_DVR_ERR_PRERECORDED_ STARTTIME_LONG	1605	The pre recorded start time is greater than the number of illegal capture.
NET_DVR_ERR_TRIGGER_RULE_LINE	1606	Trigger rule line error.
NET_DVR_ERR_LEFTRIGHT_ TRIGGERLINE_NOTVERTICAL	1607	Left and right trigger line is not vertical.
NET_DVR_ERR_FLASH_LAMP_MODE	1608	Flash lamp mode error.
NET_DVR_ERR_ILLEGAL_SNAPSHOT_ NUM	1609	Illegal capture number error.
NET_DVR_ERR_ILLEGAL_DETECTION_ TYPE	1610	Illegal detection type error.
NET_DVR_ERR_POSITIVEBACK_ TRIGGERLINE_HIGH	1611	Positive back to trigger line height error.
NET_DVR_ERR_MIXEDMODE_ CAPTYPE_ALLTARGETS	1612	Mixed mode only supports capture type all targets.
NET_DVR_ERR_CARSIGNSPEED_ GREATERTHAN_LIMITSPEED	1613	Car sign speed greater than speed limit value.
NET_DVR_ERR_BIGCARSIGNSPEED_ GREATERTHAN_LIMITSPEED	1614	Big car sign speed limit greater than speed limit value.
NET_DVR_ERR_BIGCARSIGNSPEED_ GREATERTHAN_CARSIGNSPEED	1615	Big car sign speed limit is greater than the car sign speed limit value.

Error Name	Error Code	Error Description
NET_DVR_ERR_BIGCARLIMITSPEED_ GREATERTHAN_CARLIMITSPEED	1616	Big car speed limit value is greater than the car speed limit value.
NET_DVR_ERR_ BIGCARLOWSPEEDLIMIT_ GREATERTHAN_CARLOWSPEEDLIMIT	1617	Big car low speed limit value is greater than the car low speed limit value.
NET_DVR_ERR_CARLIMITSPEED_ GREATERTHAN_EXCEPHIGHSPEED	1618	Car speed limit greater than exception high speed value.
NET_DVR_ERR_BIGCARLIMITSPEED_ GREATERTHAN_EXCEPHIGHSPEED	1619	Big car speed limit greater than exception high speed value.
NET_DVR_ERR_STOPLINE_ MORETHAN_TRIGGERLINE	1620	Stopping more than straight lines trigger lines.
NET_ERR_TIME_OVERLAP	1900	Time periods overlap
NET_ERR_HOLIDAY_PLAN_OVERLAP	1901	Holiday plan overlap
NET_ERR_CARDNO_NOT_SORT	1902	Card number is not sorted
NET_ERR_CARDNO_NOT_EXIST	1903	Card number does not exist
NET_ERR_ILLEGAL_CARDNO	1904	Card number error
NET_ERR_ZONE_ALARM	1905	Arming region is in arming status (parameter cannot be modified)
NET_ERR_ZONE_OPERATION_NOT_ SUPPORT	1906	Arming region does not support the operation
NET_ERR_INTERLOCK_ANTI_ CONFLICT	1907	Interlock and anti-passback configuration conflict
NET_ERR_DEVICE_CARD_FULL	1908	Card full (return after card reached 10,000)
NET_ERR_HOLIDAY_GROUP_ DOWNLOAD	1909	Failed to download holiday group
NET_ERR_LOCAL_CONTROL_OFF	1910	Distributed access controller offline
NET_ERR_LOCAL_CONTROL_DISADD	1911	Distributed access controller is not added
NET_ERR_LOCAL_CONTROL_HASADD	1912	Distributed access controller is added
NET_ERR_LOCAL_CONTROL_ DOORNO_CONFLICT	1913	Conflict with added distributed access controller

Error Name	Error Code	Error Description
NET_ERR_LOCAL_CONTROL_ COMMUNICATION_FAIL	1914	Distributed access controller communication failed
NET_ERR_OPERAND_INEXISTENCE	1915	Operation object does not exist (operation to door, alarm output, alarm input, return when the object is not added)
NET_ERR_LOCAL_CONTROL_OVER_ LIMIT	1916	Distributed access controller exceeded device capability upper limit
NET_ERR_DOOR_OVER_LIMIT	1917	Door exceeded device capability upper limit
NET_ERR_ALARM_OVER_LIMIT	1918	Alarm input and output exceeded device capability upper limit
NET_ERR_LOCAL_CONTROL_ ADDRESS_INCONFORMITY_TYPE	1919	Distributed access controller address does not match with type
NET_ERR_NOT_SUPPORT_ONE_ MORE_CARD	1920	not support one person multi-card
NET_ERR_DELETE_NO_EXISTENCE_ FACE	1921	The face picture does not exist.
NET_ERR_DOOR_SPECIAL_ PASSWORD_REPEAT	1922	Repeated door door duress code, the super password, or the dismiss code.
NET_ERR_AUTH_CODE_REPEAT	1923	Repeated device authentication code
NET_ERR_DEPLOY_EXCEED_MAX	1924	No more devices can be armed.
NET_ERR_NOT_SUPPORT_DEL_FP_ BY_ID	1925	The fingerprint module does not support deleting fingerprint by finger ID.
NET_ERR_TIME_RANGE	1926	Invalid range of the effective period.
NET_ERR_CAPTURE_TIMEOUT	1927	Collection timed out.
NET_ERR_LOW_SCORE	1928	Low quality of collected data.
NET_ERR_OFFLINE_CAPTURING	1929	The device is collecting data offline and cannot respond.
NET_DVR_ERR_OUTDOOR_ COMMUNICATION	1950	Communication exception with outdoor terminal

Error Name	Error Code	Error Description
NET_DVR_ERR_ROOMNO_ UNDEFINED	1951	Room number is not set
NET_DVR_ERR_NO_CALLING	1952	No call
NET_DVR_ERR_RINGING	1953	Ringing
NET_DVR_ERR_IS_CALLING_NOW	1954	Call in progress
NET_DVR_ERR_LOCK_PASSWORD_ WRONG	1955	Incorrect smart lock password
NET_DVR_ERR_CONTROL_LOCK_ FAILURE	1956	Lock control failure
NET_DVR_ERR_CONTROL_LOCK_ OVERTIME	1957	Lock control timed out
NET_DVR_ERR_LOCK_DEVICE_BUSY	1958	Smart lock device busy
NET_DVR_ERR_UNOPEN_REMOTE_ LOCK_FUNCTION	1959	Remote lock control not enabled
NET_DVR_ERR_FILE_NOT_COMPLETE	2100	Downloaded file is incomplete
NET_DVR_ERR_IPC_EXIST	2101	The camera already exists
NET_DVR_ERR_ADD_IPC	2102	Camera has been added to the channel
NET_DVR_ERR_OUT_OF_RES	2103	Not enough network bandwidth
NET_DVR_ERR_CONFLICT_TO_ LOCALIP	2104	IP address of camera conflicts with that of DVR
NET_DVR_ERR_IP_SET	2105	Invalid IP address
NET_DVR_ERR_PORT_SET	2106	Invalid port number
NET_ERR_WAN_NOTSUPPORT	2107	Not in the same LAN, cannot set security question or export GUID file
NET_ERR_MUTEX_FUNCTION	2108	Mutually exclusive function
NET_ERR_QUESTION_CONFIGNUM	2109	Error in number of security question configurations
NET_ERR_FACECHAN_NORESOURCE	2110	All the face VCA channels are occupied.
NET_ERR_DATA_CALLBACK	2111	Data is calling back.

Error Name	Error Code	Error Description
NET_ERR_ATM_VCA_CHAN_IS_ RELATED	2112	The VCA channel is already linked.
NET_ERR_ATM_VCA_CHAN_IS_ OVERLAPED	2113	The VCA channel is already overlayed.
NET_ERR _FACE_CHAN_UNOVERLAP_ EACH_OTHER	2114	The face channels cannot be overlayed.
NET_DVR_SMD_ENCODING_ NORESOURSE	2116	Insufficient SMD encoding resource
NET_DVR_SMD_DECODING_ NORESOURSE	2117	Insufficient SMD decoding resource
NET_DVR_FACELIB_DATA_ PROCESSING	2118	Face picture library data is in processing
NET_DVR_ERR_LARGE_TIME_ DIFFRENCE	2119	There is a great time difference between device and server.
NET_DVR_NO_SUPPORT_WITH_ PLAYBACK	2120	It is not supported. Playback is enabled.
NET_DVR_CHANNEL_NO_SUPPORT_ WITH_SMD	2121	It is not supported. SMD of channel is enabled.
NET_DVR_CHANNEL_NO_SUPPORT_ WITH_FD	2122	It is not supported. Face capture of channel is enabled.
NET_DVR_ILLEGAL_PHONE_NUMBER	2123	Invalid telephone number
NET_DVR_ILLEGAL_CERITIFICATE_ NUMBER	2124	Invalid ID No.
NET_DVR_ERR_CHANNEL_ RESOLUTION_NO_SUPPORT	2125	The channel resolution is not supported
NET_DVR_ERR_CHANNEL_ COMPRESSION_NO_SUPPORT	2126	The channel encoding format is not supported
NET_DVR_ERR_CLUSTER_DEVICE_ TOO_LESS	2127	Deleting is not allowed. The number of devices is not enough
NET_DVR_ERR_CLUSTER_DEL_ DEVICE_CM_PLAYLOAD	2128	Deleting is not allowed. The device is cluster host.
NET_DVR_ERR_CLUSTER_DEVNUM_ OVER_UPPER_LIMIT	2129	No more devices can be added.

Error Name	Error Code	Error Description
NET_DVR_ERR_CLUSTER_DEVICE_ TYPE_INCONFORMITY	2130	Device type mismatched.
NET_DVR_ERR_CLUSTER_DEVICE_ VERSION_INCONFORMITY	2131	Device version mismatched.
NET_DVR_ERR_CLUSTER_IP_ CONFLICT	2132	Cluster system IP address conflict: ipv4 address conflict, invalid ipv6.
NET_DVR_ERR_CLUSTER_IP_INVALID	2133	Invalid cluster system IP address: invalid ipv4, invalid ipv6.
NET_DVR_ERR_CLUSTER_PORT_ CONFLICT	2134	Cluster system port conflict
NET_DVR_ERR_CLUSTER_PORT_ INVALID	2135	Invalid cluster system port
NET_DVR_ERR_CLUSTER_ USERNAEM_OR_PASSWORD_INVALID	2136	Invalid user name or password
NET_DVR_ERR_CLUSTER_DEVICE_ ALREADY_EXIST	2137	The device already exists.
NET_DVR_ERR_CLUSTER_DEVICE_ NOT_EXIST	2138	The device does not exist.
NET_DVR_ERR_CLUSTER_NON_ CLUSTER_MODE	2139	The device working mode is not the cluster mode .
NET_DVR_ERR_CLUSTER_IP_NOT_ SAME_LAN	2140	IP addresses are in different LAN. Building cluster or extending capacity for NVRs in different LAN is not allowed.
NET_DVR_ERR_IDENTITY_KEY	2147	Incorrect interaction password
NET_DVR_MISSING_IDENTITY_KEY	2148	Interaction password is missing
NET_DVR_ERR_CAPTURE_PACKAGE_ FAILED	2141	Capturing packets failed.
NET_DVR_ERR_CAPTURE_PACKAGE_ PROCESSING	2142	Capturing packet.
NET_DVR_ERR_SAFETY_HELMET_NO_ RESOURCE	2143	No enough hard hat detection resource.

Error Name	Error Code	Error Description
NET_DVR_NO_SUPPORT_WITH_ABSTRACT	2144	This function is not supported. Video synopsis is already enabled.
NET_DVR_INSUFFICIENT_DEEP_LEARNING_RESOURCES	2146	No more deep learning resources can be added.
NET_DVR_NO_SUPPORT_WITH_PERSON_DENSITY_DETECT	2149	People gathering density is enabled, it is not supported
NET_DVR_IPC_RESOLUTION_OVERFLOW	2150	The network camera resolution is too large
NET_DVR_IPC_BITRATE_OVERFLOW	2151	The network camera bitrate is too large
NET_DVR_ERR_INVALID_TASKID	2152	Invalid taskID
NET_DVR_PANEL_MODE_NOT_CONFIG	2153	The ATM panel mode is not configured.
NET_DVR_NO_HUMAN_ENGINES_RESOURCE	2154	No enough engine resource
NET_DVR_ERR_TASK_NUMBER_OVERFLOW	2155	No more task data is allowed
NET_DVR_ERR_COLLISION_TIME_OVERFLOW	2156	Collision time is over the limit
NET_DVR_ERR_EVENT_NOTSUPPORT	2159	Subscribing alarm/event is not supported.
NET_DVR_IPC_NUM_REACHES_LIMIT	2184	The max. number of network camera channels reached.
NET_DVR_IOT_NUM_REACHES_LIMIT	2185	The max. number of IoT channels reached
NET_DVR_IOT_CHANNEL_DEVICE_EXIST	2186	Device of the IoT channel already exists.
NET_DVR_IOT_CHANNEL_DEVICE_NOT_EXIST	2187	Device of the IoT channel does not exist.
NET_DVR_INVALID_IOT_PROTOCOL_TYPE	2188	Invalid IoT protocol type
NET_DVR_INVALID_EZVIZ_SECRET_KEY	2189	Invalid verification code

Error Name	Error Code	Error Description
NET_DVR_DUPLICATE_IOT_DEVICE	2190	Duplicated IoT device
NET_DVR_ERROR_NEED_DOUBLE_ VERIFICATION	2206	Double verification is required
NET_DVR_NO_DOUBLE_ VERIFICATION_USER	2207	No double verification user
NET_DVR_TIMESPAN_NUM_OVER_ LIMIT	2209	Max. number of time buckets reached
NET_DVR_CHANNEL_NUM_OVER_ LIMIT	2210	Max. number of channels reached
NET_DVR_NO_SEARCH_ID_ RESOURCE	2211	Insufficient searchID resources
NET_DVR_SWITCH_TIMEDIFF_LESS_ LIMIT	2249	Time difference between power on and off should be less than 10 minutes.
NET_DVR_NO_SUPPORT_DELETE_ STRANGER_LIB	2262	Deleting stranger library is not supported
NET_DVR_NO_SUPPORT_CREATE_ STRANGER_LIB	2263	Creating stranger library is not supported
NET_DVR_SSD_FILE_SYSTEM_ERROR	2266	SSD file system error
NET_DVR_INSUFFICIENT_SSD__FOR_ FPD	2267	Insufficient SSD space for person frequency detection
NET_DVR_SMRDISK_NOT_SUPPORT_ RAID	2269	SMR disk does not support RAID.
NET_DVR_ERR_NOTSUPPORT_ DEICING	3001	Device does not support deicing function under current status.(Deicing function is only supported under the power status of POE+, AC24V, and DC12V).
NET_DVR_ERR_THERMENABLE_ CLOSE	3002	Temperature measurement function is not enabled. (The enable function in NET_DVR_THERMOMETRY_ BASICPARAM is not turned on)
NET_DVR_ERR_PANORAMIC_LIMIT_ OPERATED	3004	Panoramic map and limit cannot be operated at same time

Error Name	Error Code	Error Description
NET_DVR_ERR_SMARTH264_ROI_OPERATED	3005	SmartH264 and ROI cannot be enabled at the same time.
NET_DVR_ERR_RULENUM_LIMIT	3006	No more rules can be added.
NET_DVR_ERR_LASER_DEICING_OPERATED	3007	Laser and deicing function cannot be enabled at the same time.
NET_DVR_ERR_OFFDIGITALZOOM_OR_MINZOOMLIMIT	3008	Please disable the digital zoom function or set the zoom limit to the minimum value. Otherwise, when enabling smoke and fire detection, abnormal event detection, ship detection, defective point correction, temperature measurement, smoke and fire shielding function, this error code will be prompted.
NET_DVR_SYNCHRONIZEFOV_ERROR	3010	Field of view synchronization failed.
NET_DVR_RULE_SHIELDMASK_CONFLICT_ERROR	3013	The rule region conflicts with the shielded area.
NET_DVR_ERR_NO_SAFETY_HELMET_REGION	3501	The hard hat detection area is not configured.
NET_DVR_ERR_UNCLOSED_SAFETY_HELMET	3502	The hard hat detection is enabled.
NET_DVR_UPLOAD_HBDLIBID_ERROR	3504	Incorrect ID of human body picture library (incorrect HBDID or customHBDID)

RTSP Communication Library Related Errors

Error Name	Error Code	Error Description
NET_DVR_RTSP_ERROR_NOENOUGHPRI	401	Authentication failed: if server returns 401, it will change to this error code
NET_DVR_RTSP_ERROR_ALLOC_RESOURCE	402	Failed to allocate the resource
NET_DVR_RTSP_ERROR_PARAMETER	403	Parameter error

Error Name	Error Code	Error Description
NET_DVR_RTSP_ERROR_NO_URL	404	The assigned URL does not exist: when the server returns 404, SDK turns to this error code. E.g. the channel is not available, or the channel does not support sub stream
NET_DVR_RTSP_ERROR_FORCE_STOP	406	The user forces to exit midway
NET_DVR_RTSP_GETPORTFAILED	407	RTSP port getting error.
NET_DVR_RTSP_DESCRIBERROR	410	RTSP DECRIBE communicate error
NET_DVR_RTSP_ DESCRIBESENDTIMEOUT	411	Sending "RTSP DECRIBE" is timeout.
NET_DVR_RTSP_DESCRIBESENDERROR	412	Failed to send "RTSP DECRIBE".
NET_DVR_RTSP_ DESCRIBERECVTIMEOUT	413	Receiving "RTSP DECRIBE" is timeout.
NET_DVR_RTSP_ DESCRIBERECVDATALOST	414	Receiving data of "RTSP DECRIBE" error.
NET_DVR_RTSP_DESCRIBERECVERROR	415	Failed to receive "RTSP DECRIBE".
NET_DVR_RTSP_DESCRIBESERVERERR	416	"RTSP DECRIBE, the device returns the error code: 501 (failed to allocate the resource in the device)
NET_DVR_RTSP_SETUPERROR	420	(or 419), RTSP SETUP interaction error. Generally, it is that the address(URL) returned by the device is not accessible, or it is rejected by the server
NET_DVR_RTSP_SETUPSENDTIMEOUT	421	Sending "RTSP SETUP" is timeout.
NET_DVR_RTSP_SETUPSENDERROR	422	Sending "RTSP SETUP" error.
NET_DVR_RTSP_SETUPRECVTIMEOUT	423	Receiving "RTSP SETUP" is timeout.
NET_DVR_RTSP_SETUPRECVDATALOST	424	Receiving data of "RTSP SETUP" error.
NET_DVR_RTSP_SETUPRECVERROR	425	Failed to receive "RTSP SETUP".
NET_DVR_RTSP_OVER_MAX_CHAN	426	"RTSP SETUP" device returns the error that values 401 or 501. It

Error Name	Error Code	Error Description
		exceeds the max connection number.
NET_DVR_RTSP_PLAYERROR	430	RTSP PLAY interaction error.
NET_DVR_RTSP_PLAYSENDTIMEOUT	431	Sending "RTSP PLAY" is timeout.
NET_DVR_RTSP_PLAYSENDERROR	432	Sending "RTSP PLAY" error.
NET_DVR_RTSP_PLAYRECVTIMEOUT	433	Receiving "RTSP PLAY" is timeout.
NET_DVR_RTSP_PLAYRECVDATALOST	434	Receiving data of "RTSP PLAY" error.
NET_DVR_RTSP_PLAYRECVERROR	435	Failed to receive "RTSP PLAY".
NET_DVR_RTSP_PLAYSERVERERR	436	"RTSP PLAY" device returns the error that values 401 or 501.
NET_DVR_RTSP_TEARDOWNERROR	440	RTSP TEARDOWN interaction error.
NET_DVR_RTSP_ TEARDOWNSENDTIMEOUT	441	Sending "RTSP TEARDOWN" is timeout.
NET_DVR_RTSP_ TEARDOWNSENDERROR	442	Sending "RTSP TEARDOWN" error.
NET_DVR_RTSP_ TEARDOWNRECVTIMEOUT	443	Receiving "RTSP TEARDOWN" is timeout.
NET_DVR_RTSP_ TEARDOWNRECVDATALOST	444	Receiving data of "RTSP TEARDOWN" error.
NET_DVR_RTSP_ TEARDOWNRECVERROR	445	Failed to receive "RTSP TEARDOWN".
NET_DVR_RTSP_ TEARDOWNSERVERERR	446	"RTSP TEARDOWN" device returns the error that values 401 or 501.

Software Decoding Library Related Errors

Error Name	Error Code	Error Description
NET_PLAYM4_NOERROR	500	No error.
NET_PLAYM4_PARA_OVER	501	Input parameter is invalid.
NET_PLAYM4_ORDER_ERROR	502	API calling order error.
NET_PLAYM4_TIMER_ERROR	503	Failed to create multimedia clock.

Error Name	Error Code	Error Description
NET_PLAYM4_DEC_VIDEO_ERROR	504	Failed to decode video data.
NET_PLAYM4_DEC_AUDIO_ERROR	505	Failed to decode audio data.
NET_PLAYM4_ALLOC_MEMORY_ ERROR	506	Failed to allocate memory.
NET_PLAYM4_OPEN_FILE_ERROR	507	Failed to open the file.
NET_PLAYM4_CREATE_OBJ_ERROR	508	Failed to create thread event.
NET_PLAYM4_CREATE_DDRAW_ ERROR	509	Failed to create DirectDraw object.
NET_PLAYM4_CREATE_OFFSCREEN_ ERROR	510	Failed to create backstage cache for OFFSCREEN mode.
NET_PLAYM4_BUF_OVER	511	Buffer overflow, failed to input stream.
NET_PLAYM4_CREATE_SOUND_ ERROR	512	Failed to create audio equipment.
NET_PLAYM4_SET_VOLUME_ ERROR	513	Failed to set the volume.
NET_PLAYM4_SUPPORT_FILE_ONLY	514	This API can be called only for file playback mode.
NET_PLAYM4_SUPPORT_STREAM_ ONLY	515	This API can be called only when playing stream.
NET_PLAYM4_SYS_NOT_SUPPORT	516	Not support by the system. Decoder can only work on the system above Pentium 3.
NET_PLAYM4_FILEHEADER_ UNKNOWN	517	There is no file header.
NET_PLAYM4_VERSION_ INCORRECT	518	The version mismatch between decoder and encoder.
NET_PLAYM4_INIT_DECODER_ ERROR	519	Failed to initialize the decoder.
NET_PLAYM4_CHECK_FILE_ERROR	520	The file is too short, or the stream data is unknown.
NET_PLAYM4_INIT_TIMER_ERROR	521	Failed to initialize multimedia clock.
NET_PLAYM4_BLT_ERROR	522	BLT failure.

Error Name	Error Code	Error Description
NET_PLAYM4_UPDATE_ERROR	523	Failed to update overlay surface
NET_PLAYM4_OPEN_FILE_ERROR_ MULTI	524	Failed to open video & audio stream file.
NET_PLAYM4_OPEN_FILE_ERROR_ VIDEO	525	Failed to open video stream file.
NET_PLAYM4_JPEG_COMPRESS_ ERROR	526	JPEG compression error.
NET_PLAYM4_EXTRACT_NOT_ SUPPORT	527	Don't support the version of this file.
NET_PLAYM4_EXTRACT_DATA_ ERROR	528	Extract video data failed.

Container Format Conversion Library Related Errors

Error Name	Error Code	Error Description
NET_CONVERT_ERROR_NOT_ SUPPORT	581	This container format is not supported.

Two Way Audio Library Related Errors

Error Name	Error Code	Error Description
NET_AUDIOINTERCOM_OK	600	No error.
NET_AUDIOINTECOM_ERR_NOTSUPORT	601	Not support.
NET_AUDIOINTECOM_ERR_ALLOC_MEMERY	602	Memory allocation error.
NET_AUDIOINTECOM_ERR_PARAMETER	603	Parameter error.
NET_AUDIOINTECOM_ERR_CALL_ORDER	604	API calling order error.
NET_AUDIOINTECOM_ERR_FIND_DEVICE	605	No audio device
NET_AUDIOINTECOM_ERR_OPEN_DEVICE	606	Failed to open the audio device
NET_AUDIOINTECOM_ERR_NO_CONTEXT	607	Context error.
NET_AUDIOINTECOM_ERR_NO_WAVFILE	608	WAV file error.
NET_AUDIOINTECOM_ERR_INVALID_TYPE	609	The type of WAV parameter is invalid

Error Name	Error Code	Error Description
NET_AUDIOINTECOM_ERR_ENCODE_FAIL	610	Failed to encode data
NET_AUDIOINTECOM_ERR_DECODE_FAIL	611	Failed to decode data
NET_AUDIOINTECOM_ERR_NO_PLAYBACK	612	Failed to play audio
NET_AUDIOINTECOM_ERR_DENOISE_FAIL	613	Failed to denoise
NET_AUDIOINTECOM_ERR_UNKOWN	619	Unknown

QoS Stream Control Library Related Errors

Error Name	Error Code	Error Description
NET_QOS_ERR_SCHEDPARAMS_BAD_MINIMUM_INTERVAL	678	Incorrect predefined minimum interval.
NET_QOS_ERR_SCHEDPARAMS_BAD_FRACTION	679	Incorrect predefined score.
NET_QOS_ERR_SCHEDPARAMS_INVALID_BANDWIDTH	680	Invalid predefined bandwidth.
NET_QOS_ERR_PACKET_TOO_BIG	687	The packet size is too large.
NET_QOS_ERR_PACKET_LENGTH	688	Invalid packet size.
NET_QOS_ERR_PACKET_VERSION	689	Incorrect packet versio information.
NET_QOS_ERR_PACKET_UNKNOW	690	Unknown packet.
NET_QOS_ERR_OUTOFMEM	695	Out of memory.
NET_QOS_ERR_LIB_NOT_INITIALIZED	696	The library is not initialized.
NET_QOS_ERR_SESSION_NOT_FOUND	697	No session found.
NET_QOS_ERR_INVALID_ARGUMENTS	698	Invalid parameters.
NET_QOS_ERROR	699	QoS Stream Control Library error.
NET_QOS_OK	700	No error.

NPQ (Network Protocol Quality) Related Error

Error Name	Error Code	Error Description
NET_ERR_NPQ_PARAM	8001	NPQ library: Incorrect parameter.
NET_ERR_NPQ_SYSTEM	8002	NPQ library: Operating system error.
NET_ERR_NPQ_GENRAL	8003	NPQ library: Internal error.
NET_ERR_NPQ_PRECONDITION	8004	NPQ library: Calling sequence error.
NET_ERR_NPQ_NOTSUPPORT	8005	NPQ library: This function is not supported.
NET_ERR_NPQ_NOTCALLBACK	8100	No data is called back.
NET_ERR_NPQ_LOADLIB	8101	Loading NPQ library failed.
NET_ERR_NPQ_STEAM_CLOSE	8104	The NPQ function of this stream is not enabled.
NET_ERR_NPQ_MAX_LINK	8110	No more streaming channel's NPQ function can be enabled.
NET_ERR_NPQ_STREAM_CFG_ CONFLICT	8111	The configured encoding parameters conflicted.

Appendix D. Request URIs

Description	URI	Method	Request and Response Message
Get device information.	/ISAPI/System/deviceInfo	GET	XML_DeviceInfo XML_ResponseStatus
Edit device information.	/ISAPI/System/deviceInfo	PUT	-
Control PTZ.	/ISAPI/PTZCtrl/channels/<ID>/ continuous	PUT	XML_ResponseStatus
Get preset list.	/ISAPI/PTZCtrl/channels/<ID>/ presets	GET	XML_PTZPresetList XML_ ResponseStatus
Manage all configured presets.	/ISAPI/PTZCtrl/channels/<ID>/ presets	POST	-
Delete all presets.	/ISAPI/PTZCtrl/channels/<ID>/ presets	DELETE	-
Add a preset.	/ISAPI/PTZCtrl/channels/<ID>/ presets/<ID>	PUT	XML_ResponseStatus
Delete a preset.	/ISAPI/PTZCtrl/channels/<ID>/ presets/<ID>	DELETE	XML_ResponseStatus
Get a preset.	/ISAPI/PTZCtrl/channels/<ID>/ presets/<ID>	GET	-
Call a preset.	/ISAPI/PTZCtrl/channels/<ID>/ presets/<ID>/goto	PUT	XML_ResponseStatus
Get partition status.	/ISAPI/SecurityCP/status/ subSystems?format=json	GET	JSON_SubSysList JSON_ResponseStatus
Arm a partition.	/ISAPI/SecurityCP/control/arm/ <ID>?ways=<string>&format=json	PUT	JSON_ResponseStatus
Disarm a partition.	/ISAPI/SecurityCP/control/disarm/ <ID>?format=json	PUT	JSON_ResponseStatus
Clear partition alarms.	/ISAPI/SecurityCP/control/ clearAlarm/<ID>?format=json	PUT	JSON_ResponseStatus
Get zone status	/ISAPI/SecurityCP/status/zones? format=json	GET	JSON_ZoneList JSON_ResponseStatus

Search partition status according to conditions.	/ISAPI/SecurityCP/status/zones? format=json	POST	-
Zone bypass.	/ISAPI/SecurityCP/control/bypass? format=json	PUT	JSON_ResponseStatus
Recover bypass of multiple zones.	/ISAPI/SecurityCP/control/ bypassRecover?format=json	PUT	JSON_ResponseStatus
Get relay status by specific conditions.	/ISAPI/SecurityCP/status/ outputStatus?format=json	POST	JSON_OutputSearch JSON_ResponseStatus
Control relay in batch.	/ISAPI/SecurityCP/control/ outputs?format=json	POST	JSON_ResponseStatus
Get the information of all I/O output ports.	/ISAPI/System/IO/outputs	GET	XML_IOOutputPortList XML_ResponseStatus
Get status of a specific alarm output.	/ISAPI/System/IO/outputs/<ID>/ status	GET	XML_IOPortStatus XML_ResponseStatus
Manually trigger a specific alarm output.	/ISAPI/System/IO/outputs/<ID>/ trigger	PUT	XML_ResponseStatus
Get device time zone.	/ISAPI/System/time	GET	XML_TimeData XML_ResponseStatus
Get or set device time parameters.	/ISAPI/System/time	PUT	-
Operations about management of all digital channels.	/ISAPI/ContentMgmt/InputProxy/ channels	GET	XML_InputProxyChannelList XML_ResponseStatus
Configure operations about management of all digital channels.	/ISAPI/ContentMgmt/InputProxy/ channels	PUT	-
Create digital channels	/ISAPI/ContentMgmt/InputProxy/ channels	POST	-

Get status of all digital channels.	/ISAPI/ContentMgmt/InputProxy/channels/status	GET	XML_InputProxyChannelStatusList XML_ResponseStatus
Refresh the video mode manually before playback.	/ISAPI/ContentMgmt/record/control/manualRefresh/channels/<ID>	PUT	XML_ResponseStatus
Search for access control events.	/ISAPI/AccessControl/AcsEvent?format=json	POST	JSON_AcsEvent XML_ResponseStatus
Search for person information.	/ISAPI/AccessControl/UserInfo/Search?format=json	POST	JSON_UserInfoSearch XML_ResponseStatus

D.1 Terminal-Related APIs

D.1.1 /ISAPI/Publish/TerminalMgr/bindIPC/<ID>

Get the configuration information of binding a specific terminal to a network camera, or bind a specific terminal to a network camera.

Request URI Definition

Table C-1 GET /ISAPI/Publish/TerminalMgr/bindIPC/<ID>

Method	GET
Description	Get the configuration information of binding a specific terminal to a network camera.
Query	None.
Request	None.
Response	Succeeded: *XML_BindIPC* Failed: *XML_ResponseStatus*

Table C-2 PUT /ISAPI/Publish/TerminalMgr/bindIPC/<ID>

Method	PUT
Description	Bind a specific terminal to a network camera.
Query	None.

Request	**_XML_BindIPC_**
Response	**_XML_ResponseStatus_**

Remarks

The <**ID**> in the request URI refers to the bound network camera ID.

D.1.2 /ISAPI/Publish/TerminalMgr/bindIPC/capabilities

Get the capability of parameters about binding network cameras.

Request URI Definition

Table C-3 GET /ISAPI/Publish/TerminalMgr/bindIPC/capabilities

Method	GET
Description	Get the capability of parameters about binding network cameras.
Query	None.
Request	None.
Response	Succeeded: **_XML_Cap_BindIPC_** Failed: **_XML_ResponseStatus_**

D.1.3 /ISAPI/Publish/TerminalMgr/capabilities?format=json

Get terminal management capabilities.

Request URI Definition

Table C-4 GET /ISAPI/Publish/TerminalMgr/capabilities?format=json

Method	GET
Description	Get terminal management capabilities.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: **_JSON_TerminalMgrCap_** Failed: **_JSON_ResponseStatus_**

D.1.4 /ISAPI/Publish/TerminalMgr/inputPlanCfg

Set parameters of auto-switch schedules in a batch.

Request URI Definition

Table C-5 PUT /ISAPI/Publish/TerminalMgr/inputPlanCfg

Method	PUT
Description	Set parameters of auto-witch schedules in a batch.
Query	None.
Request	*XML_InputPlanCfg*
Response	*XML_ResponseStatus*

D.1.5 /ISAPI/Publish/TerminalMgr/inputPlanCfg/<ID>/inputPlan

Get auto-switch schedule parameters of a specific terminal:

Request URI Definition

Table C-6 GET /ISAPI/Publish/TerminalMgr/inputPlanCfg/<ID>/inputPlan

Method	GET
Description	Get auto-switch schedule parameters of a specific terminal:
Query	None.
Request	None.
Response	Succeeded: *XML_InputPlan* Failed: *XML_ResponseStatus*

Remarks

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

D.1.6 /ISAPI/Publish/TerminalMgr/inputPlanCfg/capabilities

Get auto-switch schedule capability.

Request URI Definition

Table C-7 GET /ISAPI/Publish/TerminalMgr/inputPlanCfg/capabilities

Method	GET
Description	Get auto-switch schedule capability.
Query	None.
Request	None.
Response	Succeeded: **_XML_Cap_InputPlanCfg_** Failed: **_XML_ResponseStatus_**

D.1.7 /ISAPI/Publish/TerminalMgr/insertCharacterCfg/capabilities

Get capabilities of terminal text message parameters.

Request URI Definition

Table C-8 GET /ISAPI/Publish/TerminalMgr/insertCharacterCfg/capabilities

Method	GET
Description	Get capabilities of terminal text message parameters.
Query	None.
Request	None.
Response	Succeeded: **_XML_Cap_InsertCharacterCfg_** Failed: **_XML_ResponseStatus_**

D.1.8 /ISAPI/Publish/TerminalMgr/insertPlay/capabilities?format=json

Get the capability of configuring cut-in parameters.

Request URI Definition

Table C-9 GET /ISAPI/Publish/TerminalMgr/insertPlay/capabilities?format=json

Method	GET
Description	Get the capability of configuring cut-in parameters.
Query	**format**: determine the format of request or response message.

Request	None
Response	Succeeded: ***JSON_InsertPlayCap***
	Failed: ***JSON_ResponseStatus***

D.1.9 /ISAPI/Publish/TerminalMgr/insertPlay/control?format=json

Control cut-in.

Request URI Definition

Table C-10 PUT /ISAPI/Publish/TerminalMgr/insertPlay/control?format=json

Method	PUT
Description	Control cut-in.
Query	**format**: determine the format of request or response message.
Request	***JSON_InsertPlayControl***
Response	***JSON_ResponseStatus***

D.1.10 /ISAPI/Publish/TerminalMgr/insertPlay?format=json

Get or set the cut-in parameters.

Request URI Definition

Table C-11 GET /ISAPI/Publish/TerminalMgr/insertPlay?format=json

Method	GET
Description	Get the cut-in parameters.
Query	**format**: determine the format of request or response message.
Request	None
Response	Succeeded: ***JSON_InsertPlay***
	Failed: ***JSON_ResponseStatus***

Table C-12 PUT /ISAPI/Publish/TerminalMgr/insertPlay?format=json

Method	PUT
Description	Set the cut-in parameters.
Query	**format**: determine the format of request or response message.
Request	*JSON_InsertPlay*
Response	*JSON_ResponseStatus*

D.1.11 /ISAPI/Publish/TerminalMgr/ntpServers/<ID>?format=json

Get NTP server parameters of a specific terminal.

Request URI Definition

Table C-13 GET /ISAPI/Publish/TerminalMgr/ntpServers/<ID>?format=json

Method	GET
Description	Get NTP server parameters of a specific terminal.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: *JSON_SingleTerminalNtpServer* Failed: *JSON_ResponseStatus*

Remarks

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

D.1.12 /ISAPI/Publish/TerminalMgr/ntpServers/capabilities?format=json

Get NTP configuration capability.

Request URI Definition

Table C-14 GET /ISAPI/Publish/TerminalMgr/ntpServers/capabilities?format=json

Method	GET
Description	Get NTP configuration capability.
Query	**format**: determine the format of request or response message.

Request	None.
Response	Succeeded: ***JSON_TerminalMgrCap***
	Failed: ***JSON_ResponseStatus***

D.1.13 /ISAPI/Publish/TerminalMgr/ntpServers?format=json

Set NTP server parameters.

Request URI Definition

Table C-15 PUT /ISAPI/Publish/TerminalMgr/ntpServers?format=json

Method	PUT
Description	Set NTP server parameters.
Query	**format**: determine the format of request or response message.
Request	***JSON_TerminalNtpServer***
Response	***JSON_ResponseStatus***

D.1.14 /ISAPI/Publish/TerminalMgr/playInfo/Del?format=json

Delete playing information of terminals.

Request URI Definition

Table C-16 PUT /ISAPI/Publish/TerminalMgr/playInfo/Del?format=json

Method	PUT
Description	Delete playing information of terminals.
Query	**format**: determine the format of request or response message.
Request	***JSON_TerminalPlayInfo***
Response	***JSON_ResponseStatus***

D.1.15 /ISAPI/Publish/TerminalMgr/publishServerAddr

Set terminal server address.

Request URI Definition

Table C-17 PUT /ISAPI/Publish/TerminalMgr/publishServerAddr

Method	PUT
Description	Set terminal server address.
Query	None.
Request	*XML_PublishServerAddr*
Response	*XML_ResponseStatus*

D.1.16 /ISAPI/Publish/TerminalMgr/publishServerAddr/capabilities

Get the configuration capability of the terminal server.

Request URI Definition

Table C-18 GET /ISAPI/Publish/TerminalMgr/publishServerAddr/capabilities

Method	GET
Description	Get the configuration capability of the terminal server.
Query	None.
Request	None.
Response	Succeeded: *XML_Cap_PublishServerAddr* Failed: *XML_ResponseStatus*

D.1.17 /ISAPI/Publish/TerminalMgr/screenShot/<ID>

Capture images.

Request URI Definition

Table C-19 GET /ISAPI/Publish/TerminalMgr/screenShot/<ID>

Method	GET
Description	Capture images.
Query	None.

Request	None.
Response	Captured images.

Remarks

The <ID> in the request URI refers to the captured image ID.

D.1.18 /ISAPI/Publish/TerminalMgr/switchPlanCfg

Set startup and shutdown schedules in a batch.

Request URI Definition

Table C-20 PUT /ISAPI/Publish/TerminalMgr/switchPlanCfg

Method	PUT
Description	Set startup and shutdown schedules in a batch.
Query	None.
Request	*XML_SwitchPlanCfg*
Response	*XML_ResponseStatus*

D.1.19 /ISAPI/Publish/TerminalMgr/switchPlanCfg/<ID>/switchPlan

Get the startup and shutdown schedule configuration of a specific terminal.

Request URI Definition

Table C-21 GET /ISAPI/Publish/TerminalMgr/switchPlanCfg/<ID>/switchPlan

Method	GET
Description	Get the startup and shutdown schedule configuration of a specific terminal.
Query	None.
Request	None.
Response	Succeeded: *XML_SwitchPlan* Failed: *XML_ResponseStatus*

Remarks

The <**ID**> in the request URI refers to the terminal ID

D.1.20 /ISAPI/Publish/TerminalMgr/switchPlanCfg/capabilities

Get the capability of startup and shutdown schedule parameters.

Request URI Definition

Table C-22 GET /ISAPI/Publish/TerminalMgr/switchPlanCfg/capabilities

Method	GET
Description	Get the capability of startup and shutdown schedule parameters.
Query	None.
Request	None.
Response	Succeeded: **_XML_Cap_SwitchPlanCfg_** Failed: **_XML_ResponseStatus_**

D.1.21 /ISAPI/Publish/TerminalMgr/terminals

Add new terminals.

Request URI Definition

Table C-23 POST /ISAPI/Publish/TerminalMgr/terminals

Method	POST
Description	Add new terminals.
Query	None.
Request	**_XML_Terminals_**
Response	Succeeded: <**ID**> (terminal ID) + **_XML_ResponseStatus_** Failed: **_XML_ResponseStatus_**

D.1.22 /ISAPI/Publish/TerminalMgr/terminals/<ID>

Get, set, or delete a specific terminal.

Request URI Definition

Table C-24 GET /ISAPI/Publish/TerminalMgr/terminals/<ID>

Method	GET
Description	Get a specific terminal.
Query	None.
Request	None.
Response	Succeeded: ***XML_Terminals*** Failed: ***XML_ResponseStatus***

Table C-25 PUT /ISAPI/Publish/TerminalMgr/terminals/<ID>

Method	PUT
Description	Set a specific terminal.
Query	None.
Request	***XML_Terminals***
Response	***XML_ResponseStatus***

Table C-26 DELETE /ISAPI/Publish/TerminalMgr/terminals/<ID>

Method	DELETE
Description	Delete a specific terminal.
Query	None.
Request	None.
Response	***XML_ResponseStatus***

Remarks

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

D.1.23 /ISAPI/Publish/TerminalMgr/terminals/<ID>/capabilities

Get the capabilities of terminal information parameters.

Request URI Definition

Table C-27 GET /ISAPI/Publish/TerminalMgr/terminals/batchDelete

Method	GET
Description	Get the capabilities of terminal information parameters.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_Terminals*** Failed: ***XML_ResponseStatus***

Remarks

- This API is invalid only when <**isSupportTerminalMgr**> in ***XML_PublishServerCap*** is "true" (related API: ***/ISAPI/Publish/capabilities***).
- The <**ID**> in the request URI refers to the terminal ID.

D.1.24 /ISAPI/Publish/TerminalMgr/terminals/<ID>/upgrade

Upgrade a specific terminal.

Request URI Definition

Table C-28 PUT /ISAPI/Publish/TerminalMgr/terminals/<ID>/upgrade

Method	PUT
Description	Upgrade a specific terminal.
Query	None.
Request	Opaque data
Response	***XML_ResponseStatus***

Remarks

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

D.1.25 /ISAPI/Publish/TerminalMgr/terminals/<ID>/upgradeStatus

Get terminal upgrade progress.

Request URI Definition

Table C-29 GET /ISAPI/Publish/TerminalMgr/terminals/<ID>/upgradeStatus

Method	GET
Description	Get terminal upgrade progress.
Query	None.
Request	None.
Response	Succeeded: ***XML_UpgradeTerminalStatus*** Failed: ***XML_ResponseStatus***

Remarks

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

D.1.26 /ISAPI/Publish/TerminalMgr/terminals/adbDebug/<ID>

Get or set the ADB debugging parameters of a specific terminal.

Request URI Definition

Table C-30 GET /ISAPI/Publish/TerminalMgr/terminals/adbDebug/<ID>

Method	GET
Description	Get the ADB debugging parameters of a specific terminal.
Query	None.
Request	None.
Response	Succeeded: ***XML_AdbDebug*** Failed: ***XML_ResponseStatus***

Table C-31 PUT /ISAPI/Publish/TerminalMgr/terminals/adbDebug/<ID>

Method	PUT
Description	Set the ADB debugging parameters of a specific terminal.
Query	None.
Request	***XML_AdbDebug***
Response	***XML_ResponseStatus***

Remarks

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

D.1.27 /ISAPI/Publish/TerminalMgr/terminals/adbDebug/<ID>/capabilities

Get the ADB debugging parameter capability of a specific terminal.

Request URI Definition

Table C-32 GET /ISAPI/Publish/TerminalMgr/terminals/adbDebug/<ID>/capabilities

Method	GET
Description	Get the ADB debugging parameter capability of a specific terminal.
Query	None.
Request	None.
Response	Succeeded: *XML_Cap_AdbDebug* Failed: *XML_ResponseStatus*

Remarks

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

D.1.28 /ISAPI/Publish/TerminalMgr/terminals/adbDebug/batch?format=json

Set the ADB debugging parameters of terminals in a batch.

Request URI Definition

Table C-33 PUT /ISAPI/Publish/TerminalMgr/terminals/adbDebug/batch?format=json

Method	PUT
Description	Set the ADB debugging parameters of terminals in a batch.
Query	None.
Request	*JSON_BatchAdbDebug*
Response	*JSON_ResponseStatus*

D.1.29 /ISAPI/Publish/TerminalMgr/terminals/addressCfg/<ID>

Get or set terminal IP address.

Request URI Definition

Table C-34 GET /ISAPI/Publish/TerminalMgr/terminals/addressCfg/<ID>

Method	GET
Description	Get the terminal IP address.
Query	None.
Request	None.
Response	Succeeded: ***XML_AddressCfg***
	Failed: ***XML_ResponseStatus***

Table C-35 PUT /ISAPI/Publish/TerminalMgr/terminals/addressCfg/<ID>

Method	PUT
Description	Set the terminal IP address.
Query	None.
Request	***XML_AddressCfg***
Response	***XML_ResponseStatus***

Remarks

The <**ID**> in the request ID refers to the terminal ID.

D.1.30 /ISAPI/Publish/TerminalMgr/terminals/addressCfg/<ID>/capabilities

Get the capabilities of parameters about terminal IP address configuration.

Request URI Definition

Table C-36 GET /ISAPI/Publish/TerminalMgr/terminals/addressCfg/<ID>/capabilities

Method	GET
Description	Get the capabilities of parameters about terminal IP address configuration.
Query	None.

Request	None.
Response	Succeeded: ***XML_Cap_AddressCfg***
	Failed: ***XML_ResponseStatus***

Remarks

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

D.1.31 /ISAPI/Publish/TerminalMgr/terminals/batchconfig

Set the specific terminal parameters in a batch.

Request URI Definition

Table C-37 PUT /ISAPI/Publish/TerminalMgr/terminals/batchconfig

Method	PUT
Description	Set the specific terminal parameters in a batch.
Query	None.
Request	***XML_BatchTerminalConfig***
Response	***XML_ResponseStatus***

D.1.32 /ISAPI/Publish/TerminalMgr/terminals/batchconfig/capabilities

Get the capabilities of specific parameters of all terminals.

Request URI Definition

Table C-38 GET /ISAPI/Publish/TerminalMgr/terminals/batchconfig/capabilities

Method	GET
Description	Get the capabilities of specific parameters of all terminals.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_BatchTerminalConfig***
	Failed: ***XML_ResponseStatus***

D.1.33 /ISAPI/Publish/TerminalMgr/terminals/batchProgress/capabilities? format=json

Get the capabilities of parameters about terminal releasing progress.

Request URI Definition

Table C-39 GET /ISAPI/Publish/TerminalMgr/terminals/batchProgress/capabilities?format=json

Method	GET
Description	Get the capabilities of parameters about terminal releasing progress.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: ***JSON_BatchProgressCap*** Failed: ***JSON_ResponseStatus***

D.1.34 /ISAPI/Publish/TerminalMgr/terminals/batchProgress?format=json

Search for the terminal release progress in a batch.

Request URI Definition

Table C-40 POST /ISAPI/Publish/TerminalMgr/terminals/batchProgress?format=json

Method	POST
Description	Search for the terminal release progress in a batch.
Query	**format**: determine the format of request or response message.
Request	***JSON_BatchProgressCond***
Response	***JSON_ResponseStatus***

D.1.35 /ISAPI/Publish/TerminalMgr/terminals/batchUpgradeProgress?format=json

Search for the terminal upgrade progress in a batch.

Request URI Definition

Table C-41 POST /ISAPI/Publish/TerminalMgr/terminals/batchUpgradeProgress?format=json

Method	POST
Description	Search for the terminal upgrade progress in a batch.
Query	**format**: determine the format of request or response message.
Request	*JSON_batchUpgradeProgressCond*
Response	Succeeded: *JSON_batchUpgradeProgress* Failed: *JSON_ResponseStatus*

D.1.36 /ISAPI/Publish/TerminalMgr/terminals/config/<ID>

Get or set specific parameters of a specific terminal.

Request URI Definition

Table C-42 GET /ISAPI/Publish/TerminalMgr/terminals/config/<ID>

Method	GET
Description	Get specific parameters of a specific terminal.
Query	None.
Request	None.
Response	Succeeded: *XML_TerminalConfig* Failed: *XML_ResponseStatus*

Table C-43 PUT /ISAPI/Publish/TerminalMgr/terminals/config/<ID>

Method	PUT
Description	Set specific parameters of a specific terminal.
Query	None.
Request	*XML_TerminalConfig*
Response	*XML_ResponseStatus*

Remarks

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

D.1.37 /ISAPI/Publish/TerminalMgr/terminals/config/<ID>/capabilities

Get the parameter capability of a specific terminal.

Request URI Definition

Table C-44 GET /ISAPI/Publish/TerminalMgr/terminals/config/<ID>/capabilities

Method	GET
Description	Get the parameter capability of a specific terminal.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_TerminalConfig*** Failed: ***XML_ResponseStatus***

Remarks

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

D.1.38 /ISAPI/Publish/TerminalMgr/terminals/control

Control terminals.

Request URI Definition

Table C-45 PUT /ISAPI/Publish/TerminalMgr/terminals/control

Method	PUT
Description	Control terminals.
Query	None.
Request	***XML_ControlParam***
Response	Succeeded: ***XML_ResponseStatus*** + <**ID**> (task ID, which will be returned when the operation type is cut-in). Failed: ***XML_ResponseStatus***

D.1.39 /ISAPI/Publish/TerminalMgr/terminals/control/capabilities

Get terminal control capability.

Request URI Definition

Table C-46 GET /ISAPI/Publish/TerminalMgr/terminals/control/capabilities

Method	GET
Description	Get terminal control capability.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_ControlParam*** Failed: ***XML_ResponseStatus***

D.1.40 /ISAPI/Publish/TerminalMgr/terminals/discovery

Set terminal SADP parameters.

Request URI Definition

Table C-47 PUT /ISAPI/Publish/TerminalMgr/terminals/discovery

Method	PUT
Description	Set terminal SADP parameters.
Query	None.
Request	***XML_DiscoveryModeCfg***
Response	***XML_ResponseStatus***

D.1.41 /ISAPI/Publish/TerminalMgr/terminals/discovery/<ID>

Get the SADP parameters of a specific terminal.

Request URI Definition

Table C-48 GET /ISAPI/Publish/TerminalMgr/terminals/discovery/<ID>

Method	GET
Description	Get the SADP parameters of a specific terminal.
Query	None.

Request	None.
Response	Succeeded: ***XML_DiscoveryMode***
	Failed: ***XML_ResponseStatus***

Remarks

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

D.1.42 /ISAPI/Publish/TerminalMgr/terminals/discovery/capabilities

Get terminal SADP configuration capability.

Request URI Definition

Table C-49 GET /ISAPI/Publish/TerminalMgr/terminals/discovery/capabilities

Method	GET
Description	Get terminal SADP configuration capability.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_DiscoveryMode***
	Failed: ***XML_ResponseStatus***

D.1.43 /ISAPI/Publish/TerminalMgr/terminals/moduleVersion/<ID>?format=json

Get the add-on information of a specific terminal.

Request URI Definition

Table C-50 GET /ISAPI/Publish/TerminalMgr/terminals/moduleVersion/<ID>?format=json

Method	GET
Description	Get the add-on information of a specific terminal.
Query	**format**: determine the format of request or response message.
Request	***JSON_AdditionModule***
Response	***JSON_ResponseStatus***

Remarks

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

D.1.44 /ISAPI/Publish/TerminalMgr/terminals/moduleVersion/capabilities? format=json

Get the configuration capability set of terminal add-on information.

Request URI Definition

Table C-51 GET /ISAPI/Publish/TerminalMgr/terminals/moduleVersion/capabilities?format=json

Method	GET
Description	Get the configuration capability set of terminal add-on information.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: ***JSON_AdditionModuleCap*** Failed: ***JSON_ResponseStatus***

D.1.45 /ISAPI/Publish/TerminalMgr/terminals/resolution/<ID>?format=json

Get the resolution of a specific terminal.

Request URI Definition

Table C-52 GET /ISAPI/Publish/TerminalMgr/terminals/resolution/<ID>?format=json

Method	GET
Description	Get the resolution of a specific terminal.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: ***JSON_TerminalResolution*** Failed: ***JSON_ResponseStatus***

Remarks

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

D.1.46 /ISAPI/Publish/TerminalMgr/terminals/resolution/capabilities?format=json

Get terminal resolution capability set.

Request URI Definition

Table C-53 GET /ISAPI/Publish/TerminalMgr/terminals/resolution/capabilities?format=json

Method	GET
Description	Get terminal resolution capability set.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: ***JSON_TerminalResolutionCap*** Failed: ***JSON_ResponseStatus***

D.1.47 /ISAPI/Publish/TerminalMgr/terminals/resolution?format=json

Set terminal resolution.

Request URI Definition

Table C-54 PUT /ISAPI/Publish/TerminalMgr/terminals/resolution?format=json

Method	PUT
Description	Set terminal resolution.
Query	**format**: determine the format of request or response message.
Request	***JSON_TerminalListResolution***
Response	***JSON_ResponseStatus***

D.1.48 /ISAPI/Publish/TerminalMgr/terminals/signInInterface?format=json

Get or set parameters of check-in page.

Request URI Definition

Table C-55 GET /ISAPI/Publish/TerminalMgr/terminals/signInInterface?format=json

Method	GET
Description	Get parameters of check-in page.
Query	**format**: determine the format of request or response message. **terminalNo**: int, terminal No., starts from 1.
Request	None
Response	Succeeded: ***JSON_SignInInterface*** Failed: ***JSON_ResponseStatus***

Table C-56 PUT /ISAPI/Publish/TerminalMgr/terminals/signInInterface?format=json

Method	PUT
Description	Set parameters of check-in page.
Query	**format**: determine the format of request or response message.
Request	***JSON_SignInInterface***
Response	***JSON_ResponseStatus***

D.1.49 /ISAPI/Publish/TerminalMgr/terminals/state/<ID>

Get the status of a specific terminal.

Request URI Definition

Table C-57 GET /ISAPI/Publish/TerminalMgr/terminals/state/<ID>

Method	GET
Description	Get the status of a specific terminal.
Query	None.
Request	None.
Response	Succeeded: ***XML_TerminalState*** Failed: ***XML_ResponseStatus***

Remarks

The <**ID**> in the request ID refers to the terminal ID.

D.1.50 /ISAPI/Publish/TerminalMgr/terminals/upgrade

Upgrade terminals.

Request URI Definition

Table C-58 POST /ISAPI/Publish/TerminalMgr/terminals/upgrade

Method	POST
Description	Upgrade terminals.
Query	None.
Request	*XML_TerminalUpgrade*
Response	*XML_ResponseStatus*

D.1.51 /ISAPI/Publish/TerminalMgr/terminalsBatchInfo

Set terminal parameters in a batch.

Request URI Definition

Table C-59 PUT /ISAPI/Publish/TerminalMgr/terminalsBatchInfo

Method	PUT
Description	Set terminal parameters in a batch.
Query	None.
Request	*XML_TerminalsBatchInfo*
Response	*XML_ResponseStatus*

D.1.52 /ISAPI/Publish/TerminalMgr/terminalsBatchInfo/capabilities

Get terminal batch configuration capability.

Request URI Definition

Table C-60 GET /ISAPI/Publish/TerminalMgr/terminalsBatchInfo/capabilities

Method	GET
Description	Get terminal batch configuration capability.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_TerminalsBatchInfo*** Failed: ***XML_ResponseStatus***

D.1.53 /ISAPI/Publish/TerminalMgr/terminalSearch

Search for terminals.

Request URI Definition

Table C-61 POST /ISAPI/Publish/TerminalMgr/terminalSearch

Method	POST
Description	Search for terminals.
Query	None.
Request	***XML_TerminalSearchDescription***
Response	Succeeded: ***XML_TerminalSearchResult*** Failed: ***XML_ResponseStatus***

D.1.54 /ISAPI/Publish/TerminalMgr/terminalSearch/profile

Get terminal search capability.

Request URI Definition

Table C-62 GET /ISAPI/Publish/TerminalMgr/terminalSearch/profile

Method	GET
Description	Get terminal search capability.
Query	None.

Request	None.
Response	Succeeded: ***XML_Cap_TerminalSearchProfile*** Failed: ***XML_ResponseStatus***

D.1.55 /ISAPI/Publish/TerminalMgr/timeZone

Set the time zone of terminals.

Request URI Definition

Table C-63 PUT /ISAPI/Publish/TerminalMgr/timeZone

Method	PUT
Description	Set the time zone of terminals.
Query	None.
Request	***XML_TerminalsTimeZone***
Response	***XML_ResponseStatus***

D.1.56 /ISAPI/Publish/TerminalMgr/timeZone/<ID>

Get time zone parameters of a specific terminal.

Request URI Definition

Table C-64 GET /ISAPI/Publish/TerminalMgr/timeZone/<ID>

Method	GET
Description	Get time zone parameters of a specific terminal.
Query	None.
Request	None.
Response	Succeeded: ***XML_SingleTimeZone*** Failed: ***XML_ResponseStatus***

Remarks

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

D.1.57 /ISAPI/Publish/TerminalMgr/timeZone/capabilities

Get the capability of terminal time zone configuration.

Request URI Definition

Table C-65 GET /ISAPI/Publish/TerminalMgr/timeZone/capabilities

Method	GET
Description	Get the capability of terminal time zone configuration.
Query	None.
Request	None.
Response	Succeeded: ***XML_TerminalsTimeZoneCap*** Failed: ***XML_ResponseStatus***

D.1.58 /ISAPI/Publish/TerminalMgr/volumePlanCfg

Set volume adjustment schedule.

Request URI Definition

Table C-66 PUT /ISAPI/Publish/TerminalMgr/volumePlanCfg

Method	PUT
Description	Set volume adjustment schedule.
Query	None.
Request	***XML_VolumePlanCfg***
Response	***XML_ResponseStatus***

D.1.59 /ISAPI/Publish/TerminalMgr/volumePlanCfg/<ID>/volumePlan

Get the volume adjustment schedule of a specific terminal.

Request URI Definition

Table C-67 GET /ISAPI/Publish/TerminalMgr/volumePlanCfg/<ID>/volumePlan

Method	GET
Description	Get the volume adjustment schedule of a specific terminal.
Query	None.
Request	None.
Response	Succeeded: ***XML_VolumePlan*** Failed: ***XML_ResponseStatus***

Remarks

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

D.1.60 /ISAPI/Publish/TerminalMgr/volumePlanCfg/capabilities

Get the capabilities of parameters about volume adjustment schedule.

Request URI Definition

Table C-68 GET /ISAPI/Publish/TerminalMgr/volumePlanCfg/capab

Method	GET
Description	Get the capabilities of parameters about volume adjustment schedule.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_VolumePlanCfg*** Failed: ***XML_ResponseStatus***

D.2 Organization-Related APIs

D.2.1 /ISAPI/Publish/orgMgr/organization

Get information of all organizations, or add new organizations.

Request URI Definition

Table C-69 GET /ISAPI/Publish/orgMgr/organization

Method	GET
Description	Get information of all organizations.
Query	None.
Request	None.
Response	Succeeded: ***XML_OrganizationList*** Failed: ***XML_ResponseStatus***

Table C-70 POST /ISAPI/Publish/orgMgr/organization

Method	POST
Description	Add new organizations.
Query	None.
Request	***XML_Organization***
Response	Succeeded: <**ID**> (organization ID) + ***XML_ResponseStatus*** Failed: ***XML_ResponseStatus***

Remarks

- No more than 5 levels of organization can be created; the name of the first level of organization is "center" by default, which is editable; the system has only admin users.
- After the current organization is deleted, all of its information is transferred to its parent organization.

D.2.2 /ISAPI/Publish/orgMgr/organization/<ID>

Get, set, or delete a specific organization.

Request URI Definition

Table C-71 GET /ISAPI/Publish/orgMgr/organization/<ID>

Method	GET
Description	Get a specific organization.
Query	None.

Request	None.
Response	Succeeded: ***XML_Organization***
	Failed: ***XML_ResponseStatus***

Table C-72 PUT /ISAPI/Publish/orgMgr/organization/<ID>

Method	PUT
Description	Set a specific organization.
Query	None.
Request	***XML_Organization***
Response	***XML_ResponseStatus***

Table C-73 DELETE /ISAPI/Publish/orgMgr/organization/<ID>

Method	DELETE
Description	Delete a specific organization.
Query	None.
Request	None.
Response	***XML_ResponseStatus***

Remarks

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

D.2.3 /ISAPI/Publish/orgMgr/organization/<ID>/capabilities

Get the capability of organization management parameters.

Request URI Definition

Table C-74 GET /ISAPI/Publish/orgMgr/organization/<ID>/capabilities

Method	GET
Description	Get the capability of organization management parameters.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_Organization***

	Failed: *XML_ResponseStatus*

Remarks

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

D.2.4 /ISAPI/Publish/orgMgr/organization/delBatch

Delete organizations in a batch.

Request URI Definition

Table C-75 PUT /ISAPI/Publish/orgMgr/organization/delBatch

Method	PUT
Description	Delete organizations in a batch.
Query	None.
Request	*XML_OrganizationList*
Response	*XML_ResponseStatus*

D.3 User-Related APIs

D.3.1 /ISAPI/Security/capabilities

Get the security capability of the device.

Request URI Definition

Table C-76 GET /ISAPI/Security/capabilities

Method	GET
Description	Get the security capability of the device.
Query	**username**: user name, string, it should be encrypted.
Request	None.
Response	Succeeded: *XML_SecurityCap* Failed: *XML_ResponseStatus*

D.3.2 /ISAPI/Security/users

Get, set, or delete information of all users; add a new user.

Request URI Definition

Table C-77 GET /ISAPI/Security/users

Method	GET
Description	Get information of all users.
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. **iv**: the initialization vector, and it is required when **security** is 1 or 2.
Request	None
Response	Succeeded: ***XML_UserList*** Failed: ***XML_ResponseStatus***

Table C-78 PUT /ISAPI/Security/users

Method	PUT
Description	Set information of all users。
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. **iv**: the initialization vector, and it is required when **security** is 1 or 2.
Request	***XML_UserList***
Response	***XML_ResponseStatus***

Table C-79 DELETE /ISAPI/Security/users

Method	DELETE
Description	Delete information of all users.
Query	None
Request	None
Response	**_XML_ResponseStatus_**

Table C-80 POST /ISAPI/Security/users

Method	POST
Description	Add a user。
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. **iv**: the initialization vector, and it is required when **security** is 1 or 2.
Request	**_XML_User_**
Response	**_XML_ResponseStatus_**

Remarks

- A default account "admin" must be provided with the administrator permission and it cannot be deleted.
- Passwords can only be uploaded and cannot be displayed when getting the user list of the device.
- The user ID should be returned when adding users to the user list.

Example

Sample Code for Adding User

```
POST /ISAPI/Security/users HTTP/1.1
Host: 10.17.132.49
Content-Length: 335
Connection: Keep-Alive
Authorization: Digest username="admin",
realm="DS-2CD2F12FWD-IWS",
nonce="4e6a4d774d6a63304f544936593255335a474d334f54673d",
uri="/ISAPI/Security/users",
cnonce="178e14d4977c835db891b5392b5d0a67",
nc=00000015,
```

```
response="d92518fb00cd2772cf212f5326b251be",
qop="auth"

<?xml version="1.0" encoding="UTF-8"?>
<User>
 <id>0</id>
 <userName>test</userName>
 <password>1qaz2wsx</password>
 <bondIpList>
  <bondIp>
   <id>1</id>
   <ipAddress>0.0.0.0</ipAddress>
   <ipv6Address>::</ipv6Address>
  </bondIp>
 </bondIpList>
 <macAddress></macAddress>
 <userLevel>Operator</userLevel>
 <attribute>
  <inherent>false</inherent>
 </attribute>
</User>

HTTP/1.1 200 OK
Date: Tue, 14 Mar 2017 20:24:31 GMT
Server: App-webs/
Connection: close
Content-Length: 288
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8"?>
<ResponseStatus version="2.0" xmlns="http://www.isapi.com/ver20/XMLSchema">
 <requestURL>/ISAPI/Security/users</requestURL>
 <statusCode>1</statusCode>
 <statusString>OK</statusString>
 <id>2</id>
 <subStatusCode>ok</subStatusCode>
</ResponseStatus>
```

Example

Sample Code for Setting User Permission

```
PUT /ISAPI/Security/UserPermission/2 HTTP/1.1
Host: 10.17.132.49
Content-Length: 891
Connection: Keep-Alive
Authorization: Digest username="admin",
realm="DS-2CD2F12FWD-IWS",
nonce="4e6a4d774d6a63304f544936593255335a474d334f54673d",
uri="/ISAPI/Security/UserPermission/2",
cnonce="178e14d4977c835db891b5392b5d0a67",
nc=00000016,
response="f69a20db00b36e9bb46c26c06e9bae80",
```

```
qop="auth"

<?xml version="1.0" encoding="utf-8"?>
<UserPermission>
 <id>2</id>
 <userID>2</userID>
 <userType>operator</userType>
 <remotePermission>
  <parameterConfig>false</parameterConfig>
  <logOrStateCheck>true</logOrStateCheck>
  <upgrade>false</upgrade>
  <voiceTalk>true</voiceTalk>
  <restartOrShutdown>false</restartOrShutdown>
  <alarmOutOrUpload>false</alarmOutOrUpload>
  <contorlLocalOut>false</contorlLocalOut>
  <transParentChannel>false</transParentChannel>
  <preview>true</preview>
  <record>true</record>
  <ptzControl>true</ptzControl>
  <playBack>true</playBack>
  <videoChannelPermissionList>
   <videoChannelPermission>
    <id>1</id>
    <preview>true</preview>
    <record>true</record>
    <playBack>true</playBack>
   </videoChannelPermission>
  </videoChannelPermissionList>
  <ptzChannelPermissionList>
   <ptzChannelPermission>
    <id>1</id>
    <ptzControl>true</ptzControl>
   </ptzChannelPermission>
  </ptzChannelPermissionList>
 </remotePermission>
</UserPermission>

HTTP/1.1 200 OK
Date: Tue, 14 Mar 2017 20:24:31 GMT
Server: App-webs/
Connection: close
Content-Length: 288
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8"?>
<ResponseStatus version="2.0" xmlns="http://www.isapi.com/ver20/XMLSchema">
 <requestURL>/ISAPI/Security/UserPermission/2</requestURL>
 <statusCode>1</statusCode>
 <statusString>OK</statusString>
 <subStatusCode>ok</subStatusCode>
</ResponseStatus>
```

D.3.3 /ISAPI/Security/users/<ID>

Get, set, or delete information of a specific user.

Request URI Definition

Table C-81 GET /ISAPI/Security/users/<ID>

Method	GET
Description	Get a specific user's configuration of the device.
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. **iv**: the initialization vector, and it is required when **security** is 1 or 2.
Request	None.
Response	Succeeded: ***XML_User*** Failed: ***XML_ResponseStatus***

Table C-82 PUT /ISAPI/Security/users/<ID>

Method	PUT
Description	Get information of a specific user.
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. **iv**: the initialization vector, and it is required when **security** is 1 or 2.
Request	***XML_User***
Response	***XML_ResponseStatus***

Table C-83 DELETE /ISAPI/Security/users/<ID>

Method	DELETE
Description	Delete information of a specific user.
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. **iv**: the initialization vector, and it is required when **security** is 1 or 2. **loginPassword**: encrypted administrator password.
Request	None
Response	*__XML_ResponseStatus__*

Remarks

- The <**ID**> in the request URI refer to user ID.
- The administrator account cannot be deleted.

D.3.4 /ISAPI/Security/users/<ID>/capabilities

Get the configuration capability of a specific user.

Request URI Definition

Table C-84 GET /ISAPI/Security/users/<ID>/capabilities

Method	GET
Description	Get the configuration capability of a specific user.
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.**iv**: the initialization vector, and it is required when **security** is 1 or 2.
Request	None.
Response	Succeeded: *__XML_Cap_User__*

	Failed: ***XML_ResponseStatus***

Remarks

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

D.3.5 /ISAPI/Security/users/search?format=json

Search for users.

Request URI Definition

Table C-85 POST /ISAPI/Security/users/search?format=json

Method	POST
Description	Search for users.
Query	**format**: determine the format of request or response message.
Request	***JSON_UserSearchCond***
Response	Succeeded: ***JSON_UserSearchResult*** Failed: ***JSON_ResponseStatus***

D.3.6 /ISAPI/Security/UserPermission/<ID>/remotePermission

Get and set the remote permission of a specified user.

Request URI Definition

Table C-86 GET /ISAPI/Security/UserPermission/<ID>/remotePermission

Method	GET
Description	Get the remote permission of a specified user.
Query	None.
Request	None.
Response	***XML_remotePermission***

Table C-87 PUT /ISAPI/Security/UserPermission/<ID>/remotePermission

Method	PUT
Description	Set the remote permission of a specified user.
Query	None.
Request	***XML_remotePermission***
Response	***XML_ResponseStatus***

D.3.7 /ISAPI/Security/UserPermission/<ID>/remotePermission/capabilities

Get user remote permission capability.

Request URI Definition

Table C-88 GET /ISAPI/Security/UserPermission/<ID>/remotePermission/capabilities

Method	GET
Description	Get user remote permission capability.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_RemotePermission*** Failed: ***XML_ResponseStatus***

Remarks

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

D.3.8 /ISAPI/Security/UserPermission/remotePermission

Get and set remote permissions of all users.

Request URI Definition

Table C-89 GET /ISAPI/Security/UserPermission/remotePermission

Method	GET
Description	Get remote permissions of all users.
Query	None.

Request	None.
Response	Succeeded: ***XML_PermissionList*** Failed: ***XML_ResponseStatus***

D.4 Material-Related APIs

D.4.1 /ISAPI/Publish/material/<ID>/capabilities

Get the capability of material management parameters.

Request URI Definition

Table C-90 GET /ISAPI/Publish/material/<ID>/capabilities

Method	GET
Description	Get the capability of material management parameters.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_Material*** Failed: ***XML_ResponseStatus***

Remarks

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

D.4.2 /ISAPI/Publish/MaterialMgr/material

Get information of all materials, or add a material.

Request URI Definition

Table C-91 GET /ISAPI/Publish/MaterialMgr/material

Method	GET
Description	Get information of all materials.
Query	None.

Request	None.
Response	Succeeded: ***XML_MaterialList*** Failed: ***XML_ResponseStatus***

Table C-92 POST /ISAPI/Publish/MaterialMgr/material

Method	POST
Description	Add a material.
Query	None.
Request	***XML_Material***
Response	Succeeded: **<ID>** (material ID) + ***XML_ResponseStatus*** Failed: ***XML_ResponseStatus***

D.4.3 /ISAPI/Publish/MaterialMgr/material/<ID>

Get, set,or delete a specific material.

Request URI Definition

Table C-93 GET /ISAPI/Publish/MaterialMgr/material/<ID>

Method	GET
Description	Get information of a specific material.
Query	None.
Request	None.
Response	Succeeded: ***XML_Material*** Failed: ***XML_ResponseStatus***

Table C-94 PUT /ISAPI/Publish/MaterialMgr/material/<ID>

Method	PUT
Description	Set information of a specific material.
Query	None.
Request	***XML_Material***
Response	***XML_ResponseStatus***

Table C-95 DELETE /ISAPI/Publish/MaterialMgr/material/<ID>

Method	DELETE
Description	Delete a specific material.
Query	None.
Request	None.
Response	***XML_ResponseStatus***

Remarks

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

D.4.4 /ISAPI/Publish/MaterialMgr/material/<ID>/download

Download local materials.

Request URI Definition

Table C-96 GET /ISAPI/Publish/MaterialMgr/material/<ID>/download

Method	GET
Description	Download local materials.
Query	None
Request	None
Response	Succeeded: material data Failed: ***XML_ResponseStatus***

Remarks

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

D.4.5 /ISAPI/Publish/MaterialMgr/material/<ID>/thumbnail/download? format=json

Download material thumbnails.

Request URI Definition

Table C-97 GET /ISAPI/Publish/MaterialMgr/material/<ID>/thumbnail/download?format=json

Method	GET
Description	Download material thumbnails.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: Material thumbnails (binary picture data) Failed: ***JSON_ResponseStatus***

Remarks

- The <**ID**> in the request URI refers to the material ID.
- The material thumbnail is generated by the server and can be uploaded from the server.

D.4.6 /ISAPI/Publish/MaterialMgr/materialBatchInfo

Set materials in a batch.

Request URI Definition

Table C-98 PUT /ISAPI/Publish/MaterialMgr/materialBatchInfo

Method	PUT
Description	Set materials in a batch.
Query	None.
Request	***XML_MaterialBatchInfo***
Response	***XML_ResponseStatus***

Remarks

Only support editing the shared property, description, or approval status of the material in a batch.

D.4.7 /ISAPI/Publish/MaterialMgr/materialBatchInfo/capabilities

Get the capability of material batch configuration.

Request URI Definition

Table C-99 GET /ISAPI/Publish/MaterialMgr/materialBatchInfo/capabilities

Method	GET
Description	Get the capability of material batch configuration.
Query	None.
Request	None.
Response	Succeeded: *XML_Cap_MaterialBatchInfo* Failed: *XML_ResponseStatus*

D.4.8 /ISAPI/Publish/MaterialMgr/materialMoreSearch

Search for materials by multiple conditions.

Request URI Definition

Table C-100 POST /ISAPI/Publish/MaterialMgr/materialMoreSearch

Method	POST
Description	Search for materials by multiple conditions.
Query	None.
Request	*XML_MaterialMoreSearchDescription*
Response	Succeeded: *XML_MaterialSearchResult* Failed: *XML_ResponseStatus*

D.4.9 /ISAPI/Publish/MaterialMgr/materialSearch/profile

Get the capability of material search parameters.

Request URI Definition

Table C-101 GET /ISAPI/Publish/MaterialMgr/materialSearch/profile

Method	GET
Description	Get the capability of material search parameters.
Query	None.

Request	None.
Response	Succeeded: ***XML_Cap_MaterialSearchProfile*** Failed: ***XML_ResponseStatus***

D.5 Program-Related APIs

D.5.1 /ISAPI/Publish/ProgramMgr/capabilities?format=json

Get the program management capability set.

Request URI Definition

Table C-102 GET /ISAPI/Publish/ProgramMgr/capabilities?format=json

Method	GET
Description	Get the program management capability set.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: ***JSON_ProgramMgrCap*** Failed: ***JSON_ResponseStatus***

D.5.2 /ISAPI/Publish/ProgramMgr/program

Get all programs' parameters or add a new program.

Request URI Definition

Table C-103 GET /ISAPI/Publish/ProgramMgr/program

Method	GET
Description	Get all programs' parameters.
Query	None.
Request	None.
Response	Succeeded: ***XML_ProgramList*** Failed: ***XML_ResponseStatus***

Table C-104 POST /ISAPI/Publish/ProgramMgr/program

Method	POST
Description	Add a new program.
Query	None.
Request	***XML_Program***
Response	Succeeded: <**ID**> (program ID) + ***XML_ResponseStatus*** Failed: ***XML_ResponseStatus***

D.5.3 /ISAPI/Publish/ProgramMgr/programMoreSearch

Search for programs by multiple conditions.

Request URI Definition

Table C-105 POST /ISAPI/Publish/ProgramMgr/programMoreSearch

Method	POST
Description	Search for programs by multiple conditions.
Query	None.
Request	***XML_ProgramMoreSearchDescription***
Response	Succeeded: ***XML_ProgramSearchResult*** Failed: ***XML_ResponseStatus***

D.5.4 /ISAPI/Publish/ProgramMgr/program/<ID>

Get, set or delete a specific program.

Request URI Definition

Table C-106 GET /ISAPI/Publish/ProgramMgr/program/<ID>

Method	GET
Description	Get a specific program.
Query	None.

Request	None.
Response	Succeeded: ***XML_Program*** Failed: ***XML_ResponseStatus***

Table C-107 PUT /ISAPI/Publish/ProgramMgr/program/<ID>

Method	PUT
Description	Set a specific program.
Query	None.
Request	***XML_Program***
Response	***XML_ResponseStatus***

Table C-108 DELETE /ISAPI/Publish/ProgramMgr/program/<ID>

Method	DELETE
Description	Delete a specific program.
Query	None.
Request	None.
Response	***XML_ResponseStatus***

Remarks

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

D.5.5 /ISAPI/Publish/ProgramMgr/program/<ID>/capabilities

Get program parameter capabilities.

Request URI Definition

Table C-109 GET /ISAPI/Publish/ProgramMgr/program/<ID>/capabilities

Method	GET
Description	Get program parameter capabilities.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_Program***

	Failed: ***XML_ResponseStatus***

Remarks

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

D.5.6 /ISAPI/Publish/ProgramMgr/program/<ID>/page

Get information of all pages, or create a new page.

Request URI Definition

Table C-110 GET /ISAPI/Publish/ProgramMgr/program/<ID>/page

Method	GET
Description	Get information of all pages.
Query	None.
Request	None.
Response	Succeeded: ***XML_PageList*** Failed: ***XML_ResponseStatus***

Table C-111 POST /ISAPI/Publish/ProgramMgr/program/<ID>/page

Method	POST
Description	Create a new page.
Query	None.
Request	***XML_Page***
Response	***XML_ResponseStatus***

Remarks

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

D.5.7 /ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>

Get, edit, or delete a page.

Request URI Definition

Table C-112 GET /ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>

Method	GET
Description	Get a specific page of a specific program.
Query	None.
Request	None.
Response	Succeeded: **_XML_Page_** Failed: **_XML_ResponseStatus_**

Table C-113 PUT /ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>

Method	PUT
Description	Edit the information of a page.
Query	None.
Request	**_XML_Page_**
Response	**_XML_ResponseStatus_**

Table C-114 DELETE /ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>

Method	DELETE
Description	Delete a page.
Query	None.
Request	None.
Response	**_XML_ResponseStatus_**

Remarks

The first <**ID**> in the request URI refers to the program ID, and the second one refers to the page ID.

D.5.8 /ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>/capabilities

Get the page configuration capability.

Request URI Definition

Table C-115 GET /ISAPI/Publish/ProgramMgr/program/<ID>/page/<ID>/capabilities

Method	GET
Description	Get the page configuration capability.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_Page*** Failed: ***XML_ResponseStatus***

Remarks

The first **<ID>** in the request URI refers to the program ID, and the second one refers to the page ID.

D.5.9 /ISAPI/Publish/ProgramMgr/program/<ID>/thumbnail/download?format=json

Download program thumbnails.

Request URI Definition

Table C-116 GET /ISAPI/Publish/ProgramMgr/program/<ID>/thumbnail/download?format=json

Method	GET
Description	Download program thumbnails.
Query	**format**: determine the format of request or response message.
Request	None.
Response	***JSON_ResponseStatus***

Remarks

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

D.5.10 /ISAPI/Publish/ProgramMgr/program/<ID>/thumbnail/upload?format=json

Upload program thumbnails.

Request URI Definition

Table C-117 PUT /ISAPI/Publish/ProgramMgr/program/<ID>/thumbnail/upload?format=json

Method	PUT
Description	Upload program thumbnails.
Query	**format**: determine the format of request or response message.
Request	Opaque data
Response	*JSON_ResponseStatus*

Remarks

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

D.5.11 /ISAPI/Publish/ProgramMgr/program/dynamicCap

Get program dynamic capability.

Request URI Definition

Table C-118 GET /ISAPI/Publish/ProgramMgr/program/dynamicCap

Method	GET
Description	Get program dynamic capability.
Query	None.
Request	None.
Response	Succeeded: *XML_ProgramDynamicCap* Failed: *XML_ResponseStatus*

D.5.12 /ISAPI/Publish/ProgramMgr/program/page/windows/dynamicCap

Get the dynamic capability of a page.

Request URI Definition

Table C-119 GET /ISAPI/Publish/ProgramMgr/program/page/windows/dynamicCap

Method	GET
Description	Get the dynamic capability of a page.
Query	None.
Request	None.
Response	Succeeded: ***XML_WinDynamicCap*** Failed: ***XML_ResponseStatus***

D.5.13 /ISAPI/Publish/ProgramMgr/program/page/windows/touch/capabilities

Get the material capability of touch windows.

Request URI Definition

Table C-120 GET /ISAPI/Publish/ProgramMgr/program/page/windows/touch/capabilities

Method	GET
Description	Get the material capability of touch windows.
Query	None.
Request	None.
Response	Succeeded: ***XML_TouchWidMatarial*** Failed: ***XML_ResponseStatus***

D.5.14 /ISAPI/Publish/ProgramMgr/programBatchInfo

Edit program information in a batch.

Request URI Definition

Table C-121 PUT /ISAPI/Publish/ProgramMgr/programBatchInfo

Method	PUT
Description	Edit program information in a batch.
Query	None.

Request	*XML_ProgramBatchInfo*
Response	*XML_ResponseStatus*

Remarks

Only support editing the shared property, description, approval status or approval remarks of a program in a batch.

D.5.15 /ISAPI/Publish/ProgramMgr/programBatchInfo/capabilities

Get the capability of program batch configuration.

Request URI Definition

Table C-122 GET /ISAPI/Publish/ProgramMgr/programBatchInfo/capabilities

Method	GET
Description	Get the capability of program batch configuration.
Query	None.
Request	None.
Response	Succeeded: *XML_Cap_ProgramBatchInfo* Failed: *XML_ResponseStatus*

D.5.16 /ISAPI/Publish/ProgramMgr/programSearch/profile

Get program search capability.

Request URI Definition

Table C-123 GET /ISAPI/Publish/ProgramMgr/programSearch/profile

Method	GET
Description	Get program search capability.
Query	None.
Request	None.
Response	Succeeded: *XML_Cap_ProgramSearchProfile* Failed: *XML_ResponseStatus*

D.6 Schedule-Related APIs

D.6.1 /ISAPI/Publish/ScheduleMgr/capabilities?format=json

Get the schedule management capability set.

Request URI Definition

Table C-124 GET /ISAPI/Publish/ScheduleMgr/capabilities?format=json

Method	GET
Description	Get the schedule management capability set.
Query	**format**: determine the format of request or response message.
Request	None.
Response	Succeeded: ***JSON_ScheduleMgrCap*** Failed: ***JSON_ResponseStatus***

D.6.2 /ISAPI/Publish/ScheduleMgr/planSearch/profile

Get the capability of parameter about searching for program schedules.

Request URI Definition

Table C-125 GET /ISAPI/Publish/ScheduleMgr/planSearch/profile

Method	GET
Description	Get the capability of parameter about searching for program schedules.
Query	None.
Request	None.
Response	Succeeded: ***XML_Cap_PlanSearchProfile*** Failed: ***XML_ResponseStatus***

D.6.3 /ISAPI/Publish/ScheduleMgr/playSchedule

Add a new program schedule, or get all program schedules.

Request URI Definition

Table C-126 POST /ISAPI/Publish/ScheduleMgr/playSchedule

Method	POST
Description	Add a new program schedule.
Query	None.
Request	***XML_PlaySchedule***
Response	Succeeded: <**ID**> (program schedule ID) + ***XML_ResponseStatus*** Failed: ***XML_ResponseStatus***

Table C-127 GET /ISAPI/Publish/ScheduleMgr/playSchedule

Method	GET
Description	Get all program schedules.
Query	None.
Request	None.
Response	Succeeded: ***XML_PlayScheduleList*** Failed: ***XML_ResponseStatus***

D.6.4 /ISAPI/Publish/ScheduleMgr/playSchedule/<ID>

Get, set, or delete a specific program schedule.

Request URI Definition

Table C-128 GET /ISAPI/Publish/ScheduleMgr/playSchedule/<ID>

Method	GET
Description	Get a specific program schedule.
Query	None.
Request	None.
Response	Succeeded: ***XML_PlaySchedule*** Failed: ***XML_ResponseStatus***

Table C-129 PUT /ISAPI/Publish/ScheduleMgr/playSchedule/<ID>

Method	PUT
Description	Set a specific program schedule.
Query	None.
Request	*XML_PlaySchedule*
Response	*XML_ResponseStatus*

Table C-130 DELETE /ISAPI/Publish/ScheduleMgr/playSchedule/<ID>

Method	DELETE
Description	Delete a specific program schedule.
Query	None.
Request	None.
Response	*XML_ResponseStatus*

D.6.5 /ISAPI/Publish/ScheduleMgr/playSchedule/<ID>/capabilities

Get the program schedule configuration capability.

Request URI Definition

Table C-131 GET /ISAPI/Publish/ScheduleMgr/playSchedule/<ID>/capabilities

Method	GET
Description	Get the program schedule configuration capability.
Query	None.
Request	None.
Response	Succeeded: *XML_Cap_PlaySchedule* Failed: *XML_ResponseStatus*

Remarks

The <ID> in the request URI refers to the program schedule ID.

D.6.6 /ISAPI/Publish/ScheduleMgr/playSchedule/batchDelete

Delete program schedules in a batch.

Request URI Definition

Table C-132 PUT /ISAPI/Publish/ScheduleMgr/playSchedule/batchDelete

Method	PUT
Description	Delete program schedules in a batch.
Query	None.
Request	***XML_PlayScheduleIdList***
Response	***XML_ResponseStatus***

D.6.7 /ISAPI/Publish/ScheduleMgr/playSchedule/status

Get the progress of the program schedule release.

Request URI Definition

Table C-133 POST /ISAPI/Publish/ScheduleMgr/playSchedule/status

Method	POST
Description	Get the progress of the program schedule release.
Query	None.
Request	***XML_ProgressCond***
Response	Succeeded: ***XML_ProgressStatus*** Failed: ***XML_ResponseStatus***

D.6.8 /ISAPI/Publish/ScheduleMgr/playScheduleBatchInfo

Edit program schedules in a batch.

Request URI Definition

Table C-134 PUT /ISAPI/Publish/ScheduleMgr/playScheduleBatchInfo

Method	PUT
Description	Edit program schedules in a batch.
Query	None.
Request	*XML_PlayScheduleBatchInfo*
Response	*XML_ResponseStatus*

Remarks

Only support editing the shared property, description, approval status or approval remarks of a program schedule in a batch.

D.6.9 /ISAPI/Publish/ScheduleMgr/playScheduleBatchInfo/capabilities

Get the capability of program schedule batch configuration.

Request URI Definition

Table C-135 GET /ISAPI/Publish/ScheduleMgr/playScheduleBatchInfo/capabilities

Method	GET
Description	Get the capability of program schedule batch configuration.
Query	None.
Request	None.
Response	Succeeded: *XML_Cap_PlayScheduleBatchInfo* Failed: *XML_ResponseStatus*

D.6.10 /ISAPI/Publish/ScheduleMgr/release

Release program schedules.

Request URI Definition

<p align="center">Table C-136 PUT /ISAPI/Publish/ScheduleMgr/release</p>

Method	PUT
Description	Release program schedules.
Query	None.
Request	*XML_ScheduleRelease*
Response	Succeeded: <**ID**> (task ID) + *XML_ResponseStatus* Failed: *XML_ResponseStatus*

D.6.11 /ISAPI/Publish/ScheduleMgr/release/cancel

Cancel the program schedule release.

Request URI Definition

<p align="center">Table C-137 PUT /ISAPI/Publish/ScheduleMgr/release/cancel</p>

Method	PUT
Description	Cancel the program schedule release.
Query	None.
Request	*XML_ScheduleRelease*
Response	*XML_ResponseStatus*

D.6.12 /ISAPI/Publish/ScheduleMgr/release/capabilities

Get the capability of program schedule release.

Request URI Definition

<p align="center">Table C-138 GET /ISAPI/Publish/ScheduleMgr/release/capabilities</p>

Method	GET
Description	Get the capability of program schedule release.
Query	None.

Request	None.
Response	Succeeded: ***XML_Cap_ScheduleRelease***
	Failed: ***XML_ResponseStatus***

D.6.13 /ISAPI/Publish/ScheduleMgr/releaseTerminals/capabilities

Get the terminal matching capability of program schedules, to determine what type of terminal the schedule can be released to.

Request URI Definition

Table C-139 GET /ISAPI/Publish/ScheduleMgr/releaseTerminals/capabilities

Method	GET
Description	Get the terminal matching capability of program schedules.
Query	None.
Request	None.
Response	Succeeded: ***XML_ScheduleMatchTerminal***
	Failed: ***XML_ResponseStatus***

D.6.14 /ISAPI/Publish/ScheduleMgr/scheduleMoreSearch

Search for program schedules.

Request URI Definition

Table C-140 POST /ISAPI/Publish/MaterialMgr/materialBatchInfo

Method	POST
Description	Search for program schedules.
Query	None.
Request	***XML_ScheduleMoreSearchDescription***
Response	Succeeded: ***XML_ScheduleSearchResult***
	Failed: ***XML_ResponseStatus***

D.6.15 /ISAPI/Publish/ScheduleMgr/schedulePlan/<ID>/search?format=json

Search for schedules to be released.

Request URI Definition

Table C-141 POST /ISAPI/Publish/ScheduleMgr/schedulePlan/<ID>/search?format=json

Method	POST
Description	Search for schedules to be released.
Query	**format**: determine the format of request or response message.
Request	***JSON_SchedulePlanStateCond***
Response	Succeeded: ***JSON_SchedulePlanStateResult*** Failed: ***JSON_ResponseStatus***

Remarks

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

D.6.16 /ISAPI/Publish/ScheduleMgr/schedulePlanSearch

Search for program schedules.

Request URI Definition

Table C-142 POST /ISAPI/Publish/ScheduleMgr/schedulePlanSearch

Method	POST
Description	Search for program schedules.
Query	None.
Request	***XML_PlanSearchDescription***
Response	Succeeded: ***XML_PlanSearchResult*** Failed: ***XML_ResponseStatus***

D.7 Other APIs

D.7.1 /ISAPI/Publish/capabilities

Get information release capabilities to see the functions supported by the system.

Request URI Definition

Table C-143 GET /ISAPI/Publish/capabilities

Method	GET
Description	Get information release capabilities to see the functions supported by the system.
Query	None.
Request	None.
Response	Succeeded: ***XML_PublishServerCap*** Failed: ***XML_ResponseStatus***

Appendix E. Request and Response Messages

E.1 JSON_AdditionModule

JSON message about terminal add-on information

```
{
  "AdditionModule": {
    "id": ,
/*optional, terminal ID, which is the same as the ID in the request URI*/
    "ModuleInfoList": [{
/*optional, string, add-on information list*/
      "ModuleInfo": {
/*required, string, add-on information*/
        "id": ,
/*required, int, module ID, 1-there is only one module*/
        "moduleType": "",
/*required, string, add-on type: "sadp"-SADP component, "sdk"-SDK component*/
        "version":"",
/*required, string, add-on version No., format: sadpV1.2build180207, sdkV1.2build180208*/
        "moduleUpdate":
/*optional, boolean, whether the add-ons supports upgrade: "true"-yes, "false"-no*/
      }
    }]
  }
}
```

E.2 JSON_AdditionModuleCap

JSON message about terminal add-on parameters

```
{
  "AdditionModuleCap": {
    "id":{
      "@min": "",
      "@max": ""
    },
/*required, int, ID range*/
    "ModuleInfoList": {
/*optional, string,  add-on information list*/
      "ModuleInfo": {
/*required, string, add-on information*/
        "id":{
          "@min": "",
          "@max": ""
        },
/*required, int, module ID*/
```

```
    "moduleType": {
     "@opt": ["sadp","sdk"]
    },
/*required, string, add-on type: "sadp"-SADP component, "sdk"-SDK component*/
    "version": {
     "@min": "",
     "@max": ""
    },
/*required, string, add-on version No.*/
    "moduleUpdate": {
     "@opt": ["true","false"]
    }
/*optional, boolean, whether the add-on supports upgrade: "true"-yes, "false"-no*/
   }
  },
  "method": {
   "@opt": ["get"]
  }
/*string, supported operation type: "get"-get single*/
 }
}
```

E.3 JSON_BatchAdbDebug

JSON message about terminal ADB debugging parameters

```
{
 "BatchAdbDebug": {
  "type": "",
/*optional, string, configuration method: "byTerminal"-by terminal, "byOrg"-by organization*/
  "terminalNoList":,
/*optional, array, terminal ID list*/,
  "orgNoList":,
/*optional, array, organization ID list*/
  "enable": ,
/*required, boolean, whether to enable*/
  "secretKey": ""
/*required, string, secret key, write-only*/
 }
}
```

E.4 JSON_BatchProgressCap

JSON message about capability of terminal release progress parameters

```
{
 "BatchProgressCap": {
  "targetType": {
   "@opt": [ "byTerminal", "byOrg" ]
```

```
  },
/*optional, string, search mode: "byTerminal"-by terminal, "byOrg"-by organization*/
   "progressType": {
    "@opt": [ "release", "insert" ]
   },
/*optional, string, progress type: "release"-release progress, "insert"-cut-in progress*/
   "terminalNoList": {
    "@min": 1,
    "@max": 1000
   },
/*optional, array, terminal ID list, this field is required only when targetType (search method) is "byTerminal"*/
   "orgIdList": {
    "@min": 1,
    "@max": 1024
   },
/*optional, array, organization ID list, this field is required only when targetType (search method) is "byOrg"*/
   "releaseStatus": {
    "@opt": [ "release", "failed", "success"," cancel"," notRelease"  ]
   },
/*optional, string, release status: "release"-releasing, failed, "success"-succeeded, "notRelease"-not released,
"cancel"-canceled*/
   "percent": {
    "@min": 1,
    "@max": 100
   },
/*optional, int, progress, this field is required only when releaseStatus is "release"*/
   "failedReason": {
    "@min": 4,
    "@max": 128
   },
/*optional, string, failure reason, this field is valid only when releaseStatus is "release"*/
   "planId":{
/*required, int, release schedule ID*/
    "@min":1,
    "@max":1024
   }
  }
}
```

E.5 JSON_BatchProgressCond

JSON message about parameters of terminal release progress

```
{
 "BatchProgressCond": {
   "targetType": "",
/*optional, string, search mode: "byTerminal"-by terminal, "byOrg"-by organization*/
   "progressType": "",
/*optional, string, progress type: "release"-release progress, "insert"-cut-in progress*/
   "terminalNoList":,
```

```
/*optional, array, terminal ID list, this field is required only when targetType (searching method) is "byTerminal"*/
   "orgIdList": ,
/*optional, array, organization ID list, this field is required only when targetType (searching method) is "byOrg"*/
   "planId":
/*required, int, release schedule ID*/
  }
}
```

E.6 JSON_batchUpgradeProgress

JSON message about terminal upgrade progress

```
{
  " batchUpgradeProgress": {
   "UpgradeTerminalList": [
    {
      "UpgradeTerminal": {
       "terminalNo": ,
/*optional, int, terminal No.*/
       "currentStatus": "",
/*required, string, current upgrade status: upgrading, failed, upgraded*/
       "percent": ,
/*optional, int, upgrade progress, range: [0,100], this filed is valid only when currentStatus is "upgrading"*/
       "failedReason": ""
/*optional, string, upgrade failure reason, this filed is valid only when currentStatus is "failed"*/
     }
    }
   ]
  }
}
```

E.7 JSON_batchUpgradeProgressCond

JSON message about search conditions of terminal upgrade progress

```
{
  "batchUpgradeProgressCond": {
   "targetType": "",
/*optional, string, search mode: "byTerminal"-by terminal, "byOrg"-by organization, "all"-get the upgrade progress of
all terminal*/
   "terminalNoList":,
/*optional, array, terminal ID list, this field is required only when targetType is "byTerminal"*/
   "orgIdList":
/*optional, array, organization ID list, this field is required only when targetType is "byOrg"*/
  }
}
```

E.8 JSON_InsertPlay

JSON message about the cut-in parameters

```
{
  "InsertPlay":
  {
    "insertType": "character",
/*required, string, cut-in content type: "character" (text message), "material", "program"*/
    "taskName": "",
/*optional, string, cut-in task name*/
    "InsertInfoList":
    [{
      "screenType": "first",
/*required, string, screen type: "first" (main screen), "second" (auxiliary screen)*/
      "CharacterInfo":
      {
        "InsertMessageList":
        [{
          "id": 1,
/*required, int, ID, which starts from 1*/
          "msgName": "",
/*required, string, name of the text message*/
          "content": "",
/*required, string, content of the text message*/
          "TimeRange":
/*optional, string, time range*/
          {
            "beginTime": "",
/*required, string, start time in ISO 8601 format, eg:2004-05-03T22:30:08.354+08:00*/
            "endTime": ""
/*required, string, end time in ISO 8601 format, eg:2004-05-03T22:30:08.354+08:00*/
          }
        }],
        "msgPos": "",
/*optional, string, text position: "top", "middle", "bottom", "selfDefine"*/
        "rect": {
/*optional, text position, this node is valid when the value of msgPos is "selfDefine"*/
          "height": 1.0,
/*optional, float, height*/
          "width": 1.0,
/*optional, float, width*/
          "x": 0.0,
/*optional, float, X-coordinate*/
          "y": 0.0
/*optional, float, Y-coordinate*/
        }
      },
      "MaterialInfo":
      {
        "materialNo": 1,
```

```
/*required, int, material No.*/
    "playMode": "",
/*required, string, play mode: "byTime", "byCoun" (number of times the material is played), "byEndTime"*/
    "playDuration": 1,
/*dependent, int, play duration, unit: second, this node is valid when the value of playMode is "byTime"*/
    "countNum": 1,
/*dependent, int, number of times the material is played, this node is valid when the value of playMode is
"byCount"*/
    "playEndTime": "",
/*dependent, string, end time, this node is valid when the value of playMode is "byEndTime", eg:
2004-05-03T22:30:08.354+08:00*/
    "rect": {
/*optional, material position*/
        "height": 1.0,
/*optional, float, height*/
        "width": 1.0,
/*optional, float, width*/
        "x": 0.0,
/*optional, float, X-coordinate*/
        "y": 0.0
/*optional, float, Y-coordinate*/
    }
   },
   "ProgramInfo":
   {
    "programNo": 1,
/*required, int, program No.*/
    "playMode": "",
/*required, string, play mode: "byTime", "byCoun" (number of times the program is played), "byEndTime"*/
    "playDuration": 1,
/*dependent, int, play duration, unit: second, this node is valid when the value of playMode is "byTime"*/
    "countNum": 1,
/*dependent, int, number of times the material is played, this node is valid when the value of playMode is
"byCount"*/
    "playEndTime": "",
/*dependent, string, end time, this node is valid when the value of playMode is "byEndTime", eg:
2004-05-03T22:30:08.354+08:00*/
   },
   "Effect": {
/*optional, effect*/
    "fontSize": 1,
/*required, int, font size*/
    "fontColor": "FFFFFF",
/*required, hexBinary, font color*/
    "backColor": "FFFFFF",
/*required, hexBinary, background color*/
    "backTransparent": 1,
/*required, int, background transparency*/
    "subtitlesEnabled": true,
/*optional, boolean, whether to enable sub titles*/
    "scrollDirection": "",
/*optional, string, scroll direction: "none", "left", "right", "up", "down"*/
```

```
      "scrollSpeed": 1,
/*optional, int, scroll speed, this node is valid when cut-in material is web or text message*/
      "pageTime": 1
/*optional, int, page flip interval, unit: second, this node is valid when the cut-in material is in the format of WORD,
PPT, PDF, or EXCEL*/
    }
  }]
 }
}
```

E.9 JSON_InsertPlayCap

JSON message about capability of configuring cut-in parameters

```
{
  "InsertPlayCap":
  {
    "controlType":{
      "@opt": ["stop","cancel"]
    },
/*optional, string, control type: "stop", "cancel"*/
    "insertType":{
      "@opt": ["character","material","program"]
    },
/*required, string, cut-in content type: "character" (text message), "material", "program"*/
    "taskName":{
      "@min": 0,
      "@max": 0
    },
/*optional, string, cut-in task name*/
    "InsertInfoList":
    [{
      "screenType":{
      "@opt": ["first","second"]
    },
/*required, string, screen type: "first" (main screen), "second" (auxiliary screen)*/
      "CharacterInfo":
      {
      "InsertMessageList":
      [{
       "id":{
        "@min": 0,
        "@max": 0
       },
/*required, int, ID, which starts from 1*/
       "msgName":{
        "@min": 0,
        "@max": 0
       },
/*required, string, name of the text message*/
```

```
      "content":{
        "@min": 0,
        "@max": 0
      },
/*required, string, content of the text message*/
      "TimeRange":
      {
        "beginTime":{
          "@min": 0,
          "@max": 0
        },
/*required, string, start time in ISO 8601 format, eg:2004-05-03T22:30:08.354+08:00*/
        "endTime":{
          "@min": 0,
          "@max": 0
        }
/*required, string, end time in ISO 8601 format, eg:2004-05-03T22:30:08.354+08:00*/
      }
/*optional, string, time range*/
    }],
    "msgPos":{
      "@opt": ["top","middle","bottom","selfDefine"]
    },
/*optional, string, text position: "top", "middle", "bottom", "selfDefine"*/
    "rect": {
/*optional, text position, this node is valid when the value of msgPos is "selfDefine"*/
      "height":{
        "@min": 0.000,
        "@max": 0.000
      },
/*optional, float, height*/
      "width":{
        "@min": 0.000,
        "@max": 0.000
      },
/*optional, float, width*/
      "x":{
        "@min": 0.000,
        "@max": 0.000
      },
/*optional, float, X-coordinate*/
      "y":{
        "@min": 0.000,
        "@max": 0.000
      }
/*optional, float, Y-coordinate*/
    }
  },
  "MaterialInfo":
  {
    "materialNo":{
      "@min": 0,
```

```
        "@max": 0
    },
/*required, int, material No.*/
    "playMode":{
      "@opt": ["byTime","byCount","byEndTime"]
    },
/*required, string, play mode: "byTime", "byCoun" (number of times the material is played), "byEndTime"*/
    "playDuration":{
      "@min": 0,
      "@max": 0
    },
/*dependent, int, play duration, unit: second, this node is valid when the value of playMode is "byTime"*/
    "countNum":{
      "@min": 0,
      "@max": 0
    },
/*dependent, int, number of times the material is played, this node is valid when the value of playMode is
"byCount"*/
    "playEndTime":{
      "@min": 0,
      "@max": 0
    },
/*dependent, string, end time, this node is valid when the value of playMode is "byEndTime", eg:
2004-05-03T22:30:08.354+08:00*/
    "rect": {
/*optional, material position*/
      "height":{
        "@min": 0.000,
        "@max": 0.000
      },
/*optional, float, height*/
      "width":{
        "@min": 0.000,
        "@max": 0.000
      },
/*optional, float, width*/
      "x":{
        "@min": 0.000,
        "@max": 0.000
      },
/*optional, float, X-coordinate*/
      "y":{
        "@min": 0.000,
        "@max": 0.000
      }
/*optional, float, Y-coordinate*/
    }
  },
  "ProgramInfo":
  {
    "programNo":{
      "@min": 0,
```

```
        "@max": 0
    },
/*required, int, program No.*/
    "playMode":{
        "@opt": ["byTime","byCount","byEndTime"]
    },
/*required, string, play mode: "byTime", "byCoun" (number of times the program is played), "byEndTime"*/
    "playDuration":{
        "@min": 0,
        "@max": 0
    },
/*dependent, int, play duration, unit: second, this node is valid when the value of playMode is "byTime"*/
    "countNum":{
        "@min": 0,
        "@max": 0
    },
/*dependent, int, number of times the material is played, this node is valid when the value of playMode is
"byCount"*/
    "playEndTime":{
        "@min": 0,
        "@max": 0
    }
/*dependent, string, end time, this node is valid when the value of playMode is "byEndTime", eg:
2004-05-03T22:30:08.354+08:00*/
    },
    "Effect": {
/*optional, effect*/
    "fontSize":{
        "@min": 0,
        "@max": 0
    },
/*required, int, font size*/
    "fontColor":{
        "@min": 0,
        "@max": 0
    },
/*required, hexBinary, font color*/
    "backColor":{
        "@min": 0,
        "@max": 0
    },
/*required, hexBinary, background color*/
    "backTransparent":{
        "@min": 0,
        "@max": 0
    },
/*required, int, background transparency*/
    "subtitlesEnabled":{
        "@opt": [true, false]
    },
/*optional, boolean, whether to enable sub titles*/
    "scrollDirection":{
```

```
       "@opt": ["none","left","right","up","down"]
     },
/*optional, string, scroll direction: "none", "left", "right", "up", "down"*/
     "scrollSpeed":{
       "@min": 0,
       "@max": 0
     },
/*optional, int, scroll speed, this node is valid when cut-in material is web or text message*/
     "pageTime":{
       "@min": 0,
       "@max": 0
     }
/*optional, int, page flip interval, unit: second, this node is valid when the cut-in material is in the format of WORD,
PPT, PDF, or EXCEL*/
   }
  }]
 }
}
```

E.10 JSON_InsertPlayControl

JSON message about cut-in control parameters

```
{
 "InsertPlayControl":
 {
   "controlType":"stop",
/*required, string, control type: "stop", "cancel"*/
   "insertType":"character"
/*required, string, cut-in type: "character", "material", "program"*/
 }
}
```

E.11 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*/
}
```

E.12 JSON_ProgramMgrCap

JSON message about the program management capability set

```
{
  "ProgramMgrCap":{
    "isSupportProgramPlay":true
/*optional, boolean, whether it supports playing the program: true-yes, false or this node is not returned-no*/
  }
}
```

E.13 JSON_ScheduleMgrCap

JSON message about the schedule management capability set

```
{
  "ScheduleMgrCap":{
    "isSupportPostSchedule":true
/*optional, boolean, whether it supports releasing program schedules*/
  }
}
```

E.14 JSON_SchedulePlanStateCond

XML message about search conditions of release schedule

```
{
"SchedulePlanStateCond": {
    "searchID": "",
/*optional, string,  search ID, which is used to check whether the current search requester is the same; the search ID is
valid for 5 minutes */
    "searchResultPosition": 1,
/*required,  integer32, the end position of search result in result list; in a single search, if you cannot get all the
records in the result list, you can mark the end position and get the following records after the marked position in the
next search*/
    "maxResults": ,
/*required, integer32, the maximum number of search results*/
    "releaseResult": ["",""],
```

```
/*required, string, release status, "notRelease,releasing,failed,success,cancel,all"*/
    "terminalNameLike": ""
/*optional, string, fuzzy search by terminal name*/
  }
}
```

E.15 JSON_SchedulePlanStateResult

XML message about search results of release schedules

```
{
  "SchedulePlanStateResult":{
    "responseStatusStrg": "",
/*optional, string, search status: "OK"-no more results, "MORE"-there are more results not returned, "NO MATCH"-no
matched results; the maximum size is 32 bytes*/
    "numOfMatches": ,
/*optional, integer32, total number of returned results*/
    "totalMatches": ,
/*optional, integer32, number of matched results*/
    "releaseTime": "",
/*optional, sting, release time (ISO 8601 format)*/
    "effectiveTime": "",
/*optional, string, effective time (ISO 8601 format)*/
    "taskReleaseState": "notRelease",
/*optional, string, release schedule status, "notRelease,releasing,failed,success,cancel"*/
    "MatchList ": [
      {
/*optional, array, matched data list*/
        "terminalNo": ,
/*required, int, terminal No.*/
        "terminalName": "",
/*required, string, terminal name*/
        "releaseResult": "",
/*required, string, terminal status, "notRelease,releasing,failed,success,cancel"*/
        "failedReason": ""
/*optional, string, failure reason，    which is valid only when releaseResult "failed"*/
      }
    ],
    "releaseTotalNum":,
/*optional, integer, number of schedules to be released*/
    "releaseSuccessNum":,
/*optional, integer, number of schedules successfully released*/
    "releaseFailedNum":,
/*optional, integer, number of schedules unsuccessfully released*/
    "releaseCancelNum":,
/*optional, integer, number of canceled schedules*/
    "releasingNum":,
/*optional, integer, number of schedules being released*/
    "notReleaseNum":
/*optional, integer, number of schedules not released*/
```

```
  }
}
```

E.16 JSON_SignInInterface

JSON message about check-in page parameters

```
{
  "SignInInterface":{
    "Title":{
/*optional, title*/
      "mainTitle":"",
/*optional, string, page title*/
      "mainFontSize":"",
/*optional, string, title font size: "big", "mid", "small"*/
      "subTitle":"",
/*optional, string, sub title*/
      "subFontSize":""
/*optional, string, sub title font size: "big", "mid", "small"*/
    },
    "VoiceBroadcast":{
/*optional, voice broadcast*/
      "enabled":true,
/*optional, string, whether to enable voice broadcast*/
      "broadcastSpeed":"",
/*optional, string, broadcast speed: "slower", "slow", "medium", "fast", "faster"*/
      "inLibVoice":"",
/*optional, string, broadcast contents of matched persons*/
      "outLibVoice":""
/*optional, string, broadcast contents of mismatched persons*/
    },
    "WelcomeWord":{
/*optional, welcome speech*/
      "enabled":true,
/*optional, string, whether to enable*/
      "inLibWord":"",
/*optional, string, welcome speech of matched persons*/
      "outLibWord":""
/*optional, string, welcome speech of mismatched persons*/
    },
    "SignCartoon":{
/*optional, check-in animation*/
      "signCartoonSpeed":""
/*optional, string, animation playing speed: "fast", "medium", "slow"*/
    },
    "ShowInfo":{
/*optional, check-in information*/
      "inLib":["",""],
/*optional, array, matched person information: "name", "gender", "selfDefine1" (custom information 1), "selfDefine2"
(custom information 2), "signInTime" (checked in time)*/
```

```
    "outLib":["",""],
/*optional, array, mismatched person information: "name", "gender", "signInTime" (checked in time)*/
    "unknownName":"",
/*optional, string, mismatched person name, this node is valid when the value of node "outLib" contains "name"*/
    "showDuration":""
/*optional, string, display time: "always", "10s", "20s", "30s", "no"-not display*/
  },
   "backgroundSignEnabled":true,
/*optional, boolean, whether to enable check-in at the background*/
   "operateType": "byTerminal",
/*optional, string, operation type: "byTerminal"-by terminal, "byOrg"-by organization, "byTerminalOrg"-by terminal
organization*/
   "terminalNoList": [ 1, 2, 3, 4 ],
/*optional, array, terminal ID list, this node is required when operation type is "byTerminal" or "byTerminalOrg";
currently, only one terminal is supported*/
   "orgNoList": [ 1, 2, 3, 4 ]
/*optional, array, organization ID list, this node is required when operation type is "byOrg" or "byTerminalOrg"*/
  }
}
```

E.17 JSON_SingleTerminalNtpServer

JSON message about NTP server parameters of a specific terminal

```
{
  "TerminalNtpServer":{
   "enabled":,
/*optional, boolean, whether to enable NTP server*/
   "addressingFormatType":"",
/*optional, address type: "ipaddress"-IP address (default), "hostname"-host name*/
   "hostName":"",
/*optional, string, host name*/
   "ipAddress":"",
/*optional, string, IP address*/
   "ipv6Address":"",
/*optional, string, IPv6 address*/
   "portNo":,
/*optional, int, port No.*/
   "synchronizeInterval":,
/*optional, int, synchronize interval，  unit: minute*/
  }
}
```

E.18 JSON_TerminalListResolution

JSON message about parameters of configuring terminal resolution in a batch

```
{
  "TerminalListResolution": {
```

```
    "resolutionType": "",
/*required, string, resolution type: auto, "custome"-custom (default)*/
    "imageWidth":,
/*optional, int, horizontal pixel, this field is required only when resolutionType is "custome"*/
    "imageHeight":,
/*optional, int, vertical pixel, this field is required only when resolutionType is "custome"*/
    "operateType": "",
/*required, string, configuration mode: "byTerminal"-by terminal, "byOrg"-by organization*/
    "terminalNoList":,
/*optional, array, terminal ID list*/,
    "orgNoList":
/*optional, array, organization ID list*/
  }
}
```

E.19 JSON_TerminalMgrCap

JSON message about capabilities of terminal management parameters

```
{
  "TerminalMgrCap": {
    "isSupportPlayInfoDelete": true,
/*optional, boolean, whether it supports deleting terminal playing information*/
    "isSupportResolution": true,
/*optional, boolean, whether it supports configuring resolution*/
    "isSupportBatchUpgradeProgress": true,
/*optional, boolean, whether it supports getting terminal upgrade progress in a batch*/
    "isSupportBatchProgress": true,
/*optional, boolean, whether it supports getting terminal cut-in progress in a batch*/
    "isSupportTerminalBatchAdbDebug": true,
/*optional, boolean, whether it supports debugging with ADB in a batch*/
    "isSupportBindIPC": true,
/*optional, boolean, whether it supports binding network cameras*/
    "isSupportTerminalNtpServers": true,
/*optional, boolean, whether it supports synchronizing time through NTP server*/
    "isSupportReleaseInfoEncrypt": true,
/*optional, boolean, whether it supports encrypting release information*/
    "isSupportUpgradeV20": true,
/*optional, boolean, whether it supports upgrading V20*/
    "isSupportInsertPlay":  true,
/*optional, boolean, whether it supports cut-in configuration*/
  }
}
```

E.20 JSON_TerminalNtpServer

JSON message about NTP server parameters

```
{
  "TerminalNtpServer":{
   "enabled":,
/*optional, boolean, whether to enable NTP server*/
   "addressingFormatType":"",
/*optional, address type: "ipaddress"-IP address (default), "hostname"-host name*/
   "hostName":"",
/*optional, string, host name*/
   "ipAddress":"",
/*optional, string, IP address*/
   "ipv6Address":"",
/*optional, string, IPv6 address*/
   "portNo":,
/*optional, int, port No.*/
   "synchronizeInterval":,
/*optional, int, synchronize interval,  unit: minute*/
   "type": "",
/*optional, string, configuration method: "byTerminal"-by terminal, "byOrg"-by organization*/
   "terminalNoList":,
/*optional, array, terminal list, this filed is required only when type is "byTerminal" and not returned*/
   "orgNoList":
/*optional, array, organization ID list, this filed is required only when type is "byOrg" and not returned*/
  }
}
```

E.21 JSON_TerminalNtpServerCap

JSON message about NTP configuration capability

```
{
  "TerminalNtpServerCap":{
  "enabled":{
    "@opt":["true","false"]
  },
/*optional, boolean, whether to enable NTP server*/
   "addressingFormatType":{
    "@opt":["ipaddress","hostname"]
  },
/*optional, string, address type: "ipaddress"-IP address (default), "hostname"-host name*/
   "hostName":{
    "@min": 16,
    "@max": 32
    },
/*optional, string, host name*/
   "ipAddress":{
   "@min": 7,
   "@max": 28
    },
/*optional, string, IP address*/
   "ipv6Address":{
```

```
      "@min": 32,
      "@max": 128
      },
/*optional, string, IPv6 address*/
    "portNo":{
     "@min": 1,
     "@max": 65535
      },
/*optional, int, port No.*/
    "synchronizeInterval":{
      "@min": 1,
      "@max": 1000
      },
/*optional, int, synchronize interval,   unit: minute*/
    "type": {
      "@opt":["byTerminal","byOrg"]
    },
/*optional, string, configuration method: "byTerminal"-by terminal, "byOrg"-by organization*/
      "terminalNoList":{
       "@min": 1,
       "@max": 1024
      },
/*optional, array, terminal list*/
      "orgNoList": {
       "@min": 1,
       "@max": 1024
    }
/*optional, array, organization ID list*/
  }
}
```

E.22 JSON_TerminalPlayInfo

JSON message about parameters of deleting terminal playing information

```
{
  "TerminalPlayInfo ":{
    "terminalNoList":
/*optional, array, terminal ID list*/
  }
}
```

E.23 JSON_TerminalResolution

JSON message about terminal resolution parameters

```
{
  "TerminalResolution": {
    "resolutionType": "",
```

```
/*required, string, resolution type: auto, "custome"-custom (default)*/
   "imageWidth": ,
/*optional, horizontal pixel, this field is required only when resolutionType is "custome"*/
   "imageHeight":
/*optional, vertical pixel,, this field is required only when resolutionType is "custome"*/
 }
}
```

E.24 JSON_TerminalResolutionCap

JSON message about capabilities of terminal resolution parameters

```
{
  "TerminalResolutionCap": {
   "resolutionType": {
     "@opt": [ "auto", "custome" ]
   },
/*optional, string,  resolution type: auto, "custome"-custom (default)*/
   "imageWidth": {
     "@min": 480,
     "@max": 3840
   },
/*optional, int, horizontal pixel, this field is required only when resolutionType is "custome"*/
   "imageHeight": {
     "@min": 320,
     "@max": 2160
   },
/*optional, vertical pixel, this field is required only when resolutionType is "custome"*/
   "operateType": {
     "@opt": [ "byTerminal", ", byOrg" ]
   },
/*optional, string, configuration method: "byTerminal"-by terminal, "byOrg"-by organization*/
   "terminalNoList ": {
/*optional, int, terminal No.*/
     "@min": 1
     "@max": 1024
   },
   "orgNoList": {
/*required, int, organization No.*/
     "@min": 1,
     "@max": 1024
   }
 }
}
```

E.25 JSON_UserSearchCond

JSON message about conditions of searching for user details

```
{
  "UserSearchCond": {
    "searchResultPosition": ,
/*required, integer32, the end position of search result in result list; in a single search, if you cannot get all the records
in the result list, you can mark the end position and get the following records after the marked position in the next
search*/
    "maxResults": ,
/*required, integer32, the maximum number of search results*/
    "targetType": "",
/*optional, string, method of searching for users: "byOrg"-by organization (default)*/
    "orgIdList": ,
/*optional, array, organization ID list, if this field is not configured, up to maxResults records will be searched for*/
    "username":"",
/*optional, string, exact search by user name*/
    "usernameLike":""
/*optional, string, fuzzy search by user name*/
  }
}
```

E.26 JSON_UserSearchResult

JSON message about user search results

```
{
  "UserSearchResult": {
    "responseStatusStrg": "",
/*optional, string, searching status: "OK"-searched, "MORE"-there is data waiting to be searched for, "NO MATCH"-no
matched data, the maximum size is 32 bytes*/
    "numOfMatches": ,
/*optional, integer32, number of returned records*/
    "totalMatches": ,
/*optional, integer32, number of matched records*/
    "MatchList ": [
      {
/*optional, array, information of matched data*/
      "id": ,
/*optional, int, user DI*/
      "userName": "",
/*optional, string, user name*/
      "password": "",
/*optional, string, password*/
      "bondIpAddressList": [
        {
/*optional, the bound IP address*/
        "bondIpAddress": {
          "id": ,
/*optional, int, IP address No.*/
          "ipAddress": "",
/*optional, string, IP address*/
          "ipv6Address": ""
```

```
/*optional, string, IPv6 address*/
        }
      }
    ],
    "bondMacAddressList": [
      {
/*optional, the bound MAC address*/
        "bondMacAddress": {
          "id": ,
/*optional, int,   MAC address No.*/
          "macAddress": ""
/*optional, string,   MAC address*/
        }
      }
    ],
    "userLevel": "",
/*optional, string, user level: Administrator, Operator, Viewer*/
    "belongUserId": ,
/*optional, int, upper-lever organization ID, if there is no upper-lever organization, 0, set the field to 0*/
    "belongOrgNo": ,
/*optional, int, organization No.*/
    "remotePermission": {
/*optional, remote permission of users*/
        "materialReview": ,
/*optional, boolean, whether the user has the permission of approval*/
        "programReview": ,
/*optional, boolean, whether the user has the permission of program approval*/
        "uploadMaterial": ,
/*optional, boolean, whether the user has the permission of uploading materials*/
        "addProgram": ,
/*optional, boolean, whether the user has the permission of creating programs*/
        "addSchedule": ,
/*optional, boolean, whether the user has the permission of adding, deleting, and setting schedules*/
        "programPlay": ,
/*optional, boolean, whether the user has the permission of playing information*/
        "terminalMgr": ,
/*optional, boolean, whether the user has the permission of terminal management*/
        "shopSmart": ,
/*optional, boolean, whether the user has the permission of shop smart*/
        "materialReplace": ,
/*optional, boolean, whether the user has the permission of replacing materials*/
        "scheduleRelease": ,
/*optional, boolean, whether the user has the permission of releasing program schedules*/
        "scheduleReview": ,
/*optional, boolean, whether the user has the permission of reviewing schedules*/
        "addTerminal": ,
/*optional, boolean, whether the user has the permission of adding, deleting, and setting terminals*/
        "terminalDispatch": ,
/*optional, boolean, whether the user has the permission of relocating terminals*/
        "addUser": ,
/*optional, boolean, whether the user has the permission of adding, deleting, and setting users*/
        "addOrg": ,
```

```
/*optional, boolean, whether the user has the permission of adding, deleting, and setting organizations*/
      "logMgr": ,
/*optional, boolean, whether the user has the permission of log management*/
      "dataUpdate": ,
/*optional, boolean, whether the user has the permission of updating call data*/
      "insertMessage":
/*optional, boolean, whether the user has the permission of cutting texts*/
    }
   }
  ]
 }
}
```

E.27 XML_AdbDebug

XML message about ADB debugging parameters

```
<AdbDebug version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <enable><!--required, xs:boolean, whether to enable--></enable>
 <secretKey><!--required, xs:string, secret key, write-only--></secretKey>
</AdbDebug>
```

E.28 XML_AddressCfg

XML message about parameters of terminal IP address configuration

```
<AddressCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, xs:integer, terminal ID--></id>
 <ipVersion><!--required, xs:string, IP address type: IPv4, IPv6--></ipVersion>
 <ipAddress><!--dependent, xs:string, IP address--></ipAddress>
 <subnetMask><!--dependent, xs:string, subnet mask of IPv4--></subnetMask>
 <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
 <bitMask><!--dependent, xs:integer, subnet mask of IPv6--></bitMask>
 <DefaultGateway><!--dependent, default gateway-->
   <ipAddress><!--dependent, xs:string, IP address--></ipAddress>
   <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
 </DefaultGateway>
 <terminalPwd><!--optional, xs:string--></terminalPwd>
</AddressCfg>
```

E.29 XML_BatchTerminalConfig

XML message about batch configuration of terminal's specific parameters

```
<BatchTerminalConfig version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <cfgType><!--required, xs:string, parameters: volume, light, logo, default program schedule, password--></cfgType>
 <volume><!--dependent, xs:integer, volume range: [0,100]--></volume>
```

```
<backLightLevel><!--dependent, xs:integer, brightness--></backLightLevel>
<bootLogoEnabled><!--dependent, xs:boolean, whether to display logo--></bootLogoEnabled>
<DefaultSchedule><!--dependent, default schedule-->
  <scheduleId><!--optional, xs:integer, program schedule ID--></scheduleId>
  <scheduleName><!--optional, xs:string, program schedule name--></scheduleName>
  <enable><!--optional, xs:boolean, whether to enable--></enable>
</DefaultSchedule>
<PasswordCfg><!--optional, terminal password configuration-->
  <oldPwd><!--write-only, required, xs:string, old password--></oldPwd>
  <newPwd><!--write-only, required, xs:string, new password--></newPwd>
</PasswordCfg>
<targetType><!--required, xs:string, target type: terminal, terminal group, organization-></targetType>
<TerminalNoList><!--dependent, terminal ID list-->
  <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
</TerminalNoList>
<OrgNoList><!--dependent, organization No. list-->
  <orgNo><!--required, xs:integer, organization No.--></orgNo>
</OrgNoList>
</BatchTerminalConfig>
```

E.30 XML_BindIPC

XML message about network camera binding parameters of a specific terminal

```
<BindIPC version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <TerminalId><!--required, xs:integer, terminal ID--></TerminalId>
  <IPCList><!--optional, network camera list-->
    <IPC><!--required-->
      <id><!--required, xs:integer, network camera ID--></id>
      <IPCType><!--required, xs:string, network camera type: normal, "passengerStatistics"-user data,
"validPassengerStatistics"-valid user data--></IPCType>
      <channelNo><!--required, xs:integer, No. of the channel linked by terminal, which can be used for live view--></
channelNo>
      <IPCAddress><!--required, network camera address-->
        <addressingFormatType><!--required, xs:string, network camera address type: IP address, domain name--></
addressingFormatType>
        <hostName><!--dependent, xs:string, domain name--></hostName>
        <IpAddress><!--dependent-->
          <ipVersion><!--required, xs:string, IP version: IPv4, IPv6--></ipVersion>
          <ipAddress><!--dependent, xs:string, IP address--></ipAddress>
          <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
        </IpAddress>
      </IPCAddress>
      <portNo><!--required, xs:integer, port No. of network camera--></portNo>
      <userName><!--required, xs:string, user name for logging to network cameras, which is write-only and must be
encrypted when transmission--></userName>
      <passWord><!--required, xs:string, password for logging to network cameras, which is write-only and must be
encrypted when transmission--></passWord>
      <ipcChannelNo><!--optional, xs:integer, channel No. of network camera--></ipcChannelNo>
      <transmitProtocol><!--optional, xs:string, transmission protocol: TCP, UDP, MCAST--> </transmitProtocol>
```

```
    <streamType><!--optional, xs:string, stream type: main stream, sub-stream, third-party stream--> </streamType>
    </IPC>
  </IPCList>
</BindIPC>
```

E.31 XML_Cap_AdbDebug

XML message about capability of ADB debugging parameters

```
<AdbDebug version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enable opt="true,false"><!--required, xs:boolean, whether to enable--></enable>
  <secretKey min="" max=""><!--required, xs:string, secret key, write-only--></secretKey>
</AdbDebug>
```

E.32 XML_Cap_AddressCfg

XML message about parameters of terminal IP configuration

```
<AddressCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--required, xs:integer, terminal ID--></id>
  <ipVersion opt="v4,v6,dual"><!--required, xs:string, IP address type: IPv4, IPv6--></ipVersion>
  <ipAddress><!--dependent, xs:string, IP address--></ipAddress>
  <subnetMask><!--dependent, xs:string, subnet mask of IPv4 address--></subnetMask>
  <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
  <bitMask><!--dependent, xs:integer,subnet mask of IPv6 address--></bitMask>
  <DefaultGateway><!--dependent, default gateway-->
    <ipAddress><!--dependent, xs:string, IP address--></ipAddress>
    <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
  </DefaultGateway>
  <terminalPwd><!--required, xs:string--></terminalPwd>
</AddressCfg>
```

E.33 XML_Cap_BatchTerminalConfig

XML message about capability of specific parameters of all terminals

```
<BatchTerminalConfig version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <cfgType opt="volume,light,logo,defaultSchedule,password"><!--required, xs:string, parameters to be configured:
volume, light, logo, default program schedule, password--></cfgType>
  <volume min="" max=""><!--dependent, xs:integer, volume, range: [0,100]--></volume>
  <backLightLevel min="" max=""><!--dependent, xs:integer, brightness--></backLightLevel>
  <bootLogoEnabled><!--dependent, xs:boolean, whether to display logo when power on--></bootLogoEnabled>
  <DefaultSchedule><!--dependent, default program schedule-->
    <scheduleId><!--optional, xs:integer, program schedule ID--></scheduleId>
    <scheduleName min="" max=""><!--optional, xs:string, program schedule name--></scheduleName>
    <enable><!--optional, xs:boolean, whether to enable--></enable>
  </DefaultSchedule>
```

```
 <PasswordCfg><!--optional, terminal password configuration-->
  <oldPwd min="" max=""><!--write-only, required, xs:string, old password--></oldPwd>
  <newPwd min="" max=""><!--write-only, required, xs:string, new password--></newPwd>
 </PasswordCfg>
 <targetType opt="byTerminal,byOrg"><!--required, xs:string, operation mode: by terminal, by organization--></
targetType>
 <TerminalNoList size=""><!--dependent, terminal ID list-->
  <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
 </TerminalNoList>
 <OrgNoList size=""><!--dependent, organization No. list-->
  <orgNo><!--required, xs:integer, organization No.--></orgNo>
 </OrgNoList>
</BatchTerminalConfig>
```

E.34 XML_Cap_BindIPC

XML message about capabilities of parameters about binding network cameras to terminals

```
<BindIPC version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <TerminalId><!--required, xs:integer, terminal ID--></TerminalId>
 <IPCList><!--optional, network camera list-->
  <IPC><!--required-->
   <id><!--required, xs:integer, network camera ID --></id>
   <IPCType opt="normal,passengerStatistics,validPassengerStatistics"><!--required, xs:string, network camera type:
normal-normal, passengerStatistics-user data, validPassengerStatistics-valid user data--></IPCType>
   <channelNo min="" max=""><!--required, xs:integer, No. of linked terminal channel, which can be used for live
view--></channelNo>
   <IPCAddress><!--required, network camera address-->
    <addressingFormatType opt="ipaddress,hostname"><!--required, xs:string, network camera address type: IP
address, domain name--></addressingFormatType>
    <hostName><!--dependent, xs:string, domain name--></hostName>
    <IpAddress><!--dependent-->
     <ipVersion opt="v4,v6,dual"><!--required, xs:string, IP version: IPv4, IPv6--></ipVersion>
     <ipAddress><!--dependent, xs:string, IP address--></ipAddress>
     <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
    </IpAddress>
   </IPCAddress>
   <portNo><!--required, xs:integer, port No. of network camera--></portNo>
   <userName min="" max=""><!--required, xs:string, user name for logging to network cameras, which is write-only
and must be encrypted when transmission--></userName>
   <passWord min="" max=""><!--required, xs:string, password for logging to network cameras, which is write-only
and must be encrypted when transmission--></passWord>
   <ipcChannelNo><!--optional, xs:integer, channel No. of network camera--></ipcChannelNo>
   <transmitProtocol opt="tcp,udp,mcast"><!--optional, xs:string, transmission protocol: TCP, UDP, MCAST--> </
transmitProtocol>
   <streamType opt="main, sub, third"><!--optional, xs:string, stream type: main stream, sub-stream, third party
stream--> </streamType>
  </IPC>
 </IPCList>
```

```
<maxChannelNum><!--optional, xs:integer, maximum number of channels--></maxChannelNum>
</BindIPC>
```

E.35 XML_Cap_ControlParam

XML message about capabilities of terminal control parameters

```
<ControlParam xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <operateType
opt="startPlay,stopPlay,insert,stopInsert,powerOn,powerOff,reboot,restoreConfig,planCtrl,cancelInsert,publishStateSh
ow,publishStateHide" >
   <!--required, xs:string, operations: "startPlay"-start playing, "insert"-cut-in, "stopInserstop"-stop cut-in, "Play"-stop
playing, "powerOn"-startup, "powerOff"-shutdown, reboot, "restoreConfig"-restore configuration, "planCtrl"-control
schedule, "cancelInsert"-cancel cut-in , "publishStateShow"-display terminal release progress, "publishStateHide"-hide
terminal release progress-->
 </operateType>
 <InsertInfo>
   <!--dependent, message to cut-in, this field is valid only when operateType is "insert"-->
   <storageInfo>
    <!--optional-->
    <terminalID min="" max="" >
      <!--optional, string, terminal ID-->
    </terminalID>
    <xmlUniqueSeq min="" max="" >
      <!--optional, string, XML file ID-->
    </xmlUniqueSeq>
    <storageId min="" max="" >
      <!--optional, string, IID of position to saving XML files-->
    </storageId>
    <serverIP min="" max="" >
      <!--optional, string, server ID-->
    </serverIP>
    <serverPort min="" max="" >
      <!--optional, integer, server port No.-->
    </serverPort>
   </storageInfo>
   <insertType opt="material,program" >
    <!--required, xs:string, cut-in type: material, program-->
   </insertType>
   <MaterialInfo>
    <!--dependent-->
    <materialNo>
      <!--required, xs:integer-->
    </materialNo>
    <playMode opt="byTime,byCount,byEndTime " >
      <!--required, "byTime,byCount,byEndTime "-->
    </playMode>
    <countNum min="" max="" >
      <!--dependent, xs:integer, playing times-->
```

```
   </countNum>
   <playDuration min="" max="" >
    <!--dependent, xs:integer, duration of a single playing, unit: second-->
   </playDuration>
   <playEndTime>
    <!--optional, xs:string, playing end time (ISO 8601 format)-->
   </playEndTime>
  </MaterialInfo>
  <ProgramInfo>
   <!--dependent, program information-->
   <programNo>
    <!--required, xs:integer, program No.-->
   </programNo>
   <playMode opt="byTime,byCount,byEndTime " >
    <!--required, "byTime,byCount,byEndTime "-->
   </playMode>
   <countNum min="" max="" >
    <!--dependent, xs:integer-->
   </countNum>
   <playDuration min="" max="" >
    <!--dependent, xs:integer, playing duration, unit: second->
   </playDuration>
   <playEndTime>
    <!--optional, xs:string, end time of playing (ISO 8601 format)-->
   </playEndTime>
  </ProgramInfo>
  <coordinateType opt="uniformCoordinate,resolutionCoordinate" >
   <!--optional, xs:string-->
  </coordinateType>
  <Position>
   <!--optional, position-->
   <positionX>
    <!--required, xs:integer, X position-->
   </positionX>
   <positionY>
    <!--required, xs:integer, Y position-->
   </positionY>
   <height>
    <!--required, xs:integer, height-->
   </height>
   <width>
    <!--required, xs:integer, width-->
   </width>
  </Position>
  <InsertEffect>
   <!--optional, effects-->
   <CharactersEffect>
    <!--dependent-->
    <fontSize min="" max="" >
     <!--required, xs:integer-->
    </fontSize>
    <FontColor>
```

```
      <!--required, foreground color -->
      <RGB>
       <!--required, xs:integer-->
      </RGB>
     </FontColor>
     <BackColor>
      <!--required, background color -->
      <RGB>
       <!--required, xs:integer-->
      </RGB>
     </BackColor>
     <backTransparent min="" max="" >
      <!--required, xs:integer, background transparent-->
     </backTransparent>
     <subtitlesEnabled opt="true,false" >
      <!--required, xs:string-->
     </subtitlesEnabled>
     <scrollDirection opt="left,right,up,down" >
      <!--required, xs:string,  scrolling direction-->
     </scrollDirection>
     <scrollSpeed min="" max="" >
      <!--required, xs:integer,  scrolling speed-->
     </scrollSpeed>
    </CharactersEffect>
    <pageTime min="" max="" >
     <!--dependent, xs:integer, unit: second-->
    </pageTime>
    <scrollSpeed min="" max="" >
     <!--dependent, xs:integer, scrolling speed-->
    </scrollSpeed>
   </InsertEffect>
   <taskName min="" max="" >
    <!--optional, xs:string, cut-in task name-->
   </taskName>
  </InsertInfo>
  <PlanCtrlParam>
   <!--dependent-->
   <planType opt="switchPlan,volumePlan,inputPlan" >
    <!--required, xs:string, schedule type: "switchPlan"-startup and shutdown schedule, "volumePlan"-volume
adjustment schedule, "inputPlan"-auto switch release information-->
   </planType>
   <enabled opt="true,false" >
    <!--required, xs:string, whether to enable-->
   </enabled>
  </PlanCtrlParam>
  <targetType opt="terminals,terminalGroups,byOrg" >
   <!--required, xs:string, operation mode: "terminals"-by terminal, "terminalGroups"-by terminal group, "byOrg"-by
organization-->
  </targetType>
  <TerminalNoList size="" >
   <!--dependent, terminal ID list-->
   <terminalNo>
```

```
     <!--list, required, xs:integer, terminal ID-->
   </terminalNo>
 </TerminalNoList>
 <OrgNoList size="" >
   <!--dependent, organization No. list-->
   <orgNo>
    <!--list, required, xs:integer, organization No.-->
   </orgNo>
 </OrgNoList>
</ControlParam>
```

E.36 XML_Cap_DiscoveryMode

XML message about terminal SADP configuration capability

```
<DiscoveryMode xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <ONVIFDiscoveryMode>
   <!--optional, xs:string, "discoverable,nonDiscoverable-->
 </ONVIFDiscoveryMode>
 <ISDiscoveryMode>
   <!-- optional, xs:string, "discoverable,nonDiscoverable-->
 </ISDiscoveryMode>
 <PcapMode>
   <!--optional, xs:string, "discoverable,nonDiscoverable-->
 </PcapMode>
 <SADP>
   <!--optional, xs:string,"discoverable,nonDiscoverable-->
 </SADP>
</DiscoveryMode>
```

E.37 XML_Cap_InputPlanCfg

XML message about capabilities of parameters of terminal timed switch schedule

```
<InputPlanCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <InputPlan>
   <planType opt="daily,weekly"><!--required, xs:string, schedule type: daily schedule, weekly schedule--></planType>
   <DailyPlan><!--dependent, daily schedule-->
    <InputSpanList size=""><!--required-->
     <InputSpan><!--required-->
      <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
      <inputType opt="HDMI,InfoPublish,VGA"><!--required, xs:string, input type: HDMI, "InfoPublish"-information
release, VGA--></inputType>
      <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
      <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
     </InputSpan>
    </InputSpanList>
   </DailyPlan>
 <WeeklyPlan><!--dependent, weekly schedule-->
```

```
    <DayList size=""><!--required-->
     <Day><!--required-->
      <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
      <dayOfWeek opt="monday,tuesday,wednesday,thursday,friday,saturday,sunday"><!--required, xs:string, day of a
week: Monday,Saturday...Sunday--></dayOfWeek>
      <InputSpanList size=""><!--required-->
       <InputSpan><!--required-->
        <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
        <inputType opt="HDMI,InfoPublish,VGA"><!--required, xs:string, input type: HDMI, information release, VGA--
></inputType>
        <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
        <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
       </InputSpan>
      </InputSpanList>
     </Day>
    </DayList size="">
   </WeeklyPlan>
   <HolidayPlan><!--optional, holiday schedule-->
    <InputSpanList size=""><!--required, holiday schedule-->
     <InputSpan><!--required-->
      <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
      <inputType opt="HDMI,InfoPublish,VGA"><!--required, xs:string, input type: HDMI, "InfoPublish"-information
release, VGA--></inputType>
      <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
      <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
     </InputSpan>
    </InputSpanList>
   </HolidayPlan>
  </InputPlan>
  <OperateParam><!--required-->
   <operateType opt="byTerminal,byOrg"><!--required, xs:string, operation mode: "byTerminal"-by terminal, "byOrg"-
by organization--></operateType>
   <TerminalNoList size=""><!--dependent, terminal No. list-->
    <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
   </TerminalNoList>
   <OrgNoList size=""><!--dependent, organization No. list-->
    <orgNo><!--required, xs:integer, organization No.--></orgNo>
   </OrgNoList>
  </OperateParam>
</InputPlanCfg>
```

E.38 XML_Cap_InsertCharacter

XML message about capabilities of terminal text message parameters

```
<InsertCharacter xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <InsertMessageList>
  <InsertMessage size="" >
   <!--required, text message-->
   <id>
```

```
    <!--required, xs:integer, text message No.-->
   </id>
   <msgName min="" max="" >
    <!--required, xs:string, text message name-->
   </msgName>
   <content min="" max="" >
    <!--required, xs:string, text message content-->
   </content>
   <TimeRange>
    <!--required, play duration-->
    <beginTime>
     <!--required, xs:time, start time (ISO 8601 format)-->
    </beginTime>
    <endTime>
     <!--required, xs:time, end time (ISO 8601 format)-->
    </endTime>
   </TimeRange>
  </InsertMessage>
</InsertMessageList>
<msgPos opt="top,middle,bottom,selfDefine" >
  <!--required, xs:string, "top,middle,bottom,selfDefine"-->
</msgPos>
<Position>
  <!--dependent, text message position, this field is required only when msgPos is "selfDefine" (custom) -->
  <positionX>
   <!--required, xs:integer, custom position X-->
  </positionX>
  <positionY>
   <!--required, xs:integer, custom position Y-->
  </positionY>
  <height>
   <!--required, xs:integer, height-->
  </height>
  <width>
   <!--required, xs:integer, width-->
  </width>
</Position>
<CharactersEffect>
  <!--required, playing effect of the text message-->
  <fontSize min="" max="" >
   <!--required, xs:integer, font size-->
  </fontSize>
  <FontColor>
   <!--required, font color-->
   <RGB>
   </RGB>
   <!--required-->
  </FontColor>
  <BackColor>
   <!--required, background color-->
   <RGB>
   </RGB>
```

```
  <!--required-->
 </BackColor>
 <backTransparent>
  <!--required, xs:integer, transparency-->
 </backTransparent>
 <subtitlesEnabled>
  <!--required, xs:boolean, whether to enable preview-->
 </subtitlesEnabled>
 <scrollDirection opt="none,left,right,up,down" >
  <!--required, xs:string, scrolling direction: none, left, right, up, down-->
 </scrollDirection>
 <scrollSpeed min="" max="" >
  <!--required, xs:integer, scrolling speed-->
 </scrollSpeed>
 </CharactersEffect>
</InsertCharacter>
```

E.39 XML_Cap_InsertCharacterCfg

XML message about capabilities of terminal text cut-in parameters

```
<InsertCharacterCfg xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <InsertCharacter>
  <InsertMessageList size="" >
   <InsertMessage>
    <!--required, text message-->
    <id>
     <!--required, xs:integer, text message No.-->
    </id>
    <msgName min="" max="" >
     <!--required, xs:string, text message name-->
    </msgName>
    <content min="" max="" >
     <!--required, xs:string, text message content-->
    </content>
    <TimeRange>
     <!--required, play duration-->
     <beginTime>
      <!--required, xs:time, start time (ISO 8601 format)-->
     </beginTime>
     <endTime>
      <!--required, xs:time, end time（ISO 8601 format）-->
     </endTime>
    </TimeRange>
   </InsertMessage>
  </InsertMessageList>
  <msgPos opt="top,middle,bottom,selfDefine" >
   <!--required, xs:string, text message position, top, middle bottom, "selfDefine"-custom-->
  </msgPos>
  <Position>
```

```
  <!--dependent, text message position, this field is required only when msgPos is "selfDefine" (custom) -->
  <positionX min="" max="" >
   <!--required, xs:integer, custom position X-->
  </positionX>
  <positionY min="" max="" >
   <!--required, xs:integer, custom position Y-->
  </positionY>
  <height min="" max="" >
   <!--required, xs:integer, height-->
  </height>
  <width min="" max="" >
   <!--required, xs:integer, width-->
  </width>
 </Position>
 <CharactersEffect>
  <!--required, play effect of the text message-->
  <fontSize min="" max="" >
   <!--required, xs:integer, font size-->
  </fontSize>
  <FontColor>
   <!--required, font color-->
   <RGB>
   </RGB>
   <!--required-->
  </FontColor>
  <BackColor>
   <!--required, background color-->
   <RGB>
   </RGB>
   <!--required-->
  </BackColor>
  <backTransparent min="" max="" >
   <!--required, xs:integer, transparency-->
  </backTransparent>
  <subtitlesEnabled>
   <!--required, xs:boolean, whether to enable preview-->
  </subtitlesEnabled>
  <scrollDirection opt="none,left,right,up,down " >
   <!--required, xs:string, scrolling direction: none, left, right, up, down-->
  </scrollDirection>
  <scrollSpeed min="" max="" >
   <!--required, xs:integer, scrolling speed-->
  </scrollSpeed>
 </CharactersEffect>
</InsertCharacter>
<OperateParam>
 <!--required, operation mode-->
 <operateType opt="byTerminal,byOrg,byTerminalOrg" >
  <!--required, xs:string, operation mode: "byTerminal"-by terminal, "byOrg"-by organization, "byTerminalOrg"-by
terminal or organization-->
 </operateType>
 <TerminalNoList size="" >
```

```
    <!--dependent, terminal No. list-->
    <terminalNo>
      <!--required, xs:integer, terminal ID-->
    </terminalNo>
  </TerminalNoList>
  <OrgNoList size="" >
    <!--dependent, organization No. list-->
    <orgNo>
      <!--required, xs:integer, organization No.-->
    </orgNo>
  </OrgNoList>
 </OperateParam>
 <taskName min="" max="" >
  <!--optional, xs:string, cut-in task name-->
 </taskName>
</InsertCharacterCfg>
```

E.40 XML_Cap_Material

XML message about material management parameter capability

```
<Material version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--required, xs:integer, material ID--></id>
  <seq min="" max=""><!--optional, xs:integer, material serial No., which changes every time the material is modified;
this field is only valid on the link between the server and the terminal--></seq>
  <materialName max=""><!--required, xs:string, material name--></materialName>
  <materialRemarks max=""><!--required, xs:string, material description--></materialRemarks>
  <materialType opt="static,dynamic"><!--required, xs:string, material type: "static"-local material, "dynamic"-
dynamic material--></materialType>
  <approveState opt="approved,notPass,notApprove"><!--optional, xs:string, approval status: "approved"-pass,
"notPass"-not pass, "notApprove"-not approved--></approveState>
  <approveRemarks max=""><!--optional, xs:string, approval remarks--></approveRemarks>
  <shareProperty opt="static,dynamic"><!--optional, xs:string, shared property: public, private--></shareProperty>
  <uploadUser max=""><!--ro,required, xs:string, uploader, read-only--></uploadUser>
  <uploadTime><!--read-only,  required, xs:time, upload time (ISO 8601 format)--></uploadTime>
  <materialEncrypt min="" max=""><!--optional, xs:integer, material secret key, which can be used for verifying the
correctness of materials received by the terminal; this field is only valid on the link between the server and the
terminal, e.g.,
JjEmNTA3NDg5NCY0JjI3OTM5MjAmYWEmMzYyOTM5OCZhMCY0MjAzMDQwJmI1JjQzMzc3ODgmNDg==--></
materialEncrypt>
  <orgNo><!--optional, xs:integer, organization No.--></orgNo>
  <orgName><!--optional, xs:string, read-only--></orgName>
  <replaceTerminal opt="true,false"><!--optional, xs:boolean, whether to update the material to the terminal, this
field is valid only when replacing materials--></replaceTerminal>
  <StorageInfo><!--optional, this field is valid only when the materials saved on the storage server-->
    <storageType min="" max=""><!--optional, xs:string, storage mode, "fms,kms,cloud,minio"--></storageType>
    <host min="" max=""><!--optional, xs:string, storage mode, https://[ip]:[port][coded string]--></host>
    <accountName min="" max=""><!--optional, xs:string, account name, which should be encrypted--></
accountName>
    <accountPasswd min="" max=""><!--optional, xs:string, account password, which should be encrypted--></
```

```
accountPasswd>
    <bucket min="" max=""><!--optional, xs:string, bucket , this field is valid only when storageType is "minio"--></
bucket>
  </StorageInfo>
  <StaticMaterial opt="picture,flash,audio,video,document,ppt,doc,excel,pdf,web"><!--dep-->
    <staticMaterialType opt="picture,flash,audio,video,document,ppt,doc,excel,pdf,web">
    <!--dependent, xs:string,  local material type-->
  </staticMaterialType>
    <picFormat opt="gif,bmp,jpg,png"><!--dependent, xs:string, image format--></picFormat>
    <flashFormat opt="swf"><!--dependent, xs:string, flash format--></flashFormat>
    <audioFormat opt="mp3,wav,wma"><!--dependent, xs:string, audio format--></audioFormat>
    <videoFormat opt="rm,rmvb,asf,avi,mpg,3gp,mov,mkv,wmv,flv,mp4"><!--dependent, xs:string, video format--></
videoFormat>
    <documentFormat opt="txt"><!--dependent, xs:string, document format--></documentFormat>
    <pptFormat opt="ppt,pptx"><!--dependent, xs:string, slide format--></pptFormat>
    <docFormat opt="doc,docx"><!--dependent, xs:string, word document format--></docFormat>
    <excelFormat opt="xls,xlsx"><!--dependent, xs:string, table format--></excelFormat>
    <pdfFormat opt="pdf"><!--dependent, xs:string, PDF--></pdfFormat>
    <webFormat opt="html,htm"><!--dependent, xs:string, web file format--></webFormat>
    <fileSize max=""><!--required, xs:integer, unit:byte, file size--></fileSize>
    <duration max=""><!--optional, xs:integer, unit:seconds, material playing duration, this field is valid only when the
material is a video or slide--></duration>
    <uuid min="" max=""><!--dependent, xs:string, UUID provided by the server to identify the material, this field is
valid only when StorageInfo exists; only 8520 platform saves materials on the storage server--></uuid>
    <staticMaterialUrl min="" max=""><!--dependent, xs:string, material URL, this field is valid only when StorageInfo
exists; only 8520 platform saves materials on the storage server--></staticMaterialUrl>
  </StaticMaterial>
  <DynamicMaterial><!--dependent-->
    <dynamicMaterialType opt="web,socket,rss,realStream,generalData,picUrl,dataSource"><!--dependent, xs:string,
dynamic material type--></dynamicMaterialType>
    <webUrl><!--dependent, xs:string, web URL--></webUrl>
    <rssUrl><!--dependent, xs:string, RSS URL--></rssUrl>
    <picUrl><!--dependent, xs:string, picture URL--></picUrl>
    <RealStream><!--dependent,  real stream-->
      <destionType opt="streamMedia,normalIPC"><!--required, xs:string, streaming terminal type: Stream Media
Server, normal network camera--></destionType>
      <streamMediaUrl><!--dependent, xs:string, streaming server URL--></streamMediaUrl>
      <NormalIPC><!--dep-->
        <IpAddress><!--dep-->
          <ipVersion opt="v4,v6,dual"><!--required, xs:string--></ipVersion>
          <ipAddress><!--dependent, xs:string--></ipAddress>
          <ipv6Address><!--dependent, xs:string--></ipv6Address>
        </IpAddress>
        <portNo><!--required, xs:integer--></portNo>
        <channelNo><!--required, xs:integer, channel No.--></channelNo>
        <userName min="" max=""><!--required, xs:string, user name for logging to devices, which is write-only and
must be encrypted when transmission--></userName>
        <passWord min="" max=""><!--required, xs:string, password for logging to devices, which is write-only and
must be encrypted when transmission--></passWord>
        <transmitProtocol opt="tcp,udp,mcast"><!--optional, xs:string, transmission protocol--></transmitProtocol>
        <streamType opt="main,sub,third"><!--optional, xs:string, stream type--></streamType>
      </NormalIPC>
```

```
        <dataType opt="capture,liveVideo"><!--optional, xs:string, data type: capture, "liveVideo"-live video--></
dataType>
    </RealStream>
    <GeneralData><!--dependent, third-party data-->
        <SrcAddress><!--IP address of data source -->
            <ipVersion opt="v4,v6,dual"><!--required, xs:string, IP address type--></ipVersion>
            <ipAddress><!--dependent, xs:string--></ipAddress>
            <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
        </SrcAddress>
        <dataType opt="popPic,call"><!--optional, xs:string, third-party data type: "popPic"-pop-up image, call--></
dataType>
    </GeneralData>
    <dataSourceUrl min="" max=""><!--dependent, xs:string, data source URL, this field is valid only when the
material is data source and StorageInfo exists; only 8520 platform saves materials on the storage server--></
dataSourceUrl>
    </DynamicMaterial>
</Material>
```

E.41 XML_Cap_MaterialBatchInfo

XML message about capability of material basic information parameters

```
<MaterialBatchInfo version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <operatorType opt="property,remark,approve, organization"><!--required, xs:string, material basic information:
"property"-shared property, "remark"-description, "approve"-approval status, organization--></operatorType>
  <shareProperty opt="public,private"><!--dependent, xs:string, shared property: public, private--></shareProperty>
  <materialRemarks max=""><!--dependent, xs:string, material description--></materialRemarks>
  <approveState opt="approved,notPass,notApprove"><!--dependent, xs:string, approval status: "approved"-pass,
"notPass"-not pass, "notApprove"-not approved--></approveState>
  <approveRemarks max=""><!--dependent, xs:string, approval remarks--></approveRemarks>
  <orgNo><!--optional, xs:integer, organization No.--></orgNo>
  <MaterialIdList size="">
    <materialId><!--required, xs:integer, material ID--></materialId>
  </MaterialIdList>
</MaterialBatchInfo>
```

E.42 XML_Cap_MaterialSearchProfile

XML message about capability of parameters of searching for materials

```
<MaterialSearchProfile version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <maxTimeSpansNum><!--required, xs:integer, maximum play duration--></maxTimeSpansNum>
  <maxMatchResults><!--required, xs:integer, maximum matched results returned per search--></maxMatchResults>
  <maxSearchTimeout><!--optional, xs:integer, timeout period of search--></maxSearchTimeout>
  <maxConcurrentSearches><!--optional, xs:integer, maximum number of concurrent searches--></
maxConcurrentSearches>
  <approveState opt="approved,notPass,notApprove,all"><!--optional, xs:string, approval status--></approveState>
  <materialType opt="static,dynamic,all"><!--optional, xs:string, material type--></materialType>
  <staticMaterialType opt="picture,flash,audio,video,document,ppt,doc,excel,pdf,web,app,all"><!--optional, xs:string,
```

```
local material type--></staticMaterialType>
 <dynamicMaterialType opt= "web,socket,rss,realStream,generalData, picUrl,all"><!--optional, xs:string, dynamic
material type--></dynamicMaterialType>
 <realStreamType opt="streamMedia,normalIPC,all"><!--optional, xs:string, real-time stream--></realStreamType>
 <shareProperty opt="public,private,all"><!--optional, xs:string, shared property--></shareProperty>
 <isSupportUploader><!--optional, xs:boolean, whether it supports searching by uploader--></isSupportUploader>
 <isSupportMaterialName><!--optional, xs:boolean, whether it supports searching by material name--></
isSupportMaterialName>
 <isSupportMaterialNameLike><!--optional, xs:boolean, whether it supports fuzzy search by material name--></
isSupportMaterialNameLike>
 <isSupportMaterialRemarksLike><!--optional, xs:boolean, whether it supports fuzzy search by material description--
>< /isSupportMaterialRemarksLike>
 <isSupportOrgName><!--optional, xs:boolean, whether it supports searching by material organization--></
isSupportOrgName>
 <isSupportSubOrg><!--optional, xs:boolean, whether it supports searching by its lower-level organization--></
isSupportSubOrg>
 <isSupportSort><!--optional, xs:boolean, whether it supports sort--></isSupportSort>
 <isSupportKeyword><!--optional, xs:boolean, whether it supports searching by keyword--></isSupportKeyword>
 <generalDataType><!--optional, xs:string, general data type: pop-up image, call, all; this field is valid only when the
dynamic material is general data--></generalDataType>
 <streamDataType><!--optional, xs:string, stream data type: capture, live view, all; this field is valid only when the real-
time stream is normal network camera--></streamDataType>
</MaterialSearchProfile>
```

E.43 XML_Cap_Organization

XML message about organization management capability

```
<Organization version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, xs:integer, organization No.--></id>
 <orgName max="64" min="1"><!--required, xs:string, organization name--></orgName>
 <orgRemarks max="64" min="1"><!--required, xs:string, organization description--></orgRemarks>
 <belongOrg><!--required, xs:integer, organization No., 0-the first level of organization--></belongOrg>
</Organization>
```

E.44 XML_Cap_Page

XML message about the page configuration capability

```
<Page version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, int, page No.--></id>
 <PageBasicInfo><!--required, basic page information-->
  <pageName max=""><!--required, string, page name--></pageName>
  <BackgroundColor><!--required, background color-->
   <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
  </BackgroundColor>
  <playDurationMode opt="selfDefine,auto"><!--required, string, page playing time mode: "selfDefine,auto". When
the value of this node is selfDefine, the node <playDuration> is valid; when the value is auto, it will be calculated
according to the content playing time--></playDurationMode>
```

```
    <playDuration min="" max="" default=""><!--dependent, int, playing duration, unit: second--></playDuration>
    <switchDuration min="" max=""><!--required, int, switching duration, unit: second--></switchDuration>
    <switchEffect opt=
"none,random,boxShrink,boxSpread,cycleShrink,cycSpread,eraseUp,eraseDown,eraseLeft,eraseRight,verticalShelter,ho
rizontalShelter,verticalChessboard,horizontalChessboard,dissolve,leftRightToCenter,ceterToLeftRight,upDownToCenter,
centerToUpDown,drawOutLeftDown,drawOutLeftUp,drawOutRightDown,drawOutRightUp,verticalLine,horizontalLine"
><!--required, string, switching effect:
"none,random,boxShrink,boxSpread,cycleShrink,cycSpread,eraseUp,eraseDown,eraseLeft,eraseRight,verticalShelter,ho
rizontalShelter,verticalChessboard,horizontalChessboard,dissolve,leftRightToCenter,ceterToLeftRight,upDownToCenter,
centerToUpDown,drawOutLeftDown,drawOutLeftUp,drawOutRightDown,drawOutRightUp,verticalLine,horizontalLine"
--></switchEffect>
    <backgroundPic><!--optional, int, background picture which is the picture material ID--></backgroundPic>
  </PageBasicInfo>
  <characterMode opt="mode1,mode2,mode3"><!--optional, xs:string, welcome word mode on the page: mode1,
mode2, mode3. For access control devices, the position of the welcome words is fixed and can be in three modes--></
characterMode>
  <WindowsList size=""><!--optional, window information-->
   <Windows>
    <id><!--required, int, content No.--></id>
    <Position><!--required, content's position. The upper-left corner is the origin, and the size of the full screen is
1920*1920-->
      <positionX min="" max=""><!--required, int, X-coordinate of upper-left corner of the content's rectangle frame--
></positionX>
      <positionY min="" max=""><!--required, int, Y-coordinate of upper-left corner of the content's rectangle frame--
></positionY>
      <height min="" max=""><!--required, int, height of the content's rectangle frame--></height>
      <width min="" max=""><!--required, int, width of the content's rectangle frame--></width>
    </Position>
    <layerNo min="" max=""><!--required, int, layer No.--></layerNo>
    <WinMaterialInfo><!--dependent, window material information-->
      <materialType><!--required, string, window material type: static, dynamic, other--></materialType>
      <staticMaterialType opt="picture,flash,audio,video,document,ppt,doc,excel,pdf,web,app, "><!--dependent, string,
local material type. This node is valid when <materialType> is static--></staticMaterialType>
      <dynamicType opt=" web,socket,rss,call,dynamicPic,realStream,capturePic, character "><!--dependent, string,
dymanic window material type: "web,socket,rss,call,dynamicPic,realStream,capturePic, character". This node is valid
when <materialType> is dynamic--></dynamicType>
      <otherType opt="clock,weather,countdown,localInput,hyperlinkBtn"><!--dependent, hyperlinkBtn"string, other
type: "clock,weather,countdown,localInput,hyperlinkBtn"--></otherType>
    </WinMaterialInfo>
    <TouchProperty><!--optional, touching attributes-->
      <windType opt="popup,page"><!--optional, string, window type: pop-up window, page window--></windType>
      <hyperlinkType opt="window,page"><!--optional, string, hyperlink type: "window,page". This node is valid when
<windType> is popup--></hyperlinkType>
      <windowId><!--dependent, int, window No. (window of current page). This node is valid when <hyperlinkType> is
window--></windowId>
      <pageId><!--dependent, int, page No. This node is valid when <hyperlinkType> is page--></pageId>
    </TouchProperty>
    <PlayItemList size=""><!--dependent, window playing list-->
     <PlayItem><!--req-->
      <id><!--required, int, playing No.--></id>
      <materialNo><!--dependent, int, material index No.--></materialNo>
      <inputChannel min="" max=""><!--optional, string, linked channel No. of the network camera--></inputChannel>
```

```
        <playEffect><!--required, string, playing effect: none, scroller--></playEffect>
        <MarqueeInfo><!--dependent-->
        <scrollType><!--required, string, scroller scrolling type: not scroll, scroll circularly, scroll once, scroll backwards
and forwards--></scrollType>
        <scrollDeriction><!--required, string, scroller scrolling direction: none, from top to bottom, from bottom to top,
from left to right, from right to left--></scrollDeriction>
        <scrollSpeed><!--required, int, scroller scrolling speed--></scrollSpeed>
        </MarqueeInfo>
        <PlayDuration><!--material playing duration. This node can be configured for local materials, live video, and
network camera channels-->
        <durationType><!--required, string, playing duration type, custom--></durationType>
        <duration min="" max=""><!--required, int, material playing duration, unit: second--></duration>
        </PlayDuration>
        <CharactersEffect><!--required, character display effect. This node is valid when the material type is text or TXT
file-->
        <fontSize min="" max=""><!--required, int, font size--></fontSize>
        <FontColor><!--required, font color-->
         <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
        </FontColor>
        <BackColor><!--required, background color-->
         <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
        </BackColor>
        <backTransparent min="" max=""><!--required, int,  background transparency--></backTransparent>
        <subtitlesEnabled><!--required, boolean, whether to enable character display mode--></subtitlesEnabled>
        <scrollDirection opt="left,right,up,down"><!--required, string, character scrolling direction:
"left,right,up,down"--></scrollDirection>
        <scrollSpeed  min="" max=""><!--required, int, text scrolling speed--></scrollSpeed>
        </CharactersEffect>
        <switchEffect><!--optional, string, switching effect of the window material: from left to right, from right to left,
from bottom to top, from top to bottom, fade in and fade out, exit from the middle, pop down from the top, enter
from the lower-right corner, enter from the upper-left corner, blind horizontally, blind vertically, random effect. This
node is valid for picture materials--></switchEffect>
        <pageTime min="" max=""><!--dependent, int, paging interval, unit: second. This node is valid when the material
is a word, ppt, pdf, or excel file--></pageTime>
        <scrollSpeed min="" max=""><!--dependent, int, scrolling speed. This node is valid when the material is a static
web--></scrollSpeed>
        <CharactersAttribute><!--dependent, character attribute, this node is valid when <dynamicType> is character-->
        <fontSize min="" max=""><!--optional, int, font size--></fontSize>
        <FontColor><!--optional, font color-->
         <RGB><!--optional, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
        </FontColor>
        <BackColor><!--optional, background color-->
         <RGB><!--optional, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
        </BackColor>
        <backTransparent min="" max=""><!--optional, int, background transparency--></backTransparent>
        <alignType opt="left,right,middle,top,bottom,verticalCenter,horizontallyCenter"><!--optional, string, aligment
mode: "left,right,middle,top,bottom,verticalCenter,horizontallyCenter"--></alignType>
        <characterContent max=""><!--optional, string, text content whose maximum size is 512 bytes. This node is
valid when <dynamicType> is character--></characterContent>
        </CharactersAttribute>
       </PlayItem>
     </PlayItemList>
```

```
<enabledAudio opt="true,false"><!--dependent, boolean, whether to enable the audio--></enabledAudio>
<enableHide opt="true,false"><!--optional, boolean, whether to enable hiding--></enableHide>
<enableLock opt="true,false"><!--optional, boolean, whether to enable the clock--></enableLock>
<AppWindow><!--dependent-->
  <WindowInfoList size=""><!--required-->
   <WindowInfo><!--required, -->
    <id><!--required, int, No.--></id>
    <materialNo><!--required, int, material No.--></materialNo>
   </WindowInfo>
  </WindowInfoList>
</AppWindow>
<DataSource><!--dependent, data source. This node is valid when it is a calling or pop-up window-->
  <materialNo><!--required, int, material No.--></materialNo>
</DataSource>
<Call><!--dependent, calling data-->
    <tableRow min="" max=""><!--required, int, row of the table--></tableRow>
    <tableColumn min="" max=""><!--required, int, column of the table--></tableColumn>
    <tableDirection opt="vertical,horizontal"><!--required, int, table direction: "vertical,horizontal"--></
tableDirection >
    <tableType><!--required, xs:string, table template:
"template1,template2,template3,template4,template5,template6"--></tableType>
    <backPicId opt="template1,template2,template3,template4,template5,template6"><!--optional, int, control's
background picture--></backPicId>
    <alignType opt="left,right,middle"><!--required, string, alignment mode: "left,right,middle"--></alignType>
    <refreshDirection opt="upTodown,downToup,leftToright,rightToleft"><!--required, string, refreshing direction:
"upTodown"-from top to bottom, "downToup"-from bottom to top--></refreshDirection>
    <HeadDataList size=""><!--optional-->
     <HeadData><!--optional, table head data (calling data)-->
      <id><!--required, int, No.--></id>
      <data min="" max=""><!--required, string, data--></data>
     </HeadData>
    </HeadDataList>
    <ItemStyleList size="">
     <ItemStyle><!--style of the table's row or column-->
      <id><!--required, int, No.--></id>
      <width min="" max=""><!--required, int, width of each column (percentage)--></width>
      <fontSize min="" max=""><!--required, int, font size--></fontSize>
      <FontColor min="" max=""><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </FontColor>
      <BackColor><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </BackColor>
     </ItemStyle>
    </ItemStyleList>
</Call>
<DynamicPic><!--dependent, dynamic pop-up window parameters-->
  <backPicId><!--optional, int, ID of the control's background picture--></backPicId>
</DynamicPic>
<CapturePic><!--dependent-->
  <backPicId><!--optional, int, ID of the control's background picture--></backPicId>
  <ipcMaterialNo><!--required, int--></ipcMaterialNo>
```

```
    <cancelType opt="auto,manual"><!--required, int, cancalling type: "auto,manual"--></cancelType>
    <duration min="" max=""><!--dependent, int, material playing duration, unit: second--></duration>
  </CapturePic>
  <ClockParam><!--dependent, clock parameters-->
    <backPicId><!--optional, int, ID of the control's background picture--></backPicId>
    <ClockIcon><!--required, clock icon paameters-->
      <enabled><!--required, boolean--></enabled>
      <type opt="clock1,clock2,..."><!--dependent, string, type: "clock1,clock2,..."--></type>
      <Position><!--dependent-->
        <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
        <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
        <height min="" max=""><!--required, int, height--></height>
        <width min="" max=""><!--required, int, width--></width>
      </Position>
    </ClockIcon>
    <YmdParam><!--required, parameters of year, month, and day in the clock-->
      <enabled><!--required, boolean, whether to enable--></enabled>
      <fontSize min="" max=""><!--required, int, font size--></fontSize>
      <FontColor><!--required-->
        <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </FontColor>
      <BackColor><!--required-->
        <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </BackColor>
      <Position><!--dependent-->
        <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
        <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
        <height min="" max=""><!--required, int, height--></height>
        <width min="" max=""><!--required, int, width--></width>
      </Position>
    </YmdParam>
    <HmsParam><!--required, parameters of hour, minute, and second in the clock-->
      <enabled><!--required, boolean--></enabled>
      <fontSize min="" max=""><!--required, int, font size--></fontSize>
      <FontColor><!--required, font color-->
        <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </FontColor>
      <BackColor><!--required-->
        <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </BackColor>
      <Position><!--dependent-->
        <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
        <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
        <height min="" max=""><!--required, int, height--></height>
        <width min="" max=""><!--required, int, width--></width>
      </Position>
    </HmsParam>
    <WeekParam><!--required, week parameters-->
      <enabled><!--required, boolean--></enabled>
      <fontSize min="" max=""><!--required, int--></fontSize>
      <FontColor><!--required-->
        <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
```

```
        </FontColor>
        <BackColor><!--required-->
         <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
        </BackColor>
        <Position><!--dependent-->
         <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
         <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
         <height min="" max=""><!--required, int, height--></height>
         <width min="" max=""><!--required, int, width--></width>
        </Position>
      </WeekParam>
    </ClockParam>
    <WeatherParam><!--dependent, weather parameters-->
     <backPicId><!--optional, int, ID of the weather's background picture--></backPicId>
     <WeatherIcon><!--optional, weather icon parameters-->
      <enabled><!--required, boolean, whether to enable--></enabled>
      <Position><!--dependent-->
        <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
        <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
        <height min="" max=""><!--required, int, height--></height>
        <width min="" max=""><!--required, int, width--></width>
      </Position>
     </WeatherIcon>
     <Date><!--optional, date parameters-->
      <enabled><!--required, boolean, whether to enable--></enabled>
      <fontSize min="" max=""><!--required, int, font size--></fontSize>
      <FontColor><!--required, font color-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </FontColor>
      <BackColor><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </BackColor>
      <Position><!--dependent-->
        <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
        <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
        <height min="" max=""><!--required, int, height--></height>
        <width min="" max=""><!--required, int, width--></width>
      </Position>
     </Date>
     <Temperature><!--optional, temperature parameters-->
      <enabled><!--required, boolean, whether to enable--></enabled>
      <fontSize min="" max=""><!--required, int, font size--></fontSize>
      <FontColor><!--required, font color-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </FontColor>
      <BackColor><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </BackColor>
      <Position><!--dependent-->
        <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
        <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
        <height min="" max=""><!--required, int, height--></height>
```

```
       <width min="" max=""><!--required, int, width--></width>
      </Position>
    </Temperature>
    <WeatherContent><!--optional, weather parameters-->
      <enabled><!--required, boolean, whether to enable--></enabled>
      <fontSize min="" max=""><!--required, int, font size--></fontSize>
      <FontColor><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </FontColor>
      <BackColor><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </BackColor>
      <Position><!--dependent-->
       <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
       <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
       <height min="" max=""><!--required, int, height--></height>
       <width min="" max=""><!--required, int, width--></width>
      </Position>
    </WeatherContent>
    <City><!--optional, city parameters-->
      <enabled><!--required, boolean, whether to enable--></enabled>
      <cityId><!--required, string, city No.--></cityId>
      <cityName><!--required, string, city name--></cityName>
      <fontSize min="" max=""><!--required, int--></fontSize>
      <FontColor><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </FontColor>
      <BackColor><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </BackColor>
      <Position><!--dependent-->
       <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
       <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
       <height min="" max=""><!--required, int, height--></height>
       <width min="" max=""><!--required, int, width--></width>
      </Position>
    </City>
    <Humidity><!--optional, humidity parameters-->
      <enabled><!--required, boolean, whether to enable--></enabled>
      <fontSize min="" max=""><!--required, int--></fontSize>
      <FontColor><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </FontColor>
      <BackColor><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </BackColor>
      <Position><!--dependent-->
       <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
       <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
       <height min="" max=""><!--required, int, height--></height>
       <width min="" max=""><!--required, int, width--></width>
      </Position>
```

```
    </Humidity>
    <AirQuality><!--optional, air quality parameters-->
     <enabled><!--required, boolean--></enabled>
     <fontSize min="" max=""><!--required, int--></fontSize>
     <FontColor><!--required-->
      <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
     </FontColor>
     <BackColor><!--required-->
      <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
     </BackColor>
     <Position><!--dependent-->
      <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
      <positionY  min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
      <height min="" max=""><!--required, int, height--></height>
      <width min="" max=""><!--required, int, width--></width>
     </Position>
    </AirQuality>
    <UpdateTime><!--optional, update time parameters-->
     <enabled><!--required, boolean, whether to enable--></enabled>
     <refreshTime><!--required, xs:time, refreshing time in ISO8601 time format--></refreshTime>
     <updateInterval><!--required, int, updating interval, unit: minute--></updateInterval>
     <fontSize min="" max=""><!--required, int--></fontSize>
     <FontColor><!--required-->
      <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
     </FontColor>
     <BackColor><!--required-->
      <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
     </BackColor>
     <Position><!--dependent-->
      <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
      <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
      <height min="" max=""><!--required, int, height--></height>
      <width min="" max=""><!--required, int, width--></width>
     </Position>
    </UpdateTime>
    <Wind><!--optional, wind power parameters-->
     <enabled><!--required, boolean, whether to enable--></enabled>
     <fontSize min="" max=""><!--required, int--></fontSize>
     <FontColor><!--required-->
      <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
     </FontColor>
     <BackColor><!--required-->
      <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
     </BackColor>
     <Position><!--dependent-->
      <positionX min="" max=""><!--required, int,X-coordinate of the content's position--></positionX>
      <positionY min="" max=""><!--required, int,Y-coordinate of the content's position--></positionY>
      <height min="" max=""><!--required, int, height--></height>
      <width min="" max=""><!--required, int, width--></width>
     </Position>
    </Wind>
   </WeatherParam>
```

```
    <Countdown><!--dependent, countdown material-->
    <endTime><!--required, xs:time, countdown time in ISO8601 time format--></endTime>
    <template opt="template1,template2…"><!--required, string, tempalte: "template1" (template 1), "template2…"
(template 2)--></template>
    <timeUnit opt="year,month,day,week,hour,minute,second"><!--required, string, time unit:
"year,month,day,week,hour,minute,second"--></timeUnit>
    <backPicId><!--optional, int--></backPicId>
    <TimeFontCfg><!--optional-->
     <fontSize min="" max=""><!--required, int--></fontSize>
     <FontColor><!--required-->
      <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
     </FontColor>
     <Position><!--required, content's position. The upper-left corner is the origin, and the size of the full screen is
1920*1920-->
      <positionX min="" max=""><!--required, int, X-coordinate of upper-left corner of the content's rectangle frame--
></positionX>
      <positionY min="" max=""><!--required, int, Y-coordinate of upper-left corner of the content's rectangle frame--
></positionY>
       <height min="" max=""><!--required, int, height of the content's rectangle frame--></height>
       <width min="" max=""><!--required, int, width of the content's rectangle frame--></width>
     </Position>
    </TimeFontCfg>
    </Countdown>
    <localInputNo opt="VGA,HDMI"><!--dependent, string, local input No.--></localInputNo>
    <HyperlinkBtn><!--dependent-->
     <backPicId><!--optional, int,  ID of the control's background picture--></backPicId>
    </HyperlinkBtn>
   </Windows><!--optional-->
 </WindowsList>
</Page>
```

E.45 XML_Cap_PlanSearchProfile

XML message about the capability of parameters about searching for program schedules

```
<PlanSearchProfile version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <maxTimeSpansNum><!--required, xs:integer--></maxTimeSpansNum>
  <maxMatchResults><!--required, xs:integer--></maxMatchResults>
  <maxSearchTimeout><!--optional, xs:integer--></maxSearchTimeout>
  <maxConcurrentSearches><!--optional, xs:integer--></maxConcurrentSearches>
  <scheduleNo><!--optional, xs:integer, program schedule No.--></scheduleNo>
  <releaseType opt="byTerminal,byOrg,byTerminalOrg,all"><!--optional, xs:string--></releaseType>
  <releaseState opt="notRelease,releasing,released,all"><!--optional, xs:string,rlease status--></releaseState>
  <isSupportSort><!--optional, xs:boolean, whether to enbale sort--></isSupportSort>
  <isSupportKeyword><!--optional, xs:boolean--></isSupportKeyword>
</PlanSearchProfile>
```

E.46 XML_Cap_PlaySchedule

XML message about the program schedule configuration capability

```
<PlaySchedule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, xs:integer, program schedule ID--></id>
 <scheduleName max=""><!--required, xs:string, program schedule name--></scheduleName>
 <scheduleRemarks max=""><!--optional, xs:string, program schedule description--></scheduleRemarks>
 <approveState opt="approved,notPass,notApprove"><!--optional, xs:string, approval status: "approved"-pass,
"notPass"-not pass, "notApprove"-not approved--></approveState>
 <approveRemarks max=""><!--optional, xs:string, approval remarks--></approveRemarks>
 <scheduleMode opt="normal,decode,touch,decodeTouch"><!--optional, xs:string, program schedule mode: mormal,
decode and touch--></scheduleMode>
 <orgNo><!--optional, xs:integer, organization No.--></orgNo>
 <scheduleType opt="selfDefine,daily,weekly,loop,defaultSchedule"><!--optional, xs:string, program schedule type:
"daily"-daily schedule, "weekly"-weekly schedule, "selfDefine"-custom schedule, loop-loop schedule,
"defaultSchedule"-default schedule--></scheduleType>
 <shareProperty opt="public,private"><!--optional, xs:string, shared property: public, private--></shareProperty>
 <DailySchedule><!--dependent, daily schedule-->
  <PlaySpanList size=""><!--required-->
   <PlaySpan><!--required-->
    <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
    <programNo><!--required, xs:integer, No. of the shown program--></programNo>
    <TimeRange><!--required, play duration-->
     <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
     <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
    </TimeRange>
   </PlaySpan>
  </PlaySpanList>
 </DailySchedule>
 <WeeklySchedule><!--dependent, weekly schedule-->
  <DayList size=""><!--required-->
   <Day><!--required-->
    <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
    <dayOfWeek opt="monday,tuesday,...,sunday"><!--required, xs:string, day of a week --></dayOfWeek>
    <PlaySpanList size=""><!--required, play schedule-->
    <PlaySpan><!--required-->
   <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
   <programNo><!--required, xs:integer, No. of the looped program--></programNo>
   <TimeRange><!--required, play duration-->
      <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
      <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
     </TimeRange>
    </PlaySpan>
   </PlaySpanList>
  </Day>
 </DayList>
 </WeeklySchedule>
 <LoopSchedule><!--dependent, loop schedule-->
  <ProgramNoList size=""><!--required, list of looping programs, normal mode-->
   <programNo><!--required, xs:integer, No. of the looped program--></programNo>
```

```
  </ProgramNoList>
  <LoopTimeSpanList size=""><!--dependent-->
   <LoopTimeSpan><!--optional-->
    <TimeRange><!--required, play duration-->
     <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
     <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
    </TimeRange>
    <ProgramNoList size=""><!--required, list of loop programs-->
     <programNo><!--required, xs:integer, program No.--></programNo>
   </ProgramNoList>
   </LoopTimeSpan>
  </LoopTimeSpanList>
 </LoopSchedule>
 <SelfDefineSchedule><!--dependent-->
  <SelfDefineList size=""><!--required-->
   <SelfDefine><!--required, custom play duration-->
    <id><!--required, xs:integer, custom play duration No.--></id>
    <programNo><!--required, xs:integer, program No.--></programNo>
    <TimeRange><!--required, play duration-->
     <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
     <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
    </TimeRange>
   </SelfDefine>
  </SelfDefineList>
 </SelfDefineSchedule>
 <DefaultSchedule><!--dependent, default program schedule-->
  <programNo><!--required, xs:integer, program No.--></programNo>
 </DefaultSchedule>
 <HolidaySchedule><!--optional, holiday schedule, which can be attached to the daily or weekly schedule-->
  <PlaySpanList><!--required, daily schedule-->
   <PlaySpan><!--required, daily schedule-->
    <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
    <programNo><!--required, xs:integer, program No.--></programNo>
    <TimeRange><!--required, duration-->
     <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
     <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
    </TimeRange>
   </PlaySpan>
  </PlaySpanList>
 </HolidaySchedule>
</PlaySchedule>
```

E.47 XML_Cap_PlayScheduleBatchInfo

XML message about capability of program schedule batch configuration

```
<PlayScheduleBatchInfo version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <operatorType opt="property,remark,approve, organization"><!--required, xs:string, parameters: property, remark,
approval, organizationorganization--></operatorType>
 <shareProperty opt="public,private"><!--dependent, xs:string, shared property: public, private--></shareProperty>
```

```
  <scheduleRemarks><!--dependent, xs:string, program schedule description--></scheduleRemarks>
  <approveState opt="approved,notPass,notApprove"><!--dependent, xs:string, approval status: "approved"-pass,
"notPass"-not pass, "notApprove"-not approved--></approveState>
  <approveRemarks><!--dependent, xs:string, approval remarks--></approveRemarks>
  <orgNo><!--optional, xs:integer, organization No.--></orgNo>
  <PlayScheduleIdList size="">
    <playScheduleId><!--required, xs:integer, program schedule ID--></playScheduleId>
  </PlayScheduleIdList>
</PlayScheduleBatchInfo>
```

E.48 XML_Cap_Program

XML message about capability of program parameters

```
<Program version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--required, xs:integer, program ID--></id>
  <programName max=""><!--required, xs:string, program name--></programName>
  <programRemarks max=""><!--required, xs:string, program description--></programRemarks>
  <shareProperty opt="public,private"><!--optional, xs:string, shared property: public, private--></shareProperty>
  <approveState opt="approved,notPass,notApprove"><!--optional, xs:string, approval status: "approved"-pass,
"notPass"-not pass, "notApprove"-not approved--></approveState>
  <approveRemarks max=""><!--optional, xs:string, approval remarks--></approveRemarks>
  <programType opt="normal,decode,touch,decodeTouch"><!--optional, xs:string, program type: normal, decode,
touch, "decodeTouch"-decode and touch, character (welcome words, which is used for access control devices)--></
programType>
  <orgNo><!--optional, xs:integer, organization No.--></orgNo>
  <Resolution><!--required-->
    <resolutionName opt="1920*1080,1080*1920"><!--optional, xs:string, resolution --></resolutionName>
      <imageWidth min="" max=""><!--required, xs:integer, resolution width--></imageWidth>
    <imageHeight min="" max=""><!--required, xs:integer, resolution height--></imageHeight>
  </Resolution>
  <PageList size=""/><!--required, page list-->
  <programSize><!--read-only,  optional, xs:integer, page list, unit: byte--></programSize>
  <programLength><!--read-only,  optional, xs:integer, program duration, unit: second--></programLength>
</Program>
```

See Also

XML_PageList

E.49 XML_Cap_ProgramBatchInfo

XML message about capability of program batch configuration parameters

```
<ProgramBatchInfo version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <operatorType opt="property,remark,approve,organization"><!--required, xs:string, paramter: property, remark,
approve, organization--></operatorType>
  <shareProperty opt="public,private"><!--dependent, xs:string, shared property: public, private--></shareProperty>
  <programRemarks><!--dependent, xs:string, program description--></programRemarks>
```

```
  <approveState opt="approved,notPass,notApprove"><!--dependent, xs:string, approval status: "approved"-pass,
"notPass"-not pass, "notApprove"-not approved--></approveState>
  <approveRemarks><!--dependent, xs:string, approval remarks--></approveRemarks>
  <orgNo><!--optional, xs:integer, organization No.--></orgNo>
  <ProgramIdList size="">
    <programId><!--required, xs:integer, program No.--></programId>
  </ProgramIdList>
</ProgramBatchInfo>
```

E.50 XML_Cap_ProgramSearchProfile

XML message about capability of program search parameters

```
<ProgramSearchProfile version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <maxTimeSpansNum><!--required, xs:integer, maximum number of periods--></maxTimeSpansNum>
  <maxMatchResults><!--required, xs:integer, maximum matched results returned per search--></maxMatchResults>
  <maxSearchTimeout><!--optional, xs:integer, timeout period of search--></maxSearchTimeout>
  <maxConcurrentSearches><!--optional, xs:integer, maximum number of concurrent searches--></
maxConcurrentSearches>
  <approveState opt="approved,notPass,notApprove,all"><!--optional, xs:integer, approval status: "approved"-pass,
"notPass"-not pass, "notApprove"-not approved, all--></approveState>
  <shareProperty opt="public,private,all"><!--optional, xs:integer, shared property: public, private, all--></
shareProperty>
  <isSupportUploader><!--optional, xs:boolean, whether it supports searching by uploader--></isSupportUploader>
  <isSupportResolution><!--optional, xs:boolean, whether it supports searching by resolution--></isSupportResolution>
  <isSupportProgramName><!--optional, xs:boolean, whether it supports searching by program name--></
isSupportProgramName>
  <isSupportProgramNameLike><!--optional, xs:boolean, whether it supports fuzzy search by program name--></
isSupportProgramNameLike>
  <isSupportProgramRemarksLike><!--optional, xs:boolean, whether it supports fuzzy search by program description--
></isSupportProgramRemarksLike>
  <isSupportModer><!--optional, xs:boolean, whether it supports searching by editor name--></isSupportModer>
  <isSupportOrgName><!--optional, xs:boolean, whether it supports searching by organization name--></
isSupportOrgName>
  <programType opt="normal,decode,touch,decodeTouch"><!--optional, xs:integer, program type: norma, decode,
touch, "decodeTouch"-decode and touch--></programType>
  <maxResolutionNum><!--optional, xs:integer, maximum number of resolutions--></maxResolutionNum>
  <isSupportSubOrg><!--optional, xs:boolean, whether it supports searching by lower-level organization--></
isSupportSubOrg>
  <isSupportSort><!--optional, xs:boolean, whether it supports sort--></isSupportSort>
  <isSupportKeyword><!--optional, xs:boolean, whether it supports searching by keyword--></isSupportKeyword>
  <isSptSearchByID><!--optional, xs:boolean, whether it supports batch search by program ID--></isSptSearchByID>
</ProgramSearchProfile>
```

E.51 XML_Cap_PublishServerAddr

XML message about capability of terminal server address parameters

```
<PublishServerAddr version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <addressingFormatType opt="ipaddress,hostname"><!--required, xs:string, address type:IP address, domain name--
></addressingFormatType>
 <hostName min="" max=""><!--dependent, xs:string, domain name--></hostName>
 <ipVersion opt="v4,v6,dual"><!--required, xs:string, IP address type: IPv4, IPv6, IPv4 and IPv6--></ipVersion>
 <ipAddress><!--dependent, xs:string, IPv4 address--></ipAddress>
 <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
 <portNo><!--optional, xs:integer, port No.--></portNo>
 <registerStatus><!--read-only,  optional, xs:boolean, registration status--></registerStatus>
 <userName><!--optional, xs:string, server user name--></userName>
 <password><!--optional, xs:string, server password--></password>
 <operateType opt="byTerminal,byOrg"><!--required, xs:string, operation mode: "byTerminal"-by terminal, "byOrg"-
by organization--></operateType>
 <TerminalNoList size=""><!--dependent, terminal No. list-->
  <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
 </TerminalNoList>
  <OrgNoList size=""><!--dependent, organization No. list-->
   <orgNo><!--required, xs:integer, organization No.--></orgNo>
  </OrgNoList>
</PublishServerAddr>
```

E.52 XML_Cap_RemotePermission

XML message about user remote permissions

```
<RemotePermission xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <record>
  <!--optional, xs:boolean, whether the user has the recording permission-->
 </record>
 <playBack>
  <!--optional, xs:boolean, whether the user has the playback permission-->
 </playBack>
 <preview>
  <!--optional, xs:boolean, whether the user has the preview permission-->
 </preview>
 <videoChannelPermissionList>
  <!--optional-->
  <videoChannelPermission>
   <!--list, optional-->
   <id>
    <!--required, xs:integer, this filed must correspond to the video input channel ID-->
   </id>
   <preview>
    <!--optional, xs:boolean, whether the user has the preview permission-->
   </preview>
   <palyBack>
    <!--optional, xs:boolean, whether the user has the playback permission-->
   </palyBack>
   <record>
```

```
    <!--optional, xs:boolean, whether the user has the recording permission-->
  </record>
 </videoChannelPermission>
</videoChannelPermissionList>
<ptzControl>
 <!--optional, xs:boolean, whether the user has the PTZ control permission-->
</ptzControl>
<ptzChannelPermissionList>
 <!--optional-->
 <ptzChannelPermission>
  <!--list,optional-->
  <id>
   <!--required, xs:integer, this field must correspond to PTZ ID-->
  </id>
  <ptzControl>
   <!--optional, xs:boolean, whether the user has the permission of PTZ control-->
  </ptzControl>
 </ptzChannelPermission>
</ptzChannelPermissionList>
<logOrStateCheck>
 <!--optional, xs:boolean-->
</logOrStateCheck>
<parameterConfig>
 <!--optional, xs:boolean, whether the user has the parameter configuration permission-->
</parameterConfig>
<restartOrShutdown>
 <!--optional, xs:boolean, whether the user has the restart permission-->
</restartOrShutdown>
<upgrade>
 <!--optional, xs:boolean, whether the user has the updating permission-->
</upgrade>
<voiceTalk>
 <!--optional, xs:boolean, whether the user has the two-way audio permission-->
</voiceTalk>
<transParentChannel>
 <!--optional, xs:boolean-->
</transParentChannel>
<contorlLocalOut>
 <!--optional, xs:boolean-->
</contorlLocalOut>
<alarmOutOrUpload>
 <!--optional, xs:boolean-->
</alarmOutOrUpload>
<materialReview>
 <!--optional, xs:boolean, whether the user has the materials reviewing permission-->
</materialReview>
<programReview>
 <!--optional, xs:boolean, whether the user has the program reviewing permission-->
</programReview>
<uploadMaterial>
 <!--optional, xs:boolean, whether the user has the permission of uploading materials-->
</uploadMaterial>
```

```
<addProgram>
  <!--optional, xs:boolean, whether the user has the permission of creating programs-->
</addProgram>
<addSchedule>
  <!--optional, xs:boolean, whether the user has the permission of adding, deleting, and setting schedules-->
</addSchedule>
<programPlay>
  <!--optional, xs:boolean, whether the user has the information playing permission-->
</programPlay>
<terminalMgr>
  <!--optional, xs:boolean, whether the user has the terminal management permission-->
</terminalMgr>
<shopSmart>
  <!--optional, xs:boolean, whether the user has the shop smart permission-->
</shopSmart>
<materialReplace>
  <!--optional, xs:boolean, whether the user has the material replacing permission-->
</materialReplace>
<scheduleRelease>
  <!--optional, xs:boolean, whether the user has the permission of releasing program schedules-->
</scheduleRelease>
<scheduleReview>
  <!--optional, xs:boolean, whether the user has the schedule reviewing permission-->
</scheduleReview>
<addTerminal>
  <!--optional, xs:boolean, whether the user has the permission of adding, deleting, and setting terminals-->
</addTerminal>
<terminalDispatch>
  <!--optional, xs:boolean, whether the user has the terminal relocating permission-->
</terminalDispatch>
<addUser>
  <!--optional, xs:boolean, whether the user has the permission of adding, deleting, and setting users-->
</addUser>
<addOrg>
  <!--optional, xs:boolean, whether the user has the permission of adding, deleting, and setting organizations -->
</addOrg>
<logMgr>
  <!--optional, xs:boolean, whether the user has the log management permission -->
</logMgr>
<dataUpdate>
  <!--optional, xs:boolean, whether the user has the permission of updating call data-->
</dataUpdate>
<insertMessage>
  <!--optional, xs:boolean, whether the user has the permission of cutting a text-->
</insertMessage>
<MgrTerminal>
  <TerminalNoList>
    <!--optional, terminal list-->
    <terminalNo>
      <!--list, xs:integer, terminal No.-->
    </terminalNo>
  </TerminalNoList>
```

```
</MgrTerminal>
</RemotePermission>
```

E.53 XML_Cap_ScheduleRelease

XML message about capability of program schedule release parameters

```
<ScheduleRelease version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <scheduleNo><!--required, xs:integer, program No.--></scheduleNo>
 <effectiveTime><!---optional, xs:time,ISO8601 time, effective time--></effectiveTime>
 <releaseType opt="byTerminal,byOrg,byTerminalOrg,cancelAll"><!--required, xs:string, releasing mode: "byTerminal"-
by terminal, "byOrg"-by organization, "byTerminalOrg"-by terminal or organization, "cancelAll"-cancel--></
releaseType>
 <TerminalNoList size=""><!--dependent-->
  <terminalNo><!--required, xs:integer, terminal No.--></terminalNo>
 </TerminalNoList>
 <TerminalGroupNoList size=""><!--dependent-->
  <terminalGroupNo><!--required, xs:integer, terminal group list--></terminalGroupNo>
 </TerminalGroupNoList>
 <OrgNoList size=""><!--dependent-->
  <orgNo><!--required, xs:integer, organization No.--></orgNo>
 </OrgNoList>
</ScheduleRelease>
```

E.54 XML_Cap_ScheduleSearchProfile

XML message about capability of program schedule search parameters

```
<ScheduleSearchProfile version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <maxTimeSpansNum><!--required, xs:integer, maximum number of periods--></maxTimeSpansNum>
 <maxMatchResults><!--required, xs:integer, maximum matched results returned per search--></maxMatchResults>
 <maxSearchTimeout><!--optional, xs:integer, timeout period of search--></maxSearchTimeout>
 <maxConcurrentSearches><!--optional, xs:integer, maximum number of concurrent searches--></
maxConcurrentSearches>
 <approveState opt="approved,notPass,notApprove,all"><!--optional, xs:string, approval status--></approveState>
 <shareProperty opt="public,private,all"><!--optional, xs:string, shared property--></shareProperty>
 <isSupportUploader><!--optional, xs:boolean, whether it supports searching by uploader--></isSupportUploader>
 <scheduleType opt="selfDefine,daily,weekly,loop,defaultSchedule,all"><!--optional, xs:string, program schedule type--
></scheduleType>
 <scheduleMode opt="normal,decode,touch, decodeTouch"><!--optional, xs:string, program schedule mode--></
scheduleMode>
 <isSupportScheduleName><!--optional, xs:boolean, whether it supports searching by program schedule name--></
isSupportScheduleName>
 <isSupportScheduleNameLike><!--optional, xs:boolean, whether it supports fuzzy search by program schedule name--
></isSupportScheduleNameLike>
 <isSupportScheduleRemarksLike><!--optional, xs:boolean, whether it supports fuzzy search by program schedule
description--></isSupportScheduleRemarksLike>
 <isSupportModer><!--optional, xs:boolean, whether it supports searching by operator--></isSupportModer>
 <isSupportOrgName><!--optional, xs:boolean, whether it supports searching by organization name--></
```

isSupportOrgName>
  <isSupportSubOrg><!--optional, xs:boolean, whether it supports searching by lower-level organization--></
isSupportSubOrg>
  <isSupportSort><!--optional, xs:boolean, whether it supports searching by organization category--></isSupportSort>
  <isSupportKeyword><!--optional, xs:boolean, whether it supports searching by keyword--></isSupportKeyword>
</ScheduleSearchProfile>

E.55 XML_Cap_SwitchPlanCfg

XML message about capability of parameters of terminal startup and shutdown schedule

```
<SwitchPlanCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <SwitchPlan>
<planType opt="daily,weekly"><!--required, xs:string, startup and shutdown schedule type: daily schedule, weekly
schedule--></planType>
  <DailyPlan><!--dependent, shutdown schedule period-->
   <SwitchSpanList size=""><!--required-->
    <SwitchSpan><!--required-->
     <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
     <switchType opt="on,off"><!--required, xs:string, startup or shutdown: "on"-startup, "off"-shutdown--></
switchType>
     <time><!--required, startup or shutdown time (ISO 8601 format)--></time>
    </SwitchSpan>
   </SwitchSpanList>
  </DailyPlan>
  <WeeklyPlan><!--dependent, weekly schedule-->
   <DayList size=""><!--required-->
    <Day><!--required-->
     <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
     <dayOfWeek opt="monday,tuesday,...,sunday"><!--required, xs:string, day of a week: Monday,Saturday...Sunday--
></dayOfWeek>
     <SwitchSpanList size=""><!--required-->
      <SwitchSpan><!--required-->
       <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
       <switchType opt="on,off"><!--required, xs:string, startup or shutdown: "on"-startup, "off"-shutdown--></
switchType>
       <time><!--required, startup or shutdown time (ISO 8601 format)--></time>
      </SwitchSpan>
     </SwitchSpanList>
    </Day>
   </DayList>
  </WeeklyPlan>
  <HolidayPlan><!--optional, holiday schedule-->
   <SwitchSpanList size=""><!--required, holiday schedule list-->
    <SwitchSpan><!--required-->
     <id><!--required, xs:integer, No. of startup or shutdown period, "1,2,3..."--></id>
     <switchType opt="on,off"><!--required, xs:string, startup or shutdown: "on"-startup, "off"-shutdown--></
switchType>
     <time><!--required, xs:time, startup or shutdown time (ISO 8601 format)--></time>
    </SwitchSpan>
```

```
    </SwitchSpanList>
   </HolidayPlan>
  </SwitchPlan>
  <OperateParam><!--required-->
   <operateType opt="byTerminal,byOrg"><!--required, xs:string, operation mode: by terminal, by organization--></
operateType>
   <TerminalNoList size=""><!--dependent, terminal No. list-->
    <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
   </TerminalNoList>
   <OrgNoList size=""><!--dependent, organization No. list-->
    <orgNo><!--required, xs:integer, organization No.--></orgNo>
   </OrgNoList>
  </OperateParam>
</SwitchPlanCfg>
```

E.56 XML_Cap_TerminalsBatchInfo

XML message about terminal batch configuration capability

```
<TerminalsBatchInfo xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <operatorType opt="remark,organization,dual" >
  <!--required, xs:string, parameter to be configured in a batch: remark, organization, "dual"-remark and
organization-->
 </operatorType>
 <terminalRemarks>
  <!--dependent, xs:string, terminal remark-->
 </terminalRemarks>
 <orgNo>
  <!--dependent, xs:integer, organization No.-->
 </orgNo>
 <TerminalsIdList size="" >
  <terminalsId>
   <!--list-->
   <!--required, xs:integer, terminal ID-->
  </terminalsId>
 </TerminalsIdList>
</TerminalsBatchInfo>
```

E.57 XML_Cap_TerminalConfig

XML message about capability of parameters of a single terminal

```
<TerminalConfig version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, xs:integer, terminal ID--></id>
 <PlayerParam><!--optional, player parameters-->
  <volume min="" max=""><!--required, xs:integer, volume, range: [0,100]--></volume>
 </PlayerParam>
 <ScreenParam><!--optional, screen parameters-->
  <autoLightEnable opt="true,false"><!--optional, xs:boolean, whether to enable auto-brightness configuration--></
```

```
autoLightEnable>
    <lightMode opt="30,40,50,60,70,80"><!--optional, xs:integer, backlight mode, which is valid only when auto-
brightness mode (autoLightEnable) is enabled--></lightMode>
    <backLightLevel min="" max=""><!--optional, xs:integer, brightness, which is valid only when auto-brightness mode
(autoLightEnable) is disabled--></backLightLevel>
    <bootLogoEnabled><!--optional, xs:boolean, whether to display logo when power on--></bootLogoEnabled>
  </ScreenParam>
  <DefaultSchedule><!--optional, default program schedule-->
    <scheduleId><!--optional, xs:integer, program schedule ID--></scheduleId>
    <scheduleName><!--optional, xs:string, program schedule name--></scheduleName>
    <enable opt="true,false"><!--optional, xs:boolean, whether to enabledefault program schedule--></enable>
  </DefaultSchedule>
  <PasswordCfg><!--optional, terminal password configuration-->
    <oldPwd min="" max=""><!--write-only, required, xs:string, old password--></oldPwd>
    <newPwd min="" max=""><!--write-only, required, xs:string, new password--></newPwd>
  </PasswordCfg>
  <TemperatureCfg><!--dependent, temperature protection-->
    <enable opt="true,false"><!--required, xs:boolean, whether to enable temperature protection--></enable>
    <securityValue min="" max=""><!--required, xs:integer, security value; if the terminal temperature is lower than this
value, it will restart--></securityValue>
    <protectValue min="" max=""><!--required, xs:integer, protection value; if the terminal temperature is higher than
this value, it will shutdown--></protectValue>
  </TemperatureCfg>
</TerminalConfig>
```

E.58 XML_Cap_Terminals

XML message about terminal parameter capability

```
<Terminals version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--required, xs:integer, terminal ID--></id>
  <terminalName max=""><!--required, xs:string, terminal name--></terminalName>
  <terminalRemarks max=""><!--required, xs:string, terminal description--></terminalRemarks>
  <registerType opt="pull,push"><!--required, xs:string, terminal registration type: pull, push--></registerType>
  <thirdPartyType opt=""><!--optional, xs:string, third-party type--></thirdPartyType>
  <onlineState><!--read-only, optional, xs:string, online status: online, offline--></onlineState>
  <PushModeInfo><!--dependent-->
    <characteristicCode min="" max=""><!--required, xs:string, attribute code--></characteristicCode>
    <IpAddress><!--read-only, optional, IP address type-->
      <ipVersion opt="v4,v6,dual"><!--required, xs:string, terminal IP version--></ipVersion>
      <ipAddress min="" max=""><!--dependent, xs:string, IP address--></ipAddress>
      <ipv6Address min="" max=""><!--dependent, xs:string, IPv6 address--></ipv6Address>
    </IpAddress>
  </PushModeInfo>
  <PullModeInfo>
    <TerminalAddress><!--required, terminal IP address-->
      <addressingFormatType opt="ipaddress,hostname"><!--required, xs:string, address type: "ipaddress"-IP address,
"hostname"-domain name--></addressingFormatType>
      <hostName max=""><!--dependent, xs:string, domain name--></hostName>
      <IpAddress><!--dependent-->
```

```
      <ipVersion opt="v4,v6,dual"><!--required, xs:string, terminal IP version--></ipVersion>
      <ipAddress><!--dependent, xs:string, IP address--></ipAddress>
      <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
     </IpAddress>
    </TerminalAddress>
    <portNo><!--required, xs:integer, terminal port No.--></portNo>
    <userName min="" max=""><!--required, xs:string, user name--></userName>
    <passWord min="" max=""><!--required, xs:string, password--></passWord>
   </PullModeInfo>
   <belongGroup><!--optional, xs:integer, organization--></belongGroup>
   <orgNo><!--optional, xs:integer, organization No.--></orgNo>
</Terminals>
```

E.59 XML_Cap_TerminalSearchProfile

XML message about capability of terminal search parameters

```
<TerminalSearchProfile version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <maxTimeSpansNum><!--required, xs:integer, maximum number of periods--></maxTimeSpansNum>
  <maxMatchResults><!--required, xs:integer, maximum matched results returned per search--></maxMatchResults>
  <maxSearchTimeout><!--optional, xs:integer, timeout period of search--></maxSearchTimeout>
  <maxConcurrentSearches><!--optional, xs:integer, maximum number of concurrent searches--></
maxConcurrentSearches>
  <isSupportTerminalName><!--optional, xs:boolean, whether it supports searching by terminal name--></
isSupportTerminalName>
  <isSupportTerminalNameLike><!--optional, xs:boolean, whether it supports fuzzy search by terminal name--></
isSupportTerminalNameLike>
  <isSupportTerminalRemarks><!--optional, xs:boolean, whether it supports searching by terminal description--></
isSupportTerminalRemarks>
  <isSupportOrgName><!--optional, xs:boolean, whether it supports searching by organization name--></
isSupportOrgName>
  <isSupportSoftwareVersion><!--required, xs:boolean, whether it supports searching by software version--><
isSupportSoftwareVersion>
  <onlineState opt="online,offline,all"><!--optional, xs:string, online status: online, offine, all--></onlineState>
  <publishState opt="publishing,success,failed,null"><!--optional, xs:string, release status: "publishing"-releasing,
"success"-succeeded, failed, null--></publishState>
  <insertState opt="sending,success,failed,null"><!--optional, xs:string, cut-in status: "sending"-cutting in, "success"-
succeeded, failed, null--></insertState>
  <playState opt="HDMI,VGA,schedulePlay,scheduleStop,screenOff"><!--optional, xs:string, playing status: HDMI, VGA,
"schedulePlay"-play program schedule, "scheduleStop"-pause, "screenOff"-screen off--></playState>
</TerminalSearchProfile>
```

E.60 XML_Cap_User

XML message about user configuration capability

```
<User xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
<id>
   <!--required, xs:integer, user ID, value range: [1,16]-->
```

```
</id>
<userName>
 <!--required, xs:string -->
</userName>
<password>
 <!--required, xs:string, read-only-->
</password>
<bondIpAddressList>
 <bondIpAddress>
  <id>
   <!--required, xs:integer -->
  </id>
  <ipAddress>
   <!--dependent, xs:string -->
  </ipAddress>
  <ipv6Address>
   <!--dependent, xs:string -->
  </ipv6Address>
 </bondIpAddress>
</bondIpAddressList>
<bondMacAddressList>
 <bondMacAddress>
  <id>
   <!--required, xs:integer -->
  </id>
  <macAddress>
   <!--optional, xs:string -->
  </macAddress>
 </bondMacAddress>
</bondMacAddressList>
<userLevel>
 <!--optional, xs:string, user type: "Administrator", "Operator", "Viewer"-->
</userLevel>
<attribute>
 <!--optional-->
 <inherent>
  <!--xs:boolean -->
 </inherent>
</attribute>
<belongUserId>
 <!--optional, xs:integer, upper-level user ID, "0"-there is no upper-level user-->
</belongUserId>
<belongOrgNo>
 <!--optional, xs:integer, organization No.-->
</belongOrgNo>
<cardList>
 <!--optional, object, list of cards that belong to the user-->
 <card>
  <!--optional, object, card-->
  <id>
   <!--optional, int, card ID, range:[1,16]-->1
  </id>
```

```
    <name>
      <!--optional, string, card name, the maximum length is 32 bytes-->test
    </name>
  </card>
</cardList>
<remoteCtrlList>
  <!--optional, object, list of keyfobs that belong to the user-->
  <remoteCtrl>
    <!--optional, object, keyfob-->
    <id>
      <!--optional, int, keyfob ID, range:[1,16]-->1
    </id>
    <name>
      <!--optional, string, keyfob name, the maximum length is 32 bytes-->test
    </name>
  </remoteCtrl>
</remoteCtrlList>
<userNo min="501" max="null">
  <!--optional, int, displayed No. corresponding to the user ID-->1
</userNo>
<adminType opt="Cloud,LAN">
  <!--optional, string, admin type, "Cloud" (user account created in the cloud), "LAN" (user account created on LAN)--
>Cloud
</adminType>
<installerType opt="Cloud,LAN">
  <!--optional, string, installer type, "Cloud" (user account created in the cloud), "LAN" (user account created on
LAN)-->Cloud
</installerType>
</User>
```

E.61 XML_Cap_VolumePlanCfg

XML message about capability of terminal volume configuration

```
<VolumePlanCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <VolumePlan><!--required, volume adjustment schedule-->
    <planType opt="daily,weekly"><!--required, xs:string, schedule type: "daily"-daily schedule, "weekly"-weekly
schedule--></planType>
    <DailyPlan><!--dependent, daily schedule-->
      <VolumeSpanList size="8"><!--required-->
        <VolumeSpan><!--required-->
          <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
          <volume min="0" max="100"><!--required, xs:integer, volume, range: [0,100]--></volume>
          <beginTime><!--required, volume start time (ISO 8601 format)--></beginTime>
          <endTime><!--required, volume end time (ISO 8601 format)--></endTime>
        </VolumeSpan>
      </VolumeSpanList>
    </DailyPlan>
    <WeeklyPlan><!--dependent, weekly schedule-->
      <DayList size="7"><!--required-->
```

```
    <Day><!--required-->
     <id><!--required, xs:integer, day of a month--></id>
     <dayOfWeek opt="monday,tuesday,wednesday,thursday,friday,saturday,sunday"><!--required, xs:string, day of a
week--></dayOfWeek>
     <VolumeSpanList size="8"><!--required-->
      <VolumeSpan><!--required-->
       <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
       <volume min="0" max="100"><!--required, xs:integer, volume, range: [0,100]--></volume>
       <beginTime><!--required, volume start time (ISO 8601 format)--></beginTime>
       <endTime><!--required, volume end time (ISO 8601 format)--></endTime>
      </VolumeSpan>
     </VolumeSpanList>
    </Day>
   </DayList>
  </WeeklyPlan>
  <HolidayPlan><!--optional, holiday schedule -->
   <VolumeSpanList size="8"><!--required, holiday schedule of volume adjustment-->
    <VolumeSpan><!--required-->
     <id><!--required, xs:integer, date--></id>
     <volume min="0" max="100"><!--required, xs:integer, volume, range: [0,100]--></volume>
     <beginTime><!--required, volume start time (ISO 8601 format)--></beginTime>
     <endTime><!--required, volume end time (ISO 8601 format)--></endTime>
    </VolumeSpan>
   </VolumeSpanList>
  </HolidayPlan>
 </VolumePlan>
 <OperateParam><!--required-->
  <operateType opt="byTerminal,byOrg"><!--required, xs:string, operation mode: "byTerminal"-by terminal, "byOrg"-
by organization--></operateType>
  <TerminalNoList size=""><!--dependent, terminal No. list-->
   <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
  </TerminalNoList>
  <OrgNoList size=""><!--dependent, organization No. list-->
   <orgNo><!--required, xs:integer, organization No.--></orgNo>
  </OrgNoList>
 </OperateParam>
</VolumePlanCfg>
```

E.62 XML_ControlParam

XML message about terminal control parameters

```
<ControlParam version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <operateType >
   <!--required, xs:string, operations: "startPlay"-start playing, "insert"-cut-in, "stopInserstop"-stop cut-in, "Play"-stop
playing, "powerOn"-startup, "powerOff"-shutdown, reboot, "restoreConfig"-restore configuration, "planCtrl"-control
schedule, "cancelInsert"-cancel cut-in , "publishStateShow"-display terminal release progress, "publishStateHide"-hide
terminal release progress-->
 </operateType>
 <InsertInfo>
```

```
<!--dependent, message to cut-in,  this field is valid only when operateType is "insert"->
<storageInfo>
 <!--optional-->
 <terminalID>
  <!--optional, string, terminal ID-->
 </terminalID>
 <xmlUniqueSeq>
  <!--optional, string, XML file ID-->
 </xmlUniqueSeq>
 <storageId>
  <!--optional, string, ID of position where the XML file is stored-->
 </storageId>
 <serverIP>
  <!--optional, string, server ID-->
 </serverIP>
 <serverPort>
  <!--optional, integer, server port No.-->
 </serverPort>
</storageInfo>
<insertType >
 <!--required, xs:string, content to cut-in: material, program-->
</insertType>
<MaterialInfo>
 <!--dependent-->
 <materialNo>
  <!--required, xs:integer-->
 </materialNo>
 <playMode>
  <!--required, "byTime,byEndTime "-->
 </playMode>
 <countNum>
  <!--dependent, xs:integer, playing times-->
 </countNum>
 <playDuration>
  <!--dependent, xs:integer, duration of a single playing, unit: second-->
 </playDuration>
 <playEndTime>
  <!--optional, xs:string, end time (ISO 8601 format)-->
 </playEndTime>
</MaterialInfo>
<ProgramInfo>
 <!--dependent, program information-->
 <programNo>
  <!--required, xs:integer, program No.-->
 </programNo>
 <playMode>
  <!--required, "byTime,byEndTime "-->
 </playMode>
 <countNum>
  <!--dependent, xs:integer-->
 </countNum>
 <playDuration>
```

```
   <!--dependent, xs:integer, playing duration, unit: second->
  </playDuration>
  <playEndTime>
   <!--optional, xs:string, playing end time (ISO 8601 format)-->
  </playEndTime>
</ProgramInfo>
<coordinateType>
 <!--optional, xs:string-->
</coordinateType>
<Position>
 <!--optional, position-->
 <positionX>
  <!--required, xs:integer, X position-->
 </positionX>
 <positionY>
  <!--required, xs:integer, Y position-->
 </positionY>
 <height>
  <!--required, xs:integer, height-->
 </height>
 <width>
  <!--required, xs:integer, width-->
 </width>
</Position>
<InsertEffect>
 <!--optional, playing effect-->
 <CharactersEffect>
  <!--dependent-->
  <fontSize>
   <!--required, xs:integer-->
  </fontSize>
  <FontColor>
   <!--required, foreground color -->
   <RGB>
    <!--required, xs:integer-->
   </RGB>
  </FontColor>
  <BackColor>
   <!--required, background color -->
   <RGB>
    <!--required, xs:integer-->
   </RGB>
  </BackColor>
  <backTransparent>
   <!--required, xs:integer, transparency-->
  </backTransparent>
  <subtitlesEnabled >
   <!--required, xs:string-->
  </subtitlesEnabled>
  <scrollDirection>
   <!--required, xs:string, scrolling direction-->
  </scrollDirection>
```

```
     <scrollSpeed>
      <!--required, xs:integer, scrolling speed-->
     </scrollSpeed>
    </CharactersEffect>
    <pageTime>
     <!--dependent, xs:integer, unit: second-->
    </pageTime>
    <scrollSpeed>
     <!--dependent, xs:integer, scrolling speed-->
    </scrollSpeed>
   </InsertEffect>
   <taskName>
    <!--optional, xs:string, cut-in task name-->
   </taskName>
  </InsertInfo>
  <PlanCtrlParam>
   <!--dependent-->
   <planType >
    <!--required, xs:string, schedule type: "switchPlan"-startup and shutdown schedule, "volumePlan"-volume
adjustment schedule, "inputPlan"-auto switch release information-->
   </planType>
   <enabled  >
    <!--required, xs:string, whether to enable-->
   </enabled>
  </PlanCtrlParam>
  <targetType>
   <!--required, xs:string, operation mode: "terminals"-by terminal, "terminalGroups"-by terminal group, "byOrg"-by
organization-->
  </targetType>
  <TerminalNoList >
   <!--dependent, terminal ID list-->
   <terminalNo>
    <!--list, required, xs:integer, terminal ID-->
   </terminalNo>
  </TerminalNoList>
  <OrgNoList>
   <!--dependent, organization No. list-->
   <orgNo>
    <!--list, required, xs:integer, organization No.-->
   </orgNo>
  </OrgNoList>
</ControlParam>
```

E.63 XML_DiscoveryMode

XML message about terminal SADP configuration

```
<DiscoveryMode xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <ONVIFDiscoveryMode>
  <!--optional, xs:string, "discoverable,nonDiscoverable-->
```

```
    </ONVIFDiscoveryMode>
    <ISDiscoveryMode>
      <!-- optional, xs:string, "discoverable,nonDiscoverable-->
    </ISDiscoveryMode>
    <PcapMode>
      <!--optional, xs:string, "discoverable,nonDiscoverable-->
    </PcapMode>
    <SADP>
      <!--optional, xs:string, "discoverable,nonDiscoverable-->
    </SADP>
</DiscoveryMode>
```

E.64 XML_DiscoveryModeCfg

XML message about terminal SADP configuration

```
<DiscoveryModeCfg xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
  <DiscoveryMode>
    <ONVIFDiscoveryMode>
      <!--optional, xs:string, "discoverable,nonDiscoverable"-->
    </ONVIFDiscoveryMode>
    <ISDiscoveryMode>
      <!--optional, xs:string, "discoverable,nonDiscoverable"-->
    </ISDiscoveryMode>
    <PcapMode>
      <!--optional, xs:string, "discoverable,nonDiscoverable"-->
    </PcapMode>
    <SADP>
      <!--optional, xs:string, "discoverable,nonDiscoverable"-->
    </SADP>
  </DiscoveryMode>
  <OperateParam>
    <!--required-->
    <operateType>
      <!--required, xs:string, operation mode: "byTerminal"-by terminal, "byOrg"-by organization, "byTerminalOrg"-by
terminal or organization-->
    </operateType>
    <TerminalNoList>
      <!--dependent, terminal lsit-->
      <terminalNo>
        <!--list, xs:integer, terminal No.-->
      </terminalNo>
    </TerminalNoList>
    <OrgNoList>
      <!--dependent, organization lsit-->
      <orgNo>
        <!--list, xs:integer, organization No.-->
      </orgNo>
    </OrgNoList>
```

```
   </OperateParam>
</DiscoveryModeCfg>
```

E.65 XML_InputPlan

XML message about switch schedule parameters

```
<InputPlan version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <planType><!--required, xs:string, schedule type: daily schedule, weekly schedule--></planType>
 <DailyPlan><!--dependent, daily schedule-->
  <InputSpanList><!--required-->
   <InputSpan><!--required-->
    <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
    <inputType><!--required, xs:string, input type: HDMI, "InfoPublish"-information release, VGA--></inputType>
    <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
    <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
   </InputSpan>
  </InputSpanList>
 </DailyPlan>
 <WeeklyPlan><!--dependent, weekly schedule-->
  <DayList><!--required-->
   <Day><!--required-->
    <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
    <dayOfWeek><!--required, xs:string, day of a week: Monday,Saturday...Sunday--></dayOfWeek>
    <InputSpanList><!--required-->
     <InputSpan><!--required-->
      <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
      <inputType><!--required, xs:string, input type: HDMI, information release, VGA--></inputType>
      <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
      <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
     </InputSpan>
    </InputSpanList>
   </Day>
  </DayList>
 </WeeklyPlan>
 <HolidayPlan><!--optional, holiday schedule-->
  <InputSpanList><!--required, period list-->
   <InputSpan><!--required-->
    <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
    <inputType><!--required, xs:string, input type: HDMI, "InfoPublish"-information release, VGA--></inputType>
    <beginTime><!--required, xs:time, xs:string,--></beginTime>
    <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
   </InputSpan>
  </InputSpanList>
 </HolidayPlan>
</InputPlan>
```

E.66 XML_InputPlanCfg

XML message about batch configuration of switch schedules

```
<InputPlanCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <InputPlan/><!--required-->
 <OperateParam><!--required-->
  <operateType opt="byTerminal,byOrg"><!--required, xs:string, operation mode: "byTerminal"-by terminal, "byOrg"-
by organization--></operateType>
  <TerminalNoList size=""><!--dependent, terminal No. list-->
   <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
  </TerminalNoList>
  <OrgNoList size=""><!--dependent, organization No. list-->
   <orgNo><!--required, xs:integer, organization No.--></orgNo>
  </OrgNoList>
 </OperateParam>
</InputPlanCfg>
```

See Also

XML_InputPlan

E.67 XML_InsertCharacter

XML message about text message

```
<InsertCharacter version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <InsertMessageList>
  <InsertMessage><!--required, text message-->
   <id><!--required, xs:integer, text message No.--></id>
   <msgName><!--required, xs:string, text message name--></msgName>
   <content><!--required, xs:string, text message content--></content>
   <TimeRange><!--required, play duration-->
    <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
    <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
   </TimeRange>
  </InsertMessage>
 </InsertMessageList>
 <msgPos><!--required, xs:string, text message position: top, middle, bottom, "selfDefine"-custom--></msgPos>
 <Position><!--dependent, text message position, this field is valid only when msgPos is "selfDefine"-->
  <positionX><!--required, xs:integer, custom position X--></positionX>
  <positionY><!--required, xs:integer, custom position Y--></positionY>
  <height><!--required, xs:integer, height--></height>
  <width><!--required, xs:integer, width--></width>
 </Position>
 <CharactersEffect><!--required, character effect-->
  <fontSize><!--required, xs:integer, font size--></fontSize>
  <FontColor><!--required, font color-->
   <RGB/><!--required-->
```

```
    </FontColor>
    <BackColor><!--required, background color-->
     <RGB/><!--required-->
    </BackColor>
    <backTransparent><!--required, xs:integer, transparency--></backTransparent>
    <subtitlesEnabled><!--required, xs:boolean, whether to enable preview--></subtitlesEnabled>
    <scrollDirection><!--required, xs:string, scrolling direction: none, left, right, up, down--></scrollDirection>
    <scrollSpeed><!--required, xs:integer, scrolling speed--></scrollSpeed>
  </CharactersEffect>
</InsertCharacter>
```

E.68 XML_Material

XML message about material information

```
<Material version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <id><!--required, xs:integer, material ID--></id>
   <seq><!--optional, xs:integer, material serial No., which changes every time the material is modified; this field is
only valid on the link between the server and the terminal--></seq>
   <materialName><!--required, xs:string, material name--></materialName>
   <materialRemarks><!--required, xs:string, material description--></materialRemarks>
   <materialType><!--required, xs:string, material type: "static"-local material, "dynamic"-dynamic material--></
materialType>
   <approveState><!--optional, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not
approved--></approveState>
   <approveRemarks><!--optional, xs:string, approval remarks--></approveRemarks>
   <shareProperty><!--optional, xs:string, shared property: public, private--></shareProperty>
   <uploadUser><!--read-only,  required, xs:string, uploader, read-only--></uploadUser>
   <uploadTime><!--read-only,  required, xs:time, upload time (ISO 8601 format)--></uploadTime>
   <materialEncrypt><!--optional, xs:integer, material secret key, which can be used for verifying the correctness of
materials received by the terminal; this field is only valid on the link between the server and the terminal, e.g.,
JjEmNTA3NDg5NCY0JjI3OTM5MjAmYWEmMzYyOTM5OCZhMCY0MjAzMDQwJmI1JjQzMzc3ODgmNDg=--></
materialEncrypt>
   <orgNo><!--optional, xs:integer, organization No.--></orgNo>
   <orgName><!--optional, xs:string, read-only--></orgName>
   <replaceTerminal><!--optional, xs:boolean, whether the material is updated to the terminal, this field is valid only
when replacing materials--></replaceTerminal>
   <StaticMaterial><!--dep-->
     <staticMaterialType>
     <!--dependent, xs:string,  local material type-->
   </staticMaterialType>
     <picFormat><!--dependent, xs:string, image format: GIF, BMP, JPG, PNG--></picFormat>
     <flashFormat><!--dependent, xs:string, flash format: SWF--></flashFormat>
     <audioFormat><!--dependent, xs:string, audio format: MP3, WAV, WMA--></audioFormat>
     <videoFormat><!--dependent, xs:string, video format: RM, RMVB, ASF, AVI, MPG, 3GP, MOV, MKV, WMV, FLV,
MP4--></videoFormat>
     <documentFormat><!--dependent, xs:string, document format: TXT--></documentFormat>
     <pptFormat><!--dependent, xs:string, slide format: PPT, PPTX--></pptFormat>
     <docFormat><!--dependent, xs:string, word document format: DOC, DOCX--></docFormat>
     <excelFormat><!--dependent, xs:string, table format: XLS, XLSX--></excelFormat>
```

```
        <pdfFormat><!--dependent, xs:string, PDF--></pdfFormat>
        <webFormat><!--dependent, xs:string, web format: HTML, HTM--></webFormat>
        <appFormat><!--dependent, xs:string, application format: APK--></appFormat>
        <fileSize><!--required, xs:integer, file size, unit: byte--></fileSize>
        <duration><!--optional, xs:integer, playing duration, this filed is valid only when the material is a video or slide file,
unit: second--></duration>
        <uuid><!--dependent, xs:string, UUID provided by the server to identify the material, this field is valid only when
StorageInfo exists; only 8520 platform savs materials on the storage server--></uuid>
        <staticMaterialUrl><!--dependent, xs:string, material URL, this field is valid only when StorageInfo exists; only
8520 platform savs materials on the storage server--></staticMaterialUrl>
        <materialURL><!--optional, xs:string, material storage URL. If this node is returned, the device will synchronize
these data automatically until synchronization succeeded or failed due to exception (during synchronization, the API
cannot be blocked), and there is no need to call the API of uploading materials--></materialURL>
        <!--Note: 1. For a local material, you need to upload a file. If uploading this file failed, the material ID is invalid
(only for Web). 2. If this node is returned, the material ID will be valid after synchronizing data succeeded and the
asynchronous status event (eventType: asyncNotification) is uploaded-->
    </StaticMaterial>
    <DynamicMaterial><!--dependent-->
        <dynamicMaterialType opt="web,socket,rss,realStream,generalData,picUrl,dataSource"><!--dependent, xs:string,
dynamic material type--></dynamicMaterialType>
        <webUrl><!--dependent, xs:string, web URL--></webUrl>
        <rssUrl><!--dependent, xs:string, RSS URL--></rssUrl>
        <picUrl><!--dependent, xs:string, picture URL--></picUrl>
        <RealStream><!--dependent, real-time stream-->
            <destionType opt="streamMedia,normalIPC"><!--required, xs:string, streaming terminal type: Stream Media
Server, normal network camera--></destionType>
            <streamMediaUrl><!--dependent, xs:string, streaming server URL--></streamMediaUrl>
            <NormalIPC><!--dep-->
                <IpAddress><!--dep-->
                    <ipVersion opt="v4,v6,dual"><!--required, xs:string--></ipVersion>
                    <ipAddress><!--dependent, xs:string--></ipAddress>
                    <ipv6Address><!--dependent, xs:string--></ipv6Address>
                </IpAddress>
                <portNo><!--required, xs:integer--></portNo>
                <channelNo><!--required, xs:integer, channel No.--></channelNo>
                <userName><!--required, xs:string, user name for logging to deivces, which is write-only and must be
encrypted when transmission》 --></userName>
                <passWord><!--required, xs:string, password for logging to devices, which is write-only and must be
encrypted when transmission--></passWord>
                <transmitProtocol opt="tcp,udp,mcast"><!--optional, xs:string, transmission protocol--></transmitProtocol>
                <streamType opt="main,sub,third"><!--optional, xs:string, stream type--></streamType>
            </NormalIPC>
            <privateStreamMediaUrl><!--dependent, xs:string, private stream data--></privateStreamMediaUrl>
            <dataType opt="capture,liveVideo"><!--optional, xs:string, data type: capture, "liveVideo"-live video--></
dataType>
        </RealStream>
        <GeneralData><!--dependent, third-party data-->
            <SrcAddress><!--IP address of data source -->
                <ipVersion opt="v4,v6,dual"><!--required, xs:string, IP address type--></ipVersion>
                <ipAddress><!--dependent, xs:string--></ipAddress>
                <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
            </SrcAddress>
```

```
        <dataType opt="popPic,call"><!--optional, xs:string, third-party data type: "popPic"-pop-up image, call--></
dataType>
    </GeneralData>
    <dataSourceUrl><!--dependent, xs:string, data source URL, this field is valid only when the dynamic material is
data source and StorageInfo exits; only 8520 platform has the data source material--></dataSourceUrl>
  </DynamicMaterial>
</Material>
```

E.69 XML_MaterialBatchInfo

XML message about material basic information parameters

```
<MaterialBatchInfo version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <operatorType><!--required, xs:string, material basic information: "property"-shared property, "remark"-description,
"approve"-approval status, organization--></operatorType>
  <shareProperty><!--dependent, xs:string, shared property: public, private--></shareProperty>
  <materialRemarks><!--dependent, xs:string, material description--></materialRemarks>
  <approveState><!--dependent, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not
approved--></approveState>
  <approveRemarks><!--dependent, xs:string, approval remarks--></approveRemarks>
  <orgNo><!--optional, xs:integer, organization No.--></orgNo>
  <MaterialIdList>
    <materialId><!--required, xs:integer, material ID--></materialId>
  </MaterialIdList>
</MaterialBatchInfo>
```

E.70 XML_MaterialList

XML message about material information list

```
<MaterialList><!--optional-->
  <Material/><!--required-->
</MaterialList>
```

See Also

XML_Material

E.71 XML_MaterialMoreSearchDescription

XML message about parameters of searching for materials by multiple conditions

```
<MaterialMoreSearchDescription version="2.0"xmlns="http://www.isapi.org/ver20/XMLSchema">
  <searchID><!--required, xs:string, search ID, which is used to check whether the current search requester is the
same; the search ID is valid for 5 minutes --></searchID>
  <ApproveStateList><!--optional-->
    <approveState><!--optional, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not
```

approved, all--></approveState>
 </ApproveStateList>
 <shareProperty><!--required, xs:string, shared property: public, private, all--></shareProperty>
 <uploader><!--optional, xs:string, uploader, if this field is not configured, the uploader is not limited--></uploader>
 <materialName><!--optional, xs:string, material name--></materialName>
 <materialNameLike><!--optional, xs:string, fuzzy search by material name--></materialNameLike>
 <materialRemarksLike><!--optional, xs:string, fuzzy search by material description--></materialRemarksLike>
 <orgName><!--optional, xs:string, organization name--></orgName>
 <includeSubOrg><!--optional, xs:boolean, whether to included the lower level organization--></includeSubOrg>
 <materialType><!--required, xs:string, material type: "static"-local material, "dynamic"-dynamic material, all--></materialType>
 <StaticMaterialTypeList><!--dependent-->
  <staticMaterialType><!--required, xs:string, local material type: image, flash, video, audio, file, template, document, table, PDF, web, all--></staticMaterialType>
 </StaticMaterialTypeList>
 <DynamicMaterialTypeList><!--dependent-->
  <dynamicMaterialType><!--required, xs:string, dynamic material type: "web"-web URL, socket, RSS, "realStream"-real-time stream, "generalData"-third-part data type, picture URL--></dynamicMaterialType>
  <realStreamType><!--optional, xs:string, real-time stream material type: stream media server, normal network camera, all; this filed is valid only when **materialType** is "dynamic"--></realStreamType>
  <generalDataType><!--optional, xs:string, third-party data type: pop-up image, call, all, this field is valid only when **dynamicMaterialType** is "generalData"--></generalDataType>
  <streamDataType><!--optional, xs:string, real-time stream type: capture, "liveVideo"-live video, all; this field is valid only when **dynamicMaterialType** is "normalIPC"--></streamDataType>
 </DynamicMaterialTypeList>
 <minStaticMaterialSize><!--dependent, xs:integer, the minimum size of a local material, unit: byte--></minStaticMaterialSize>
 <maxStaticMaterialSize><!--dependent, xs:integer, the maximum size of a local material, unit: byte--></maxStaticMaterialSize>
 <TimeSpanList><!--optional-->
  <TimeSpan>
   <startTime><!--required, xs:time, start time (ISO 860 format)--></startTime>
   <endTime><!--required, xs:time, end time (ISO 860 format)--></endTime>
  </TimeSpan>
 </TimeSpanList>
 <keyword><!--optional, xs:string, search by keyword--></keyword>
 <sortBy><!--optional, xs:string, sort mode: by material type, by material size, by approval status, by shared property, upload time, material name--></sortBy>
 <orderMode><!--optional, xs:string, sort mode: ascend, descend --></orderMode>
 <maxResults><!--optional, xs:string, maximum number of returned results per search--></maxResults>
 <searchResultsPosition><!--optional, xs:string, the end position of search result in result list--></searchResultsPosition>
</MaterialMoreSearchDescription>

E.72 XML_MaterialSearchDescription

XML message about material search parameters

<MaterialSearchDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <searchID><!--required, xs:string, search ID, which is used to check whether the current search requester is the

same; the search ID is valid for 5 minutes --></searchID>
  <approveState><!--optional, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not approved, all--></approveState>
  <materialType><!--required, xs:string, material type: "static"-local material, "dynamic"-dynamic material, all--></materialType>
  <shareProperty><!--required, xs:string, shared property: public, private, all--></shareProperty>
  <uploader><!--optional, xs:string, uploader name--></uploader>
  <staticMaterialType><!--required, xs:string, local material type: image, flash, video, audio, file, template, document, table, PDF, web, all--></staticMaterialType>
  <minStaticMaterialSize><!--required, xs:integer, the minimum size of a local material, unit: byte--></minStaticMaterialSize>
  <maxStaticMaterialSize><!--dependent, xs:integer, the maximum size of a local material, unit: byte--></maxStaticMaterialSize>
  <dynamicMaterialType><!--dependent, xs:string, dynamic material type: "web"-web URL, socket, RSS, "realStream"-real-time stream, "generalData"-general data type, all--></dynamicMaterialType>
  <realStreamType><!--optional, xs:string, real-time stream material type: stream media server, normal network camera, all--></realStreamType>
  <TimeSpanList><!--optional-->
   <TimeSpan>
    <startTime><!--required, xs:time, start time (ISO 860 format)--></startTime>
    <endTime><!--required, xs:time, end time (ISO 860 format)--></endTime>
   </TimeSpan>
  </TimeSpanList>
  <maxResults><!--optional, xs:integer, maximum number of returned results per search--></maxResults>
  <searchResultsPosition><!--optional, xs:integer, the end position of search result in result list--></searchResultsPosition>
  <generalDataType><!--optional, xs:string, third-party data type: "popPic"-pop-up image, call, all; this field is valid only when **dynamicMaterialType** is "generalData"--></generalDataType>
  <streamDataType><!--optional, xs:string, real-time stream type: capture, "liveVideo"-live video, all; this field is valid only when **dynamicMaterialType** is "normalIPC"--></streamDataType>
</MaterialSearchDescription>

E.73 XML_MaterialSearchResult

XML message about search results of materials

<MaterialSearchResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <searchID><!--required, xs:string, search ID, which is used to check whether the current search request is the same as the previous one.; **searchID** is valid for 5 minutes--></searchID>
  <responseStatus><!--required, xs:boolean, whether it is searched: "true"-yes, "false"-no--></responseStatus>
  <responseStatusString><!--required, xs:string, search status: "true+OK"-no more results, "true+MORE"-there are more results not returned, "FAILED"-search failed, "PARAM ERROR"incorrect parameters, "TIMEOUT"-timed out--></responseStatusString>
  <totalMatches><!--required, xs:integer, total number of returned results-></totalMatches>
  <numOfMatches><!--required, xs:integer, number of matched results--></numOfMatches>
  <MaterialList><!--optional, matched material list-->
   </Material><!--required-->
  </MaterialList>
</MaterialSearchResult>

E.74 XML_Organization

XML message about organization configuration parameters

```
<Organization version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, xs:integer, organization No.--></id>
 <orgName><!--required, xs:string, organization name--></orgName>
 <orgRemarks><!--required, xs:string, organization description--></orgRemarks>
 <belongOrg><!--required, xs:integer, organization No., 0-the first level of organization--></belongOrg>
</Organization>
```

E.75 XML_OrganizationList

XML message about organization list information

```
<OrganizationList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <Organization/><!--required-->
</OrganizationList>
```

See Also

XML_Organization

E.76 XML_Page

XML message about parameters of a page

```
<Page>
 <id><!--required, int, page No.--></id>
 <PageBasicInfo><!--required, basic page information-->
  <pageName><!--required, string, page name--></pageName>
  <BackgroundColor><!--required, background color-->
   <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
  </BackgroundColor>
  <playDurationMode><!--required, string, page playing time mode: "selfDefine,auto". When the value of this node is
selfDefine, the node <playDuration> is valid; when the value is auto, it will be calculated according to the content
playing time--></playDurationMode>
  <playDuration><!--dependent, int, playing duration, unit: second--></playDuration>
  <switchDuration><!--required, int, switching duration, unit: second--></switchDuration>
  <switchEffect><!--required, string, switching effect:
"none,random,boxShrink,boxSpread,cycleShrink,cycSpread,eraseUp,eraseDown,eraseLeft,eraseRight,verticalShelter,ho
rizontalShelter,verticalChessboard,horizontalChessboard,dissolve,leftRightToCenter,ceterToLeftRight,upDownToCenter,
centerToUpDown,drawOutLeftDown,drawOutLeftUp,drawOutRightDown,drawOutRightUp,verticalLine,horizontalLine"
--></switchEffect>
  <backgroundPic><!--optional, int, background picture which is the picture material ID--></backgroundPic>
 </PageBasicInfo>
 <characterMode><!--optional, xs:string, welcome word mode on the page: mode1, mode2, mode3. For access
control devices, the position of the welcome words is fixed and can be in three modes--></characterMode>
```

```
<WindowsList><!--optional, window information-->
  <Windows>
   <id><!--required, int, content No.--></id>
   <Position><!--required, content's position. The upper-left corner is the origin, and the size of the full screen is
1920*1920-->
     <positionX><!--required, int, X-coordinate of upper-left corner of the content's rectangle frame--></positionX>
     <positionY><!--required, int, Y-coordinate of upper-left corner of the content's rectangle frame--></positionY>
     <height><!--required, int, height of the content's rectangle frame--></height>
     <width><!--required, int, width of the content's rectangle frame--></width>
   </Position>
   <layerNo><!--required, int, layer No.--></layerNo>
   <WinMaterialInfo><!--dependent, window material information-->
     <materialType><!--required, string, window material type: static, dynamic, other--></materialType>
     <staticMaterialType><!--dependent, string, local material type. This node is valid when <materialType> is static--
></staticMaterialType>
     <dynamicType><!--dependent, string, dymanic window material type:
"web,socket,rss,call,dynamicPic,realStream,capturePic, character". This node is valid when <materialType> is
dynamic--></dynamicType>
     <otherType><!--dependent, hyperlinkBtn"string, other type: "clock,weather,countdown,localInput,hyperlinkBtn"--
></otherType>
   </WinMaterialInfo>
   <TouchProperty><!--optional, touching attributes-->
     <windType><!--optional, string, window type: pop-up window, page window--></windType>
     <hyperlinkType><!--optional, string, hyperlink type: "window,page". This node is valid when <windType> is
popup--></hyperlinkType>
     <windowId><!--dependent, int, window No. (window of current page). This node is valid when <hyperlinkType> is
window--></windowId>
     <pageId><!--dependent, int, page No. This node is valid when <hyperlinkType> is page--></pageId>
   </TouchProperty>
   <PlayItemList><!--dependent, window playing list-->
    <PlayItem><!--required-->
     <id><!--required, int, playing No.--></id>
     <materialNo><!--dependent, int, material index No.--></materialNo>
     <inputChannel><!--optional, string, linked channel No. of the network camera--></inputChannel>
     <playEffect><!--required, string, playing effect: none, scroller--></playEffect>
     <MarqueeInfo><!--dependent-->
       <scrollType><!--required, string, scroller scrolling type: not scroll, scroll circularly, scroll once, scroll backwards
and forwards--></scrollType>
       <scrollDeriction><!--required, string, scroller scrolling direction: none, from top to bottom, from bottom to top,
from left to right, from right to left--></scrollDeriction>
       <scrollSpeed><!--required, int, scroller scrolling speed--></scrollSpeed>
     </MarqueeInfo>
     <PlayDuration><!--material playing duration. This node can be configured for local materials, live video, and
network camera channels-->
       <durationType><!--required, string, playing duration type, custom--></durationType>
       <duration><!--required, int, material playing duration, unit: second--></duration>
     </PlayDuration>
     <CharactersEffect><!--required, character display effect. This node is valid when the material type is text or TXT
file-->
       <fontSize><!--required, int, font size--></fontSize>
       <FontColor><!--required, font color-->
         <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
```

```
      </FontColor>
      <BackColor><!--required, background color-->
        <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </BackColor>
      <backTransparent><!--required, int,  background transparency--></backTransparent>
      <subtitlesEnabled><!--required, boolean, whether to enable character display mode--></subtitlesEnabled>
      <scrollDirection><!--required, string, character scrolling direction: "left,right,up,down"--></scrollDirection>
      <scrollSpeed><!--required, int, text scrolling speed--></scrollSpeed>
    </CharactersEffect>
    <switchEffect><!--optional, string, switching effect of the window material: from left to right, from right to left,
from bottom to top, from top to bottom, fade in and fade out, exit from the middle, pop down from the top, enter
from the lower-right corner, enter from the upper-left corner, blind horizontally, blind vertically, random effect. This
node is valid for picture materials--></switchEffect>
    <pageTime><!--dependent, int, paging interval, unit: second. This node is valid when the material is a word, ppt,
pdf, or excel file--></pageTime>
    <scrollSpeed><!--dependent, int, scrolling speed. This node is valid when the material is a static web--></
scrollSpeed>
    <CharactersAttribute><!--dependent, character attribute, this node is valid when <dynamicType> is character-->
      <fontSize><!--optional, int, font size--></fontSize>
      <FontColor><!--optional, font color-->
        <RGB><!--optional, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </FontColor>
      <BackColor><!--optional, background color-->
        <RGB><!--optional, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </BackColor>
      <backTransparent><!--optional, int, background transparency--></backTransparent>
      <alignType><!--optional, string, aligment mode:
"left,right,middle,top,bottom,verticalCenter,horizontallyCenter"--></alignType>
      <characterContent><!--optional, string, text content whose maximum size is 512 bytes. This node is valid when
<dynamicType> is character--></characterContent>
    </CharactersAttribute>
   </PlayItem>
  </PlayItemList>
  <enabledAudio><!--dependent, boolean, whether to enable the audio--></enabledAudio>
  <enableHide><!--optional, boolean, whether to enable hiding--></enableHide>
  <enableLock><!--optional, boolean, whether to enable the clock--></enableLock>
  <AppWindow><!--dependent-->
   <WindowInfoList><!--required-->
    <WindowInfo><!--required,   -->
     <id><!--required, int, No.--></id>
     <materialNo><!--required, int, material No.--></materialNo>
    </WindowInfo>
   </WindowInfoList>
  </AppWindow>
  <DataSource><!--dependent, data source. This node is valid when it is a calling or pop-up window-->
   <materialNo><!--required, int, material No.--></materialNo>
  </DataSource>
  <Call><!--dependent, calling data-->
    <tableRow><!--required, int, row of the table--></tableRow>
    <tableColumn><!--required, int, column of the table--></tableColumn>
    <tableDirection><!--required, int, table direction: "vertical,horizontal"--></tableDirection >
    <tableType><!--required, xs:string, table template:
```

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"template1,template2,template3,template4,template5,template6"--></tableType>
     <backPicId><!--optional, int, control's background picture--></backPicId>
     <alignType><!--required, string, alignment mode: "left,right,middle"--></alignType>
     <refreshDirection><!--required, string, refreshing direction: "upTodown"-from top to bottom, "downToup"-from
bottom to top--></refreshDirection>
     <HeadDataList><!--optional-->
      <HeadData><!--optional, table head data (calling data)-->
       <id><!--required, int, No.--></id>
       <data><!--required, string, data--></data>
      </HeadData>
     </HeadDataList>
     <ItemStyleList>
      <ItemStyle><!--style of the table's row or column-->
       <id><!--required, int, No.--></id>
       <width><!--required, int, width of each column (percentage)--></width>
       <fontSize min="" max=""><!--required, int, font size--></fontSize>
       <FontColor><!--required-->
        <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
       </FontColor>
       <BackColor><!--required-->
        <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
       </BackColor>
      </ItemStyle>
     </ItemStyleList>
    </Call>
    <DynamicPic><!--dependent, dynamic pop-up window parameters-->
     <backPicId><!--optional, int, ID of the control's background picture--></backPicId>
    </DynamicPic>
    <CapturePic><!--dependent-->
     <backPicId><!--optional, int, ID of the control's background picture--></backPicId>
     <ipcMaterialNo><!--required,  int--></ipcMaterialNo>
     <cancelType><!--required, int, cancalling type: "auto,manual"--></cancelType>
     <duration><!--dependent, int, material playing duration, unit: second--></duration>
    </CapturePic>
    <ClockParam><!--dependent, clock parameters-->
     <backPicId><!--optional, int, ID of the control's background picture--></backPicId>
     <ClockIcon><!--required, clock icon paameters-->
      <enabled><!--required,  boolean--></enabled>
      <type><!--dependent, string, type: "clock1,clock2,..."--></type>
      <Position><!--dependent-->
       <positionX><!--required, int,X-coordinate of the content's position--></positionX>
       <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
       <height><!--required, int, height--></height>
       <width><!--required, int, width--></width>
      </Position>
     </ClockIcon>
     <YmdParam><!--required, parameters of year, month, and day in the clock-->
      <enabled><!--required, boolean, whether to enable--></enabled>
      <fontSize><!--required, int, font size--></fontSize>
      <FontColor><!--required-->
       <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
      </FontColor>
```

```
  <BackColor><!--required-->
   <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
  </BackColor>
  <Position><!--dependent-->
   <positionX><!--required, int,X-coordinate of the content's position--></positionX>
   <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
   <height><!--required, int, height--></height>
   <width><!--required, int, width--></width>
  </Position>
 </YmdParam>
 <HmsParam><!--required, parameters of hour, minute, and second in the clock-->
  <enabled><!--required, boolean--></enabled>
  <fontSize><!--required, int, font size--></fontSize>
  <FontColor><!--required, font color-->
   <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
  </FontColor>
  <BackColor><!--required-->
   <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
  </BackColor>
  <Position><!--dependent-->
   <positionX><!--required, int,X-coordinate of the content's position--></positionX>
   <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
   <height><!--required, int, height--></height>
   <width><!--required, int, width--></width>
  </Position>
 </HmsParam>
 <WeekParam><!--required, week parameters-->
  <enabled><!--required, boolean--></enabled>
  <fontSize><!--required, int--></fontSize>
  <FontColor><!--required-->
   <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
  </FontColor>
  <BackColor><!--required-->
   <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
  </BackColor>
  <Position><!--dependent-->
   <positionX><!--required, int,X-coordinate of the content's position--></positionX>
   <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
   <height><!--required, int, height--></height>
   <width><!--required, int, width--></width>
  </Position>
 </WeekParam>
</ClockParam>
<WeatherParam><!--dependent, weather parameters-->
 <backPicId><!--optional, int, ID of the weather's background picture--></backPicId>
 <WeatherIcon><!--optional, weather icon parameters-->
  <enabled><!--required, boolean, whether to enable--></enabled>
  <Position><!--dependent-->
   <positionX><!--required, int,X-coordinate of the content's position--></positionX>
   <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
   <height><!--required, int, height--></height>
   <width><!--required, int, width--></width>
```

```
   </Position>
</WeatherIcon>
<Date><!--optional, date parameters-->
 <enabled><!--required, boolean, whether to enable--></enabled>
 <fontSize><!--required, int, font size--></fontSize>
 <FontColor><!--required,  font color-->
  <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
 </FontColor>
 <BackColor><!--required-->
  <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
 </BackColor>
 <Position><!--dependent-->
  <positionX><!--required, int,X-coordinate of the content's position--></positionX>
  <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
  <height><!--required, int, height--></height>
  <width><!--required, int, width--></width>
 </Position>
</Date>
<Temperature><!--optional, temperature parameters-->
 <enabled><!--required, boolean, whether to enable--></enabled>
 <fontSize><!--required, int, font size--></fontSize>
 <FontColor><!--required,  font color-->
  <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
 </FontColor>
 <BackColor><!--required-->
  <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
 </BackColor>
 <Position><!--dependent-->
  <positionX><!--required, int,X-coordinate of the content's position--></positionX>
  <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
  <height><!--required, int, height--></height>
  <width><!--required, int, width--></width>
 </Position>
</Temperature>
<WeatherContent><!--optional, weather parameters-->
 <enabled><!--required, boolean, whether to enable--></enabled>
 <fontSize><!--required, int, font size--></fontSize>
 <FontColor><!--required-->
  <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
 </FontColor>
 <BackColor><!--required-->
  <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
 </BackColor>
 <Position><!--dependent-->
  <positionX><!--required, int,X-coordinate of the content's position--></positionX>
  <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
  <height><!--required, int, height--></height>
  <width><!--required, int, width--></width>
 </Position>
</WeatherContent>
<City><!--optional, city parameters-->
 <enabled><!--required, boolean, whether to enable--></enabled>
```

```
<cityId><!--required, string, city No.--></cityId>
<cityName><!--required, string, city name--></cityName>
<fontSize><!--required, int--></fontSize>
<FontColor><!--required-->
 <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
</FontColor>
<BackColor><!--required-->
 <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
</BackColor>
<Position><!--dependent-->
 <positionX><!--required, int,X-coordinate of the content's position--></positionX>
 <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
 <height><!--required, int, height--></height>
 <width><!--required, int, width--></width>
</Position>
</City>
<Humidity><!--optional, humidity parameters-->
 <enabled><!--required, boolean, whether to enable--></enabled>
 <fontSize><!--required, int--></fontSize>
 <FontColor><!--required-->
  <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
 </FontColor>
 <BackColor><!--required-->
  <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
 </BackColor>
 <Position><!--dependent-->
  <positionX><!--required, int,X-coordinate of the content's position--></positionX>
  <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
  <height><!--required, int, height--></height>
  <width><!--required, int, width--></width>
 </Position>
</Humidity>
<AirQuality><!--optional, air quality parameters-->
 <enabled><!--required, boolean--></enabled>
 <fontSize><!--required, int--></fontSize>
 <FontColor><!--required-->
  <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
 </FontColor>
 <BackColor><!--required-->
  <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
 </BackColor>
 <Position><!--dependent-->
  <positionX><!--required, int,X-coordinate of the content's position--></positionX>
  <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
  <height><!--required, int, height--></height>
  <width><!--required, int, width--></width>
 </Position>
</AirQuality>
<UpdateTime><!--optional, update time parameters-->
 <enabled><!--required, boolean, whether to enable--></enabled>
 <refreshTime><!--required, xs:time, refreshing time in ISO8601 time format--></refreshTime>
 <updateInterval><!--required, int, updating interval, unit: minute--></updateInterval>
```

```
    <fontSize><!--required, int--></fontSize>
    <FontColor><!--required-->
     <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
    </FontColor>
    <BackColor><!--required-->
     <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
    </BackColor>
    <Position><!--dependent-->
     <positionX><!--required, int,X-coordinate of the content's position--></positionX>
     <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
     <height><!--required, int, height--></height>
     <width><!--required, int, width--></width>
    </Position>
   </UpdateTime>
   <Wind><!--optional, wind power parameters-->
    <enabled><!--required, boolean, whether to enable--></enabled>
    <fontSize><!--required, int--></fontSize>
    <FontColor><!--required-->
     <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
    </FontColor>
    <BackColor><!--required-->
     <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
    </BackColor>
    <Position><!--dependent-->
     <positionX><!--required, int,X-coordinate of the content's position--></positionX>
     <positionY><!--required, int,Y-coordinate of the content's position--></positionY>
     <height><!--required, int, height--></height>
     <width><!--required, int, width--></width>
    </Position>
   </Wind>
  </WeatherParam>
  <Countdown><!--dependent, countdown material-->
   <endTime><!--required, xs:time, countdown time in ISO8601 time format--></endTime>
   <template><!--required, string, tempalte: "template1" (template 1), "template2…" (template 2)--></template>
   <timeUnit><!--required, string, time unit: "year,month,day,week,hour,minute,second"--></timeUnit>
   <backPicId><!--optional, int--></backPicId>
   <TimeFontCfg><!--optional-->
    <fontSize><!--required, int--></fontSize>
    <FontColor><!--required-->
     <RGB><!--required, int, three primary colors in decimal format, e.g., 16777215 indicates 0xFFFFFF--></RGB>
    </FontColor>
    <Position><!--required, content's position. The upper-left corner is the origin, and the size of the full screen is
1920*1920-->
     <positionX><!--required, int, X-coordinate of upper-left corner of the content's rectangle frame--></positionX>
     <positionY><!--required, int, Y-coordinate of upper-left corner of the content's rectangle frame--></positionY>
     <height><!--required, int, height of the content's rectangle frame--></height>
     <width><!--required, int, width of the content's rectangle frame--></width>
    </Position>
   </TimeFontCfg>
  </Countdown>
  <localInputNo><!--dependent, string, local input No.--></localInputNo>
  <HyperlinkBtn><!--dependent-->
```

```
        <backPicId><!--optional, int,  ID of the control's background picture--></backPicId>
    </HyperlinkBtn>
   </Windows>
 </WindowsList>
</Page>
```

E.77 XML_PageList

XML message about page information

```
<PageList xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <Page>
  <!--list-->
  <id>
   <!--required, xs:integer, page No.-->
  </id>
  <PageBasicInfo>
   <!--required, page basic information-->
   <pageName>
    <!--required, xs:string, page name-->
   </pageName>
   <BackgroundColor>
    <!--required, background color-->
    <RGB>
     <!--required, xs:integer, RGB-->
    </RGB>
   </BackgroundColor>
   <playDurationMode>
    <!--required, xs:string, play mode: custom, auto, or auto-switch, this field is valid only when playDuration exists-->
   </playDurationMode>
   <playDuration>
    <!--dependent, xs:integer, play duration, unit: second-->
   </playDuration>
   <playCount>
    <!--optional, xs:integer-->
   </playCount>
   <switchDuration>
    <!--required, xs:integer, switch interval, unit: second-->
   </switchDuration>
   <switchEffect>
    <!--required, xs:string, switch effect,
opt="none,random,boxShrink,boxSpread,cycleShrink,cycSpread,eraseUp,eraseDown,eraseLeft,eraseRight,verticalShelt
er,horizontalShelter,verticalChessboard,horizontalChessboard,dissolve,leftRightToCenter,ceterToLeftRight,upDownToCe
nter,centerToUpDown,drawOutLeftDown,drawOutLeftUp,drawOutRightDown,drawOutRightUp,verticalLine,horizontalL
ine"-->
   </switchEffect>
   <backgroundPic>
    <!--optional, xs:integer, background picture-->
   </backgroundPic>
```

```
      </PageBasicInfo>
      <WindowsList>
       <!--optional, window information-->
       <Windows>
        <!--list-->
        <id>
         <!--required, xs:integer, content No.-->
        </id>
        <Position>
         <!--required, content position-->
         <positionX>
          <!--required, xs:integer-->
         </positionX>
         <positionY>
          <!--required, xs:integer-->
         </positionY>
         <height>
          <!--required, xs:integer-->
         </height>
         <width>
          <!--required, xs:integer-->
         </width>
        </Position>
        <layerNo>
         <!--required, xs:integer, layer No.-->
        </layerNo>
        <WinMaterialInfo>
         <!--dependent, material information-->
         <materialType>
          <!--required, xs:string, material type: "static"-local material, "dynamic"-dynamic material, other-->
         </materialType>
         <staticMaterialType>
          <!--dependent, xs:string, local material type: "picture,flash,audio,video,document,ppt,doc,excel,pdf,web,app";
this field is valid only when materialType is "static"-->
         </staticMaterialType>
         <dynamicType>
          <!--dependent, xs:string, local material type: "web,socket,rss,call,dynamicPic,realStream,capturePic,character";
this field is valid only when materialType is "dynamic"-->
         </dynamicType>
         <otherType>
          <!--dependent, xs:string,"clock,weather,countdown,localInput,hyperlinkBtn"-->
         </otherType>
        </WinMaterialInfo>
        <TouchProperty>
         <!--optional, touch attribute-->
         <windType>
          <!--optional, xs:string, window type: "popup"-pop-up, page-->
         </windType>
         <hyperlinkType>
          <!--optional, xs:string, hyperlink type: "window,page"; this field is valid only when windType is "popup"-->
         </hyperlinkType>
         <windowId>
```

```
         <!--dependent, xs:integer, window No.; this field is valid only when hyperlinkType is "window"-->
     </windowId>
     <pageId>
      <!--dependent, xs:integer, page No.; this field is valid only when hyperlinkType is "page"-->
     </pageId>
    </TouchProperty>
    <PlayItemList>
     <!--dependent, playing list-->
     <PlayItem>
     <!--required-->
     <id>
      <!--required, xs:integer, playing No.-->
     </id>
     <materialNo>
      <!--dependent, xs:integer, material No., which can be obtained by calling /ISAPI/Publish/MaterialMgr/material
by PUT method-->
     </materialNo>
     <inputChannel>
      <!--optional, xs:integer, channel No. of bound IPC (network camera)-->
     </inputChannel>
     <playEffect>
      <!--required, xs:string, playing effect, "none,marquee"-->
     </playEffect>
     <MarqueeInfo>
      <!--dep-->
      <scrollType>
       <!--required, xs:string, marquee scrolling type: none, loops, "once"-scroll once, "backAndForth"-scroll back
and forth-->
      </scrollType>
      <scrollDeriction>
       <!--required, xs:string, scrolling direction, "none,up,down,left,right"-->
      </scrollDeriction>
      <scrollSpeed>
       <!--required, xs:integer, scrolling speed-->
      </scrollSpeed>
     </MarqueeInfo>
     <PlayDuration>
      <!--playing duration of material-->
      <durationType>
       <!--required, xs:string, "materialTime,selfDefine"-->
      </durationType>
      <duration>
       <!--required, xs:integer, unit: second-->
      </duration>
     </PlayDuration>
     <CharactersEffect>
      <!--dependent, character display effect, which is valid only when material type is text-->
      <fontSize>
       <!--required, xs:integer, font size -->
      </fontSize>
      <FontColor>
       <!--required, font color-->
```

```
    <RGB>
     <!--required, xs:integer, RGB-->
    </RGB>
   </FontColor>
   <BackColor>
    <!--required, background color-->
    <RGB>
     <!--required, xs:integer, RGB-->
    </RGB>
   </BackColor>
   <backTransparent>
    <!--required, xs:integer, background transparency-->
   </backTransparent>
   <subtitlesEnabled>
    <!--required, xs:boolean, whether to enable preview-->
   </subtitlesEnabled>
   <scrollDirection>
    <!--required, xs:string, scrolling direction, "left,right,up,down"-->
   </scrollDirection>
   <scrollSpeed>
    <!--required, xs:integer, scrolling speed-->
   </scrollSpeed>
  </CharactersEffect>
  <switchEffect>
   <!--optional, window switch effect, "
xs:string,none,leftInRightOut,rightInLeftOut,bottomInTopOut,topInBottomOut,fadeInFadeOut,middleExit,topPop,right
BottomIn,leftTopIn,horizontalOpen,verticalOpen,random"-->
  </switchEffect>
  <pageTime>
   <!--dependent, xs:integer, flip interval, which is invalid only when the staticMaterialType is "word", "ppt",
"pdf", or "excel", unit: second -->
  </pageTime>
  <scrollSpeed>
   <!--dependent, xs:integer, scrolling speed, which is invalid when staticMaterialType is "web"-->
  </scrollSpeed>
  <CharactersAttribute>
   <!--dependent, character attribute, which is valid only when dynamicType is "character"-->
   <fontSize>
    <!--optional, xs:integer, font size-->
   </fontSize>
   <FontColor>
    <!--optional, font color-->
    <RGB>
     <!--optional, xs:integer, RGB-->
    </RGB>
   </FontColor>
   <BackColor>
    <!--optional, background color-->
    <RGB>
     <!--optional, xs:integer, RGB-->
    </RGB>
   </BackColor>
```

```
      <backTransparent>
       <!--optional, xs:integer, background transparency-->
      </backTransparent>
      <alignType>
       <!--optional, xs:string, alignment, "left,right,middle,top,bottom,verticalCenter,horizontallyCenter"-->
      </alignType>
      <characterContent>
       <!--optional, xs:string, content, which is valid only when dynamicType is "character"; the maximum size is
512 bytes-->
      </characterContent>
     </CharactersAttribute>
    </PlayItem>
   </PlayItemList>
   <enabledAudio>
    <!--dependent, xs:boolean, whether to enable playing audio -->
   </enabledAudio>
   <enableHide>
    <!--optional, xs:booelan-->
   </enableHide>
   <enableLock>
    <!--optional, xs:boolean, whether to display to enable locking-->
   </enableLock>
   <AppWindow>
    <!--dependent-->
    <WindowInfoList>
     <!--required-->
     <WindowInfo>
      <!--required-->
      <id>
       <!--required, xs:integer-->
      </id>
      <materialNo>
       <!--required, xs:integer-->
      </materialNo>
     </WindowInfo>
    </WindowInfoList>
   </AppWindow>
   <DataSource>
    <!--dependent, data source, which is valid only when the window type is call or pop-up-->
    <materialNo>
     <!--required, xs:integer-->
    </materialNo>
   </DataSource>
   <Call>
    <!--dependent, call data-->
    <tableRow>
     <!--required, xs:integer, row-->
    </tableRow>
    <tableColumn>
     <!--required, xs:integer, column-->
    </tableColumn>
    <tableDirection>
```

```
  <!--required, xs:string, table direction, opt="vertical,horizontal"-->
</tableDirection>
<tableType>
 <!--required, xs:string,opt="template1,template2,template3,template4,template5,template6"-->
</tableType>
<backPicId>
 <!--optional, xs:integer, it can be obtained by calling /ISAPI/Publish/MaterialMgr/material by PUT method-->
</backPicId>
<alignType>
 <!--required, xs:string, alignment type, "left,right,middle"-->
</alignType>
<refreshDirection>
 <!--required, xs:string, refresh mode, "upTodown,downToup,leftToright,rightToleft"-->
</refreshDirection>
<HeadDataList>
 <!--optional-->
 <HeadData>
  <!--optional,header of call data-->
  <id>
   <!--required, xs:integer-->
  </id>
  <data>
   <!--required, xs:string-->
  </data>
 </HeadData>
</HeadDataList>
<ItemStyleList>
 <ItemStyle>
  <!--style of rows and columns in a table-->
  <id>
   <!--required, xs:integer-->
  </id>
  <width>
   <!--required, xs:integer, column width (%)-->
  </width>
  <fontSize min="" max="" >
   <!--required, xs:integer-->
  </fontSize>
  <FontColor>
   <!--required-->
   <RGB>
    <!--required, xs:integer, RGB-->
   </RGB>
  </FontColor>
  <BackColor>
   <!--required-->
   <RGB>
    <!--required, xs:integer, RGB-->
   </RGB>
  </BackColor>
 </ItemStyle>
</ItemStyleList>
```

```
</Call>
<DynamicPic>
 <!--dependent, pop-up window configuration-->
 <backPicId>
  <!--optional, xs:integer-->
 </backPicId>
</DynamicPic>
<CapturePic>
 <!--dep-->
 <backPicId>
  <!--optional, xs:integer-->
 </backPicId>
 <ipcMaterialNo>
  <!--required, xs:integer-->
 </ipcMaterialNo>
 <cancelType>
  <!--required, xs:string,"auto,manual"-->
 </cancelType>
 <duration>
  <!--dependent, xs:integer, unit: second-->
 </duration>
</CapturePic>
<ClockParam>
 <!--dependent, clock parameters-->
 <backPicId>
  <!--optional, xs:integer, background picture ID of control-->
 </backPicId>
 <ClockIcon>
  <!--required, icon parameters of clock-->
  <enabled>
   <!--required, xs:boolean, whether to enable clock icon-->
  </enabled>
  <type>
   <!--dependent, xs:string, opt="clock1,clock2,..."-->
  </type>
  <Position>
   <!--dependent, position-->
   <positionX>
    <!--required, xs:integer-->
   </positionX>
   <positionY>
    <!--required, xs:integer-->
   </positionY>
   <height>
    <!--required, xs:integer-->
   </height>
   <width>
    <!--required, xs:integer-->
   </width>
  </Position>
 </ClockIcon>
 <YmdParam>
```

```
<!--required,  YY/MM/DD parameters-->
<enabled>
  <!--required, xs:boolean, whether to display YY/MM/DD -->
</enabled>
<fontSize>
  <!--required, xs:integer-->
</fontSize>
<FontColor>
  <!--required-->
  <RGB>
    <!--required, xs:integer, RGB-->
  </RGB>
</FontColor>
<BackColor>
  <!--required-->
  <RGB>
    <!--required, xs:integer, RGB-->
  </RGB>
</BackColor>
<Position>
  <!--dep-->
  <positionX>
    <!--required, xs:integer-->
  </positionX>
  <positionY>
    <!--required, xs:integer-->
  </positionY>
  <height>
    <!--required, xs:integer-->
  </height>
  <width>
    <!--required, xs:integer-->
  </width>
</Position>
</YmdParam>
<HmsParam>
  <!--required, time parameters of clock, -->
  <enabled>
    <!--required, xs:boolean, whether to display time-->
  </enabled>
  <fontSize>
    <!--required, xs:integer-->
  </fontSize>
  <FontColor>
    <!--required-->
    <RGB>
      <!--required, xs:integer, RGB-->
    </RGB>
  </FontColor>
  <BackColor>
    <!--required-->
    <RGB>
```

```
    <!--required, xs:integer, RGB-->
   </RGB>
  </BackColor>
  <Position>
   <!--dep-->
   <positionX>
    <!--required, xs:integer-->
   </positionX>
   <positionY>
    <!--required, xs:integer-->
   </positionY>
   <height>
    <!--required, xs:integer-->
   </height>
   <width>
    <!--required, xs:integer-->
   </width>
  </Position>
 </HmsParam>
 <WeekParam>
  <!--required, week parameters of clock -->
  <enabled>
   <!--required, xs:boolean, whether to display week -->
  </enabled>
  <fontSize>
   <!--required, xs:integer-->
  </fontSize>
  <FontColor>
   <!--required-->
   <RGB>
    <!--required, xs:integer, RGB-->
   </RGB>
  </FontColor>
  <BackColor>
   <!--required-->
   <RGB>
    <!--required, xs:integer, RGB-->
   </RGB>
  </BackColor>
  <Position>
   <!--dep-->
   <positionX>
    <!--required, xs:integer-->
   </positionX>
   <positionY>
    <!--required, xs:integer-->
   </positionY>
   <height>
    <!--required, xs:integer-->
   </height>
   <width>
    <!--required, xs:integer-->
```

```
    </width>
   </Position>
  </WeekParam>
 </ClockParam>
<WeatherParam>
 <!--dependent, weather parameters-->
 <backPicId>
  <!--optional, xs:integer, background picture ID-->
 </backPicId>
 <WeatherIcon>
  <!--optional, weather icon information-->
  <enabled>
   <!--required, xs:boolean, -->
  </enabled>
  <Position>
   <!--dep-->
   <positionX>
    <!--required, xs:integer-->
   </positionX>
   <positionY>
    <!--required, xs:integer-->
   </positionY>
   <height>
    <!--required, xs:integer-->
   </height>
   <width>
    <!--required, xs:integer-->
   </width>
  </Position>
 </WeatherIcon>
 <Date>
  <!--optional, date parameters of weather window -->
  <enabled>
   <!--required, xs:boolean, whether to display date -->
  </enabled>
  <fontSize>
   <!--required, xs:integer-->
  </fontSize>
  <FontColor>
   <!--required-->
   <RGB>
    <!--required, xs:integer, RGB-->
   </RGB>
  </FontColor>
  <BackColor>
   <!--required-->
   <RGB>
    <!--required, xs:integer, RGB-->
   </RGB>
  </BackColor>
  <Position>
   <!--dep-->
```

```
    <positionX>
      <!--required, xs:integer-->
    </positionX>
    <positionY>
      <!--required, xs:integer-->
    </positionY>
    <height>
      <!--required, xs:integer-->
    </height>
    <width>
      <!--required, xs:integer-->
    </width>
  </Position>
</Date>
<Temperature>
  <!--optional, temperature parameters of weather window -->
  <enabled>
    <!--required, xs:boolean, whether to display temperature -->
  </enabled>
  <fontSize>
    <!--required, xs:integer-->
  </fontSize>
  <FontColor>
    <!--required-->
    <RGB>
      <!--required, xs:integer, RGB-->
    </RGB>
  </FontColor>
  <BackColor>
    <!--required-->
    <RGB>
      <!--required, xs:integer, RGB-->
    </RGB>
  </BackColor>
  <Position>
    <!--dep-->
    <positionX>
      <!--required, xs:integer-->
    </positionX>
    <positionY>
      <!--required, xs:integer-->
    </positionY>
    <height>
      <!--required, xs:integer-->
    </height>
    <width>
      <!--required, xs:integer-->
    </width>
  </Position>
</Temperature>
<WeatherContent>
  <!--optional, weather condition parameters of weather window -->
```

```
<enabled>
 <!--required, xs:boolean, whether to display weather condition -->
</enabled>
<fontSize>
 <!--required, xs:integer-->
</fontSize>
<FontColor>
 <!--required-->
 <RGB>
  <!--required, xs:integer, RGB-->
 </RGB>
</FontColor>
<BackColor>
 <!--required-->
 <RGB>
  <!--required, xs:integer, RGB-->
 </RGB>
</BackColor>
<Position>
 <!--dep-->
 <positionX>
  <!--required, xs:integer-->
 </positionX>
 <positionY>
  <!--required, xs:integer-->
 </positionY>
 <height>
  <!--required, xs:integer-->
 </height>
 <width>
  <!--required, xs:integer-->
 </width>
</Position>
</WeatherContent>
<City>
 <!--optional, city parameters of weather window -->
 <enabled>
  <!--required, xs:boolean, whether to display city parameters -->
 </enabled>
 <cityId>
  <!--required, xs:string-->
 </cityId>
 <cityName>
  <!--required, xs:string-->
 </cityName>
 <fontSize>
  <!--required, xs:integer-->
 </fontSize>
 <FontColor>
  <!--required-->
  <RGB>
   <!--required, xs:integer, RGB-->
```

```
    </RGB>
   </FontColor>
   <BackColor>
    <!--required-->
    <RGB>
     <!--required, xs:integer, RGB-->
    </RGB>
   </BackColor>
   <Position>
    <!--dep-->
    <positionX>
     <!--required, xs:integer-->
    </positionX>
    <positionY>
     <!--required, xs:integer-->
    </positionY>
    <height>
     <!--required, xs:integer-->
    </height>
    <width>
     <!--required, xs:integer-->
    </width>
   </Position>
  </City>
  <Humidity>
   <!--optional, humidity parameters of weather window -->
   <enabled>
    <!--required, xs:boolean, whether to display humidity -->
   </enabled>
   <fontSize>
    <!--required, xs:integer-->
   </fontSize>
   <FontColor>
    <!--required-->
    <RGB>
     <!--required, xs:integer, RGB-->
    </RGB>
   </FontColor>
   <BackColor>
    <!--required-->
    <RGB>
     <!--required, xs:integer, RGB-->
    </RGB>
   </BackColor>
   <Position>
    <!--dep-->
    <positionX>
     <!--required, xs:integer-->
    </positionX>
    <positionY>
     <!--required, xs:integer-->
    </positionY>
```

```
    <height>
      <!--required, xs:integer-->
    </height>
    <width>
      <!--required, xs:integer-->
    </width>
   </Position>
  </Humidity>
  <AirQuality>
   <!--optional, air quality parameters of weather window -->
   <enabled>
    <!--required, xs:boolean, whether to display air quality -->
   </enabled>
   <fontSize>
    <!--required, xs:integer-->
   </fontSize>
   <FontColor>
    <!--required-->
    <RGB>
     <!--required, xs:integer, RGB-->
    </RGB>
   </FontColor>
   <BackColor>
    <!--required-->
    <RGB>
     <!--required, xs:integer, RGB-->
    </RGB>
   </BackColor>
   <Position>
    <!--dep-->
    <positionX>
     <!--required, xs:integer-->
    </positionX>
    <positionY>
     <!--required, xs:integer-->
    </positionY>
    <height>
     <!--required, xs:integer-->
    </height>
    <width>
     <!--required, xs:integer-->
    </width>
   </Position>
  </AirQuality>
  <UpdateTime>
   <!--optional, updating time parameters -->
   <enabled>
    <!--required, xs:boolean, whether to display updating time -->
   </enabled>
   <refreshTime>
    <!--required, xs:time, updating time (ISO 8601 format)-->
   </refreshTime>
```

```
<updateInterval>
 <!--required, xs:integer, updating interval, unit: minute -->
</updateInterval>
<fontSize>
 <!--required, xs:integer-->
</fontSize>
<FontColor>
 <!--required-->
 <RGB>
  <!--required, xs:integer, RGB-->
 </RGB>
</FontColor>
<BackColor>
 <!--required-->
 <RGB>
  <!--required, xs:integer, RGB-->
 </RGB>
</BackColor>
<Position>
 <!--dep-->
 <positionX>
  <!--required, xs:integer-->
 </positionX>
 <positionY>
  <!--required, xs:integer-->
 </positionY>
 <height>
  <!--required, xs:integer-->
 </height>
 <width>
  <!--required, xs:integer-->
 </width>
</Position>
</UpdateTime>
<Wind>
 <!--optional, wind power parameters -->
 <enabled>
  <!--required, xs:Boolean, whether to display wind power-->
 </enabled>
 <fontSize>
  <!--required, xs:integer-->
 </fontSize>
 <FontColor>
  <!--required-->
  <RGB>
   <!--required, xs:integer, RGB-->
  </RGB>
 </FontColor>
 <BackColor>
  <!--required-->
  <RGB>
   <!--required, xs:integer, RGB-->
```

```
      </RGB>
     </BackColor>
     <Position>
      <!--dep-->
      <positionX>
       <!--required, xs:integer-->
      </positionX>
      <positionY>
       <!--required, xs:integer-->
      </positionY>
      <height>
       <!--required, xs:integer-->
      </height>
      <width>
       <!--required, xs:integer-->
      </width>
     </Position>
    </Wind>
   </WeatherParam>
   <Countdown>
    <!--dependent, countdown -->
    <endTime>
     <!--required, xs:time, countdown time (ISO 8601 format)-->
    </endTime>
    <template>
     <!--required, xs:string,"template1,template2…"-->
    </template>
    <timeUnit>
     <!--required, xs:string, time unit, "year,month,day,hour,minute,second" -->
    </timeUnit>
    <backPicId>
     <!--optional, xs:integer-->
    </backPicId>
    <TimeFontCfg>
     <!--optional-->
     <fontSize>
      <!--required, xs:integer-->
     </fontSize>
     <FontColor>
      <!--required, font color-->
      <RGB>
       <!--required, xs:integer, RGB-->
      </RGB>
     </FontColor>
     <Position>
      <!--required-->
      <positionX>
       <!--required, xs:integer-->
      </positionX>
      <positionY>
       <!--required, xs:integer-->
      </positionY>
```

```
    <height>
      <!--required, xs:integer-->
    </height>
    <width>
      <!--required, xs:integer-->
    </width>
    </Position>
  </TimeFontCfg>
</Countdown>
<localInputNo>
  <!--dependent, xs:string-->
</localInputNo>
<HyperlinkBtn>
  <!--dep-->
  <backPicId>
    <!--optional, xs:integer-->
  </backPicId>
</HyperlinkBtn>
<CharactersAttribute>
  <!--dependent, this field is valid only when dynamicType is "character"-->
  <fontSize>
    <!--optional, xs:integer, font size-->
  </fontSize>
  <FontColor>
    <!--optional, font color-->
    <RGB>
      <!--optional, xs:integer, RGB-->
    </RGB>
  </FontColor>
  <fontType>
    <!--optional, xs:string, font, "normal,bold" -->
  </fontType>
  <BackColor>
    <!---->
    <RGB>
      <!--optional, xs:integer, RGB-->
    </RGB>
  </BackColor>
  <backTransparent>
    <!--optional, xs:integer, background transparency-->
  </backTransparent>
  <alignType>
    <!--optional, xs:string, alignment, "left,right,middle" -->
  </alignType>
  <verticaAlignType>
    <!--optional, xs:string, vertical alignment, "top,bottom,verticalCenter " -->
  </verticaAlignType>
  <characterContent>
    <!--optional, xs:string, content, the maximum size is 512 bytes -->
  </characterContent>
</CharactersAttribute>
</Windows>
```

```
   </WindowsList>
  </Page>
</PageList>
```

E.78 XML_PermissionList

XML message about permissions of all users

```
<PermissionList xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <Permission>
  <!--permission list-->
  <userId>
   <!--required, xs:string, user ID-->
  </userId>
  <remotePermission>
   <record>
    <!--optional, xs:boolean, whether the user has the recording permission-->
   </record>
   <playBack>
    <!--optional, xs:boolean, whether the user has the playback permission-->
   </playBack>
   <preview>
    <!--optional, xs:boolean, whether the user has the preview permission-->
   </preview>
   <videoChannelPermissionList>
    <!--optional-->
    <videoChannelPermission>
     <!--list,optional-->
     <id>
      <!--required, xs:integer, this filed must correspond to the video input channel ID-->
     </id>
     <preview>
      <!--optional, xs:boolean, whether the user has the preview permission-->
     </preview>
     <playBack>
      <!--optional, xs:boolean, whether the user has the playback permission-->
     </playBack>
     <record>
      <!--optional, xs:boolean, whether the user has the recording permission-->
     </record>
    </videoChannelPermission>
   </videoChannelPermissionList>
   <ptzControl>
    <!--optional, xs:boolean, whether the user has the PTZ control permission-->
   </ptzControl>
   <ptzChannelPermissionList>
    <!--optional-->
    <ptzChannelPermission>
     <!--list,optional-->
     <id>
```

```
      <!--required, xs:integer, this field must correspond to PTZ ID-->
    </id>
    <ptzControl>
      <!--optional, xs:boolean, whether the user has the permission of PTZ control-->
    </ptzControl>
  </ptzChannelPermission>
</ptzChannelPermissionList>
<logOrStateCheck>
  <!--optional, xs:boolean-->
</logOrStateCheck>
<parameterConfig>
  <!--optional, xs:boolean, whether the user has the parameter configuration permission-->
</parameterConfig>
<restartOrShutdown>
  <!--optional, xs:boolean, whether the user has the restart permission-->
</restartOrShutdown>
<upgrade>
  <!--optional, xs:boolean, whether the user has the updating permission-->
</upgrade>
<voiceTalk>
  <!--optional, xs:boolean, whether the user has the two-way audio permission-->
</voiceTalk>
<transParentChannel>
  <!--optional, xs:boolean-->
</transParentChannel>
<contorlLocalOut>
  <!--optional, xs:boolean-->
</contorlLocalOut>
<alarmOutOrUpload>
  <!--optional, xs:boolean-->
</alarmOutOrUpload>
<IRAID>
  <rapidConfiguration>
    <!--optional, xs:boolean, whether the user has the rapid configuration permission-->
  </rapidConfiguration>
  <reset>
    <!--optional, xs:boolean, whether the user has the reset permission-->
  </reset>
</IRAID>
<materialReview>
  <!--optional, xs:boolean, whether the user has the materials reviewing permission-->
</materialReview>
<programReview>
  <!--optional, xs:boolean, whether the user has the program reviewing permission-->
</programReview>
<uploadMaterial>
  <!--optional, xs:boolean, whether the user has the permission of uploading materials-->
</uploadMaterial>
<addProgram>
  <!--optional, xs:boolean, whether the user has the permission of creating programs-->
</addProgram>
<addSchedule>
```

```
   <!--optional, xs:boolean, whether the user has the permission of adding, deleting, and setting schedules-->
</addSchedule>
<programPlay>
  <!--optional, xs:boolean, whether the user has the information playing permission-->
</programPlay>
<terminalMgr>
  <!--optional, xs:boolean, whether the user has the terminal management permission-->
</terminalMgr>
<shopSmart>
  <!--optional, xs:boolean, whether the user has the shop smart permission-->
</shopSmart>
<materialReplace>
  <!--optional, xs:boolean, whether the user has the material replacing permission-->
</materialReplace>
<scheduleRelease>
  <!--optional, xs:boolean, whether the user has the permission of releasing program schedules-->
</scheduleRelease>
<scheduleReview>
  <!--optional, xs:boolean, whether the user has the schedule reviewing permission-->
</scheduleReview>
<addTerminal>
  <!--optional, xs:boolean, whether the user has the permission of adding, deleting, and setting terminals-->
</addTerminal>
<terminalDispatch>
  <!--optional, xs:boolean, whether the user has the terminal relocating permission-->
</terminalDispatch>
<addUser>
  <!--optional, xs:boolean, whether the user has the permission of adding, deleting, and setting users-->
</addUser>
<addOrg>
  <!--optional, xs:boolean, whether the user has the permission of adding, deleting, and setting organizations -->
</addOrg>
<logMgr>
  <!--optional, xs:boolean, whether the user has the log management permission -->
</logMgr>
<dataUpdate>
  <!--optional, xs:boolean, whether the user has the permission of updating call data-->
</dataUpdate>
<insertMessage>
  <!--optional, xs:boolean, whether the user has the permission of cutting a text-->
</insertMessage>
<notReview>
  <!--optional, xs:boolean, whether the user has the reviewing permission-->
</notReview>
<MgrTerminal>
  <TerminalNoList>
    <!--optional, terminal list-->
    <terminalNo>
      <!--list, xs:integer, terminal No.-->
    </terminalNo>
  </TerminalNoList>
</MgrTerminal>
```

```
    </remotePermission>
  </Permission>
</PermissionList>
```

E.79 XML_PlaySchedule

XML message about parameters of a specific program schedule

```
<PlaySchedule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--required, xs:integer, program schedule No.--></id>
  <scheduleName><!--required, xs:string, program schedule name--></scheduleName>
  <scheduleRemarks><!--optional, xs:string, program schedule description--></scheduleRemarks>
  <approveState><!--optional, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not
approved--></approveState>
  <approveRemarks><!--optional, xs:string, approval remarks--></approveRemarks>
  <scheduleMode><!--optional, xs:string, program schedule mode: mormal, decode and touch--></scheduleMode>
  <orgNo><!--optional, xs:integer, organization No.--></orgNo>
  <scheduleType><!--optional, xs:string, program schedule type: "daily"-daily schedule, "weekly"-weekly schedule,
"selfDefine"-custom schedule, "loop"-loop schedule, "defaultSchedule"-default schedule--></scheduleType>
  <shareProperty><!--optional, xs:string, shared property: public, private--></shareProperty>
  <DailySchedule><!--dependent, daily schedule-->
    <PlaySpanList><!--required-->
      <PlaySpan><!--required-->
        <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
        <programNo><!--required, xs:integer, No. of the shown program--></programNo>
        <TimeRange><!--required, play duration-->
          <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
          <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
        </TimeRange>
      </PlaySpan>
    </PlaySpanList>
  </DailySchedule>
  <WeeklySchedule><!--dependent, weekly schedule-->
    <DayList><!--required-->
      <Day><!--required-->
        <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
        <dayOfWeek><!--required, xs:string, day of a week --></dayOfWeek>
        <PlaySpanList><!--required, play schedule-->
        <PlaySpan><!--required-->
      <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
      <programNo><!--required, xs:integer, No. of the looped program--></programNo>
      <TimeRange><!--required, play duration-->
          <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
          <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
        </TimeRange>
      </PlaySpan>
      </PlaySpanList>
    </Day>
  </DayList>
  </WeeklySchedule>
```

```
<LoopSchedule><!--dependent, loop schedule-->
  <ProgramNoList><!--required, list of loop programs, normal mode-->
   <programNo><!--required, xs:integer, No. of the looped program--></programNo>
  </ProgramNoList>
  <LoopTimeSpanList><!--dependent-->
   <LoopTimeSpan><!--optional-->
    <TimeRange><!--required, play duration-->
     <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
     <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
    </TimeRange>
    <ProgramNoList><!--required, list of looped programs-->
     <programNo><!--required, xs:integer, program No.--></programNo>
  </ProgramNoList>
   </LoopTimeSpan>
  </LoopTimeSpanList>
 </LoopSchedule>
 <SelfDefineSchedule><!--dependent-->
  <SelfDefineList><!--required-->
   <SelfDefine><!--required, custom period-->
    <id><!--required, xs:integer, custom period No.--></id>
    <programNo><!--required, xs:integer, program No., which is returned by calling the API /ISAPI/Publish/
ProgramMgr/program--></programNo>
     <TimeRange><!--required, play duration-->
      <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
      <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
     </TimeRange>
    </SelfDefine>
   </SelfDefineList>
 </SelfDefineSchedule>
 <DefaultSchedule><!--dependent, default program schedule-->
  <programNo><!--required, xs:integer, program No.--></programNo>
 </DefaultSchedule>
 <HolidaySchedule><!--optional, holiday schedule-->
  <PlaySpanList><!--required, daily schedule-->
   <PlaySpan><!--required, daily schedule-->
    <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
    <programNo><!--required, xs:integer, program No.--></programNo>
    <TimeRange><!--required, play duration-->
     <beginTime><!--required, xs:time, start time (ISO 8601 format)--></beginTime>
     <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
    </TimeRange>
   </PlaySpan>
  </PlaySpanList>
 </HolidaySchedule>
</PlaySchedule>
```

E.80 XML_PlanSearchDescription

XML message about search conditions of release schedule

```
<PlanSearchDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <searchID><!--required, xs:string, search ID, which is used to check whether the current search requester is the
same; the search ID is valid for 5 minutes--></searchID>
   <scheduleNo><!--optional, xs:integer, program schedule No.--></scheduleNo>
   <releaseType><!--optional, xs:string,"byTerminal,byOrg,all"--></releaseType>
   <releaseState><!--optional, xs:string, release status: "notRelease"-not released, releasing, released, all--></
releaseState>
   <TimeSpanList><!--optional, release period, if this field is not configured, the release period is not limited-->
      <TimeSpan><!--list-->
         <startTime><!--required, xs:time, start time in ISO 8601 format--></startTime>
         <endTime><!--required, xs:time, end time in ISO 8601 format--></endTime>
      </TimeSpan>
   </TimeSpanList>
   <keyword><!--optional, xs:string, fuzzy search by key word--></keyword>
   <sortBy><!--optional, xs:string, sort mode: "releaseState"-by release status, "releaseTime"-by release time,
"taskReleaseState"-by release status, "releaseInfoType"-by release information type--></sortBy>
   <orderMode><!--optional, xs:string, sort mode: ascend, descend--></orderMode>
   <maxResults><!--optional, xs:integer, maximum number of returned results per search--></maxResults>
   <searchResultsPosition><!--optional, xs:integer, , the end position of search result in result list. In a single search, if
you cannot get all the records in the result list, you can mark the end position and get the following records after the
marked position in the next search--></searchResultsPosition>
   <taskReleaseState><!--optional, xs:string, "notRelease,releasing,failed,success,all"--></taskReleaseState>
   <releaseInfoType><!--optional, xs:string, type of information to be released--></releaseInfoType>
   <terminalListHide><!--optional, xs:boolean, whether to hide the terminal or organization: "true"-yes, "false"-no--></
terminalListHide>
</PlanSearchDescription>
```

E.81 XML_PlanSearchResult

XML message about search results of release schedules

```
<PlanSearchResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <searchID><!--required, xs:string--></searchID>
   <responseStatus><!--required, xs:boolean, search result: "ok"-succeeded, "error"-failed--></responseStatus>
   <responseStatusString><!--required, xs:string, search status: "true+OK"-no more results, "true+MORE"-there are
more results not returned, "FAILED"-search failed, "PARAM ERROR"incorrect parameters, "TIMEOUT"-timed out--></
responseStatusString>
  <totalMatches><!--required, xs:integer, total number of returned results--></responseStatusString>
   <numOfMatches><!--required, xs:integer, total number of matched results--></numOfMatches>
   <MatchElementList><!--optional, matched result list-->
      <MatchElement><!--list,req-->
         <planId><!--required, xs:integer, No. of the schedule to be released--></planId>
         <scheduleNo><!--required, xs:integer, schedule No.--></scheduleNo>
         <scheduleName><!--optional, xs:string--></scheduleName>
         <releaseType><!--optional, xs:string,"byTerminal,byOrg"--></releaseType>
         <TerminalNoList><!--dependent-->
            <terminalNo><!--list,required, xs:integer--></terminalNo>
         </TerminalNoList>
         <TerminalGroupNoList><!--dependent-->
            <terminalGroupNo><!--list,required, xs:integer--></terminalGroupNo>
```

```
        </TerminalGroupNoList>
        <OrgNoList><!--dependent-->
          <orgNo><!--list,required, xs:integer--></orgNo>
        </OrgNoList>
        <releaseTime><!--dependent, xs:time,ISO8601 time--></releaseTime>
        <releaseState><!--required, xs:string,"notRelease,releasing,released"--></releaseState>
        <effectiveTime><!---optional, xs:time, ISO 8601 format--></effectiveTime>
        <releaseTotalNum><!--optional, xs:integer, number of schedules to be released--></releaseTotalNum>
        <releaseSuccessNum><!--optional, xs:integer, number of schedules successfully released --></
releaseSuccessNum>
        <releaseFailedNum><!--optional, xs:integer, number of schedules unsuccessfully released--></
releaseFailedNum>
        <releaseCancelNum><!--optional, xs:integer, number of canceled schedules--></releaseCancelNum>
        <releasingNum><!--optional, xs:integer, number of schedules being released--></releasingNum>
        <notReleaseNum><!--optional, xs:integer, number of schedules not released--></notReleaseNum>
        <taskReleaseState><!--optional, xs:string, release status, "notRelease,releasing,failed,success"--></
taskReleaseState>
        <releaseInfoType><!--optional, xs:string,"scheduleRelease,programInsert,characterInsert"--></releaseInfoType>
      </MatchElement>
    </MatchElementList>
</PlanSearchResult>
```

E.82 XML_PlayScheduleBatchInfo

XML message about program schedule batch configuration

```
<PlayScheduleBatchInfo version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <operatorType><!--required, xs:string, parameters: property, remark, approval, organizationorganization--></
operatorType>
  <shareProperty><!--dependent, xs:string, shared property: public, private--></shareProperty>
  <scheduleRemarks><!--dependent, xs:string, program schedule description--></scheduleRemarks>
  <approveState><!--dependent, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not
approved--></approveState>
  <approveRemarks><!--dependent, xs:string, approval remarks--></approveRemarks>
  <orgNo><!--optional, xs:integer, organization No.--></orgNo>
  <PlayScheduleIdList>
    <playScheduleId><!--required, xs:integer, program schedule ID--></playScheduleId>
  </PlayScheduleIdList>
</PlayScheduleBatchInfo>
```

E.83 XML_PlayScheduleIdList

XML message about deleting program schedules in a batch

```
<PlayScheduleIdList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <playScheduleId><!--required, xs:integer, program schedule ID--></playScheduleId>
</PlayScheduleIdList>
```

E.84 XML_PlayScheduleList

XML message about information of all program schedules

```
<?xml version="1.0" encoding="utf-8"?>
<PlayScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <PlaySchedule/><!--program schedule information-->
</PlayScheduleList>
```

See Also

XML_PlaySchedule

E.85 XML_Program

XML message about program parameters

```
<Program version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--required, xs:integer, program ID--></id>
  <programName><!--required, xs:string, program name--></programName>
  <programRemarks><!--required, xs:string, program description--></programRemarks>
  <shareProperty><!--optional, xs:string, shared property: public, private--></shareProperty>
  <approveState><!--optional, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not
approved--></approveState>
  <approveRemarks><!--optional, xs:string, approval remarks--></approveRemarks>
  <programType><!--optional, xs:string, program type: normal, decode, touch, "decodeTouch"-decode and touch,
character (welcome words, which is used for access control devices)--></programType>
  <orgNo><!--optional, xs:integer, organization No.--></orgNo>
  <Resolution><!--required-->
    <resolutionName><!--optional, xs:string, resolution --></resolutionName>
      <imageWidth><!--required, xs:integer, resolution width--></imageWidth>
    <imageHeight><!--required, xs:integer, resolution height--></imageHeight>
  </Resolution>
  <PageList/><!--required, page list-->
  <programSize><!--read-only,  optional, xs:integer, page list, unit: byte--></programSize>
  <programLength><!--read-only,  optional, xs:integer, program duration, unit: second--></programLength>
</Program>
```

See Also

XML_PageList

E.86 XML_ProgramBatchInfo

XML message about program batch configuration

```
<ProgramBatchInfo version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <operatorType><!--required, xs:string, paramter: property, remark, approve, organization--></operatorType>
```

```
  <shareProperty><!--dependent, xs:string, shared property: public, private--></shareProperty>
  <programRemarks><!--dependent, xs:string, program description--></programRemarks>
  <approveState><!--dependent, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not
approved--></approveState>
  <approveRemarks><!--dependent, xs:string, approval remarks--></approveRemarks>
  <orgNo><!--optional, xs:integer, organization No.--></orgNo>
  <ProgramIdList>
    <programId><!--required, xs:integer, program ID--></programId>
  </ProgramIdList>
</ProgramBatchInfo>
```

E.87 XML_ProgramDynamicCap

XML message about capabilities of program dynamic parameters

```
<ProgramDynamicCap xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
  <ProgramCapList>
   <!--required, program capability list-->
   <ProgramCap>
    <!--required-->
    <id>
      <!--required, xs:integer, program No.-->
    </id>
    <programType>
      <!--required, xs:string, program type: normal, decode, touch, character (welcome words, which is used for access
control devices)-->
    </programType>
    <maxPageNum>
      <!--required, xs:integer, maximum number of pages-->
    </maxPageNum>
    <maxWinNum>
      <!--required, xs:integer, maximum number of windows per page-->
    </maxWinNum>
    <maxMaterialNum>
      <!--required, xs:integer, maximum number of materials per window-->
    </maxMaterialNum>
    <isSupportTouch>
      <!--required, xs:boolean, whether it supports touch screen; if so, you can configure the touch properties for the
program-->
    </isSupportTouch>
    <WinCapList><!--optional, object, window capability list-->
     <WinCap><!--optional, object, window capability-->
      <id><!--required, xs:integer, serial No.--></id>
      <BaseRes><!--required, object, basic resolution-->
       <resWidth><!--required, xs:integer, width of the resolution--></resWidth>
       <resHeight><!--required, xs:integer, height of the resolution--></resHeight>
      </BaseRes>
      <WinSizeList><!--required, object, window size list-->
       <WinSize><!--optional, object, range of the window height-->
        <id><!--required, xs:integer, index--></id>
```

```
    <WinMaterialInfo><!--required, object, window material information-->
      <materialType opt="static,dynamic"><!--required, string, material type: static, dynamic--></materialType>
      <staticMaterialType opt="picture,flash,audio,video,document,ppt,doc,excel,pdf,web"><!--optional, string,
static material type: picture, flash, audio, video, document, ppt, doc, excel, pdf, web--></staticMaterialType>
      <dynamicType opt="web,socket,rss,call,dynamicPic,realStream,capturePic"><!--optional, string, dynamic
material type: web, socket, rss, realStream, call, dynamicPic, capturePic--></dynamicType>
      <otherType
opt="clock,weather,countdown,localInput,hyperlinkBtn,callBtn,openDoorBtn,QRCodeBtn,authenticationSuccess,authe
nticationFail,statusBar"><!--optional, string, other material type: clock, weather, countdown, localInput (local input),
hyperlinkBtn (hyperlink button), callBtn (calling button), openDoorBtn (door opening button), QRCodeBtn (QR code
button), authenticationSuccess (authenticated), authenticationFail (authentication failed), statusBar (status bar)--></
otherType>
    </WinMaterialInfo>
    <maxWinNum><!--optional, xs:integer, the maximum number of windows with specific resolution--></
maxWinNum>
    <width min="1" max="10"><!--optional, xs:integer, range of the window width. For access control devices, the
values of min and max are the same. The value of this node is calculated by the unified coordinate type, which means
that the value of this node is converted by the base coordinate 1920. For example, if the actual resolution width of the
screen is 1080 px and the window width is 540 px, the value of this node is 540/1080*1920--></width>
    <height min="1" max="10"><!--optional, xs:integer, range of the window height. For access control devices,
the values of min and max are the same. The value of this node is calculated by the unified coordinate type, which
means that the value of this node is converted by the base coordinate 1920. For example, if the actual resolution
height of the screen is 1080 px and the window height is 540 px, the value of this node is 540/1080*1920--></height>
    <DefaultSize><!--optional, object, default window size-->
      <defaultWidth><!--required, xs:integer, width of the default window size--></defaultWidth>
      <defaultHeight><!--required, xs:integer, height of the default window size--></defaultHeight>
    </DefaultSize>
    <x min="0" max="10"><!--optional, xs:integer, X-coordinate of the window's upper-left corner. For access
control devices, the values of min and max are the same. The value of this node is calculated by the unified coordinate
type. If this node is not returned, there is no limit to min and max--></x>
    <y min="0" max="10"><!--optional, xs:integer, Y-coordinate of the window's upper-left corner. For access
control devices, the values of min and max are the same. The value of this node is calculated by the unified coordinate
type. If this node is not returned, there is no limit to min and max--></y>
    <characterType><!--optional, string, character type: mainTitle (main title), subTitle (sub title), subTitle2 (sub
title 2). This node is valid and optional when the material type is character and is used for access control devices to
return the fixed position of different titles displayed on the device--></characterType>
    <characterMode><!--optional, string, character mode: mode1, mode2, mode3. This node is valid and optional
when the material type is character and is used for access control devices to return the window position of the main
title, sub title, and sub title 2 in different character modes--></characterMode>
    <fontSize min="1" max="10"><!--optional, xs:integer, font size, unit: px. This node is valid and optional when
the material type is character and is used for access control devices to return the font size range of different fonts in
different character modes--></fontSize>
    <characterContent min="1" max="512"><!--optional, string, text content, the maximum string size is 512
bytes. This node is valid and optional when the material type is character and is used for access control devices to
return the content size range of different character types in different character modes--></characterContent>
      </WinSize>
    </WinSizeList>
    <maxCharacterWinNum><!--optional, xs:integer, maximum number of windows with characters--></
maxCharacterWinNum>
    </WinCap>
   </WinCapList>
  </ProgramCap>
```

```
  </ProgramCapList>
</ProgramDynamicCap>
```

See Also

XML_WinDynamicCap

E.88 XML_ProgramList

XML message about parameters of all programs

```
<ProgramList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Program/><!--see details in the message XML_Program-->
</ProgramList>
```

See Also

XML_Program

E.89 XML_ProgramMoreSearchDescription

XML message about program search conditions

```
<ProgramMoreSearchDescription xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
  <searchID>
    <!--required, xs:string, search ID, which is used to check whether the current search requester is the same; the
search ID is valid for 5 minutes-->
  </searchID>
  <ApproveStateList>
    <!--optional-->
    <approveState>
      <!--required, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not approved, all-->
    </approveState>
  </ApproveStateList>
  <!--optional-->
  <ProgramTypeList>
    <!--optional-->
    <programType>
      <!--optional, xs:string,"normal,decode,touch,decodeTouch"-->
    </programType>
  </ProgramTypeList>
  <shareProperty>
    <!--optional, xs:string,, shared property: public, private, all-->
  </shareProperty>
  <uploader>
    <!--optional, xs:string, uploader; if this field is not configured, the uploader is not limited-->
  </uploader>
  <programName>
    <!--optional, xs:string, program name-->
  </programName>
```

```
<programNameLike>
  <!--optional, xs:string, fuzzy search by program name-->
</programNameLike>
<programRemarksLike>
  <!--optional, xs:string, fuzzy search by program description-->
</programRemarksLike>
<moder>
  <!--optional, xs:string, modifier-->
</moder>
<orgName>
  <!--optional, xs:string, organization name-->
</orgName>
<includeSubOrg>
  <!--dependent, xs:boolean, whether to include lower-level organizations: "true"-yes, "false"-no (default); if this field
is not configured, it does not include lower-level organization; this field is valid only when orgName exists-->
</includeSubOrg>
<ProgramNoList>
  <!--optional, get program information by program ID-->
  <programNo>
    <!--required, xs:integer, program ID-->
  </programNo>
</ProgramNoList>
<ResolutionList>
  <!--optional-->
  <Resolution>
    <!--required, program resolution-->
    <resolutionName>
      <!--optional, xs:string, resolution name, "1920*1080,1080*1920,3840*2160,2160*3840,selfDefine" -->
    </resolutionName>
    <imageWidth>
      <!--required, xs:integer-->
    </imageWidth>
    <imageHeight>
      <!--required, xs:integer-->
    </imageHeight>
  </Resolution>
</ResolutionList>
<TimeSpanList>
  <!--optional, upload time of materials; if this field is not configured, the upload time is not limited -->
  <TimeSpan>
    <startTime>
      <!--required, xs:time, start time in ISO 8601 format-->
    </startTime>
    <endTime>
      <!--required, xs:time, end time in ISO 8601 format-->
    </endTime>
  </TimeSpan>
</TimeSpanList>
<keyword>
  <!--optional, xs:string, search by keyword: program schedule name, modifier, program schedule description; this
field is invalid when uploader, scheduleNameLike or scheduleRemarksLike exists-->
</keyword>
```

```
 <sortBy>
   <!--optional, xs:string, sort mode of results: "programType"-by program type, "scheduleType"-by playing mode,
"approveState"-by approval status, "shareProperty"-by shared property, "modeTime"-by modification time,
"programName"-by program name", "resolution"-by resolution-->
 </sortBy>
 <orderMode>
   <!--optional, xs:"ascend,descend", sort mode: ascend, descend-->
 </orderMode>
 <maxResults>
   <!--optional, xs:integer, maximum number of returned results per search-->
 </maxResults>
 <searchResultsPosition>
   <!--optional, xs:integer, the end position of search result in result list. In a single search, if you cannot get all the
records in the result list, you can mark the end position and get the following records after the marked position in the
next search-->
 </searchResultsPosition>
</ProgramMoreSearchDescription>
```

E.90 XML_ProgramSearchResult

XML message about search results of program

```
<ProgramSearchResult xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <searchID>
   <!--required, xs:string, search ID, which is used to check whether the current search requester is the same; the
search ID is valid for 5 minutes-->
 </searchID>
 <responseStatus>
   <!--required, xs:boolean, whether it is searched: "true"-yes, "false"-no-->
 </responseStatus>
 <responseStatusString>
   <!--required, xs:string, search status: "true+OK"-no more results, "true+MORE"-there are more results not returned,
"FAILED"-search failed, "PARAM ERROR"incorrect parameters, "TIMEOUT"-timed out-->
 </responseStatusString>
 <totalMatches>
   <!--required, xs:integer, total number of matched results-->
 </totalMatches>
 <numOfMatches>
   <!--required, xs:integer, total number of returned results-->
 </numOfMatches>
 <MatchElementList>
  <!--optional, list of matched programs-->
  <MatchElement>
   <!--list,required-->
   <id>
     <!--required, xs:integer, program ID-->
   </id>
   <programName>
     <!--required, xs:string, program name-->
   </programName>
```

```
    <programRemarks>
     <!--required, xs:string, program description-->
    </programRemarks>
    <shareProperty>
     <!--optional, xs:string, shared property: private, public-->
    </shareProperty>
    <approveState>
     <!--optional, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not approved-->
    </approveState>
    <approveRemarks>
     <!--optional, xs:string, approval remarks-->
    </approveRemarks>
    <Resolution>
     <!--required, program resolution-->
     <resolutionName>
      <!--optional, xs:string, resolution name-->
     </resolutionName>
     <imageWidth>
      <!--required, xs:integer-->
     </imageWidth>
     <imageHeight>
      <!--required, xs:integer-->
     </imageHeight>
    </Resolution>
    <programSize>
     <!--required, xs:integer, total size of the program, unit: byte-->
    </programSize>
    <programLength>
     <!--required, xs:integer, program duration, unit:second-->
    </programLength>
    <moder>
     <!--optional, xs:string-->
    </moder>
    <modeTime>
     <!--optional, xs:string, editing time (ISO 8601 format)-->
    </modeTime>
    <orgName>
     <!--optional, xs:string-->
    </orgName>
    <programType>
     <!--optional, xs:string,"normal,decode,touch,decodeTouch"-->
    </programType>
   </MatchElement>
  </MatchElementList>
</ProgramSearchResult>
```

E.91 XML_ProgressCond

XML message about search conditions of program schedule release progress

```
<ProgressCond version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <targetType><!--required, xs:string, search way: "byTerminal"-by terminal, "byOrg"-by organization--></targetType>
 <terminalNo><!--dependent, xs:integer, terminal ID--></terminalNo>
 <groupNo><!--dependent, xs:integer, terminal group No.--></groupNo>
 <orgNo><!--dependent, xs:integer, organization No.--></orgNo>
</ProgressCond>
```

E.92 XML_ProgressStatus

XML message about program schedule release progress

```
<ProgressStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <TerminalStatusList><!--required, progress of terminals-->
  <TerminalStatus><!--required, progress of a single terminal-->
   <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
   <releaseStatus><!--required, xs:string, release status: release, failed, succeeded--></releaseStatus>
   <percent><!--dependent, xs:integer, progress, range: [0,100]--></percent>
  </TerminalStatus>
 </TerminalStatusList>
</ProgressStatus>
```

E.93 XML_PublishServerAddr

XML message about terminal server address parameters

```
<PublishServerAddr version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <addressingFormatType opt="ipaddress,hostname"><!--required, xs:string, address type: "ipaddress"-IP address,
"hostname"-domain name--></addressingFormatType>
 <hostName min="" max=""><!--dependent, xs:string, domain name--></hostName>
 <ipVersion opt="v4,v6,dual"><!--required, xs:string, IP address type: IPv4, IPv6, IPv4 and IPv6--></ipVersion>
 <ipAddress><!--dependent, xs:string, IPv4 address--></ipAddress>
 <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
 <portNo><!--optional, xs:integer, port No.--></portNo>
 <registerStatus><!--read-only,  optional, xs:boolean, registration status--></registerStatus>
 <userName><!--optional, xs:string, user name of the server--></userName>
 <password><!--optional, xs:string, password of the server--></password>
 <operateType opt="byTerminal,byOrg"><!--required, xs:string, operation mode: "byTerminal"-by terminal, "byOrg"-
by organization--></operateType>
 <TerminalNoList  size=""><!--dependent, terminal No. list-->
  <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
 </TerminalNoList>
  <OrgNoList size=""><!--dependent, organization No. list-->
   <orgNo><!--required, xs:integer, organization No.--></orgNo>
  </OrgNoList>
</PublishServerAddr>
```

E.94 XML_PublishServerCap

XML message about capabilities of information release

```
<PublishServerCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <maxStaticMaterialNum><!--required, xs:integer, maximum number of local materials--></maxStaticMaterialNum>
 <maxDynamicMaterialNum><!--required, xs:integer, maximum number of dynamic materials--></
maxDynamicMaterialNum>
 <maxProgramNum><!--required, xs:integer, maximum number of programs--></maxProgramNum>
 <maxScheduleNum><!--required, xs:integer, maximum number of program schedules--></maxScheduleNum>
 <maxTerminalNum><!--required, xs:integer, maximum number of terminals--></maxTerminalNum>
 <maxTerminalGroupNum><!--required, xs:integer, maximum number of terminal groups--></
maxTerminalGroupNum>
 <maxSchedulePlanNum><!--optional, xs:integer, maximum number of release schedules--></maxSchedulePlanNum>
 <maxOrgNum><!--optional, xs:integer, maximum number of organizations--></maxOrgNum>
 <maxPackLength><!--optional, xs:integer, unit:KB --></maxPackLength>
 <isSupportMaterialMgr><!--required, xs:boolean, whether it supports material management--></
isSupportMaterialMgr>
 <isSupportProgramMgr><!--required, xs:boolean, whether it supports program management--></
isSupportProgramMgr>
 <isSupportScheduleMgr><!--required, xs:boolean, whether it supports program schedule management--></
isSupportScheduleMgr>
 <isSupportTerminalMgr><!--required, xs:boolean, whether it supports terminal schedule configuration--></
isSupportTerminalMgr>
 <isSupportSwitchPlan><!--required, xs:boolean, whether it supports startup or shutdown schedule configuration--></
isSupportSwitchPlan>
 <isSupportVolumePlan><!--required, xs:boolean, whether it supports volume adjustment schedule configuration--></
isSupportVolumePlan>
 <isSupportServerAddr><!--required, xs:boolean, whether it supports configuring terminal registration server
address--></isSupportServerAddr>
 <isSupportBusinessIntelligence><!--required, xs:boolean, whether it supports business intelligence--></
isSupportBusinessIntelligence>
 <isSupportTerminalPreview><!--required, xs:boolean, whether it supports terminal live view--></
isSupportTerminalPreview>
 <isSupportTemplateMgr><!--optional, xs:boolean, whether it supports template management--></
isSupportTemplateMgr>
 <isSupportGerDataTrans><!--optional, xs:boolean, whether it supports third-party data transmission--></
isSupportGerDataTrans>
 <isSupportThridPartyFile><!--optional, xs:boolean, whether it supports uploading third-party files--></
isSupportThridPartyFile>
 <isSupportXmlUserMgr><!--optional, xs:boolean, whether it supports user management--></isSupportXmlUserMgr>
 <isSupportUserPermissionCfg><!--optional, xs:boolean, whether it supports user permission configuration--></
isSupportUserPermissionCfg>
 <isSupportOrgMgr><!--optional, xs:boolean, whether it supports organization management--></isSupportOrgMgr>
 <isSupportRetransmitPack><!--optional, xs:boolean, whether it supports packet retransmission--></
isSupportRetransmitPack>
 <isSupportWeatherFactory><!--optional, xs:boolean, whether it supports configuring weather manufacture
information--></isSupportWeatherFactory>
 <isSupportScheduleExport><!--optional, xs:boolean, whether it supports exporting program schedules--></
isSupportScheduleExport>
 <isSupportInputPlan><!--optional, xs:boolean, --></isSupportInputPlan>
```

```
 <isSupportInsertCharacter><!--optional, xs:boolean--></isSupportInsertCharacter>
 <isSupportHdInit><!--optional, xs:boolean, whether it supports disk initialization--></isSupportHdInit>
 <isSupportSSH><!--optional, xs:boolean, whether it supports SSH configuration--></isSupportSSH>
 <isSupportTerminalAdbDebug><!--optional, xs:boolean, whether it supports terminal ADB debugging configuration--
></isSupportTerminalAdbDebug>
 <isSupportBackupData><!--optional, xs:boolean, whether it supports data backup--></isSupportBackupData>
  <isSupportServerTimeZone><!--optional, xs:boolean, whether it supports server time zone configuration--></
isSupportServerTimeZone>
  <isSupportTerminalTimeZone><!--optional, xs:boolean, whether it supports terminal time zone configuration--></
isSupportTerminalTimeZone>
  <isSupportTerminalDiscovery><!--optional, xs:boolean, whether it supports searching for terminals--></
isSupportTerminalDiscovery>
  <isSupportScheduleUtcTime><!--optional, xs:boolean, whether it supports UTC time schedule--></
isSupportScheduleUtcTime>
  <isSupportAdditionModule><!--optional, xs:boolean, whether it supports add-ons--></isSupportAdditionModule>
  <isSupportTerminalMgrCap><!--optional, xs:boolean, whether it supports getting terminal management capability
set--></isSupportTerminalMgrCap>
  <isSupportMaterialThumbnailDownload><!--optional, xs:boolean, whether it supports downloading material
thumbnails--></isSupportMaterialThumbnailDownload>
  <isSupportProgramThumbnailUpload><!--optional, xs:boolean, whether it supports uploading program thumbnails--
></isSupportProgramThumbnailUpload>
  <isSupportprogramThumbnailDownload><!--optional, xs:boolean, whether it supports downloading program
thumbnails--></isSupportprogramThumbnailDownload>
  <isSupportRePublish><!--optional, xs:boolean, whether it supports re-releasing--></isSupportRePublish>
  <isSupportTemplateThumbnailUpload><!--optional, xs:boolean, whether it supports uploading template
thumbnails--></isSupportTemplateThumbnailUpload>
  <isSupportTemplateThumbnailDownload><!--optional, xs:boolean, whether it supports downloading template
thumbnails--></isSupportTemplateThumbnailDownload>
 <isSupportSchedulePlanIDSearch><!--optional, xs:boolean, whether it supports searching for a single schedule of
program schedule--></isSupportSchedulePlanIDSearch>
 <isSupportTemplateBaseInfoSearch><!--optional, xs:boolean, whether it supports searching for template basic
information--></isSupportTemplateBaseInfoSearch>
  <maxDelSchedulePlanNum><!--required, xs:integer, the maximum number of terminal deleted schedules of releasing
program schedules in a batch--></maxDelSchedulePlanNum>
  <maxDelMaterialNum><!--required, xs:integer, the maximum number of materials deleted in a batch--></
maxDelMaterialNum>
  <maxDelProgramNum><!--required, xs:integer, the maximum number of programs deleted in a batch--></
maxDelProgramNum>
  <maxDelTerminalNum><!--required, xs:integer, the maximum number of terminals deleted in a batch--></
maxDelTerminalNum>
</PublishServerCap>
```

E.95 XML_remotePermission

XML message about the configurations of remote permission

```
<remotePermission version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <record><!—opt, xs: boolean—></record>
 <booleant><!—opt, xs: boolean—></booleant>
 <preview><!—opt, xs: boolean—></preview>
```

```
<videoChannelPermissionList><!—opt—>
 <videoChannelPermission><!—opt—>
  <id><!—req, corresponds to the video input channel ID—></id>
  <preview><!—opt, xs: boolean—></preview>
  <palyBack><!—opt, xs: boolean—></palyBack>
  <record><!—opt, xs:boolean—></record>
  <playBackDoubleVerification>
    <!—opt, xs:boolean, whether supports secondary authentication for playback and download—>
  </playBackDoubleVerification>
 </videoChannelPermission>
</videoChannelPermissionList>
<ptzControl><!—opt, xs: boolean—></ptzControl>
<ptzChannelPermissionList><!—opt—>
 <ptzChannelPermission><!—opt—>
  <id><!—req, corresponds to PTZ channel ID—></id>
  <ptzControl><!—opt, xs: boolean—></ptzControl>
 </ptzChannelPermission>
</ptzChannelPermissionList>
<logOrStateCheck><!—opt, xs: boolean, permission to view log and status—></logOrStateCheck>
<parameterConfig><!—opt, xs: boolean, parameter configuration permission—></parameterConfig>
<restartOrShutdown><!—opt, xs: boolean, permission to reboot and shutdown—></restartOrShutdown>
<upgrade><!—opt, xs: boolean, permission to upgrade—></upgrade>
<voiceTalk><!—opt, xs: boolean—></voiceTalk>
<transParentChannel><!—opt, xs: boolean—></transParentChannel>
<contorlLocalOut><!—opt, xs: boolean—></contorlLocalOut>
<alarmOutOrUpload><!—opt, xs: boolean, permission to upload and output alarm—></alarmOutOrUpload>
<factoryReset><!--opt, xs:boolean, restore default parameters--></factoryReset>
<arm><!--opt, xs:boolean, arm--></arm>
<disarm><!--opt, xs:boolean, disarm--></disarm>
<accessControl><!--opt, xs:boolean, access control--></accessControl>
<subSysOrZoneArm><!--opt, xs:boolean, partition or zone arming permission--></subSysOrZoneArm>
<subSysOrZoneDisarm><!--opt, xs:boolean, partition or zone disarming permission--></subSysOrZoneDisarm>
<subSysOrZoneClearArm><!--opt, xs:boolean, permission to clear partition or zone alarms--></
subSysOrZoneClearArm>
<zoneBypass><!--opt, xs:boolean, permission to bypass zone--></zoneBypass>
<zoneBypassRecover><!--opt, xs:boolean, permission to recover bypassing zone--></zoneBypassRecover>
<IRAID>
  <rapidConfiguration><!--opt, xs:boolean--></rapidConfiguration>
  <reset><!--opt, xs:boolean--></reset>
</IRAID>
<subSystemList><!--opt, partitions linked to the operator when adding an operator or setting operator parameters-->
  <subSystem><!--opt, xs:integer, partition linked to the operator. When adding an operator or setting operator
parameters, one or more partitions can be linked to an operator. An operator should be linked to at least one partition
and up to four partitions--></subSystem>
</subSystemList>
<AIModelManagement><!--opt, xs:boolean, operation permission of AI model packages--></AIModelManagement>
<AITaskManagement><!--opt, xs:boolean, management and operation permission of AI tasks--></
AITaskManagement>
<subSysOrZoneArm>
  <!--read-only, optional, xs:boolean, arm permission of partition/alarm zone-->true
</subSysOrZoneArm>
<subSysOrZoneDisarm>
```

```
      <!--read-only, optional, xs:boolean, disarm permission of partition/alarm zone-->true
 </subSysOrZoneDisarm>
 <subSysOrZoneClearArm>
   <!--read-only, optional, xs:boolean, clear alarm permission of partition/alarm zone-->true
 </subSysOrZoneClearArm>
 <zoneBypass>
   <!--read-only, optional, xs:boolean, bypass permission in alarm zone-->true
 </zoneBypass>
 <zoneBypassRecover>
   <!--read-only, optional, xs:boolean, bypass recovery permission in alarm zone-->true
 </zoneBypassRecover>
 <operateOutput>
   <!--read-only, optional, xs:boolean, permission for operation on relay-->true
 </operateOutput>
 <supportLinkageSubSystemList>
   <!--read-only, optional, list of the partitions that support linkage-->
   <subSystem>
     <!--read-only, optional, xs:integer, the partition that supports linkage, value range:[1,64]-->1
   </subSystem>
 </supportLinkageSubSystemList>
 <subSystemList>
   <!--read-only, optional, xs:object, list of partitions-->
   <subSystem>
     <!--read-only, optional, xs:integer, partition, range:[1,64]-->1
   </subSystem>
 </subSystemList>
 <factoryReset>
   <!--read-only, optional, xs:boolean, recover default parameters-->true
 </factoryReset>
 <arm>
   <!--read-only, optional, xs:boolean, arm-->true
 </arm>
 <disarm>
   <!--read-only, optional, xs:boolean, disarm-->true
 </disarm>
 <accessControl>
   <!--read-only, optional, xs:boolean, access control-->true
 </accessControl>
 <restoreTamper opt="true,false">
   <!--optional, boolean, whether to restore tampering, this node is only valid for installer-->true
 </restoreTamper>
 <restoreConfirmedAlarm opt="true,false">
   <!--optional, boolean, whether to restore alarm acknowledgment,this node is for linked zones-->true
 </restoreConfirmedAlarm>
 <LPListAudit>
   <!--optional, xs:boolean, allowlist/blocklist operation permission. Users with this permission can import, export,
edit, delete, and search for license plate information in the allowlist or blocklist. See remarks for the URI for each
operation-->true
 </LPListAudit>
</remotePermission>
```

Remarks

- Search for license plate information in the allowlist or blocklist: POST /ISAPI/Traffic/channels/ <ID>/searchLPListAudit;
  import/export license plate information into/in allowlist or blocklist: GET/PUT /ISAPI/Traffic/ channels/<ID>/licensePlateAuditData;
  add/edit license plate information to/in the allowlist or blocklist: PUT /ISAPI/Traffic/channels/ <channelID>/licensePlateAuditData/record?format=json;
  delete license plate information in the allowlist or blocklist: PUT /ISAPI/Traffic/channels/ <channelID>/DelLicensePlateAuditData?format=json.

E.96 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>
```

E.97 XML_ScheduleMatchTerminal

XML message about terminal matching capability

```
<ScheduleMatchTerminal xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <TerminalScheduleList>
  <TerminalSchedule>
```

```
   <!--list-->
   <scheduleMode opt="normal,decode,touch,decodeTouch" >
     <!--optional, xs:string, program schedule type: normal, decode, touch, "decodeTouch"-decode and touch-->
   </scheduleMode>
   <isMatchNormalTerminal>
     <!--required, xs:boolean, whether to match a normal terminal-->
   </isMatchNormalTerminal>
   <isMatchDecodeTerminal>
     <!--required, xs:boolean, whether to match a decoding terminal-->
   </isMatchDecodeTerminal>
   <isMatchTouchTerminal>
     <!--required, xs:boolean, whether to match a touch terminal-->
   </isMatchTouchTerminal>
   <isMatchDecodeTouchTerminal>
     <!--required, xs:boolean, whether to match a decoding and touch terminal-->
   </isMatchDecodeTouchTerminal>
   </TerminalSchedule>
  </TerminalScheduleList>
</ScheduleMatchTerminal>
```

E.98 XML_ScheduleMoreSearchDescription

XML message about parameters of searching for terminals by multiple conditions

```
<ScheduleMoreSearchDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <searchID><!--required, xs:string, search ID, which is used to check whether the current search requester is the
same; the search ID is valid for 5 minutes --></searchID>
 <scheduleName><!--optional, xs:string, program schedule name--></scheduleName>
 <scheduleNameLike><!--optional, xs:string, fuzzy search by program schedule name--></scheduleNameLike>
 <scheduleRemarksLike><!--optional, xs:string, fuzzy search by program schedule description--></
scheduleRemarksLike>
 <shareProperty><!--optional, xs:string, shared property: public, private, all--></shareProperty>
 <uploader><!--optional, xs:string, uploader, if this field is not configured, the uploader is not limited--></uploader>
 <moder><!--optional, xs:string, modifier--></moder>
 <orgName><!--optional, xs:string, organization name--></orgName>
 <includeSubOrg><!--optional, xs:boolean, whether to include lower-level organizations: "true"-yes, "false"-no
(default); if this field is not configured, it does not include lower-level organization; this field is valid only when
orgName exists--></includeSubOrg>
 <ScheduleTypeList><!--optional-->
   <scheduleType><!--required, xs:string, program schedule type: "selfDefine"-custom schedule, "daily"-daily
schedule, "weekly"-weekly schedule, "loop"-loop schedule, "defaultSchedule"-default schedule--></scheduleType>
 </ScheduleTypeList>
 <ApproveStateList>
   <approveState><!--optional, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not
approved--></approveState>
 </ApproveStateList>
 <ScheduleModeList>
   <scheduleMode><!--optional, xs:string, program schedule mode：normal, decode-, touch, "decodeTouch"-decode
and touch--></scheduleMode>
 </ScheduleModeList>
```

```
<TimeSpanList><!--optional, modification period of program schedule; if the parameter is not configured, the
modification time is not limited-->
  <TimeSpan>
    <startTime><!--required, xs:time, start time (ISO 8601 format)--></startTime>
    <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
  </TimeSpan>
</TimeSpanList>
<keyword><!--optional, xs:string, search by keyword: program schedule name, modifier, program schedule
description; this field is invalid when uploader, scheduleNameLike or scheduleRemarksLike exists--></keyword>
<sortBy><!--optional, xs:string, sort mode of results: "scheduleMode"-by program schedule type, "scheduleType"-by
playing mode, "approveState"-by approval status, "shareProperty"-by shared property, "ModeTime"-by modification
time, "scheduleName"-by program schedule name--></sortBy>
<orderMode><!--optional, sort mode: ascend, descend--></orderMode>
<maxResults><!--optional, xs:integer, maximum number of returned results per search--></maxResults>
<searchResultsPosition><!--optional, xs:integer, the end position of search result in result list. In a single search, if
you cannot get all the records in the result list, you can mark the end position and get the following records after the
marked position in the next search --></searchResultsPosition>
</ScheduleMoreSearchDescription>
```

E.99 XML_ScheduleRelease

XML message about capabilities of program schedule release parameters

```
<ScheduleRelease version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scheduleNo><!--required, xs:integer, program No.--></scheduleNo>
  <effectiveTime><!---optional, xs:time, effective time (ISO 8601 format)--></effectiveTime>
  <releaseType><!--required, xs:string, releasing mode: "byTerminal"-by terminal, "byOrg"-by organization,
"byTerminalOrg"-by terminal or organization, "cancelAll"-cancel--></releaseType>
  <TerminalNoList><!--dependent-->
    <terminalNo><!--required, xs:integer, terminal No.--></terminalNo>
  </TerminalNoList>
  <OrgNoList><!--dependent-->
    <orgNo><!--required, xs:integer, organization No.--></orgNo>
  </OrgNoList>
  <releaseName><!--optional, xs:string, release name--></releaseName>
  <NoType><!--optional, xs:string, ID tyep: "schedule"-program schedule ID, "task"-release task ID or cut-in task ID--></
NoType>
</ScheduleRelease>
```

E.100 XML_ScheduleSearchDescription

XML message about parameters of searching for program schedules by one condition

```
<ScheduleSearchDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <searchID><!--required, xs:string, search ID, which is used to check whether the current search requester is the
same; the search ID is valid for 5 minutes --></searchID>
  <shareProperty><!--required, xs:string, shared property: public, private--></shareProperty>
  <uploader><!--optional, xs:string, uploader  name; if the parameter is not configured, the uploader is not limited--></
uploader>
```

```
  <scheduleType><!--optional, xs:string, program schedule type: daily schedule, weekly schedule, loop schedule, all--
></scheduleType>
  <TimeSpanList><!--optional, modification period of program schedule; if the parameter is not configured, the
modification time is not limited-->
    <TimeSpan>
      <startTime><!--required, xs:time, start time (ISO 8601 format)--></startTime>
      <endTime><!--required, xs:time, end time (ISO 8601 format)--></endTime>
    </TimeSpan>
  </TimeSpanList>
  <maxResults><!--optional, xs:integer, maximum number of returned results per search--></maxResults>
  <searchResultsPosition><!--optional, xs:integer, the end position of search result in result list. In a single search, if
you cannot get all the records in the result list, you can mark the end position and get the following records after the
marked position in the next search --></searchResultsPosition>
</ScheduleSearchDescription>
```

E.101 XML_ScheduleSearchResult

XML message about search results of program schedule

```
<ScheduleSearchResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <searchID><!--required, xs:string, search ID, which is used to check whether the current search requester is the
same; the search ID is valid for 5 minutes --></searchID>
  <responseStatus><!--required, xs:boolean, whether it is searched: "true"-yes, "false"-no--></responseStatus>
  <responseStatusString><!--required, xs:string, search status: "true+OK"-no more results, "true+MORE"-there are
more results not returned, "FAILED"-search failed, "PARAM ERROR"incorrect parameters, "TIMEOUT"-timed out--></
responseStatusString>
  <totalMatches><!--required, xs:integer, total number of matched results--></totalMatches>
  <numOfMatches><!--required, xs:integer, total number of returned results--></numOfMatches>
  <MatchElementList><!--optional, list of matched programs-->
    <MatchElement><!--required, matched program-->
      <id><!--required, xs:integer, program schedule No.--></id>
      <scheduleName><!--required, xs:string, program schedule name--></scheduleName>
      <scheduleRemarks><!--required, xs:string, program schedule name--></scheduleRemarks>
      <shareProperty><!--optional, xs:string, shared property: private, public--></shareProperty>
      <scheduleType><!--optional, xs:string, program schedule type: "selfDefine"-custom schedule, "daily"-daily
schedule, "weekly"-weekly schedule, "loop"-loop schedule, defaultSchedule-default program schedule--></
scheduleType>
      <moder><!--optional, xs:string, modifier--></moder>
      <modeTime><!--optional, xs:time, editing time (ISO 8601 format)--></modeTime>
      <approveState><!--optional, xs:string, approval status: "approved"-pass, "notPass"-not pass, "notApprove"-not
approved--></approveState>
      <scheduleMode><!--optional, xs:string, program schedule mode: normal, decode, touch, "decodeTouch"-decode
and touch--></scheduleMode>
      <orgName><!--optional, xs:string, organization name--></orgName>
      <approveRemarks><!--optional, xs:string, approval remarks--></approveRemarks>
    </MatchElement>
  </MatchElementList>
</ScheduleSearchResult>
```

E.102 XML_SecurityCap

SecurityCap capability message in XML format

```
<SecurityCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <supportUserNums><!--optional, xs:integer, number of supported users--></supportUserNums>
 <userBondIpNums><!--optional, xs:integer, number of bound IP addresses supported by the user--></
userBondIpNums>
 <userBondMacNums><!--optional, xs:integer, number of bound MAC addresses supported by the user--></
userBondMacNums>
 <isSupCertificate><!--optional, xs:boolean, whether it supports certification: "true", "false"--></isSupCertificate>
 <issupIllegalLoginLock><!--optional, xs: boolean, whether it supports locking illegal login: "true,false"--
><issupIllegalLoginLock>
 <isSupportOnlineUser><!--optional, xs: boolean, "true,false"--><isSupportOnlineUser>
 <isSupportAnonymous><!--optional, xs: boolean, "true,false"--><isSupportAnonymous>
 <isSupportStreamEncryption><!--optional, xs:boolean, whether it supports stream encryption: "true", "false"--></
isSupportStreamEncryption>
 <securityVersion opt="1,2"/><!--optional, xs:interger, encryption capability, each version contains encryption
algorithm and node range to be encrypted. "1"-encrypt by AES128, "2"-encrypt by AES256-->
 <keyIterateNum>
   <!--dependent xs:integer, iteration times, this node depends on securityVersion, and the value is usually between
100 and 1000-->
 </keyIterateNum>
 <isSupportUserCheck>
   <!--dependent optional, xs:boolean, whether it supports verifying password when editing/adding/deleting user
parameters, this node depends on securityVersion-->
 </isSupportUserCheck>
 <isSupportGUIDFileDataExport><!--optional, xs:boolean, "true,false"--></isSupportGUIDFileDataExport>
 <isSupportSecurityQuestionConfig><!--optional, xs:boolean, "true,false"--></isSupportSecurityQuestionConfig>
 <supportSecurityNode opt="wirelessServer,wirelessDial"><!--optional, xs:string, "true,false"--></
supportSecurityNode>
 <isSupportGetOnlineUserListSC><!--optional, xs:boolean, "true,false"--></isSupportGetOnlineUserListSC>
 <SecurityLimits><!--optional-->
   <LoginPasswordLenLimit  min="1" max="16"><!--opt--></LoginPasswordLenLimit>
   <SecurityAnswerLenLimit  min="1" max="128"><!--opt--></SecurityAnswerLenLimit>
 </SecurityLimits>
 <RSAKeyLength opt="512,1024,2048" def=2048/><!--optional, RSA key length of the HTTPS certificate-->
 <isSupportONVIFUserManagement><!--optional, xs:boolean, whether it supports user management by ONVIF
protocol: "true", "false"--><isSupportONVIFUserManagement>
 <WebCertificateCap><!--opt-->
   <CertificateType opt="basic, digest, digest/basic"><!--required, xs:string--></CertificateType>
   <SecurityAlgorithm><!--dependent, this node is valid when certificateType is "digest" or "digest/basic"-->
     <algorithmType opt="MD5,SHA256,MD5/SHA256"><!--optional, xs:string, algorithm type: "MD5", "SHA256",
"MD5/SHA256"--></algorithmType>
   </SecurityAlgorithm>
 </WebCertificateCap>
 <isSupportConfigFileImport>
   <!--optional, xs: boolean, whether it supports importing configuration files securely: "true"-yes. If it is not
supported, this node will not be returned-->
 </isSupportConfigFileImport>
 <isSupportConfigFileExport>
```

```
  <!-- optional, xs:boolean, whether it supports exporting configuration files securely: "true"-yes. If it is not
supported, this node will not be returned-->
 </isSupportConfigFileExport>
 <cfgFileSecretKeyLenLimit min="0" max="16">
  <!--optional, length limit of the configuration files' encryption key-->
 </cfgFileSecretKeyLenLimit>
 <isSupportDeviceCertificatesManagement>
  <!--optional, xs: boolean, whether it supports device certificate management: true-yes, if not support, this node will
not be returned-->
 </isSupportDeviceCertificatesManagement>
 <supportIPCActivatePassword><!--optional, xs:boolean, whether it supports configuring password for activating the
network camera--></supportIPCActivatePassword>
 <isIrreversible>
  <!--dependent optional, xs:boolean, whether it supports irreversible password storage. If this node does not exist,
irreversible password storage is not supported-->
 </isIrreversible>
 <salt><!--optional, xs:string, salt of user name--></salt>
 <keypadPassword min="1" max=""/><!--optional, xs:string, keypad password length. If different types of users have
different keypad password length, this node only indicates the administrator's keypad password length, otherwise this
node indicates that all types of users have the same keypad password length-->
 <installerKeypadPassword min="1" max=""/><!--optional, xs:string, installer's keypad password length-->
 <operatorKeypadPassword min="1" max=""/><!--optional, xs:string, operator's keypad password length-->
 <userOperateType opt="1,2,3">
  <!--optional, xs:string, user operation type: "1"-network user, "2"-keypad user, "3"-network user and keypad user-->
 </userOperateType>
 <isSupportOnvifInfo><!--optional, xs:boolean, whether it supports the API of getting ONVIF protocol information. If
this node is returned and its value is "true", in indicates supporting this funcion; if this node is not returned, it
indicates that this function is not supported--></isSupportOnvifInfo>
 <isSupportPictureURlCertificate opt="true,false"><!--optional, xs:boolean, whether it supports configuring picture
URL authentication. If this node is not returned, it indicates that the default picture authentication method of the
device is digest--></isSupportPictureURlCertificate>
 <isSupportUnloggedUserPermissionConfig opt="true,false"><!--optional, xs:boolean, whether it supports configuring
permissions for users that have not logged in--></isSupportUnloggedUserPermissionConfig>
 <isSupportUserNamePasswordCheckUpgrade><!--optional, xs:boolean, whether it supports upgrading user name
and password verification. If this node is not returned, it indicates that this function is not supported--></
isSupportUserNamePasswordCheckUpgrade>
 <isSupportDeviceSelfSignCertExport><!--optional, xs:boolean--></isSupportDeviceSelfSignCertExport>
 <isSupportSecurityEmail><!--optional, xs:boolean, whether it supports configuring security E-mail address. If this
node is not returned, it indicates that this function is not supported--></isSupportSecurityEmail>
 <isSupportRTSPCertificate opt="true,false"><!--optional, xs:boolean--></isSupportRTSPCertificate>
 <isSptUserEnabled><!--optional, xs:boolean, whether it supports configuration of enabling user: "true"-yes, "false"-
no--></isSptUserEnabled>
 <isSptAdminCap><!--optional, xs:boolean, whether it supports getting administrator permission capability: "true"-
yes, "false"-no--></isSptAdminCap>
 <DoubleVerificationCap><!--optional, double verification capability-->
  <isSupportUsersConfig>
   <!--optional, xs: boolean, "true,false", whether it supports configuring double verification user-->
  </isSupportUsersConfig>
  <isSupportUsersPermissionConfig>
   <!--optional, xs: boolean, "true,false", whether it supports configuring the permission of double verification user--
>
  </isSupportUsersPermissionConfig>
```

```
    </DoubleVerificationCap>
    <isSupportCertificateCustomID><!--optional, xs:Boolean, whether it supports certificate configuration with custom
ID--></isSupportCertificateCustomID>
    <maxIllegalLoginTimes  min="3" max="20"def="5">
      <!--dependentxs:integer,"maximum illegal login attempts" -->
    </maxIllegalLoginTimes>
    <SecurityAdvanced>
      <securityEnhanced> <!--optional,xs:boolean,security reinforcement--> </securityEnhanced>
      <noOperationEnabled><!—required, xs:Boolean, whether to enable the timeout of no operation--></
noOperationEnabled>
      <noOperationTime min="1" max="60"def="15"><!—required, xs:integer,timeout of no operation, unit: minute--></
noOperationTime>
      <isSupportDigestStatus><!—optional, Boolean—digest status></isSupportDigestStatus>
    </SecurityAdvanced>
    <LoginLinkNum><maxLinkNum min="1" max="128"def="50"><!—required, xs:integer,maximum number of logged in
accounts--></maxLinkNum><LoginLinkNum>
    <isSupportCCClientCertificate><!—optional,Boolean—whether to enable the CC client certificate></
isSupportCCClientCertificate>
    <passwordValidity min="0" max="365"><!--optional, xs:string, password validity period, unit: day. If this node is
returned, it indicates supporting configuring password validity period. The password validity period can only be edited
by the administrator user--></passwordValidity>
    <maxIllegalLoginLockTime min="1" max="120" def="30"><!--optional, xs:integer, the lock duration when maximum
illegal login attempts reached the upper limit; unit: minute--></maxIllegalLoginLockTime>
</SecurityCap>
```

E.103 XML_SingleTimeZone

XML message about time zone configuration of a specific terminal

```
<SingleTimeZone version="2.0">
    <timeZone><!--required, xs:string--></timeZone>
</SingleTimeZone>
```

E.104 XML_SwitchPlan

XML message about parameters of a single startup and shutdown schedule

```
<SwitchPlan version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <planType><!--required, xs:string, startup and shutdown schedule type: daily schedule, weekly schedule--></
planType>
  <DailyPlan><!--dependent, shutdown schedule period-->
    <SwitchSpanList><!--required-->
      <SwitchSpan><!--required-->
        <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
        <switchType><!--required, xs:string, startup or shutdown: "on"-startup, "off"-shutdown--></switchType>
        <time><!--required, startup or shutdown time (ISO 8601 format)--></time>
      </SwitchSpan>
    </SwitchSpanList>
  </DailyPlan>
```

```
<WeeklyPlan><!--dependent, weekly schedule-->
 <DayList><!--required-->
  <Day><!--required-->
   <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
   <dayOfWeek><!--required, xs:string, day of a week: Monday, Saturday ...Sunday--></dayOfWeek>
   <SwitchSpanList><!--required-->
    <SwitchSpan><!--required-->
     <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
     <switchType><!--required, xs:string, startup or shutdown: "on"-startup, "off"-shutdown--></switchType>
     <time><!--required, startup or shutdown time (ISO 8601 format)--></time>
    </SwitchSpan>
   </SwitchSpanList>
  </Day>
 </DayList>
</WeeklyPlan>
<HolidayPlan><!--optional, holiday schedule-->
 <SwitchSpanList><!--required, period list-->
  <SwitchSpan><!--required-->
   <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
   <switchType><!--required, xs:string, startup or shutdown: "on"-startup, "off"-shutdown--></switchType>
   <time><!--required, xs:time, startup or shutdown time (ISO 8601 format)--></time>
  </SwitchSpan>
 </SwitchSpanList>
</HolidayPlan>
</SwitchPlan>
```

E.105 XML_SwitchPlanCfg

XML message about parameters of batch startup and shutdown schedule

```
<SwitchPlanCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <SwitchPlan/><!--required-->
 <OperateParam><!--required-->
  <operateType><!--required, xs:string, operation mode: by terminal, by terminal group, by organization--></operateType>
  <TerminalNoList><!--dependent, terminal No. list-->
   <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
  </TerminalNoList>
  <OrgNoList><!--dependent, organization No. list-->
   <orgNo><!--required, xs:integer, organization No.--></orgNo>
  </OrgNoList>
 </OperateParam>
</SwitchPlanCfg>
```

See Also

XML_SwitchPlan

E.106 XML_TerminalConfig

XML message about specific parameters of terminals

```
<TerminalConfig version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, xs:integer, terminal ID--></id>
 <PlayerParam><!--optional, player parameters-->
  <volume><!--required, xs:integer, volume, range: [0,100]--></volume>
 </PlayerParam>
 <ScreenParam><!--optional, screen parameters-->
  <autoLightEnable><!--optional, xs:boolean, whether to enable auto-brightness configuration--></autoLightEnable>
  <lightMode><!--optional, xs:integer, backlight mode, which is valid only when auto-brightness mode
(autoLightEnable) is enabled--></lightMode>
  <backLightLevel><!--optional, xs:integer, brightness,  which is valid only when auto-brightness mode
(autoLightEnable) is disabled---></backLightLevel>
  <bootLogoEnabled><!--optional, xs:boolean, whether to display logo when power on--></bootLogoEnabled>
 </ScreenParam>
 <DefaultSchedule><!--optional, default program schedule-->
  <scheduleId><!--optional, xs:integer, program schedule ID--></scheduleId>
  <scheduleName><!--optional, xs:string, program schedule name--></scheduleName>
  <enable><!--optional, xs:boolean, whether to enable the default program schedule--></enable>
 </DefaultSchedule>
 <PasswordCfg><!--optional, terminal password configuration-->
  <oldPwd><!--write-only, required, xs:string, old password--></oldPwd>
  <newPwd><!--write-only, required, xs:string, new password--></newPwd>
 </PasswordCfg>
 <TemperatureCfg><!--dependent, temperature protection-->
  <enable><!--required, xs:boolean, whether to enable temperature protection--></enable>
  <securityValue><!--required, xs:integer, security value; if the terminal temperature is lower than this value, it will
restart--></securityValue>
  <protectValue><!--required, xs:integer, protection value; if the terminal temperature is higher than this value, it will
shutdown--></protectValue>
 </TemperatureCfg>
</TerminalConfig>
```

E.107 XML_TerminalInfo

XML message about terminal information

```
<TerminalInfo xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <id>
  <!--required, xs:integer, terminal ID-->
 </id>
 <terminalName>
  <!--required, xs:string, terminal name-->
 </terminalName>
 <terminalType>
  <!--required, xs:string, terminal type: Android normal, Android decode, Android touch-->
```

```
</terminalType>
<terminalRemarks>
  <!--req,xs:string-->
</terminalRemarks>
<orgName>
  <!--required, xs:string, organization name-->
</orgName>
<onlineState>
  <!--required, xs:string, online status: online, offline, all-->
</onlineState>
<IpAddress>
  <!--required, read-only, terminal IP address-->
  <ipVersion>
    <!--required, xs:string, IP type: IPv4, IPv6, IPv4 and IPv6-->
  </ipVersion>
  <ipAddress>
    <!--dependent, xs:string, terminal IP address-->
  </ipAddress>
  <ipv6Address>
    <!--dependent, xs:string, IPv6 address-->
  </ipv6Address>
</IpAddress>
<port>
  <!--required, xs:integer, terminal port No.-->
</port>
<serialNo>
  <!--required, xs:string, terminal serial No.-->
</serialNo>
<softwareVersion>
  <!--required, xs:string, software -->
</softwareVersion>
<publishState>
  <!--required, xs:string, release progress status: releasing, succeeded, failed, null, canclled-->
</publishState>
<insertState>
  <!--required, xs:string, cut-in status: sending, cutting in, failed, null, cancelled-->
</insertState>
<playState>
  <!--required, xs:string, playing status: HDMI, VGA, program schedule is playing, program schedule stopped, screen
off-->
</playState>
<Resolution>
  <!--optional, resolution -->
  <width>
    <!--required, xs:integer, width-->
  </width>
  <height>
    <!--required, xs:integer, height-->
  </height>
</Resolution>
<operateType>
  <!--optional, xs:string, operations: "None"-no operation, "powerOn"-startup, "powerOff"-shutdown, reboot,
```

```
"startPlay"-start playing, "stopPlay"-stop playing, "stopInsert"-stop cutting in, "timingSwitchEffective"-enable startup/
shutdown schedule,
"timingSwitchFailed"-disable startup/shutdown schedule, "timingVolumeEffective"-enable volume schedule,
"timingVolumeFailed"-disable volume schedule, "timingInputSwitchConfig"-input switch schedule configuration,
"timingInputSwitchEffective"-enable input switch schedule, "timingInputSwitchFailed"-disable input switch schedule,
"restoreConfig"-restore default settings, "timingVolumeConfig"-volume schedule configuration, "timingSwitchConfig"-
startup/shutdown schedule configuration, "outputVolumeConfig"-volume configuration, "lightConfig"-brightness
configuration, "logoConfig"-logo configuration, "containerEnableConfig"-whether to enable default schedule,
"adbDebug"-terminal debug configuration, "terminalTimeZone"-terminal time zone configuration, "sadp"-SADP
configuration, "terminalMgrServerConfig"-terminal management server configuration, "channelConfig"-
channellinkage configuration, "terminalProgressShow"-display terminal progress, "terminalProgressHide"-hide
terminal progress, "terminalResolutionConfig"-configure terminal resolution , "terminalNTPConfig"-configure terminal
NTP, "terminalPlayInfoDel"-remove terminal playing information, "modifyTerminalPassword"-edit terminal password--
>
 </operateType>
 <operateStatus>
  <!--optional, xs:string, operation status: "None"-no operation, "success"-succeeded, failed-->
 </operateStatus>
 <failedReason>
  <!--optional, xs:string, failure reason-->
 </failedReason>
</TerminalInfo>
```

E.108 XML_Terminals

XML message about terminal parameters

```
<Terminals version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--required, xs:integer, terminal ID--></id>
 <terminalName><!--required, xs:string, terminal name--></terminalName>
 <terminalRemarks><!--required, xs:string, terminal description--></terminalRemarks>
 <registerType><!--required, xs:string, terminal registration mode: push, pull--></registerType>
 <thirdPartyType><!--optional, xs:string, third-party type--></thirdPartyType>
 <onlineState><!--read-only,  optional, xs:string, online status: online, offline--></onlineState>
 <PushModeInfo><!--dependent-->
  <characteristicCode><!--required, xs:string, attribute code--></characteristicCode>
  <IpAddress><!--read-only,  optional, IP address-->
   <ipVersion><!--required, xs:string, terminal IP version: IPv4, IPv6, IPv4 and IPv6--></ipVersion>
   <ipAddress><!--dependent, xs:string, IP address--></ipAddress>
   <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
  </IpAddress>
 </PushModeInfo>
 <PullModeInfo>
  <TerminalAddress><!--required, terminal IP address-->
   <addressingFormatType><!--required, xs:string, address type: "ipaddress"-IP address, "hostname"-domain name--
></addressingFormatType>
   <hostName><!--dependent, xs:string, domain name--></hostName>
   <IpAddress><!--dependent-->
    <ipVersion><!--required, xs:string, terminal IP version: IPv4, IPv6, IPv4 and IPv6--></ipVersion>
    <ipAddress><!--dependent, xs:string, IP address--></ipAddress>
```

```
    <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
   </IpAddress>
  </TerminalAddress>
  <portNo><!--required, xs:integer, terminal port No.--></portNo>
  <userName><!--required, xs:string, user name--></userName>
  <passWord><!--required, xs:string, password--></passWord>
 </PullModeInfo>
 <belongGroup><!--optional, xs:integer, organization--></belongGroup>
 <orgNo><!--optional, xs:integer, organization name--></orgNo>
</Terminals>
```

E.109 XML_TerminalsBatchInfo

XML message about parameters of terminal batch configuration

```
<TerminalsBatchInfo xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <operatorType>
   <!--required, xs:string, parameter to be configured in a batch: remark, organization, "dual"-remark and
organization-->
 </operatorType>
 <terminalRemarks>
   <!--dependent, xs:string-->
 </terminalRemarks>
 <orgNo>
   <!--optional, xs:integer-->
 </orgNo>
 <TerminalsIdList>
   <terminalsId>
     <!--list-->
     <!--required, xs:integer, terminal ID-->
   </terminalsId>
 </TerminalsIdList>
</TerminalsBatchInfo>
```

E.110 XML_TerminalSearchDescription

XML message about terminal information

```
<TerminalSearchDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <searchID><!--required, xs:string--></searchID><!--search ID, which is used to check whether the current search
requester is the same; the search ID is valid for 5 minutes-->
   <terminalName><!--optional, xs:string, terminal name--></terminalName>
   <terminalNameLike><!--optional, xs:string, fuzzy search by terminal name--></terminalNameLike>
   <terminalRemarksLike><!--optional, xs:string, fuzzy search by terminal description--></terminalRemarksLike>
   <orgName><!--optional, xs:string, organization name--></orgName>
   <includeSubOrg><!--optional, xs:boolean, whether to include lower-level organizations: "true"-yes, "false"-no
(default); if this field is not configured, it does not include lower-level organization; this field is valid only when
orgName exists--></includeSubOrg>
```

```
    <onlineState><!--optional, xs:string, online status: online, offine, all--></onlineState>
    <softwareVersion><!--optional, xs:string--></softwareVersion>
    <PublishStateList><!--optional-->
      <publishState><!--list,required, xs:string, release status: releasing, succeeded, failed, invalid release, cancelled--
></publishState>
    </PublishStateList>
    <InsertStateList><!--optional-->
      <insertState><!--list, required, xs:string, cut-in status: "null"-invalid cut-in, sending-, "inserting"-cutting in, failed---
></insertState>
    </InsertStateList>
    <PlayStateList><!--optional-->
      <playState><!--list, required, xs:string, playing status: HDMI, VGA, "schedulePlay"-play program schedule,
"scheduleStop"-pause, "screenOff"-screen off--></playState>
    </PlayStateList>
    <TerminalTypeList><!--optional-->
      <terminalType><!--list, required, xs:string, terminal screen type: normal, decode, touch, "decodeTouch"-touch
and decode--></terminalType>
    </TerminalTypeList>
    <keyword><!--optional, xs:string, terminal search conditions: terminal name, IP address, serial No., software
version, description: this field is invalid if terminalNameLike or terminalRemarksLike exsits--></keyword>
    <sortBy><!--optional, xs:string, sort mode of results: "terminalType"-by terminal type, "onlineState"-by online
status, "playState"-by playing status, "insertState"-by cut-in status, "terminalName"-by terminal name--></sortBy>
    <orderMode><!--optional, xs:"ascend,descend", sort mode: sscending, descending --></orderMode>
    <maxResults><!--optional, xs:integer, the maximum number of results returned per search--></maxResults>
    <searchResultsPosition><!--optional, xs:integer, the end position of search result in result list. In a single search, if
you cannot get all the records in the result list, you can mark the end position and get the following records after the
marked position in the next search.
--></searchResultsPosition>
    <TerminalNoList><!--optional, terminal No. list-->
      <terminalNo><!--list, xs:integer, terminal ID--></terminalNo>
    </TerminalNoList>
</TerminalSearchDescription>
```

E.111 XML_TerminalSearchResult

XML message about terminal search results

```
<TerminalSearchResult xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
  <searchID>
    <!--required, xs:string, search ID, which is used to check whether the current search requester is the same; the
search ID is valid for 5 minutes -->
  </searchID>
  <responseStatus>
    <!--required, xs: boolean, whether it is searched: "true"-yes, "false"-no-->
  </responseStatus>
  <responseStatusString>
    <!--required, xs:string, search status: "true+OK"-no more results, "true+MORE"-there are more results not returned,
"FAILED"-search failed, "PARAM ERROR"incorrect parameters, "TIMEOUT"-timed out-->
  </responseStatusString>
```

```
<totalMatches>
  <!--required, xs:integer, total number of matched results-->
</totalMatches>
<numOfMatches>
  <!--required, xs:integer, total number of returned results-->
</numOfMatches>
<TerminalInfoList>
  <!--optional, matched terminal information list-->
  <TerminalInfo>
    <id>
      <!--required, xs:integer, terminal ID-->
    </id>
    <terminalName>
      <!--required, xs:string, terminal name-->
    </terminalName>
    <terminalType>
      <!--required, xs:string, terminal type: Android normal, Android decode, Android touch-->
    </terminalType>
    <terminalRemarks>
      <!--req,xs:string-->
    </terminalRemarks>
    <orgName>
      <!--required, xs:string, organization name-->
    </orgName>
    <onlineState>
      <!--required, xs:string, online status: online, offline-->
    </onlineState>
    <IpAddress>
      <!--required, read-only, terminal IP address-->
      <ipVersion>
        <!--required, xs:string, IP type: IPv4, IPv6, IPv4 and IPv6-->
      </ipVersion>
      <ipAddress>
        <!--dependent, xs:string, terminal IP address-->
      </ipAddress>
      <ipv6Address>
        <!--dependent, xs:string, IPv6 address-->
      </ipv6Address>
    </IpAddress>
    <port>
      <!--required, xs:integer, terminal port No.-->
    </port>
    <serialNo>
      <!--required, xs:string, terminal serial No.-->
    </serialNo>
    <softwareVersion>
      <!--required, xs:string, software version-->
    </softwareVersion>
    <publishState>
      <!--required, xs:string, release status of program schedule: "publishing"-releasing, "success"-succeeded, failed,
null-->
    </publishState>
```

```
    <insertState>
     <!--required, xs:string, cut-in status: "sending"-cutting in, "success"-succeeded, failed, null-->
    </insertState>
    <playState>
     <!--required, xs:string, playing status: HDMI, VGA, "schedulePlay"-play program schedule, "scheduleStop"-pause,
"screenOff"-screen off-->
    </playState>
    <Resolution>
     <!--optional, resolution -->
     <width>
      <!--required, xs:integer, width-->
     </width>
     <height>
      <!--required, xs:integer, height-->
     </height>
    </Resolution>
    <operateType>
     <!--optional, xs:string, operations: "None"-no operation, "powerOn"-startup, "powerOff"-shutdown, reboot,
"startPlay"-start playing, "stopPlay"-stop playing, "stopInsert"-stop cutting in, "timingSwitchEffective"-enable startup/
shutdown schedule, "timingSwitchFailed"-disable startup/shutdown schedule, "timingVolumeEffective"-enable
volume schedule, "timingVolumeFailed"-disable volume schedule, "timingInputSwitchConfig"-input switch schedule
configuration, "timingInputSwitchEffective"-enable input switch schedule, "timingInputSwitchFailed"-disable input
switch schedule, "restoreConfig"-restore default settings, "timingVolumeConfig"-volume schedule configuration,
"timingSwitchConfig"-startup/shutdown schedule configuration, "outputVolumeConfig"-volume configuration,
"lightConfig"-
brightness configuration, "logoConfig"-logo configuration, "containerEnableConfig"-whether to enable default
schedule, "adbDebug"-terminal debug configuration, "terminalTimeZone"-terminal time zone configuration, "sadp"-
SADP configuration, "terminalMgrServerConfig"-terminal management server configuration, "channelConfig"-
channellinkage configuration, "terminalProgressShow"-display terminal progress, "terminalProgressHide"-hide
terminal progress, "terminalResolutionConfig"-configure terminal resolution, "terminalNTPConfig"-configure terminal
NTP, "terminalPlayInfoDel"-remove terminal playing information, "modifyTerminalPassword"-edit terminal password--
>
    </operateType>
    <operateStatus>
     <!--optional, xs:string, operation mode status: "None"-no operation, "success"-succeeded, failed-->
    </operateStatus>
    <failedReason>
     <!--optional, xs:string, failure reason-->
    </failedReason>
   </TerminalInfo>
  </TerminalInfoList>
  <totalOnlineNum>
   <!--required, xs:integer, total number of online terminals -->
  </totalOnlineNum>
</TerminalSearchResult>
```

E.112 XML_TerminalsList

XML message about parameters of all terminals

```
<TerminalsList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <Terminals/><!-- -->
</TerminalsList>
```

See Also

XML_Terminals

E.113 XML_TerminalState

XML message about status of a single terminal

```
<TerminalState>
 <id><!--required, terminal ID--></id>
 <serialNo><!--optional, xs:string, terminal serial No.--></serialNo>
 <terminalName><!--read-only, required, xs:string, terminal name--></terminalName>
 <PlayerState><!--dependent, player status-->
  <BasicInfo><!--required, basic information-->
   <version><!--required, xs:string, terminal software version--></version>
   <hardwareVersion><!--required, xs:string, terminal hardware version--></hardwareVersion>
   <systemVersion><!--required, xs:string, terminal system version--></systemVersion>
   <dspVersion><!--required, xs:string, terminal DSP version--></dspVersion>
   <characteristicCode><!--optional, xs:string, terminal attribute code--></characteristicCode>
   <registerTime><!--required, xs:time, terminal registration time (ISO 8601 format)--></registerTime>
  </BasicInfo>
  <WorkState><!--required, terminal running status-->
   <TerminalAddress><!--required, terminal address information-->
    <addressingFormatType opt="ipaddress,hostname"><!--required, xs:string, terminal address type:IP address,
domain name--></addressingFormatType>
    <hostName><!--dependent, xs:string, domain name--></hostName>
    <IpAddress><!--dependent-->
     <ipVersion opt="v4,v6,dual"><!--required, xs:string, IP address version: IPv4, IPv6--></ipVersion>
     <ipAddress><!--dependent, xs:string, IP address--></ipAddress>
     <ipv6Address><!--dependent, xs:string, IPv6 address--></ipv6Address>
    </IpAddress>
   </TerminalAddress>
   <port><!--optional, xs:integer, port No.--></port>
   <macAddress><!--read-only, required, xs:string, terminal MAC address--></macAddress>
   <macAddress1><!--read-only, optional, xs:string, terminal MAC address1, no more than 2 NIC is supported--></
macAddress1>
   <distributeServerUrl><!--read-only, required, xs:string, distributor URL--></distributeServerUrl>
   <onlineState><!--read-only, required, xs:string, online status: online, offline--></onlineState>
   <abnormalState><!--read-only, required, xs:string, abnormal status: normal, abnormal--></abnormalState>
   <CPUList><!--optional, CPU utilization list-->
    <CPU>
     <cpuDescription><!--required, xs:string, CPU description--></cpuDescription>
     <cpuUtilization><!--required, xs:integer, percentage, range: [0,100]--></cpuUtilization>
    </CPU>
   </CPUList>
   <MemoryList><!--optional, memory utilization-->
```

```
    <Memory>
     <memoryDescription><!--required, xs:string, memory description--></memoryDescription>
     <memoryUsage><!--required, xs:float, used memory, unit: MB--></memoryUsage>
     <memoryAvailable><!--required, xs:float, available memory, unit: MB--></memoryAvailable>
    </Memory>
   </MemoryList>
   <DiskList><!--optional, disk utilization-->
    <Disk>
     <diskDescription><!--required, xs:string, disk description--></diskDescription>
     <diskUsage><!--required, xs:float, used disk, unit: MB--></diskUsage>
     <diskAvailable><!--required, xs:float, available disk, unit: MB--></diskAvailable>
    </Disk>
   </DiskList>
   <temperature><!--optional, xs:integer, working temperature, unit: ℃ --></temperature>
  </WorkState>
  <PlayInfo><!--optional, playing information-->
   <scheduleNo><!--optional, xs:integer, program schedule ID--></scheduleNo>
   <scheduleName><!--optional, xs:string, program schedule name--></scheduleName>
   <playState><!--optional, xs:string, playing status: "invalid" (invalid status),"hdmi" (HDMI status), "vga" (VGA status),
"schedulePlay", "scheduleStop", "screenOff", "faceAttendance", "otherApp"--></playState>
   <insertState><!--optional, xs:string, cut-in status: "invalid" (invalid cut-in), "insertEnd" (cut-in has completed),
"insertPublish" (sending data to the terminal), "insertStart" (cut-in has started), "insertFail" (cut-in failed)--></
insertState>
  </PlayInfo>
  <TimingPlan><!--optional, enabled state of schedules-->
   <SwitchPlan><!--optional, enabled state of startup and shutdown schedule-->
    <enabled><!--required, xs:boolean, whether the startup and shutdown schedule is enabled--></enabled>
   </SwitchPlan>
   <VolumePlan><!--optional, enabled state of volume adjustment schedule -->
    <enabled><!--required, xs:boolean, whether the volume adjustment schedule is enabled--></enabled>
   </VolumePlan>
  </TimingPlan>
 </PlayerState>
<IPCStateList>
 <IPCState>
  <id><!--required, xs:integer, terminal ID--></id>
  <onlineState><!--read-only, required, xs:string, online status: online, offline--></onlineState>
 </IPCState>
</IPCStateList>
<installType><!--optional, xs:string, screen direction: landscape, portrait--></installType>
<Resolution><!--optional, resolution -->
 <width><!--required, xs:integer, width--></width>
 <height><!--required, xs:integer, height--></height>
</Resolution>
<terminalType><!--optional, xs:string, terminal type: normal, decode, touch---></terminalType>
</TerminalState>
```

E.114 XML_TerminalsTimeZone

XML message about parameters of terminal time zone configuration

```
<TerminalsTimeZone version="2.0" >
 <timeZone>
  <!--required, xs:string, time zone-->
 </timeZone>
 <OperateParam>
  <!--req-->
  <operateType>
   <!--required, xs:string, configuration method: "byTerminal"-by terminal, "byOrg"-by organization, "byTerminalOrg"-
by terminal or organization-->
  </operateType>
  <TerminalNoList>
   <!--dependent-->
   <terminalNo>
    <!--required, xs:integer, terminal ID-->
   </terminalNo>
  </TerminalNoList>
  <OrgNoList>
   <!--dependent-->
   <orgNo>
    <!--required, xs:integer, organization No.-->
   </orgNo>
  </OrgNoList>
 </OperateParam>
</TerminalsTimeZone>
```

E.115 XML_TerminalsTimeZoneCap

XML message about capability of terminal time zone configuration

```
<TerminalsTimeZoneCap version="2.0" >
 <timeZone>
  <!--required, xs:string, time zone-->
 </timeZone>
 <OperateParam>
  <!--required-->
  <operateType opt="byTerminal,byOrg,byTerminalOrg">
   <!--required, xs:string, configuration method: "byTerminal"-by terminal, "byOrg"-by organization, "byTerminalOrg"-
by terminal or organization-->
  </operateType>
  <TerminalNoList  size="">
   <!--dependent-->
   <terminalNo>
    <!--required, xs:integer, terminal ID-->
   </terminalNo>
  </TerminalNoList  size="">
  <OrgNoList  size="">
   <!--dependent-->
   <orgNo>
    <!--required, xs:integer, organization No.-->
```

```
    </orgNo>
   </OrgNoList>
 </OperateParam>
</TerminalsTimeZoneCap>
```

E.116 XML_TerminalUpgrade

XML message about parameters of generating terminal upgrade package ID

```
<TerminalUpgrade version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <targetType><!--required, xs:string, operation mode: "byTerminal"-by terminal, "byOrg"-by organization--></
targetType>
 <TerminalNoList><!--dependent, terminal list-->
  <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
 </TerminalNoList>
 <OrgNoList><!--dependent, organization No. list-->
  <orgNo><!--required, xs:integer, organization No.--></orgNo>
 </OrgNoList>
</TerminalUpgrade>
```

E.117 XML_TouchWidMatarial

XML message about the material capability of touch window

```
<TouchWidMatarial version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <materialType opt="static,other"><!--required, xs:string, material type--></materialType>
 <staticMaterialType opt="picture,flash,video,document,pdf,web"><!--dependent, xs:string, local material type--></
staticMaterialType>
 <otherType opt="hyperlinkBtn"><!--dependent, xs:string, othertypes--></otherType>
 <dynamicMaterialType opt="character"><!--optional, xs:string, dynamic material type, this field is required only
when materialType is "dynamic"--></dynamicMaterialType>
</TouchWidMatarial>
```

E.118 XML_UpgradeTerminalStatus

XML message about terminal upgrade status

```
<UpgradeTerminalStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <UpgradeTerminalList><!--required, terminals to be upgraded-->
  <UpgradeTerminal><!--required, terminal upgrade-->
   <terminalNo><!--required, int, terminal ID--></terminalNo>
   <currentStatus><!--required, string, upgrade status: upgrading, failed, "success"-upgraded--></currentStatus>
   <percent><!--dependent, int, upgrade progress, range: [0,100], this field is required only when currentStatus> is
"upgrading"--></percent>
  </UpgradeTerminal>
```

```
<UpgradeTerminalList>
</UpgradeTerminalStatus>
```

E.119 XML_User

XML message about a specific user's configuration

```
<User version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <id><!--req, xs:integer, the value is between 1 and 16, the ID of the administrator account is 1 and the administrator
account cannot be deleted--></id>
 <enabled><!--opt, xs:boolean, whether to enable the user: "true"-yes, "false"-no--></enabled>
 <userName><!--req, xs:string, the sensitive information should be encrypted--></userName>
 <password><!--wo, req, xs:string, the sensitive information should be encrypted--></password>
 <keypadPassword><!--wo, opt, xs:string, keypad password, the sensitive information should be encrypted--></
keypadPassword>
 <loginPassword><!--wo, dep, xs:string, this node depends on security in the URL and it is required when security
exists. The sensitive information should be encrypted, and the password is the administrator password--></
loginPassword>
 <userOperateType><!--opt, xs:integer, user operation type: "1"-network user, "2"-keypad user, "3"-network user and
keypad user. When this node is set to 1 or NULL, password is valid, and password is required when the method is
POST, otherwise it is optional. When this node is set to 2, keypadPassword is valid, and keypadPassword is required
when the method is POST, otherwise it is optional. When this node is set to 3, both password and keypadPassword
are valid, and they are required when the method is POST, otherwise they are optional--></userOperateType>
 <bondIpAddressList><!--opt-->
  <bondIpAddress><!--opt-->
   <id><!--req, xs:integer--></id>
   <ipAddress><!--dep, xs:string--></ipAddress>
   <ipv6Address><!--dep, xs:string--></ipv6Address>
  </bondIpAddress>
 </bondIpAddressList>
 <bondMacAddressList><!--opt-->
  <bondMacAddress><!--opt-->
   <id><!--req, xs:integer--></id>
   <macAddress><!--opt, xs:string--></macAddress>
  </bondMacAddress>
 </bondMacAddressList>
 <userLevel><!--opt, xs:string, "Administrator,Operator,Viewer"--></userLevel>
 <attribute><!--opt-->
  <inherent><!--xs:boolean--></inherent>
 </attribute>
 <cardList>
  <!--optional, object, list of cards that belong to the user-->
  <card>
   <!--optional, object, card-->
   <id>
    <!--optional, int, card ID, range:[1,16]-->1
   </id>
   <name>
    <!--optional, string, card name, the maximum length is 32 bytes-->test
   </name>
```

```
    </card>
  </cardList>
  <remoteCtrlList>
   <!--optional, object, list of keyfobs that belong to the user-->
   <remoteCtrl>
    <!--optional, object, keyfob-->
    <id>
     <!--optional, int, keyfob ID, range:[1,16]-->1
    </id>
    <name>
     <!--optional, string, keyfob name, the maximum length is 32 bytes-->test
    </name>
   </remoteCtrl>
  </remoteCtrlList>
  <userNo>
   <!--optional, int, displayed No. corresponding to the user ID-->501
  </userNo>
  <adminType>
   <!--optional, string, read-only, admin type, "Cloud" (user account created in the cloud), "LAN" (user account created
on LAN)-->Cloud
  </adminType>
  <installerType>
   <!--optional, string, read-only, installer type, "Cloud" (user account created in the cloud), "LAN" (user account
created on LAN)-->Cloud
  </installerType>
</User>
```

E.120 XML_UserList

UserList message in XML format

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

See Also

XML_User

E.121 XML_VolumePlan

XML message about volume adjustment schedule parameters

```
<VolumePlan version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <planType><!--required, xs:string, schedule type: daily schedule, weekly schedule--></planType>
  <DailyPlan><!--dependent, daily schedule-->
   <VolumeSpanList><!--required-->
    <VolumeSpan><!--required-->
     <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
```

```
      <volume><!--required, xs:integer, volume, range: [0,100]--></volume>
      <beginTime><!--required, start time (ISO 8601 format)--></beginTime>
      <endTime><!--required, end time (ISO 8601 format)--></endTime>
     </VolumeSpan>
    </VolumeSpanList>
  </DailyPlan>
  <WeeklyPlan><!--dependent, weekly schedule-->
   <DayList><!--required-->
    <Day><!--required-->
     <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
     <dayOfWeek><!--required, xs:string, day of a week: Monday,Saturday...Sunday--></dayOfWeek>
     <VolumeSpanList><!--required-->
      <VolumeSpan><!--required-->
       <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
       <volume><!--required, xs:integer, volume, range: [0,100]--></volume>
       <beginTime><!--required, start time (ISO 8601 format)--></beginTime>
       <endTime><!--required, end time (ISO 8601 format)--></endTime>
      </VolumeSpan>
     </VolumeSpanList>
    </Day>
   </DayList>
  </WeeklyPlan>
  <HolidayPlan><!--optional, holiday schedule->
   <VolumeSpanList><!--required, period list-->
    <VolumeSpan><!--required-->
     <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
     <volume><!--required, xs:integer, volume, range: [0,100]--></volume>
     <beginTime><!--required, start time (ISO 8601 format)--></beginTime>
     <endTime><!--required, end time (ISO 8601 format)--></endTime>
    </VolumeSpan>
   </VolumeSpanList>
  </HolidayPlan>
</VolumePlan>
```

E.122 XML_VolumePlanCfg

XML message about parameters of volume batch adjustment schedule

```
<VolumePlanCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
 <VolumePlan><!--required, volume adjustment schedule-->
  <planType><!--required, xs:string, schedule type: "daily"-daily schedule, "weekly"-weekly schedule--></planType>
  <DailyPlan><!--dependent, daily schedule-->
   <VolumeSpanList><!--required-->
    <VolumeSpan><!--required-->
     <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
     <volume><!--required, xs:integer, volume, range: [0,100]--></volume>
     <beginTime><!--required, start time (ISO 8601 format)--></beginTime>
     <endTime><!--required, end time (ISO 8601 format)--></endTime>
    </VolumeSpan>
   </VolumeSpanList>
```

```
   </DailyPlan>
   <WeeklyPlan><!--dependent, weekly schedule-->
    <DayList><!--required-->
     <Day><!--required-->
      <id><!--required, xs:integer, day of a month--></id>
      <dayOfWeek><!--required, xs:string, day of a week--></dayOfWeek>
      <VolumeSpanList><!--required-->
       <VolumeSpan><!--required-->
        <id><!--required, xs:integer, day of a month, "1,2,3..."--></id>
        <volume><!--required, xs:integer, volume, range: [0,100]--></volume>
        <beginTime><!--required, volume start time (ISO 8601 format)--></beginTime>
        <endTime><!--required, volume end time (ISO 8601 format)--></endTime>
       </VolumeSpan>
      </VolumeSpanList>
     </Day>
    </DayList>
   </WeeklyPlan>
   <HolidayPlan><!--optional, holiday schedule-->
    <VolumeSpanList><!--required, period list-->
     <VolumeSpan><!--required-->
      <id><!--required, xs:integer, day of a month--></id>
      <volume><!--required, xs:integer, volume, range: [0,100]--></volume>
      <beginTime><!--required, volume start time (ISO 8601 format)--></beginTime>
      <endTime><!--required, volume end time (ISO 8601 format)--></endTime>
     </VolumeSpan>
    </VolumeSpanList>
   </HolidayPlan>
  </VolumePlan>
  <OperateParam><!--required-->
   <operateType opt="byTerminal,byOrg"><!--required, xs:string, operation mode: "byTerminal"-by terminal, "byOrg"-
by organization--></operateType>
   <TerminalNoList size=""><!--dependent, terminal No. list-->
    <terminalNo><!--required, xs:integer, terminal ID--></terminalNo>
   </TerminalNoList>
   <OrgNoList size=""><!--dependent, organization No. list-->
    <orgNo><!--required, xs:integer, organization No.--></orgNo>
   </OrgNoList>
  </OperateParam>
</VolumePlanCfg>
```

E.123 XML_WinDynamicCap

XML message about window capabilities at different resolutions

```
<WinDynamicCap xmlns="http://www.isapi.org/ver20/XMLSchema" version="2.0" >
 <WinCapList>
  <!--required, window capability list-->
  <WinCap>
   <!--list-->
   <id>
```

```
   <!--required, xs:integer, window No.-->
</id>
<BaseRes>
 <!--required, basic resolution, and the size range of each type of window is listed-->
 <resWidth>
  <!--required, xs:integer-->
 </resWidth>
 <resHeight>
  <!--required, xs:integer-->
 </resHeight>
</BaseRes>
<WinSizeList>
 <!--required, window size list-->
 <WinSize>
  <!--list-->
  <id>
   <!--required, xs:integer-->
  </id>
  <WinMaterialInfo>
   <!--required, window material information-->
   <materialType>
    <!--required, xs:string, material type: "static"-local material, "dynamic"-dynamic material, other-->
   </materialType>
   <staticMaterialType opt="picture,flash,audio,video,document,ppt,doc,excel,pdf,web" >
    <!--dependent, xs:string, local material type-->
   </staticMaterialType>
   <dynamicType opt="web,socket,rss,call,dynamicPic,realStream,capturePic" >
    <!--dependent, xs:string, dynamic material type-->
   </dynamicType>
   <otherType opt="clock,weather,countdown,localInput,hyperlinkBtn" >
    <!--dependent, xs:string, other type-->
   </otherType>
  </WinMaterialInfo>
  <maxWinNum>
   <!--optional, xs:integer, maximum number of windows of a specific type at a certain resolution-->
  </maxWinNum>
  <width min="" max="" >
  </width>
  <!--range of window width->
  <height min="" max="" >
  </height>
  <!-range of window height-->
  <DefaultSize>
   <!--optional-->
   <defaultWidth>
    <!--required, xs:integer, default width-->
   </defaultWidth>
   <defaultHeight>
    <!--required, xs:integer, default height-->
   </defaultHeight>
  </DefaultSize>
 </WinSize>
```

```
    </WinSizeList>
    <maxCharacterWinNum>
     <!--optional, xs:integer, maximum number of text windows-->
    </maxCharacterWinNum>
   </WinCap>
  </WinCapList>
  <MuteWinList>
   <!--optional, capability of mutually exclusive window-->
   <WinList>
    <!--list, required, window list, only one window can exist at a time-->
    <WinMaterialInfo>
     <!--required-->
     <materialType>
      <!--required, xs:string,"static,dynamic,other"-->
     </materialType>
     <staticMaterialType opt="picture,flash,audio,video,document,ppt,doc,excel,pdf,web" >
      <!--dependent, xs:string, static windows-->
     </staticMaterialType>
     <dynamicType opt="web,socket,rss,call,dynamicPic,realStream,capturePic" >
      <!--dependent, xs:string,  dynamic windows: web, call, "dynamicPic"-pop-up image, "realStream"-stream media,
"capturePic"-captured picture-->
     </dynamicType>
     <otherType opt="clock,weather,countdown,localInput,hyperlinkBtn" >
      <!--dependent, xs:string, other windows: clock, weather, countdown, "localInpu"-video input, "hyperlinkBtn"-
hyperlink-->
     </otherType>
    </WinMaterialInfo>
   </WinList>
  </MuteWinList>
 </WinDynamicCap>
```

Appendix F. 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.
engineAbnormal	0x30002015	Engine exception.
engineInitialization	0x30002016	Initializing the engine.
algorithmLoadingFailed	0x30002017	Loading the model failed.
algorithmDownloadFailed	0x30002018	Downloading the model failed.
algorithmDecryptionFailed	0x30002019	Decrypting the model failed.
unboundChannel	0x30002020	Delete the linked channel to load the new model.
unsupportedResolution	0x30002021	Invalid resolution.
unsupportedSteamType	0x30002022	Invalid stream type.
insufficientDecRes	0x30002023	Insufficient decoding resources.
insufficientEnginePerformance	0x30002024	Insufficient engine performance (The number of channels to be analyzed exceeds the engine's capability).
improperResolution	0x30002025	Improper resolution (The maximum resolution allowed is 4096×4096).

Sub Status Code	Error Code	Description
improperPicSize	0x30002026	Improper picture size (The maximum size allowed is 5MB).
URLDownloadFailed	0x30002027	Downloading the picture via the URI failed.
unsupportedImageFormat	0x30002028	Invalid picture format (Only JPG is supported currently).
unsupportedPollingIntervalTime	0x30002029	Invalid polling interval (The interval should be more than 10s).
exceedImagesNumber	0x30002030	The number of pictures exceeds the limit (The platform can apply 1 to 100 picture URIs per time, the maximum number allowed is 100).
unsupportedMPID	0x30002031	The applied MPID does not exist in the device, so updating this MPID is not supported.
modelPackageNotMatchLabel	0x30002032	The model and the description file mismatch.
modelPackageNotMatchTask	0x30002033	The task and the model type mismatch.
insufficientSpace	0x30002034	Insufficient space (When the number of model packages does not reach the maximum number allowed but their size together exceeds the free space, the model packages cannot be added).
engineUnLoadingModelPackage	0x30002035	Applying the task failed. This engine is not linked to a model package (Canceling the linkage failed, this engine is not linked to a model package).
engineWithModelPackage	0x30002036	Linking the engine to this model package failed. The engine has been linked to

Sub Status Code	Error Code	Description
		another model package. Please cancel their linkage first.
modelPackageDelete	0x30002037	Linking the model package failed. The model package has been deleted.
deleteTaskFailed	0x30002038	Deleting the task failed (It is returned when the user fails to end a task).
modelPackageNumberslimited	0x30002039	Adding the model package failed. The number of model package has reached the maximum number allowed.
modelPackageDeleteFailed	0x30002040	Deleting the model package failed.
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.

Sub Status Code	Error Code	Description
operateFailed	0x4000000F	Operation failed.
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.

Sub Status Code	Error Code	Description
analysis unitFull	0x40001017	No more data analysis server can be added.
unitIDError	0x40001018	The data analysis server ID does not exist.
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.

Sub Status Code	Error Code	Description
getClientAddedNodeFailed	0x4000102D	Getting the added node information of data analysis server failed.
taskExit	0x4000102E	The task already exists.
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.

Sub Status Code	Error Code	Description
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.
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.

Sub Status Code	Error Code	Description
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.
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 main node and sub node must be in the same network segment.
clusterVirIpError	0x40001073	Automatically getting virtual IP address failed. Enter manually.

Sub Status Code	Error Code	Description
clusterNodeUnadd	0x40001074	The specified main (sub) 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 main and sub nodes.
addNodeNetFailed	0x40001077	Adding node failed. The network disconnected.
needTwoMgmtNode	0x40001078	Two management nodes are required when adding main and sub 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&mainIPnotSame NetSegment	0x4000107C	The virtual IP address is not in the same network segment with the IP address of main/ sub node.
getNodeDispatchInfoFa iled	0x4000107D	Getting node scheduler information failed.
unableModifyManage mentNetworkIP	0x4000107E	Editing management network interface failed. The analysis board is in the cluster.
notSpecifyVirtualIP	0x4000107F	Virtual IP address should be specified for main and sub 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.
ArmingSearchTimeErro r	0x40001089	Invalid search time period.

Sub Status Code	Error Code	Description
armingRelationshipReachesLimit	0x4000108A	No more relation can be created.
duplicateAarmingName	0x4000108B	The relation name already exists.
noMoreArmingListAdded	0x4000108C	No more blocklist library can be armed.
noMoreCamerasAdded	0x4000108D	No more camera can be armed.
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.

Sub Status Code	Error Code	Description
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 blocklist library is armed.
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.
queryHistoryVideoFailed	0x400010B4	Searching history video failed.
addDeviceFailed	0x400010B5	Adding device failed.

Sub Status Code	Error Code	Description
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.
storageServiceIPNotExist	0x400010BD	The storage server IP address does not exist.
syncBackupDatabaseFailed	0x400010BE	Synchronizing sub database failed. Try again.
syncBackupNTPTimeFailed	0x400010BF	Synchronizing NTP time of sub server failed.
clusterNotSelectLoopbackAddress	0x400010C0	Loopbacl address is not supported by the main or sub 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 blocklists.
blackListQueryExported	0x400010C8	The matched blocklists are exported.
blackListQueryStopExporting	0x400010C9	Exporting matched blocklists is stopped.
blackListAlarmQueryExporting	0x400010CA	Exporting matched blocklist alarms.

Sub Status Code	Error Code	Description
blackListAlarmQueryExported	0x400010CB	The matched blocklists alarms are exported.
blackListAlarmQueryStopExporting	0x400010CC	Exporting matched blocklist alarms is stopped.
getBigDataCloudAnalysisFailed	0x400010CD	Getting big data cloud analytic information failed.
setBigDataCloudAnalysisFailed	0x400010CE	Configuring big data cloud analytic failed.
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.

Sub Status Code	Error Code	Description
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.
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.
ISO8601TimeFormatError	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.

Sub Status Code	Error Code	Description
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.
transcodingServerReturnFailed	0x400010F8	No response is returned by transcoding service.
UPSServerReturnFailed	0x400010F9	No response is returned by UPS monitoring service.
forwardingServerReturnFailed	0x400010FA	No response is returned by forwarding service.
storageServerReturnFailed	0x400010FB	No response is returned by storage service.
cloudAnalysisServerReturnFailed	0x400010FC	No response is returned by cloud analytic service.
modelEmpty	0x400010FD	No model is obtained.
mainAndBackupNodeCannotModifyManagementNetworkInterfaceIP	0x400010FE	Editing the management interface IP address of main node and backup node is not allowed.
IDTooLong	0x400010FF	The ID is too long.
pictureCheckFailed	0x40001100	Detecting picture failed.
pictureModelingFailed	0x40001101	Modeling picture failed.
setCloudAnalsisDefaultProvinceFailed	0x40001102	Setting default province of cloud analytic service failed.
InspectionAreasNumberExceedLimit	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.

Sub Status Code	Error Code	Description
bigDataServerRequestInfoBuildFail	0x40001108	Creating request message of big data service failed.
analysiTimedOut	0x40001109	Analysis time out.
high-performanceModeDisabled.	0x4000110A	Please enable high-performance mode.
configuringUPSMonitoringServerTimedOut	0x4000110B	Configuring the UPS monitoring server time out. Check IP address.
cloudAnalysisRequestInformationBuildFailed	0x4000110C	Creating request message of cloud analytic service failed.
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.

Sub Status Code	Error Code	Description
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 main and backup cluster requires at least two devices.
updatePackageFileNotUploaded	0x4000111E	Upgrade package is not uploaded.
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.

Sub Status Code	Error Code	Description
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.
selectingIpAddressOfHostAndSpareNodeFailedCheckTheStatus	0x40001132	Setting IP address for main 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.

Sub Status Code	Error Code	Description
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.
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.

Sub Status Code	Error Code	Description
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.
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.

Sub Status Code	Error Code	Description
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.
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 frequently appeared person alarms failed.

Sub Status Code	Error Code	Description
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.
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	Frequently appeared person alarm is already armed for blocklist library.
creatingListLibraryFailed	0x40001184	Creating list library failed.
invalidIdentiryKeyOfListLibrary	0x40001185	Invalid identity key of list library.
noMoreDevicesCanBeArmed	0x40001186	No more camera can be added.

Sub Status Code	Error Code	Description
settingAlgorithmTypeForDeviceFailed	0x40001187	Allocating task resource failed.
gettingHighFrequencyPersonDetectionAlarmInformationFailed	0x40001188	Setting frequently appeared person alarm failed.
invalidSearchConfition	0x40001189	Invalid result.
theTaskIsNotCompleted	0x4000118B	The task is not completed.
resourceOverRemainLimit	0x4000118C	No more resource can be pre-allocated.
frequentlyAppearedPersonAlarmIsAlreadyConfiguredForTheCameraDisarmFirstAndTryAgain	0x4000118D	The frequently appeared person 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.

Sub Status Code	Error Code	Description
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.
noMoreSleepOnDutyRulesAdded	0x400015AE	Maximum number of sleeping on duty rules reached.
polygonNotAllowCrossing	0x400015C2	Polygons are not allowed to cross.
configureRuleBeforeAdvanceParam	0x400015F8	Advanced parameters fail to be configured as no rule is configured, please configure rule information first.
behaviorCanNotPackToPic	0x40001603	The behavior model cannot be packaged as a picture algorithm.
noCluster	0x40001608	No cluster created.
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.

Sub Status Code	Error Code	Description
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.
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.

Sub Status Code	Error Code	Description
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
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.

Sub Status Code	Error Code	Description
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.
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.

Sub Status Code	Error Code	Description
masterSlaveIsEnable	0x4000802c	The main-sub relationship has taken effect, the sub 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.
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.
EISError	0x4000A01C	Electronic image stabilization failed. The smart event function is enabled.
jpegPicWithAppendDataError	0x4000A01D	Capturing the thermal graphic failed. Check if the temperature measurement parameters

Sub Status Code	Error Code	Description
		(emissivity, distance, reflective temperature) are configured correctly.
startAppFail	/	Starting running application program failed.
yuvconflict	/	The raw video stream conflicted.
overMaxAppNum	/	No more application program can be uploaded.
noFlash	/	Insufficient flash.
platMismatch	/	The platform mismatches.
emptyEventName	0x400015E0	Event name is empty.
sameEventName	0x400015E1	A same event name already exists.
emptyEventType	0x400015E2	Event type is required.
sameEventType	0x400015E3	A same event type already exists.
maxEventNameReached	0x400015E4	Maximum of events reached.
hotSpareNotAllowedExternalStorage	0x400015FC	External storage is not allowed when hot spare is enabled.
sameCustomProtocolName	0x400015FD	A same protocol name already exists.
maxPTZTriggerChannelReached	0x400015FE	Maximum of channels linked with PTZ reached.
POSCanotAddHolidayPlan	0x400015FF	No POS events during holidays.
eventTypeIsTooLong	0x40001600	Event type is too long.
eventNameIsTooLong	0x40001601	Event name is too long.
PerimeterEnginesNoResource	0x40001602	No more perimeter engines.
invalidProvinceCode	0x40001607	Invalid province code.

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

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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.
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.

Sub Status Code	Error Code	Description
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.
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

Sub Status Code	Error Code	Description
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.
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.

Sub Status Code	Error Code	Description
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.
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.
humanMisInfoFilterEnabledChanNumError	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.

Sub Status Code	Error Code	Description
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
noSearchIDResource	0x60001046	Insufficient searchID resources
noSupportDeleteStrangerLib	0x60001051	Deleting stranger library is not supported
noSupportCreateStrangerLib	0x60001052	Creating stranger library is not supported
behaviorAnalysisRuleInfoError	0x60001053	Abnormal event detection 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.

Sub Status Code	Error Code	Description
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 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.

Sub Status Code	Error Code	Description
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.
holidayNameContainChineseOrSpecialChar	0x60001080	No Chinese and special characters allowed in holiday name.
genderValueError	0x60001081	Invalid gender.
certificateTypeValueError	0x60001082	Invalid identification type.
personInfoExtendValueIsTooLong	0x60001083	The length of customized tags exceeds limit.
personInfoExtendValueContainsInvalidChar	0x60001084	Invalid characters are not allowed in customized tags of the face picture library.
excelHeaderError	0x60001085	Excel header error.
intelligentTrafficMutexWithHighFrames	0x60008014	Please disable all functions of traffic incident detection, violation enforcement, and traffic data collection, or adjust the video frame rate to that lower than 50 fps.
intelligentTrafficMutexWithHighFramesEx	0x60008018	Please disable all functions of traffic incident detection, violation enforcement, traffic data collection, and vehicle

Sub Status Code	Error Code	Description
		detection, or adjust the video frame rate to that lower than 50 fps.

StatusCode=7

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

Appendix G. 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.

Error String	Error Code	Description	Debugging Suggestion
	0x00100103	The stream type is not supported.	Check the requested stream type.
	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

Error String	Error Code	Description	Debugging Suggestion
			permission, if not solved, contact the developers.
incorrentUserNameOrPassword	0x00200006	Incorrect user name or password	Check if the configured user name and password are 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. 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".	Incorrect message format or incorrect time format.
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.	

Error String	Error Code	Description	Debugging Suggestion
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.
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.

Error String	Error Code	Description	Debugging Suggestion
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.
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.

Error String	Error Code	Description	Debugging Suggestion
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.
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	

Error String	Error Code	Description	Debugging Suggestion
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.	
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

Error String	Error Code	Description	Debugging Suggestion
			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.

Error String	Error Code	Description	Debugging Suggestion
	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,	

Error String	Error Code	Description	Debugging Suggestion
		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.
	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.
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 0x00efffff)

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.

Error String	Error Code	Description	Debugging Suggestion
			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 the actual URL does not contain the ID).	Capture the packets and check if the ID included in the URL is correct.
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	

Error String	Error Code	Description	Debugging Suggestion
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: • The message contains only URL but no message body • The required node is not configured. • Node value exceeds the range limit (incorrect node value).	
messageParametersLack	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 0x010fffff)

Error String	Error Code	Description	Debugging Suggestion
multiAuthenticati on Failed	0x01000001	Multi-factor authentication status operation failed.	
securityModuleOff line	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
planNumberConfli ct	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	The import secret key should be consistent with the export.

Error String	Error Code	Description	Debugging Suggestion
		information fields or importing data files.	
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.