



**IP Surveillance API
User Guide**

Version 2.6



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1 Scope

This specification defines a HTTP-based application programming interface that enables physical security and video management systems to communicate with IP media devices in a particular way.

With regard to Media Streaming, please refer to “develop API of RTSP protocol”.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

- [1] RFC2616 Hypertext Transfer Protocol-HTTP/1.1
- [2] W3C XML 1.0 specification
- [3] W3C Character encodings
- [4] RFC 2396 Uniform Resource Identifiers (URI): Generic Syntax and Semantics
- [5] RFC 2617 HTTP Authentication:Basic and Digest Access Authentication
- [6] International Electrotechnical Commission “ISO/IEC standard on UPnP device architecture makes networking simple and easy”, 2008-12-09. Retrieved on 2009-05-07.
- [7] International Organization for Standardization “ISO/IEC standard on UPnP device architecture makes networking simple and easy”, 2008-12-10. Retrieved on 2009-05-07.
- [8] UPnP Forum “UPnP Specifications Named International Standard for Device Interoperability for IP-based Network Devices”, 2009-02-05. Retrieved on 2009-05-07.

3 Definitions and abbreviations

3.1 Definitions

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

Standard Resources: “index”, “indexr”, “description” and “capabilities” resources, that are

contained in all Services and General Resources, and provide a special description for these resources.

Services: a set of resources consisting of relevant General Resources.

General Resources: physical resources that supported by the devices.

Node: Services and General Resources.

3.2 Abbreviations

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

FQDN	Fully Qualified Domain Name
REST	REpresentational State Transfer
IO	Input/Output
UPnP	Universal Plug and Play

4 Architecture and Transmission Mechanism

The IP Media Device Management Protocol is based on REST architecture. The management and control interfaces defined in this specification are treated as resources utilizing the REpresentational State Transfer (REST) architecture. This architecture facilitates users by grouping related resources within hierarchical namespaces, and is more flexible for service discovery and future expansion.

REST architecture consists of clients and servers, among which clients initiate request to servers, while servers handle requests and response accordingly. Requests and responses are established via the transmission of “representations” of “resources”. REST architecture need to be based on an Application Layer protocol which provides various of standard communication formats for applications based on the transfer of meaningful representational state. HTTP[1] has a very rich vocabulary in terms of verbs(or “methods”), URIs, request and response headers, Internet media types, HTTP request and response codes etc. In addition, HTTP also has some features particularly suitable for REST architecture. So HTTP is used as external Application Layer protocol in this specification. In the architecture, clients are physical security and video management systems; servers are IP media devices.

This specification also contains full XML schema for the introduced resources.

4.1 REST and HTTP Methods

The following table shows how HTTP verbs are typically used to implement a web service based on REST architecture.

Table 1

Resource	GET	PUT	POST	DELETE
Collection URI, such as http://webServer/resources	List the members of collection, complete with their member URIs for further navigation.	Meaning defined as “ replace the entire collection with another collection”.	Create a new entry in the collection where the ID is assigned automatically by the collection. The ID created is usually included as part of the data returned by this operation.	Meaning defined as “ delete the entire collection”.
Member URI, such as http://webServer/resources/7416	Retrieve a representation of the addressed member of the collection expressed in an appropriate MIME type.	Update the addressed member of the collection or create it with the specified ID.	Treat the addressed member as a collection in its own right and create a new subordinate of it.	Delete the addressed member of the collection.

4.2 XML

A device must support the syntax defined by W3C XML 1.0 specification [2] and UTF-8 character set [3]. All XML files must adopt UTF-8 encoding according to RFC3629. Additionally, all resources share a common XML schema as defined in Annex.

Any resources can specify separate input and output XML Documents. If a specific data structure is defined inside these documents, then they must be specified as XML Schema Documents (xsd) in Annex.

Lists contained in XML blocks will be represented in the format of <ISAPIList>, and each <ISAPIList> tag may contain one or more nodes.

4.3 Resources overview

Three kinds of resources are defined in this specification. They are “Standard Resources”, “Services” and “General Resources”. Related General Resources are grouped by Services. Services and General Resources contain Standard Resources. Figure 1 shows their relationship.

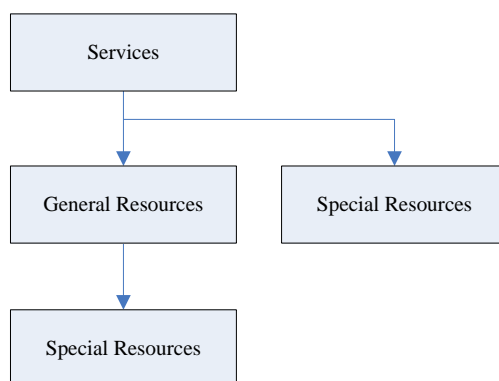


Figure 1

The “index”, “indexr”, “description” and “capabilities” are defined as Standard Resources in this specification. Both “index” and “description” will be mandatorily included by each node, and both “indexr” and “capabilities” will be optionally included by each node. For more detailed description see Section 6.

Services defined in this specification are divided into different services categories. Each category has its own name spaces (see Section 4.6 for the name space definitions). The following services are defined:

Table 2

Services	Description	Reference
System	Configure and operate the general system functions.	8.1
Network	Configure network interfaces.	8.2
IO	Configure the Input/Output (IO).	8.3
Video	Handle video-related configuration.	8.4
Audio	Configure the Audio.	8.5
Two way audio	Control two ways audio.	8.6
Serial	Configure and control the Serial ports.	8.7
Security	Provide Security functions.	8.8
Streaming	Configure and control the streaming media content.	8.9
Motion Detection	Configure and control the motion detection of the device	8.10
Event	Provide event notification functions.	8.11
PTZ	Control the device pan tilt and zoom.	8.12

4.4 Protocol URL

The URL scheme is used to locate device resources via a specific protocol in the network. This section defines the syntax and semantics for http(s) URLs.

```
<protocol>://<host>[:port][abs_path [?query]]
```

protocol: URL scheme for the particular request. The http and https protocols are allowed in this specification.

host: The host field refer to the hostname, IP address, or the FQDN of an IP device.

port: The port field refer to the port number of that host on which the identified resource is located at the IP device listening for TCP connections. If the port is empty or not given, the default port is assumed. For HTTP, the default port 80. For HTTPS, the default port 443.

abs_path: The Request-URI [1] for the resources is abs_path [4]. The abs_path in this specification is most often of the form “[/Services][General Resources][Standard Resources]”, which is suitable for resources to update or restore device configurations. “ID” which appears in the abs_path identifies one resource of a list resource in this specification.

query: The query field is a string of information to be interpreted by the resource. It can include some resource-related parameters. It must be listed in name-value pair syntax (p1=v1&p2=v2&...&pn=vn). Each resource can define a set of parameters. Defining input data which is specific to the resource will be prior than query usage.

4.5 Messages

HTTP messages are used for communication between physical security and video management systems and IP media devices in this specification. In order to configure and control the device, some provisions are specified for these HTTP message.

4.5.1 Connection Header Field

Devices that implement HTTP/1.1 should support persistent connections in order to meet video management systems or client applications’ requirements that issue multiple HTTP(s) transactions. HTTP/1.1 is implemented and utilized according to RFC 2616 in the IP devices. For a video management system or client application that uses persistent connection for multiple transactions, it is required to implement “Connection: Keep-Alive” HTTP header field, while also adopt the “Connection: close” HTTP header field for the last transaction of the persistent connection. This process will assume that the application can identify the last request in a sequence of multiple requests.

4.5.2 Authorization and WWW-Authenticate Header Fields

When a video management system or client application sends any request to the device, it must

be authenticated by means of Basic Access [5] according to RFC 2617, and thus all the devices are required to support Basic Access. Authorization header field is sent along with each request, and if a user is authenticated, the request will follow the normal execution flow. If client HTTP request is with no authentication credentials, unauthorized HTTP response (401) will be returned with WWW-Authenticate header field.

4.5.3 Entity Body

The Content-Type entity-header field indicates the media type of the entity body. The Content-Type may be designated as “application/xml; charset='UTF-8'”, “application/octet-stream”, etc.

For configuration information, the Content-Type is usually “application/xml; charset='UTF-8'”. For example,

HTTP Request Message:

```
GET /ISAPI/System/status HTTP/1.1
...
```

HTTP Response Message:

```
HTTP/1.1 200 OK
...

Content-Type: application/xml; charset="UTF-8"
...
<?xml version="1.0" encoding="UTF-8"?>
<DeviceStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
...
</DeviceStatus>
```

For data (i.e. firmware, configuration file, etc.), the Content-Type may be “application/octet-stream”. For example,

HTTP Request Message:

```
PUT /ISAPI/System/configurationData HTTP/1.1
...

Content-Type: application/octet-stream
...

[proprietary configuration file data content ]
```

HTTP Response Message:

```
HTTP/1.1 200 OK
...
```

```
Content-Type: application/xml; charset="UTF-8"  
...  
<?xml version="1.0" encoding="UTF-8"?>  
<ResponseStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">  
...  
</ResponseStatus>
```

4.5.4 Operations

Different resources will specify different operation.

- The "set device configuration" resources use PUT operation. If there is an XML block parameter for the request, the inbound XML format is defined according to a resource-special XML schema. Request status will be returned by the XML response information of the device, and can be used for indicating the PUT operation status. The responded XML format is defined by "XML Response Schema" (please refer to section 4.5.5 for detail description). After the device configuration is updated successfully, it will return an XML response with status code "OK"; while another status code will be used for indicating unsuccessful operations. In either case, the device only responses after it is ready to continue normal operation, i.e. accepting streaming request, receiving configuration commands, etc.
- The "get device configuration" resources use GET operation. After a successful GET operation, the result will be returned in XML format according to the resource description. For an unsuccessful request (i.e. users is not authenticated), the result will be returned in XML format according to "XML Response Schema".
- Resources to create device configurations information will use the POST operation. If there is an XML block parameter for the request, the inbound XML format is defined according to a resource-special XML schema. The request status will be indicated by the XML response information returned from the device, and can be used to indicate the status of the POST operation. This XML format is defined according to "XML Response Schema" (see section 4.5.5 for details). After successfully creating the data, the device returns an XML response with status code "OK". A separate status code is used for unsuccessful operations.
- Resources to delete device configurations information will use the Delete operation. If successful, the result will be returned an XML response with status code "OK". A separate status code is used for unsuccessful operations. This XML format is defined according to "XML Response Schema" (see section 4.5.5 for details).
- Data uploading resources (i.e. firmware upgrade, import configuration, etc.) will use PUT operation. The content of the data will be stored in the body of the HTTP request. If successful, the result will be returned an XML response with status code "OK". A separate status code is used for unsuccessful operations. This XML format is defined according to "XML Response Schema" (see section 4.5.5 for details).

- Data receiving resources (i.e. export configuration file) use GET operation. If successful, the result will be returned the data according to the resource description. An XML block is used for unsuccessful operations. This XML format is defined according to “XML Response Schema” (see section 4.5.5 for details).
- For Standard Resources, GET operation will be used. For more detailed description see Section 6.

If there is an XML block for the HTTP request or response, the Content-Type and Content-Length will be set in the headers of the HTTP message.

4.5.5 Error Handling

As with any other protocol, errors may occur during communications, protocol or message processing, and the specification classifies error handling into categories below:

- Protocol Errors, which are result of an incorrectly formed protocol message. Protocol Errors may contain header value or be received in an not expected or experience a socket timeout. To indicate and interpret protocol error, HTTP protocol has defined a set of standard status codes [e.g., 1xx, 2xx, 3xx, 4xx, 5xx]. According to this specification, the IP devices will use appropriate HTTP protocol defined status codes for error reporting and when received handle accordingly.
- Application Errors, which are generated as a result of REST operations errors. All such application errors must be reported and handled through HTTP messages. The following table indicates the mapping relationship between HTTP status codes and REST operations, and also the information contained in response header and bodies.

Table 3

HTTP Status Codes	REST Meaning	GET	PUT	POST	DELETE
200	“OK”-The request has succeeded. Header Notes: None Body Notes: The requested resource will be returned in the body.	√	√		√
201	“Created”- The request has created a new resource. Header Notes: The Location header contains the URI of the newly created resource. Body Notes: The response returns an entity describing the newly created resource.		√	√	
204	“No Content” – The request succeeded, but there is no data to		√		√

HTTP Status Codes	REST Meaning	GET	PUT	POST	DELETE
	return. Header Notes: None Body Notes: No body is allowed.				
301	“Moved Permanently” – The requested resource has moved permanently. Header Notes: The Location Header contains the URI of the new location. Body Notes: The body may contain the new resource location.	√			
302	“Found” – The requested resource should be accessed through this location, but the resource actually lives at another location. This is typically used to set up an alias. Header Notes: The Location header contains the URI of the resource. Body Notes: The body may contain the new resource location.	√			
400	“Bad Request” – The request was badly formed. This is commonly used for creating or updating a resource, but the data was incomplete or incorrect. Header Notes: The Reason-Phrase sent with the HTTP status header may contain information on the error. Body Notes: The response may contain more information of the underlying error that occurred in addition to the Reason-Phrase.		√	√	
401	“Unauthorized” – The request requires user authentication to access this resource. If the request contains invalid authentication data, this code is sent. Header Notes: At least one authentication mechanism must be	√	√	√	√

HTTP Status Codes	REST Meaning	GET	PUT	POST	DELETE
	<p>specified in the WWW-Authenticate header. The Reason-Phrase sent with the HTTP status header may contain information on the error.</p> <p>Body Notes: The response may contain more information of the underlying error that occurred in addition to the Reason-Phrase.</p>				
403	<p>“Forbidden” – The request is not allowed because the server is refusing to fill the request. A common reason for this is that the device does not support the requested functionality.</p> <p>Header Notes: The Reason-Phrase sent with the HTTP status header may contain information on the error.</p> <p>Body Notes: The response may contain more information of the underlying error that occurred in addition to the Reason-Phrase.</p>	√	√	√	√
404	<p>“Not Found” – The requested resource does not exist.</p> <p>Header Notes: None</p> <p>Body Notes: None</p>	√	√	√	√
405	<p>“Method Not Allowed” – The request used an HTTP method that is not supported for the resource because the specification does not allow this method. If the device does support the functionality but it is a valid operation (that has been defined in this specification), then 403 is returned.</p> <p>Header Notes: The Allow header lists the supported HTTP methods for this resource.</p> <p>Body Notes: None</p>	√	√	√	√

HTTP Status Codes	REST Meaning	GET	PUT	POST	DELETE
500	“Internal Server Error” - An internal server error has occurred. Header Notes: None Body Notes: None	√	√	√	√
503	“Service Unavailable” – The HTTP Server is up, but the REST service is not available. Typically this is caused by too many client requests. Header Notes: The Retry-After header suggests to the client when to try resubmitting the request. Body Notes: None	√	√	√	√

Responses to many resources calls contain data in XML format. XML Response Schema is defined in Annex. XML Response Schema consists of the following sections:

- requestURI - the URI of the corresponding HTTP request message
- statusCode - indicating the status of the REST operations.

Table 4

statusCode	Description
1	“OK” - indicate a successful operation is done (remark: if the request contains some parameters that are not supported, the device will ignore those parameters and return OK as statusCode)
2	“Device Busy” - for a command which cannot be processed at that time (i.e. if the device receives a reboot command during upgrading process)
3	“Device Error” - if the device can not perform the request for a hardware error. An error message in statusString format to indicate operation failure
4	“Invalid Operation” - either if the operation is not supported by the device, or if the user has not passed the authentication, or if the user does not have enough privilege for this operation
5	“Invalid XML Format” - if the XML format is not recognized by the system. There will be statusString returned to represent different errors
6	“Invalid XML Content” - an incomplete message or a message containing an out-of-range parameter. Relative statusString will be return.
7	“Reboot Required” - If a reboot is required before the operation taking effect

- statusString – error type for the not completed operation.
- id – Return the ID created by the device in POST operation
- subStatusCode – detail string indicating the reason the command was not completed. Table 5 contains general subStatusCode, In addition, Each resource may have some special subStatusCode , Each subStatusCode reference resource

description.

Table 5

statusCode	subStatusCode	Description
1	ok	indicate a successful operation is done
	riskPassword	There is a risk of the password
2	noMemory	Device doesn't have enough memory
	serviceUnavailable	service unavailable
	upgrading	upgrading
	deviceBusy	Device busy or no response
	reConnectIpc	Reconnect the video server
3	deviceError	Device hardware error
	badFlash	Operate flash error
	28181Uninitialized	28181 configuration uninitialized
4	notSupport	The device doesn't support this resource
	lowPrivilege	Not have enough privilege for this operation
	badAuthorization	The user has not passed the authentication
	methodNotAllowed	http method is not allowed
	notSetHdiskRedund	can't set redundancy attribute for hdd disk(system exists more than one non-operate hdd disk,and the attribution of a hdd disk is WR)
	invalidOperation	Invalid operation
	notActivated	The device is not activated
hasActivated	The device has activated	
5	badXmlFormat	Wrong XML format
6	badParameters	Parameters error
	badHostAddress	Wrong Host Address
	badXmlContent	Wrong XMLcontent
	badIPv4Address	Wrong IPv4 address
	badIPv6Address	Wrong IPv6 address
	conflictIPv4Address	IPV4 address conflict
	conflictIPv6Address	IPV6 address conflict
	badDomainName	Wrong Domain
	connectSreverFail	Failed to connect with Server
	conflictDomainName	Domain conflict
	badPort	Port conflict
	portError	Port error
	importErrorData	Failed to import data
	badNetMask	Wrong subnet mask
	badVersion	Version mismatching
	badDevType	Device type mismatching
	badLanguage	Language mismatching
incorrentUserNameOr	The user name or the password is incorrect.	

statusCode	subStatusCode	Description
	Password	
	invalidStoragePoolOfCloudServer	The storage pool of the cloud server is invalid, no configured storage pool or the storage pool ID is incorrect.
	noFreeSpaceOfStoragePool	No free space for the storage pool.
	riskPassword	There is a risk of the password
	fileFormatError	Incorrect file format
	fileContentError	Incorrect file Content
	UnSupportCapture	Note: When H.264+ is enabled, capture of 4096*2160 or 3072*2048 resolution is not supported. To use the capture function, you can turn off H.264+ or select other resolution.
	unableCalibrate	unable to calibrate
	pleaseCalibrate	Please calibrate first
	SNMPv3PasswordNone	When SNMPv3 password is null, please set password first.
	SNMPv3NameDifferent	The SNMPv3 read and write security name can't be the same.
	notSupportDeicing	The current device does not support deicing
	notMeetDeicing	Do not meet the open manual deicing
	alarmInputOccupied	Alarm Input No. A<-1 is used to trigger vehicle capture.
	notSupportWithAPMode	这个功能只是在 AP 下 WAN 配置不能用，非 AP 下 WAN 是可以配置的
7	rebootRequired	A reboot is required before the operation taking effect

Note:

1. When live view at the resolution of 2560*2048 or 3072*1728, if capture is needed, please set the frame rate as lower than 30 fps.
2. When H.264+ is enabled, captures of 4096*2160, 3072*2048, 3072*1728, and 2560*2048 resolution are not supported. To use the capture function, you can turn off H.264+ or select other resolution.
3. When 'notSupportDeicing' is returned: only under POE+, AC24V and DC12V power supply case, deicing function is supported.
4. When 'notMeetDeicing' is returned: 需空腔温度小于 30 度才可开启

4.6 Namespaces

The namespace xmlns="http://www.isapi.org/ver20/XMLSchema" is used in this specification.

The following namespaces are referenced by this specification:

- xmlns:xs="http://www.w3.org/2001/XMLSchema"
- xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
- xmlns:xlink="http://www.w3.org/1999/xlink"

4.7 Security

User-based access control is adopted in this specification. Security policy configuration in this specification based on three different user levels.

- Administrator – the privilege can access all supported resources on IP device.
- Operator – the privilege can access some general-level and higher-level resources. See the Resource Description of each resource for details.
- Viewer – the privilege can only access some general-level resources. See the Resource Description of each resource for details.

In order to access all supported resources, one account with Administrator privilege level must be active at all times. A default user account "admin" is provided by all IP devices. It has an Administrator user level, and must not be deleted. Its default password is "12345".

5 Device discovery

The IP devices support Universal Plug and Play (UPnP) technology to discovery/locate themselves. A UPnP compatible device will automatically announce its network address, supported devices and services types when connected to a network, and therefore becoming "plug-and-play" by allowing clients recognize those information and begin using this device immediately.

The UPnP architecture supports zero-configuration networking, and the device can dynamically join a network, obtain IP address, announce its name, convey its capabilities upon request, and gets the on-line status and capabilities of other devices. DHCP and DNS servers are optional and are only used if they are available on the network. Devices can leave the network automatically without leaving any unwanted status information behind. UPnP was published as a 73-part International Standard, ISO/IEC 29341, in December, 2008 [6][7][8].

The foundation for UPnP networking is IP addressing. When a device is connected to the network for the first time, its Dynamic Host Configuration Protocol (DHCP) client will search for a DHCP server. If the device successfully get its domain name via DNS server or DNS forwarding, then it should use this domain name for the following network operations; if the network is unmanaged and no DHCP server is found, the device must assign an address for itself, which is known as "AutoIP" of the UPnP Device Architecture [9][10], and use this IP address for the following network operations.

Once given an IP address, the Discovery process will be executed in UPnP networking. The UPnP discovery protocol is also known as Simple Service Discovery Protocol (SSDP). When a device is added to the network, SSDP allows that device to announce its services to the control points on the network. Similarly, when a control point is added to the network, SSDP allows that control point to search for relative devices on the network. During the above searching or announcing process, a discovery message which contains essential device specifics or one of its services will be transferred, for example, device type, identifier, and a pointer to more detailed information.

After a control point has discovered a device, the control point still needs more operations to request more information about the device or to interact with it. An HTTP GET request for mandatory index Standard Resource will return a list of the resources supported by the device. Remark: the index resource will only return the first level resources of a node, while the index Standard Resource will return a complete folder list in tree structure with the current resource as root folder.

6 Resource Description

6.1 Resource Description Outline

Each resource in this specification is defined using the following format.

<i>Resource_URI</i>	<i>Type</i>	<i>Version</i>
Operation_Name		
Description	<i>Description of the operation.</i>	
Query	<i>Indicates the name/value pairs (p1, p2, p3,...,pn) for the resource.</i>	
Inbound Data	<i>Indicates inbound data for the resources.</i>	
Success Return	<i>the Type (if present) and the name of XML Data Block</i>	
Error Status Code	<i>Special fault code, optional</i>	
Notes: <i>describes any special processing rules for the resource.</i>		

Type refers to “Standard Resource”, “Service” and “General Resource”.

Version is used to determine the version of the protocol. The version number shall be set to “1.0” in this specification.

Operation_Name refers to “GET”, “PUT”, “POST” and “DELETE”.

Inbound Data includes three types as follows:

- NONE –no input data
- DataBlock – the name of an XML Data Block. Datablocks used here must be defined according to the specification.
- Mime type – mime type for the input data in the HTTP payload. Remark: “application/xml” is not a valid mime type.

If a device does not support particular XML tags or blocks, then it may not be supported by the resource operations.

Generally, if a field is not provided in the inbound XML, then its current values shall not be modified in the device's repository.

If a required field did not exist in the device's repository, then it must be provided in the applicable resource operations.

Success Return and Error Return detailed description see Section 4.5.5.

6.2 Built-in Types

Table 6

Type	Description
BaudRate	A positive numerical value indicating the data transmission rate in symbols per second. Value is ≥ 0 . Example: 9600
Color	RGB triplet in hexadecimal format (3 bytes) without the preceding "0x". Example: "FF00FF"
Coordinate	A positive numerical value in pixels. A coordinate pair of 0,0 (x,y) indicates the bottom-left corner of the video image. Value is ≥ 0 . Maximum value is dependent on video resolution.
FPS	Frame rate multiplied by 100. Example: 2500 [PAL]
IPv4 Address	Notation is ISAPI.ISAPI.ISAPI.ISAPI Example: 3.137.217.220
MAC	MAC Address Notation is aa:bb:cc:dd:ee:ff with 6 hex bytes.

6.3 Annotation

The XML Data Blocks described in this document contains annotations for the field's properties. Please refer to the XML schema definitions for detail description.

The following annotation content is inserted into the comments to describe the data carried in the field:

Table 6

Annotation	Description
req	Required field.
Opt	Optional field. For data uploaded to the device, if the field is present but the device does not support it, it should be ignored.

Dep	This field is required depending on the value of another field.
Ro	Read-only. For XML data that is both read and written to the device, this field is only present in XML returned from the device. If this field is present in XML uploaded to the device, it should be ignored.
Wo	Write-only. This field is only present in XML that can be uploaded to the device. This field should never be present in data returned from the device. [This is used for uploading passwords].
Xs:<type>	A type defined in XML Schema Part 2: Datatypes Second Edition, see http://www.w3.org/TR/xmlschema-2

Remark: optional XML structures may contain required fields for the operation, which mean that even if the entire XML block is optional, some of its contained fields may still be necessary if required.

7 Standard Resources

This section describes the standard resources.

Standard Resources do not contain themselves.

The requestURIs `"/index"`, `"/description"` are required.

7.1 index

index		Standard Resource v2.0
GET		
Description	Enumerate child resources of a resource.	
Query	None	
Inbound Data	None	
Success Return	<ResourceList>	
Notes: Returns a non-recursive resource listing of all child resources.		

7.2 indexr

indexr		Standard Resource v2.0
GET		
Description	Enumerate child resources of a resource.	
Query	None	
Inbound Data	None	
Success Return	<ResourceList>	

Notes: Returns a recursive resource listing of all child resources.

7.3 description

description		Standard Resource v2.0
GET		
Description	Describe the corresponding resource	
Query	None	
Inbound Data	None	
Success Return	<ResourceDescription>	
Notes: <version> set the version of resource. In this specification, its value is "2.0".		

A version attribute is included in the description. This means resources with different versions may exist within the same Services. In that case, the version of Services is the version of the contained resource with the lowest version, and all resources in the Services container must be backward compatible. If any resource of a Service container can not maintain backward compatibility with previous versions, a new Services version should be introduced.

7.4 capabilities

capabilities		Standard Resource v2.0
GET		
Description	Describe the capabilities of the corresponding resource	
Query	None	
Inbound Data	None	
Success Return	Resource-specified	
Notes:		

For the General Resource, which inbound data is specified as an XML payload, the Standard Resource (capabilities) is provided for video management systems or client applications to query an IP device and understand what XML tags are supported.

“Capabilities” is essentially an XML instance of the corresponding General Resource XML Data Block. “Capabilities” must contain the acceptable values for each attribute.

While XML Schema Document are also required of any XML data defined by this specification and xsd documents are capable of defining the acceptable range of values for any attribute, using a global xsd to define capacities would imply that all devices support the same options for any parameter. By allowing devices to respond to the capabilities request, each device can support different values for any attribute, within the constraints of the schema.

Table 7

Capabilities Attribute	Description	Syntax	Applicable XML Data Types
min	The minimum character length for a string, or the minimum numerical value of a number	Examples: min="0" min="19" min="-74"(numerical only) min="1.6"	All except fixed data types ¹⁾
max	The maximum character length for a string, or the maximum numerical value of a number	Examples: max="4" max="37" max="8192" max="14.61"	All except fixed data types ¹⁾
range	Indicates the possible range of numerical values within the "min" and "max" attributes of an element. This attribute should only be used if the possible value for an XML element does not include the entire numerical range between "min" and "max" attributes	Ranges are listed in numerical order separated by a ";" character. A range has the form "x~y" where x is the range floor and y is the range ceiling. Single numbers may also be used. Example: if an XML element supports values 0, 456, 1674 to 2009 and 2012, the syntax would be: range="0, 456, 1674~2009, 2012"	All numerical data types
opt	All except fixed data types	If all options are supported, the syntax is "all". Otherwise, supported options are listed separated by a "," character. Examples: opt="all" opt="1, 4, 6, 7"	All except fixed data types
def	Indicates the default value of the XML element. If the element has not default value, this attribute should not be used	Examples: def="7416" def="ace"	All data types

Capabilities Attribute	Description	Syntax	Applicable XML Data Types
reqReboot	Indicates if configuration of this XML element requires a device reboot before taking effect. If an element does not require a boot, this attribute should not be used	reqReboot="true"	All data types
dynamic	Indicates if an XML element has dynamic capabilities dependent on other XML configuration. For example, if an element's data range changes based on another element's configured value, this attribute must be used. In this case, the element's capability attributes must always reflect the current device configuration	dynamic="true"	All data types
Size	Indicates the maximum number of entries in an XML List. This attribute is only applicable to XML list elements. This attribute should not be used for any other type of element	Example: If a device supports 16 users the example would be <pre><UserList size="16"> <User> ... </UserList></pre>	Only supported for list elements

- 1) Fixed, pre-defined data types do not need certain capability attributes because their formats/data ranges are already defined.

8 Services and General Resources

8.1 /ISAPI/System

/ISAPI/System	Service v2.0
Notes:	

8.1.1 /ISAPI/System/activate

/ISAPI/System/activate		General Resource v2.0
PUT		
Description	It is used to activate device	
Query	None	
Inbound Data	<ActivateInfo>	
Success Return	<ResponseStatus>	
Notes:		

ActivateInfo XML Block

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

8.1.2 /ISAPI/System/capabilities

/ISAPI/System/capabilities		General Resource v2.0
GET		
Description	It is used to get device capability.	
Query	None	
Inbound Data	None	
Success Return	<DeviceCap>	
Notes:		
Some capabilities that could not be described by stand capability resource will be listed here.		
<isSupportDst>: Is this device support daylight saving time.		
isSupportElectronicsEnlarge:is this device support Electronics Enlarge		
isSupportEagleEye: support panovu camera or not		
isSupportPanorama: support adjusting Sensor or not		
<isSupportFirmwareVersionInfo>: support showing firmware version info or not		
isSupportSetupCalibration: support setting calibration or not		
<isSupportGetmutexFuncErrMsg/>: support mutex info or not		
isSupportlaserSpotManual: support laser spot configuration or not		
isSupportLaserSpotAdjustment: support adjusting laser spot size or not		
VideoIntercomCap: support video intercom or not		
SecurityCPCapabilities: support security capabilities or not		

DeviceCap XML Block

```

<DeviceCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SysCap <!-- opt -->
    <isSupportDst <!-- opt, xs:boolean --> </isSupportDst>
    <NetworkCap/> <!-- opt -->
    <IOCap/> <!-- opt -->
    <SerialCap/> <!-- opt -->
    <VideoCap/> <!-- opt -->
    <AudioCap/> <!-- opt -->
    <isSupportExternalDevice <!-- opt, xs:boolean --> </isSupportExternalDevice>
  </SysCap>
  <voicetalkNums <!-- opt, xs:integer --> </voicetalkNums>
  <isSupportSnapshot <!-- opt, xs:boolean --> </isSupportSnapshot>
  <SecurityCap/> <!-- opt -->
  <EventCap/> <!-- opt -->
  <ImageCap/> <!-- opt -->
  <RacmCap/> <!-- opt -->
  <SmartCap/> <!-- opt -->
  <ThermalCap/> <!-- opt -->
  <WlAlarmCap/> <!-- opt -->
  <isSupportGIS <!-- opt, xs:boolean --> </isSupportGIS>
  <isSupportCompass <!-- opt, xs:boolean --> </isSupportCompass>
  <isSupportRoadInfoOverlays <!-- opt, xs:boolean --> </isSupportRoadInfoOverlays>
  <isSupportFaceCaptureStatistics <!--opt, xs:boolean --> </isSupportFaceCaptureStatistics>
  <isSupportExternalDevice <!-- opt, xs:boolean --> </isSupportExternalDevice>
  <isSupportElectronicsEnlarge><!-- opt, xs:boolean --></isSupportElectronicsEnlarge>
  <isSupportCloud <!-- opt, xs:boolean --> </isSupportCloud>
  <isSupportRecordHost/><!--opt, xs:boolean--> </isSupportRecordHost>
  <isSupportEagleEye <!-- opt, xs:boolean --> </isSupportEagleEye>
  <isSupportPanorama> <!-- opt, xs:boolean --> </isSupportPanorama>
  <isSupportFirmwareVersionInfo><!--opt, xs:boolean--> </isSupportFirmwareVersionInfo>
  <isSupportExternalWirelessServer/>
  <!--opt, xs: oolean-->
  </ ISAPI/System/capabilities >
  <isSupportSetupCalibration/><!--opt, xs:boolean--> </isSupportSetupCalibration>
  <isSupportGetmutexFuncErrMsg/><!--opt, xs:boolean--> </isSupportGetmutexFuncErrMsg>
  <isSupportlaserSpotManual><!-- opt, boolean --></isSupportlaserSpotManual>
  <isSupportLaserSpotAdjustment><!-- opt, boolean --></isSupportLaserSpotAdjustment>
  <VideoIntercomCap/> <!-- opt -->

```

```
<SecurityCPCapabilities/> <!-- opt-->
</DeviceCap>
```

8.1.3 /ISAPI/System/reboot

/ISAPI/System/reboot		General Resource v2.0	
PUT			
Description	Reboot the device.		
Query	None		
Inbound Data	None		
Success Return	<ResponseStatus>		
Error Status Code	statusCode	subStausCode	description
	2	upgrading	Device is upgrading
Notes:			
<ResponseStatus> is returned before the device proceeds to reboot.			

8.1.4 /ISAPI/System/updateFirmware

/ISAPI/System/updateFirmware		General Resource v2.0	
PUT			
Description	Update the firmware of the device.		
Query	None		
Inbound Data	Opaque Data		
Success Return	<ResponseStatus>		
Error Status Code	statusCode	subStatusCode	description
	2	upgrading	device upgrading
	3	badFlash	Flash error
	6	badLanguage	Language mismatch
Notes:			
After successful completion of this API, the <ResponseStatus> XML data is returned, and the device proceeds to reboot.			

8.1.5 /ISAPI/System/configurationData

/ISAPI/System/configurationData		General Resource v2.0	
GET			

Description	Get device's configuration data.		
Query	None		
Inbound Data	None		
Success Return	Opaque Data		
PUT			
Description	Update device's configuration data.		
Query	None		
Inbound Data	Opaque Data		
Success Return	<ResponseStatus>		
Error Status Code	statusCode	subStatusCode	description
	2	upgrading	Device upgrading
	3	badFlash	Flash error
	6	badVersion	Version mismatch
	6	badDevType	Device type mismatch
6	badLanguage	Language mismatch	
Notes:			
Configuration file is device-dependant – it may be binary or any other format. May reboot device after configuration file is applied.			

8.1.6 /ISAPI/System/factoryReset

/ISAPI/System/factoryReset		General Resource v2.0
PUT		
Description	It is used to reset the configuration for the device to the factory default.	
Query	mode	
Inbound Data	None	
Success Return	<ResponseStatus>	
Notes:		
Two factory reset modes are supported: "full" resets all device parameters and settings to their factory values. "basic" resets all device parameters and settings except the values in Network Service. The default mode is "full". The device may be rebooted after it is reset.		

8.1.7 /ISAPI/System/deviceInfo

/ISAPI/System/deviceInfo		General Resource v2.0
GET		
Description	It is used to get device information.	
Query	None	
Inbound Data	None	
Success Return	<DeviceInfo>	
PUT		
Description	It is used to update device information.	
Query	None	
Inbound Data	<DeviceInfo>	
Success Return	<ResponseStatus>	
<p>Notes:</p> <p>Some fields are read-only and may not be set. If these fields are present in the inbound XML block, they are ignored.</p> <p>For the <DeviceInfo> uploaded to the device during a PUT operation, all fields are considered optional and any fields that are not present in the inbound XML are not changed on the device. This allows setting of the fields individually without having to load the entire XML block to the device.</p> <p><deviceDescription> is a description of the device as defined in RFC1213.</p> <p>For IPC the <deviceDescription> value is IPCamera;</p> <p>For IP speed Dome the <deviceDescription> value is IPDome;</p> <p>For DVR or DVS the <deviceDescription> value is DVRDVS;</p> <p><deviceLocation> is the location of the device as defined in RFC1213</p> <p><systemContact> is the contact information for the device as defined in RFC1213.</p> <p><firmwareVersionInfo>:显示主控版本信息</p>		

DeviceInfo XML Block

```

<DeviceInfo version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <deviceName>      <!-- req, xs:string -->      </deviceName>
  <deviceId>        <!-- ro, req, xs:string, uuid-->    </deviceId>
  <deviceDescription> <!--opt, xs:string--> </deviceDescription>
  <deviceLocation>  <!--opt, xs:string --> </deviceLocation>
  <systemContact>   <!-- opt, req, xs:string --> </systemContact>
  <model>           <!-- ro, req, xs:string --> </model>
  <serialNumber>    <!-- ro, req, xs:string --> </serialNumber>
  <macAddress>      <!-- ro, req, xs:string; --> </macAddress>
  <firmwareVersion> <!-- ro, req, xs:string --> </firmwareVersion>

```

```

<firmwareReleasedDate> <!-- ro, opt, xs:string --> </firmwareReleasedDate>
<bootVersion> <!-- ro, opt, xs:string --> </bootVersion>
<bootReleasedDate> <!-- ro, opt, xs:string --> </bootReleasedDate>
<hardwareVersion> <!-- ro, opt, xs:string --> </hardwareVersion>
<encoderVersion> <!-- ro, opt, xs:string --> </encoderVersion>
<encoderReleasedDate> <!-- ro, opt, xs:string --> </encoderReleasedDate>
<decoderVersion> <!-- ro, opt, xs:string --> </decoderVersion>
<decoderReleasedDate> <!-- ro, opt, xs:string --> </decoderReleasedDate>
<deviceType>
  <!--ro, req, xs:string; "IPCamera, IPDome, DVR, HybridNVR, NVR, DVS, IPZoom"-->
<deviceType>
<telecontrolID> <!-- opt, xs:integer; "1-255"> <telecontrolID>
<supportBeep> <!--opt, xs:boolean --> </supportBeep>
<firmwareVersionInfo> <!-- ro, opt, xs:string --> </firmwareVersionInfo>
</DeviceInfo>

```

8.1.8 /ISAPI/System/status

/ISAPI/System/status		General Resource v2.0
GET		
Description	It is used to get the status information of the device.	
Query	None	
Inbound Data	None	
Success Return	DeviceStatus	
Notes:		

DeviceStatus XML Block

```

<DeviceStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <currentDeviceTime> <!-- opt, xs:datetime --> </currentDeviceTime>
  <deviceUpTime> <!-- opt, xs:integer, seconds --> </deviceUpTime>
  <TemperatureList>
    <!-- opt -->
    <Temperature>
      <tempSensorDescription> <!-- req, xs:string --> </tempSensorDescription>
      <temperature> <!-- req, xs:float --> </temperature>
    </Temperature>
  </TemperatureList>
  <FanList>

```



```

<!-- opt -->
<Fan>
  <fanDescription><!-- req, xs:string --> </fanDescription>
  <speed> <!-- req, xs:integer --> </speed>
</Fan>
</FanList>
<PressureList>
  <!-- opt -->
  <Pressure>
    <pressureSensorDescription> <!-- req, xs:string --></pressureSensorDescription>
    <pressure> <!-- req, xs:integer --> </pressure>
  </Pressure>
</PressureList>
<TamperList>
  <!-- opt -->
  <Tamper>
    <tamperSensorDescription> <!-- req, xs:string --> </tamperSensorDescription>
    <tamper> <!-- req, xs:boolean --> </tamper>
  </Tamper>
</TamperList>
<CPUList>
  <!-- opt -->
  <CPU>
    <cpuDescription> <!-- req, xs:string --> </cpuDescription>
    <cpuUtilization> <!-- req, xs:integer, percentage 0..100 --> </cpuUtilization>
  </CPU>
</CPUList>
<MemoryList>
  <!-- opt -->
  <Memory>
    <memoryDescription> <!-- req, xs:string --> </memoryDescription>
    <memoryUsage><!-- req, xs:float, in MB --> </memoryUsage>
    <memoryAvailable> <!-- req, xs:float, in MB--> </memoryAvailable>
  </Memory>
</MemoryList>
<openFileHandles> <!-- opt, xs:integer --> </openFileHandles>
<CameraList> <!-- opt -->
  <Camera>

```

```

<zoomReverseTimes> <!--req, xs:integer --></zoomReverseTimes>
<zoomTotalSteps> <!-- req, xs:integer --></zoomTotalSteps>
<focusReverseTimes> <!-- req, xs:integer --></focusReverseTimes>
<focusTotalSteps> <!-- req, xs:integer --></focusTotalSteps>
<irisShiftTimes> <!-- req, xs:integer --></irisShiftTimes>
<irisTotalSteps> <!-- req, xs:integer --></irisTotalSteps>
<icrShiftTimes> <!-- req, xs:integer --></icrShiftTimes>
<icrTotalSteps> <!-- req, xs:integer --></icrTotalSteps>
<lensIntirTimes> <!-- req, xs:integer --></lensIntirTimes>
<cameraRunTotalTime> <!-- req, xs:integer --></cameraRunTotalTime>
</Camera>
</CameraList>
<DomeInfoList><!-- opt -->
  <DomeInfo>
    <domeRunTotalTime> <!-- opt, xs:integer --></domeRunTotalTime >
    <runTimeUnderNegativetwenty> <!--opt, xs:integer
--></runTimeUnderNegativetwenty>
    <runTimeBetweenNtwentyPforty> <!--opt, xs:integer
--></runTimeBetweenNtwentyPforty>
    <runtimeOverPositiveforty> <!--opt, xs:integer
--></runtimeOverPositiveforty>
    <panTotalRounds> <!--opt, xs:integer --></panTotalRounds>
    <tiltTotalRounds> <!--opt, xs:integer --></tiltTotalRounds>
    <heatState> <!--opt, xs:integer --></heatState>
    <fanState> <!--opt, xs:integer --></fanState>
  </DomeInfo>
</DomeInfoList>
</DeviceStatus>

```

8.1.9 /ISAPI/System/time

/ISAPI/System/time		General Resource	v2.0
GET			
Description	Get the device time information.		
Query	None		
Inbound Data	None		
Success Return	Time		
PUT			
Description	Udpate the device time information.		

Query	None
Inbound Data	Time
Success Return	ResponseStatus
Notes:	
If <timeMode> is present and set to "local", the <localTime> and <timeZone> fields are required. The <localTime> block sets the device time.	
If <timeMode> is present and set to "NTP", only the <timeZone> field is required. The device time is set by synchronizing with NTP.	

Time XML Block

```
<Time version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <timeMode> <!-- req, xs:string, "NTP, manual,timecorrect" --> </timeMode>
  <localTime> <!-- req, xs:datetime --> </localTime>
  <timeZone> <!-- req, xs:string, POSIX time zone string --> </timeZone>
</Time>
```

8.1.10 /ISAPI/System/time/localTime

/ISAPI/System/time/localTime		General Resource v2.0
GET		
Description	It is used to get the device local time information.	
Query	None	
Inbound Data	None	
Success Return	ISO 8601 Date-Time String	
PUT		
Description	It is used to update the device local time information.	
Query	None	
Inbound Data	ISO 8601 Date-Time String	
Success Return	ResponseStatus	
Notes:		
An ISO 8601 Date/Time string is accepted and returned. If the date/time value has a time zone, the time is converted into the device's local time zone.		
If the device time mode is set to "ntp" setting this value has no effect.		

8.1.11 /ISAPI/System/time/timeZone

/ISAPI/System/time/timeZone		General Resource v2.0
GET		
Description	It is used to get the device time zone information.	

Query	None
Inbound Data	None
Success Return	Time zone string
PUT	
Description	It is used to update the device time zone information.
Query	None
Inbound Data	Time zone string
Success Return	ResponseStatus
<p>Notes:</p> <p>Time zones are defined by POSIX 1003.1 section 8.3 time zone notations. Note that the value following the +/- is the amount of time that must be added to the local time to result in UTC.</p> <p>Example:</p> <p>EST+5EDT01:00:00,M3.2.0/02:00:00,M11.1.0/02:00:00</p> <p>Defines eastern standard time as “EST” with a GMT-5 offset. Daylight savings time is called “EDT”, is one hour later and begins on the second Sunday of March at 2am and ends on the first Sunday of November at 2am.</p> <p>CET-1CEST01:00:00,M3.5.0/02:00:00,M10.5.0/03:00:00</p> <p>Defines central European time as GMT+1 with a one-hour daylight savings time (“CEST”) that starts on the last Sunday in March at 2am and ends on the last Sunday in October at 3am.</p> <p>Check whether the device supports DST capability from 8.1.6 device capabilities</p>	

8.1.12 /ISAPI/System/time/NtpServers

/ISAPI/System/time/ntpServers		General Resource v2.0
GET		
Description	It is used to get the configuration of NTP servers for the device.	
Query	None	
Inbound Data	None	
Success Return	NTPServerList	
PUT		
Description	It is used to update the configuration of NTP servers for the device.	
Query	None	
Inbound Data	NTPServerList	

Success Return	ResponseStatus
POST	
Description	It is used to add the configuration of a NTP server for the device.
Query	None
Inbound Data	NTPServer
Success Return	ResponseStatus
DELETE	
Description	It is used to delete the configuration of NTP servers for the device.
Query	None
Inbound Data	None
Success Return	ResponseStatus
<p>Notes:</p> <p>When the <timeMode> is set to “NTP”, the servers in this list are used to synchronize the device’s system time.</p> <p>To determine whether it is possible to dynamically create or delete ntp server, check the defined HTTP methods in /ISAPI/System/time/ntpServers/description.</p>	

NTPServerList XML Block

```
<NTPServerList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <NTPServer/> <!-- opt -->
</ NTPServerList>
```

8.1.13 /ISAPI/System/time/ntpServers/<ID>

/ISAPI/System/time/ntpServers/ID		General Resource v2.0
GET		
Description	It is used to get the configuration of a NTP server for the device.	
Query	None	
Inbound Data	None	
Success Return	NTPServer	
PUT		
Description	It is used to update the configuration of a NTP server for the device.	
Query	None	
Inbound Data	NTPServer	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete the configuration of a NTP server for the device.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	

Notes:

Depending on the value of <addressingFormatType>, either the <hostName> or the IP address fields will be used to locate the NTP server.

NTPServer XML Block

```
<NTPServer version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string; id --> </id>
  <addressingFormatType>
    <!-- req, xs:string, "ipaddress,hostname"-->
  </addressingFormatType>
  <hostName> <!-- dep, xs:string --> </hostName>
  <ipAddress><!-- dep, xs:string --> </ipAddress>
  <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  <portNo> <!-- opt, xs:integer --> </portNo>
  <synchronizeInterval> <!--opt, xs:integer, minutes --> </synchronizeInterval>
</NTPServer>
```

8.1.14 /ISAPI/System/time/ntpServers/test

/ISAPI/System/time/ntpServers/test		General Resource v2.0
GET		
Description	It is used to test the NTP server available or not	
Query	None	
Inbound Data	NTPTestDescription	
Success Return	NTPTestResult	
POST		
Description	It is used to test the NTP server available or not	
Query	None	
Inbound Data	NTPTestDescription	
Success Return	NTPTestResult	
Notes:		

NTPTestDescription XML Block

```
<NTPTestDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <addressingFormatType>
    <!-- req, xs:string, "ipaddress,hostname"-->
  </addressingFormatType>
  <hostName> <!-- dep, xs:string --> </hostName>
  <ipAddress><!-- dep, xs:string --> </ipAddress>
  <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
```

```
<portNo> <!-- req, xs:integer --> </portNo>
</NTPTestDescription>
```

NTPTestResult XML Block

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

8.1.15 /ISAPI/System/Holidays

URI	/ISAPI/System/Holidays			Type	Resource
Function	Access the list of holidays				
Methods	Query String(s)	Inbound Data	Return Result		
GET			<holidayList >		
PUT		<holidayList>	<ResponseStatus>		
Notes					

holidayList XML Block

```
<HolidayList version="2.0" xmlns="http://urn:selfextension:ISAPIext-ver10-xsd">
  <holiday/> <!-- opt -->
</HolidayList>
```

8.1.16 /ISAPI/System/Holidays/<ID>

URI	/ISAPI/System/Holidays/ID/			Type	Resource
Function	Access a holiday.				
Methods	Query String(s)	Inbound Data	Return Result		
GET			<holiday >		
PUT		<holiday>	<ResponseStatus>		
Notes	<holidayMode> decides whether <holidayDate>,<holidayWeek>or <holidayMonth> is contained. <holidayMode>:date: example form May 5 th ,1900 to June 8 th ,1900.				

	<p><holidayMode>:week: example form May 1st week to May 2nd week.</p> <p><holidayMode>:month: example form May 1st to May 5th.</p>
--	--

holiday XML Block

```

<holiday version="2.0" xmlns="http://urn:selfextension:ISAPIext-ver10-xsd">
  <id> <!-- req, xs:string;id --> </id>
  <enabled> <!-- req, xs:boolean --> </enabled>
  <holidayMode/> <!-- req, xs:string, "date, weeeek, month" --> <holidayName> <!-- req,
  xs:string --> </holidayName>
  <holidayDate> <!-- dep -->
    <startDate> <!-- req, xs:date --> </startDate>
    <endDate> <!-- req, xs:date --> </endDate>
  </holidayDate>
  <holidayWeek> <!-- dep -->
    <startWeek> <!-- req -->
      <monthOfYear> <!-- req --> </monthOfYear>
      <sequence> <!-- req, xs:integer, 1...5 --> </sequence>
      <dayOfWeek>
        <!-- req, ISO8601 weekday number, 1=Monday" -->
      </dayOfWeek>
    </startWeek>
    <endWeek> <!-- req -->
      <monthOfYear> <!-- req --> </monthOfYear>
      <sequence> <!-- req, xs:integer, 1...5 --> </sequence>
      <dayOfWeek>
        <!-- req, ISO8601 weekday number, 1=Monday" -->
      </dayOfWeek>
    </endWeek>
  </holidayWeek>
  <holidayMonth> <!-- dep -->
    <startMonth> <!-- req -->
      <monthOfYear> <!-- req, xs:integer, "1...12" --> </monthOfYear>
      <dayOfMonth> <!-- req, xs:integer, "1...31" --> </dayOfMonth>
    </startMonth>
    <endMonth> <!-- req -->
      <monthOfYear> <!-- req, xs:integer, "1...12" --> </monthOfYear>
      <dayOfMonth> <!-- req, xs:integer, "1...31" --> <dayOfMonth>
  </holidayMonth>
</holiday>

```



```

</endMonth>
</holidayMonth>
</holiday>

```

8.1.17 /ISAPI/System/upgradeStatus

/ISAPI/System/upgradeStatus		General Resource v2.0
GET		
Description	It is used to get upgrade status of the device.	
Query	None	
Inbound Data	None	
Success Return	upgradeStatus	
Notes:		

upgradeStatus XML Block

```

<upgradeStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <upgrading>    <!-- ro, req, xs:boolean -->    </upgrading>
  <percent>    <!-- ro, req, xs:integer "0-100" --> </percent>
</upgradeStatus>

```

8.1.18 /ISAPI/System/externalDevice

/ISAPI/System/externalDevice		General Resource v2.0
GET		
Description	It is used to get the ExternalDevice's configuration of a specified image channel.	
Query	None	
Inbound Data	None	
Success Return	ExternalDevice	
PUT		
Description	It is used to configure the ExternalDevice's configuration of a specified image channel.	
Query	None	
Inbound Data	ExternalDevice	
Success Return	ResponseStatus	
Notes:		

ExternalDevice XML Block

```
<ExternalDevice version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SupplementLight/><!--opt, 补光灯配置-->
  <THScreen/><!--opt, 外接屏幕配置-->
</ExternalDevice>
```

8.1.19 /ISAPI/System/externalDevice/capabilities

/ISAPI/System/externalDevice/capabilities		General Resource v2.0
GET		
Description	It is used to get the ExternalDevice's configuration of a specified image channel.	
Query	None	
Inbound Data	None	
Success Return	ExternalDevice	

ExternalDevice XML Block

```
<ExternalDevice version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SupplementLight/><!--opt, -->
  <THScreen/><!--opt, 外接屏幕配置-->
</ExternalDevice>
```

8.1.20 /ISAPI/System/externalDevice/supplementLight

/ISAPI/System/externalDevice/supplementLight		General Resource v2.0
GET		
Description	It is used to get the SupplementLight 's configuration of a specified image channel.	
Query	None	
Inbound Data	None	
Success Return	SupplementLight	
PUT		
Description	It is used to configure the SupplementLight 's configuration of a specified image channel.	
Query	None	
Inbound Data	SupplementLight	

Success Return	ResponseStatus
Notes:	

SupplementLight XML Block

```
<SupplementLight version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--opt,xs:boolean--></enabled>
  <mode><!--opt,xs:string, "schedule,auto"--></mode>
  <Schedule> <!--dep, -->
    <TimeRange> <!-- req -->
      <beginTime> <!-- req, xs:time, ISO8601 time hh:mm:ss--> </beginTime>
      <endTime> <!-- req, xs:time, ISO8601 time hh:mm:ss --> </endTime>
    </TimeRange>
  </Schedule>
  <lowBeamBrightness><!--opt,xs:integer,"0~10" --></lowBeamBrightness>
  <highBeamBrightness><!--opt,xs:integer,"0~10" --></highBeamBrightness>
  <filteringTime><!--opt,xs:integer,"0~120",unit:s--></filteringTime>
</SupplementLight>
```

8.1.21 /ISAPI/System/externalDevice/supplementLight/capabilities

/ISAPI/System/externalDevice/supplementLight/capabilities		General Resource v2.0
		0
GET		
Description	It is used to get the externalDevice 's configuration of a specified image channel.	
Query	None	
Inbound Data	None	
Success Return	SupplementLight	
Notes:		

SupplementLight XML Block

```
<SupplementLight version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--opt,xs:boolean--></enabled>
  <mode opt="schedule,auto"><!--opt,xs:string, --></mode>
  <Schedule> <!--dep, -->
    <TimeRange> <!-- req -->
      <beginTime> <!-- req, xs:time, ISO8601 time hh:mm:ss--> </beginTime>
      <endTime> <!-- req, xs:time, ISO8601 time hh:mm:ss --> </endTime>
    </TimeRange>
  </Schedule>
</SupplementLight>
```

```

</TimeRange>
</Schedule>
<lowBeamBrightness min="" max=""><!--opt,xs:integer,"0~10" --></lowBeamBrightness>
<highBeamBrightness min="" max=""><!--opt,xs:integer,"0~10" --></highBeamBrightness>
<filteringTime><!--opt,xs:integer,"0~120",unit:s--></filteringTime>
</SupplementLight>

```

8.1.22 /ISAPI/System/onlineUpgrade/server

/ISAPI/System/onlineUpgrade/server		General Resource	v2.0
GET			
Description	It is used to get online upgrade server status		
Query	None		
Inbound Data	None		
Success Return	OnlineUpgradeServer		
Notes:			

OnlineUpgradeServer XML Block

```

<OnlineUpgradeServer version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <connectStatus> <!--ro,req xs:boolean --></connectStatus>
</OnlineUpgradeServer>

```

8.1.23 /ISAPI/System/onlineUpgrade/version

/ISAPI/System/onlineUpgrade/version		General Resource	v2.0
GET			
Description	It is used to get new version information		
Query	check		
Inbound Data	None		
Success Return	OnlineUpgradeVersion		
Notes:			
check:false—the device return the version directly;true—the device get the version from the server, then send to the client			

OnlineUpgradeVersion XML Block

```

<OnlineUpgradeVersion version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <newVersionAvailable><!--ro,req,xs:boolean--></newVersionAvailable>
  <newVersion><!--ro,dep,xs:string--></newVersion>
  <changeLog><!--ro,dep,xs:string--></changeLog>

```

</OnlineUpgradeVersion>

8.1.24 /ISAPI/System/onlineUpgrade/upgrade

/ISAPI/System/onlineUpgrade/upgrade		General Resource	v2.0
PUT			
Description	It is used to allow device upgrade automatically.		
Query	None		
Inbound Data	None		
Success Return	<ResponseStatus>		
Notes:			

8.1.25 /ISAPI/System/onlineUpgrade/status

/ISAPI/System/onlineUpgrade/status		General Resource	v2.0
GET			
Description	It is used to get online upgrade status of the device.		
Query	None		
Inbound Data	None		
Success Return	OnlineUpgradeStatus		
Notes:			

OnlineUpgradeStatus XML Block

```
<OnlineUpgradeStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <status>    <!-- ro, req, xs:string,"notUpgrade,upgrading,successful,languageMismatch,
  writeFlashError,packageTypeMismatch,packageVersionMismatch,netUnreachable,
  unknownError" -->    </status>
  <percent>    <!-- ro, req, xs:integer "0-100" -->    </percent>
</OnlineUpgradeStatus>
```

8.1.26 /ISAPI/System/firmwareCode

/ISAPI/System/firmwareCode		General Resource	v2.0
GET			
Description	It is used to get firmware code.		
Query	startIndex maxNumber		
Inbound Data	None		
Success Return	<FirmwareCodeList>		

Notes:

Examples:

GET /ISAPI/System/firmwareCode?startIndex=1&maxNumber=32

FirmwareCodeList XML Block

```
<FirmwareCodeList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <FirmwareCode>
    <index><!--req, xs:integer--></index>//start from 1
    <code><!-- req, xs:string --></code>
    <version><!--req,xs:string--></version>
  </FirmwareCode>
</FirmwareCodeList>
```

8.1.27 /ISAPI/System/onlineUpgrade/judgeVersion

/ISAPI/System/onlineUpgrade/judgeVersion		General Resource	v2.0
GET			
Description	It is used to check the version is new than the device current is.		
Query	firmwareCode version		
Inbound Data	None		
Success Return	<JudgeVersionResult>		
Notes:			
Examples:			
GET			
/ISAPI/System/onlineUpgrade/judgeVersion?firmwareCode=00001XXXXX&...version=00000001XX XXXX.....//space need convert to "%20"			

JudgeVersionResult XML Block

```
<JudgeVersionResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <recommenUpgrade><!--req,xs:boolean--></recommenUpgrade >
</JudgeVersionResult>
```

8.1.28 /ISAPI/System/onlineUpgrade/capabilities

/ISAPI/System/onlineUpgrade/capabilities		General Resource	v2.0
GET			
Description	It is used to get online Upgrade capabilities.		
Query	None		
Inbound Data	None		

Success Return	<OnlineUpgradeCap>
Notes:	

OnlineUpgradeCap XML Block

```
<OnlineUpgradeCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <firmwareNum max=""/><!--req-->
  <firmwareCode max=""/> <!-- req -->
  <firmwareVersion max=""/> <!-- req -->
  <firmwareCodeNumOnce max=""/> <!--req--> //max number once
  <upgradePercent min="" max=""/> <!-- req -->
  <Version>
    <newVersion max=""/><!--req-->
    <changeLog max=""/><!--req-->
  </Version>
  <rebootAfterUpgrade><!-- opt, ro, string "auto,manual"></rebootAfterUpgrade>
</OnlineUpgradeCap>
```

8.1.29 /ISAPI/System/Network/ANRArmingHostIP

/ISAPI/System/Network/ANRArming		General Resource v2.0
GET		
Description	获取断网续传的主机 IP 地址.	
Query	None	
Inbound Data	None	
Success Return	ANRArmingHostIP	
Notes:		

ANRArmingHostIP XML Block

```
<ANRArmingHostIP version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <addressingFormatType>
    <!-- req, xs:string, "ipaddress,hostname" -->
  </addressingFormatType>
  <hostName> <!-- dep, xs:string --> </hostName>
  <ipAddress> <!-- dep, xs:string --> </ipAddress>
  <ipv6Address><!-- dep, xs:string --> </ipv6Address>
  <portNo><!-- opt, xs:integer --> </portNo>
```

```
</ANRArmingHostIP>
```

8.1.30 /ISAPI/System/externalDevice/THScreen

/ISAPI/System/externalDevice/THScreen		General Resource v2.0
GET		
Description	It is used to get the THScreen 's configuration of a specified image channel.	
Query	None	
Inbound Data	None	
Success Return	THScreen	
PUT		
Description	It is used to configure the THScreen 's configuration of a specified image channel.	
Query	None	
Inbound Data	THScreen	
Success Return	ResponseStatus	
Notes:		

THScreen XML Block

```
<THScreen version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--req,xs:boolean--></enabled>
  <normalizedScreenSize> <!--opt-->
    <normalizedScreenWidth> <!-- req, xs:integer --></normalizedScreenWidth>
    <normalizedScreenHeight> <!-- req, xs:integer --></normalizedScreenHeight>
  </normalizedScreenSize>
  <THOSDDisplay><!--dep,-->
    <enabled> <!-- req, xs:boolean --> </enabled>
    <CalibratingCoordinates><!--dep,-->
      <positionX> <!-- req, xs:integer;coordinate --> </positionX>
      <positionY> <!-- req, xs:integer;coordinate --> </positionY>
    </CalibratingCoordinates>
  </THOSDDisplay>
  <Timing> <!--dep,-->
    <timing opt="manual,auto"><!--dep,xs:string 依赖于<enabled>节点打开--></timing>
    <interval min="1" max="10080"><!--dep,xs:interge 依赖于 <timing> 节点为
auto--></interval>
  </Timing>
</THScreen>
```


8.1.31 /ISAPI/System/externalDevice/THScreen/capabilities

/ISAPI/System/externalDevice/THScreen/capabilities		General Resource v2.0
GET		
Description	It is used to get the THScreen's configuration	
Query	None	
Inbound Data	None	
Success Return	THScreen	
Notes:		
<Timing> 表示 自动校时 && 手动校时		

THScreen XML Block

```
<THScreen version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--req,xs:boolean--></enabled>
  <normalizedScreenSize> <!--opt-->
    <normalizedScreenWidth> <!-- req, xs:integer --></normalizedScreenWidth>
    <normalizedScreenHeight> <!-- req, xs:integer --></normalizedScreenHeight>
  </normalizedScreenSize>
  <THOSDDisplay><!--dep,-->
    <enabled> <!-- req, xs:boolean --> </enabled>
    <CalibratingCoordinates><!--dep,-->
      <positionX> <!-- req, xs:integer;coordinate --> </positionX>
      <positionY> <!-- req, xs:integer;coordinate --> </positionY>
    </CalibratingCoordinates>
  </THOSDDisplay>
  <Timing> <!--dep,-->
    <timing opt="manual,auto"><!--dep,xs:string 依赖于<enabled>节点打开--></timing>
    <interval min="1" max="10080"><!--dep,xs:interge 依赖于 <timing> 节点为
auto--></interval>
  </Timing>
</THScreen>
```

8.1.32 /ISAPI/System/externalDevice/THScreen/timing

/ISAPI/System/externalDevice/THScreen/timing	General Resource v2.0
--	-----------------------

PUT	
Description	It is used to configure the THScreen's timing
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

8.1.33 /ISAPI/System/accessoryCardInfo/capabilities

/ISAPI/System/accessoryCardInfo/capabilities	General Resource v2.0
GET	
Description	It is used to get accessory Card Info capabilities.
Query	None
Inbound Data	None
Success Return	<AccessoryCardInfo>
Notes: AccessoryCardTypeName: the string length should not exceed 256.	

AccessoryCardInfo XML Block

```
<AccessoryCardInfo version="2.0" xmlns=" http://www.isapi.org/ver20/XMLSchema ">
  <AccessoryCardTypeName><!--opt,ro,xs:string--></AccessoryCardTypeName>
</AccessoryCardInfo>
```

8.1.34 /ISAPI/System/accessoryCardInfo

/ISAPI/System/accessoryCardInfo	General Resource v2.0
GET	
Description	It is used to get accessory Card Info.
Query	None
Inbound Data	NULL
Success Return	<AccessoryCardInfo>
Notes: AccessoryCardTypeName: the string length should not exceed 256.	

AccessoryCardInfo XML Block

```
<AccessoryCardInfo version="2.0" xmlns=" http://www.isapi.org/ver20/XMLSchema ">
  <AccessoryCardTypeName><!--opt,ro,xs:string--></AccessoryCardTypeName>
</AccessoryCardInfo>
```

8.1.35 /ISAPI/System/SetupParam/capabilities

/ISAPI/System/SetupParam/capabilities		General Resource	v2.0
GET			
Description	This function is used to get camera erection Param capabilities		
Query	None		
Inbound Data	None		
Success Return	SetupParam		
Note: <mountingType>:架设方式:正装 (aboveRoad) 和侧装 (at Roadside)。默认正向。			

SetupParam XML Block

```
<SetupParam version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <mountingType opt="aboveRoad,atRoadside"
  default="aboveRoad"><!--opt,xs:string></mountingType>
</SetupParam>
```

8.1.36 /ISAPI/System/SetupParam

/ISAPI/System/SetupParam		General Resource	v2.0
GET			
Description	Get up param configarution for Erection Param		
Query	None		
Inbound Data	None		
Success Return	SetupParam		
PUT			
Description	Set up param configarution for Erection Param		
Query	None		
Inbound Data	SetupParam		
Success Return	ResponseStatus		
Error Status Code	statusCode	subStatusCode	description
	4	notSupport	设备不支持此
	4	invalidOperation	无效的操作
Notes: <mountingType>:架设方式:正装 (aboveRoad) 和侧装 (at Roadside)。默认正向。			

SetupParam XML Block

```
<SetupParam version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <mountingType opt="aboveRoad,atRoadside"
default="aboveRoad"><!--opt,xs:string></mountingType>
</SetupParam>
```

8.1.37 /ISAPI/System/setupCalibration/capabilities

/ISAPI/System/setupCalibration/capabilities		General Resource v2.0
GET		
Description	This function is used to get camera setup Param capabilities	
Query	None	
Inbound Data	None	
Success Return	SetupCalibrationCap	
Note: isSupportCalibrationCheck: 是否支持标定校验, 本项目不支持		

SetupCalibrationCap XML Block

```
<SetupCalibrationCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <!--req-->
  <calibrateType opt="automatic,manual,no">
    <!-- opt ,xs:string, -->
  </calibrateType>
  <ManualCalib>
    <!--opt,dep if<calibrateType>manual</calibrateType>-->
    <height min="" max="">
      <!-- opt,xs:float, unit:cm -->
    </height>
    <tiltAngle min="" max="">
      <!-- opt, xs:float -->
    </tiltAngle>
    <heelAngle min="" max="">
      <!-- opt, xs:float -->
    </heelAngle>
  </ManualCalib>
  <AutomaticCalib>
    <!--opt,dep if<calibrateType>automatic</calibrateType>-->
    <CalibRegion>
      <!--opt,标定区域(绿框)-->
```

```

<RegionCoordinatesList size="">
  <RegionCoordinates>
    <!-- req, -->
    <positionX>
      <!-- req, xs:integer;coordinate -->
    </positionX>
    <positionY>
      <!-- req, xs:integer;coordinate -->
    </positionY>
  </RegionCoordinates>
</RegionCoordinatesList>
</CalibRegion>
</AutomaticCalib>
<isSupportCalibrationCheck>
  <!--opt,xs:boolean-->
</isSupportCalibrationCheck> //本项目不支持
</SetupCalibrationCap>

```

8.1.38 /ISAPI/System/setupCalibration

/ISAPI/System/setupCalibration		General Resource v2.0	
POST			
Description	It is used to post setup Calibration		
Query	None		
Inbound Data	SetupCalibration		
Success Return	SetupCalibrationResult		
Error Status Code	statusCode	subStatusCode	description
	4	notSupport	设备不支持此
	4	invalidOperation	无效的操作
Notes:			
"automatic,manual,no " -- no 表示 未标定			

SetupCalibration XML Block

```

<SetupCalibration version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <!--req-->
  <calibrateType opt="automatic,manual,no">
    <!-- opt ,xs:string, -->

```

```

</calibrateType>
<ManualCalib>
  <!--opt,dep if<calibrateType>manual</calibrateType>-->
  <height min="" max="">
    <!-- opt,xs:float, unit:cm -->
  </height>
  <tiltAngle min="" max="">
    <!-- opt, xs:float -->
  </tiltAngle>
  <heelAngle min="" max="">
    <!-- opt, xs:float -->
  </heelAngle>
</ManualCalib>
<AutomaticCalib>
  <!--opt,dep if<calibrateType>automatic</calibrateType>-->
  <CalibRegion>
    <!--opt,标定区域(绿框)-->
    <RegionCoordinatesList size="">
      <RegionCoordinates>
        <!-- req, -->
        <positionX>
          <!-- req, xs:integer;coordinate -->
        </positionX>
        <positionY>
          <!-- req, xs:integer;coordinate -->
        </positionY>
      </RegionCoordinates>
    </RegionCoordinatesList>
  </CalibRegion>
</AutomaticCalib>
</SetupCalibration>

```

SetupCalibrationResult XML Block

```

<SetupCalibrationResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <calibrateType>
    <!-- opt ,xs:string,"automatic,manual,no" -->
  </calibrateType>

```

```

<SetupParam>
  <height>
    <!-- opt,ro,xs:float, unit:cm -->
  </height>
  <tiltAngle>
    <!-- opt,ro,xs:float -->
  </tiltAngle>
  <heelAngle>
    <!-- opt,ro,xs:float -->
  </heelAngle>
</SetupParam>
<CountingArea>
  <!--opt,ro,"计数区域（红框）"-->
  <RegionCoordinatesList>
    <RegionCoordinates>
      <!-- req, -->
      <positionX>
        <!-- req, xs:integer;coordinate -->
      </positionX>
      <positionY>
        <!-- req, xs:integer;coordinate -->
      </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</CountingArea>
<CountingLineList><!--opt-->
  <CountingLine>
    <id><!--req,xs:integer--></id>
    <Direction>
      <!--req -->
      <StartPoint> <!--req -->
        <positionX> <!-- req, xs:integer --> </positionX>
        <positionY> <!-- req, xs:integer --> </positionY>
      </StartPoint>
      <EndPoint> <!--req -->
        <positionX> <!-- req, xs:integer --> </positionX>
        <positionY> <!-- req, xs:integer --> </positionY>
      </EndPoint>
    </Direction>
    <LineCoordinatesList> <!-- req -->
      <Coordinates> <!-- req -->
        <positionX> <!-- req, xs:integer;coordinate -->
      </positionX>

```

```

        <positionY>                                <!-- req, xs:integer;coordinate -->
</positionY>
        </Coordinates>
    </LineCoordinatesList>
    </CountingLine>
</CountingLineList>
</SetupCalibrationResult>

```

8.1.1 /ISAPI/System/mutexFunctionErrorMsg

/ISAPI/System/mutexFunctionErrorMsg		General Resource v2.0
GET		
Description	It is used to get the mutexFunction	
Query	None	
Inbound Data	None	
Success Return	MutexFunctionErrorMsg	
Notes: describe: SMD: 越界侦测、区域入侵 lineDetection: 越界侦测 fieldDetection: 区域入侵 sceneChangeDetection: 场景变更侦测 vehicleDetection: 车辆检测 counting: 客流量 heatMap: 热度图		

MutexFunctionErrorMsg XML Block

```

<MutexFunctionErrorMsg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <!-- req -->
    <MutexFunctionList/>
</MutexFunctionErrorMsg>

<MutexFunctionList size="">
    <MutexFunction>
        <id>
            <!--req,xs:integer,"list 中序号"-->
        </id>
        <describe>
            <!--req,xs:string,"已经启用，同时和当前配置功能互斥的功能描述"， "
            SMD,vehicleDetection,counting,heatMap,fieldDetection,lineDetection,sceneChangeDetection"-->
        </describe>
    </MutexFunction>
</MutexFunctionList>

```



```

</describe>
<channelNo><!--req,xs:string,"1,2,3,4"--></channelNo>
</MutexFunction>
</MutexFunctionList>

```

8.2 /ISAPI/System/Network

/ISAPI/System/Network	Service v2.0
Notes: Network configuration.	

8.2.1 /ISAPI/System/Network/capabilities

/ISAPI/System/Network/capabilities		General Resource v2.0
GET		
Description	It is used to get network capability.	
Query	None	
Inbound Data	None	
Success Return	<NetworkCap>	
Notes:		
verificationCode: verification code, only 'admin' account has right to see the verification code.		

NetworkCap XML Block

```

<NetworkCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isSupportWireless> <!-- req, xs:boolean --> <isSupportWireless>
  <isSupportPPPoE> <!-- req, xs:boolean --> <isSupportPPPoE>
  <isSupportBond> <!-- req, xs:boolean --> <isSupportBond>
  <isSupport802_1x> <!-- req, xs:boolean --> </isSupport802_1x>
  <isSupportNtp> <!-- opt, xs:boolean --> </isSupportNtp>
  <isSupportFtp> <!-- opt, xs:boolen --> </isSupportFtp>
  <isSupportUpnp> <!-- opt, xs:boolean --> </isSupportUpnp>
  <isSupportPNP> <!-- opt, xs:boolean --> </isSupportPNP>
  <isSupportDdns> <!-- opt, xs:boolean --> </isSupportDdns>
  <isSupportHttps> <!-- opt, xs:boolean --> </isSupportHttps>
  <SnmpCap><!-- opt -->

```

```

    <isSupport> <!-- req, xs:boolean --> </isSupport>
</SnmpCap>
<isSupportExtNetCfg> <!-- opt, xs:boolean --> </isSupportExtNetCfg>
<isSupportIPFilter> <!-- opt, xs:boolean --> </isSupportIPFilter>
<isSupportEZVIZ> <!-- opt, xs:boolean --> </isSupportEZVIZ>
<isSupportEhome> <!-- opt, xs:boolean --> </isSupportEhome>
<isSupportWirelessServer> <!-- opt, xs:boolean --> </isSupportWirelessServer>
<isSupportWirelessDial><!--opt, xs:boolean --> </isSupportWirelessDial>
<GB28181Cap> <!--opt -->
    <isSupportGB28181Service> <!-- opt, xs:boolean --> </isSupportGB28181Service>
</GB28181Cap>
<WPS><!--opt -->
    <NetworkInterfaceList size="2">
        <NetworkInterface>
            <id> <!-- req, xs:string, --> </id>
            <enabled> <!-- req, xs:boolean--> </enabled>
            <isSupportAutoConnect><!-- opt, xs:boolean --></isSupportAutoConnect>
            <isSupportDevicePinCode><!-- opt, xs:boolean --></isSupportDevicePinCode>
            <isSupportDevicePinCodeUpdate><!-- opt, xs:boolean
--></isSupportDevicePinCodeUpdate>
            <ApPinCode><!--opt -->
                <ssid min="" max=""><!-- opt, xs:string --> </ssid>
                <pinCode min="" max=""><!-- opt, xs:string --> </pinCode>
            </ApPinCode>
        </NetworkInterface>
    </NetworkInterfaceList>
</WPS>
<isSupportMACFilter><!--opt, xs:boolean --> </isSupportMACFilter>
<verificationCode max=""><!--opt, xs:string --></verificationCode>
<WPSCap> <!--opt -->
    <isSupport> <!--req, xs:52oolean --></isSupport>
    <isSupportAutoConnect> <!--req, xs:52oolean --></isSupportAutoConnect>
</WPSCap>
</NetworkCap>

```

8.2.2 /ISAPI/System/Network/interfaces

/ISAPI/System/Network/interfaces		General Resource v2.0
GET		
Description	It is used to get the device network interfaces.	
Query	None	
Inbound Data	None	
Success Return	NetworkInterfaceList	
Notes:		
As hardwired system resources, network interfaces cannot be created or destroyed.		

NetworkInterfaceList XML Block

```
<NetworkInterfaceList version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <NetworkInterface/> <!-- opt -->
</NetworkInterfaceList>
```

8.2.3 /ISAPI/System/Network/interfaces/<ID>/capabilities

/ISAPI/System/Network/interfaces/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get interfaces capabilities.	
Query	None	
Inbound Data	None	
Success Return	NetworkInterface	
Notes:		

NetworkInterface XML Block

```
<NetworkInterface version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string --> </id>
  <IPAddress/> <!-- req -->
  <Wireless/><!-- opt -->
  <Discovery/> <!-- opt -->
  <Link /> <!-- opt -->
  <defaultConnection> <!-- opt, xs:boolean--> </defaultConnection>
  <macAddress min="" max=""> <!--opt, xs:string; --> </macAddress>
</NetworkInterface>
```

8.2.4 /ISAPI/System/Network/interfaces/<ID>

/ISAPI/System/Network/interfaces/ID		General Resource v2.0	
GET			
Description	It is used to get a particular network interface.		
Query	None		
Inbound Data	None		
Success Return	NetworkInterface		
PUT			
Description	It is used to update a particular network interface.		
Query	None		
Inbound Data	NetworkInterface		
Success Return	ResponseStatus		
Error Status Code	statusCode	subStatusCode	Description
	6	badIPv6Address	error IPv6 address
	6	conflictIPv6Address	conflictIPv6Address
	6	badNetMask	error subnet mask
	6	conflictIPv4Address	conflictIPv4Address
	6	badIPv4Address	error IPv4 address
Notes:			
defaultConnection: default network connection, required when device has more than one interface.			

NetworkInterface XML Block

```
<NetworkInterface version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>      <!-- req, xs:string -->    </id>
  <IPAddress/> <!-- req -->
  <Wireless/><!-- opt -->
  <Discovery/> <!-- opt -->
  <Link /> <!-- opt -->
  <defaultConnection> <!-- opt, xs:boolean--> </defaultConnection>
  <ActiveMulticast/><!--opt-->
  <macAddress> <!--opt, xs:string; --> </macAddress>
</NetworkInterface>
```

ActiveMulticast XML Block

```
<ActiveMulticast>
  <enabled><!--req,xs:boolean--></enabled>
```

```

<streamID opt="main"><!--req,xs:string--></streamID>
<ipV4Address><!--opt,xs:string--></ipV4Address>
<ipV6Address><!--opt,xs:string--></ipV6Address>
<port min="" max=""><!--opt,xs:interge--></port>
</ActiveMulticast>

```

8.2.5 /ISAPI/System/Network/interfaces/<ID>/ipAddress

/ISAPI/System/Network/interfaces/ID/ipAddress		General Resource v2.0	
GET			
Description	It is used to get the ip address of a particular network interface.		
Query	None		
Inbound Data	None		
Success Return	IPAddress		
PUT			
Description	It is used to update the ip address of a particular network interface.		
Query	None		
Inbound Data	IPAddress		
Success Return	ResponseStatus		
Error Status Code	statusCode	subStatusCode	Description
	6	badIPv6Address	error IPv6 address
	6	conflictIPv6Address	conflictIPv6Address
	6	badNetMask	error subnet mask
	6	conflictIPv4Address	conflictIPv4Address
6	badIPv4Address	error IPv4 address	
Notes:			
If <addressingType> is dynamic, fields below it need not be provided.			
If <addressingType> is dynamic, a DHCP client is used for the device.			
If <addressingType> is static the device IP address is configured manually and the gateway and DNS fields are optional.			
If <addressingType> refers to APIPA, the device IP address is automatically configured without DHCP. In this case the gateway and DNS fields are optional.			
Use of <ipAddress> or <ipv6Address> in fields is dictated by the <ipVersion> field. If <ipVersion> is "v4" the <ipAddress> fields are used; if <ipVersion> is "v6" the <ipv6Address> fields are used. If <ipVersion> is "dual", both <ipAddress> and <ipv6Address> fields may be used.			
<subnetMask> notation is "ISAPI.ISAPI.ISAPI.ISAPI".			
<IPV6Address> is "ISAPIx:ISAPIx:ISAPIx:ISAPIx:ISAPIx:ISAPIx:ISAPIx:ISAPIx" using CIDR notation.			

IPAddress XML Block

```

<IPAddress version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ipVersion> <!-- req, xs:string, "v4,v6,dual" --></ipVersion>
  <addressingType> <!-- req, xs:string, "static,dynamic,apipa" --> </addressingType>
  <ipAddress><!-- dep, xs:string --> </ipAddress>
  <subnetMask> <!-- dep, xs:string, subnet mask for IPv4 address --> </subnetMask>
  <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  <bitMask> <!-- dep, xs:integer, bitmask IPv6 address --> </bitMask>
  <DefaultGateway> <!-- dep -->
    <ipAddress> <!-- dep, xs:string --> </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  </DefaultGateway>
  <PrimaryDNS> <!-- dep -->
    <ipAddress> <!-- dep, xs:string --> </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  </PrimaryDNS>
  <SecondaryDNS><!-- dep -->
    <ipAddress> <!-- dep, xs:string --> </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  </SecondaryDNS>
  <Ipv6Mode> <!-- opt -->
    <ipV6AddressingType>
      <-- dep, xs:string,"ra,manual,dhcp">
    </ipV6AddressingType>
    <ipv6AddressList>
      <v6Address>
        <id> <!-- dep, xs:string;id --> </id>
        <type> <-- dep, xs:string,"ra,manual,dhcp" </type>
        <address> <!-- dep, xs:string --> </address>
        <bitMask><!-- dep, xs:integer --> </bitMask>
      </v6Address>
    </ipv6AddressList>
  </Ipv6Mode>
</IPAddress>

```

8.2.6 /ISAPI/System/Network/interfaces/<ID>/wireless/capabilities

/ISAPI/System/Network/interfaces/ID/wireless/capabilities		General Resource	v2.0
GET			
Description	It is used to get the wireless settings of a particular network interface.		

Query	None
Inbound Data	None
Success Return	Wireless
PUT	
Description	It is used to update the wireless settings of a particular network interface.
Query	None
Inbound Data	Wireless
Success Return	ResponseStatus
Notes:	

Wireless XML Block

```

<Wireless version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
  <wirelessNetworkMode opt="infrastructure,adhoc"><!-- opt, xs:string
--></wirelessNetworkMode>
  <channel opt="1,2,3,4,5,6,7,8,9,10,11,12,13,14,auto"> <!-- opt, xs:string-->
</channel>
  <ssid min="" max=""> <!-- opt, xs:string --> </ssid>
  <wmmEnabled> <!-- opt, xs:boolean --> </wmmEnabled>
  <WirelessSecurity> <!-- opt -->
  <securityMode opt=" disable,WEP,WPA-personal,WPA2-personal,WPA-RADIUS,
WPA-enterprise,WPA2-enterprise"><!-- opt, xs:string,--></securityMode>
  <WEP>
    <!-- dep, depends on <securityMode> -->
    <authenticationType opt = "open,sharedkey,auto"><!-- req,
xs:string--></authenticationType>
    <defaultTransmitKeyIndex min="" max=""><!-- req, xs:integer -->
</defaultTransmitKeyIndex>
    <wepKeyLength opt=" 64,128"><!-- opt, xs:integer --> </wepKeyLength>
    <EncryptionKeyList>
      <encryptionKey>
        <!-- req, xs:hexBinary, WEP encryption key in hexadecimal format -->
      </encryptionKey>
    </EncryptionKeyList>
  </WEP>
  <WPA>
    <!-- dep, depends on <securityMode> -->
    <algorithmType opt="TKIP,AES,TKIP/AES"> <!-- req, xs:string,--> </algorithmType>
    <sharedKey> <!-- req, xs:string, pre-shared key used in WPA --> </sharedKey>
    <wpaKeyLength min="8" max="64"> <!-- req, xs: integer"--> </wpaKeyLength>
  </WPA>
  <support64bitKey opt="WPA-personal, WPA2-personal"/><!--opt,
xs:string,--></support64bitKey>

```

```
</WirelessSecurity>
</Wireless>
```

8.2.7 /ISAPI/System/Network/interfaces/<ID>/wireless

/ISAPI/System/Network/interfaces/ID/wireless		General Resource v2.0
GET		
Description	It is used to get the wireless settings of a particular network interface.	
Query	None	
Inbound Data	None	
Success Return	Wireless	
PUT		
Description	It is used to update the wireless settings of a particular network interface.	
Query	None	
Inbound Data	Wireless	
Success Return	ResponseStatus	
Notes:		

Wireless XML Block

```
<Wireless version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
  <wirelessNetworkMode>
    <!-- opt, xs:string, "infrastructure,adhoc" -->
  </wirelessNetworkMode>
  <channel> <!-- opt, xs:string, "1-14,auto" --> </channel>
  <ssid> <!-- opt, xs:string --> </ssid>
  <wmmEnabled> <!-- opt, xs:boolean --> </wmmEnabled>
  <WirelessSecurity> <!-- opt -->
    <securityMode>
      <!-- opt, xs:string,
        "disable,WEP,WPA-personal,WPA2-personal,WPA-RADIUS,
        WPA-enterprise,WPA2-enterprise" -->
    </securityMode>
    <WEP>
      <!-- dep, depends on <securityMode> -->
      <authenticationType>
        <!-- req, xs:string, "open,sharedkey,auto" -->
      </authenticationType>
      <defaultTransmitKeyIndex>
        <!-- req, xs:integer -->
```



```

</defaultTransmitKeyIndex>
<wepKeyLength> <!-- opt, xs:integer "64,128" --> </wepKeyLength>
<EncryptionKeyList>
  <encryptionKey>
    <!-- req, xs:hexBinary, WEP encryption key in hexadecimal format -->
  </encryptionKey>
</EncryptionKeyList>
</WEP>
<WPA>
  <!-- dep, depends on <securityMode> -->
  <algorithmType> <!-- req, xs:string, "TKIP,AES,TKIP/AES"--> </algorithmType>
  <sharedKey> <!-- req, xs:string, pre-shared key used in WPA --> </sharedKey>
  <wpaKeyLength> <!-- req, xs: integer, "8-63"--> </wpaKeyLength>
</WPA>
</WirelessSecurity>
</Wireless>

```

8.2.8 /ISAPI/System/Network/interfaces/<ID>/wireless/ accessPointList

/ISAPI/System/Network/interfaces/ID/wireless/accessPointList		General Resource v2.0
GET		
Description	It is used to get the valid access points on the wireless interface.	
Query	None	
Inbound Data	None	
Success Return	accessPointList	
Notes:		

accessPointList XML Block

```

<accessPointList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <accessPoint/>
</accessPointList>

```

8.2.9 /ISAPI/System/Network/interfaces/<ID>/wireless/ accessPointList/<ID>

/ISAPI/System/Network/interfaces/ID/wireless/accessPointList/ID		General Resource v2.0
GET		
Description	It is used to get a particular access point.	
Query	None	
Inbound Data	None	
Success Return	accessPoint	
Notes:		

accessPoint XML Block

```
<accessPoint version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:integer--> </id>
  <networkMode>
    <!-- opt, xs:string, "infrastructure,adhoc" -->
  </networkMode>
  <channel> <!-- opt, xs:string, "1-14,auto" --> </channel>
  <ssid> <!-- req, xs:string --> </ssid>
  <speed> <!-- opt, xs:Integer, in Mbps--></speed>
  <signalStrength><!-- opt, xs:Integer,"0-100">< /signalStrength>
  <securityMode>
    <!-- req, xs:string, "disable,WEP,WPA-personal,WPA2-personal,WPA-RADIUS,
      WPA-enterprise,WPA2-enterprise" -->
  </securityMode>
  <connected><!--opt,xs:boolean, --></connected>
</accessPoint>
```

8.2.10 /ISAPI/System/Network/interfaces/<ID>/wireless Server/accessDeviceList

/ISAPI/System/Network/interfaces/ID/wirelessServer/accessDeviceList		General Resource v2.0
GET		
Description	Get access device list	
Query	none	
Inbound Data	none	

Success Return	accessDeviceList
注:	

accessDeviceList XML Block

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

8.2.11 /ISAPI/System/Network/interfaces/<ID>/wireless Server/accessDeviceList/<ID>

/ISAPI/System/Network/interfaces/ID/wireless/accessDeviceList/ID	General Resource v2.0
GET	
Description	Get access device list by ID
Query	none
Inbound Data	none
Success Return	accessDevice
注:	

accessDevice XML Block

```
<accessDevice version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:integer--> </id>
  <MACAddress> <!--opt, xs:string--> </MACAddress>
  <ipV4Address> <!-- dep, xs:string --> </ipV4Address>
  <accessTime> <!-- req, xs:time, ISO8601 data --> </accessTime>
</accessDevice>
```

8.2.12 /ISAPI/System/Network/interfaces/<ID>/wireless Server/accessDeviceList/capabilities

/ISAPI/System/Network/interfaces/<ID>/wireless/accessDeviceList/capabilities	General Resource v2.0
GET	
Description	It is used to get accessDeviceList configuration capability.
Query	None
Inbound Data	None
Success Return	accessDeviceList
Notes:	

accessDeviceList XML Block

```
<accessDeviceList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <accessDevice size="4">
    <id> <!-- req, xs:integer--> </id>
    <MACAddress> <!--opt, xs:string--> </MACAddress>
    <ipV4Address> <!-- opt, xs:string --> </ipV4Address>
    <accessTime> <!-- req, xs:time, ISO8601 data --> </accessTime>
  </accessDevice>
</accessDeviceList>
```

8.2.13 /ISAPI/System/Network/interfaces/<ID>/discovery

/ISAPI/System/Network/interfaces/ID/discovery		General Resource v2.0
GET		
Description	It is used to get the discovery settings of a particular network interface.	
Query	None	
Inbound Data	None	
Success Return	Discovery	
PUT		
Description	It is used to update the discovery settings of a particular network interface.	
Query	None	
Inbound Data	Discovery	
Success Return	ResponseStatus	
Notes:		

Discovery XML Block

```
<Discovery version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <UPnP> <!-- req -->
    <enabled> <!-- req, xs:boolean --> </enabled>
  </UPnP>
  <Zeroconf> <!-- opt -->
    <enabled> <!-- req, xs:boolean --> </enabled>
  </Zeroconf>
</Discovery>
```

8.2.14 /ISAPI/System/Network/interfaces/<ID>/Link

/ISAPI/System/Network/interfaces/ID/link		General Resource v2.0
GET		
Description	It is used to get the link layer settings of a particular network interface.	
Query	None	
Inbound Data	None	
Success Return	Link	
PUT		
Description	It is used to update the link layer settings of a particular network interface.	
Query	None	
Inbound Data	Link	
Success Return	ResponseStatus	
Notes:		

Link XML Block

```
<Link xmlns="http://www.isapi.org/ver20/XMLSchema">
  <MACAddress> <!-- req, xs:string --> </MACAddress>
  <autoNegotiation> <!-- req, xs:boolean --> </autoNegotiation>
  <speed> <!-- req, xs:integer, "10, 100, 1000" --><speed>
  <duplex> <!-- req, xs:string, "half, full" --> </duplex>
  <MTU> <!-- req, xs:integer --> </MTU>
</Link>
```

8.2.15 /ISAPI/System/Network/ANRArmingHost

/ISAPI/System/Network/ANRArmingHost		General Resource v2.0
GET		
Description	Get the ANR arming host info	
Query	None	
Inbound Data	None	
Success Return	ANRArmingHostList	
Notes:		
confirmMechanismEnabled: 是否开启确认机制方式连接功能, false-没有开启 true-开启		

ANRArmingHost XML Block

```
<ANRArmingHostList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ANRArmingHost>
    <ipAddress><!-- opt, xs:string --></ipAddress>
    <ipv6Address><!-- opt, xs:string --></ipv6Address>
    <portNo><!-- sopt, xs:integer --></portNo>
```

```

    <ANRAAlarmType><!-- opt, xs: string: "SDK, Ehome" ---></ANRAAlarmType>
    <confirmMechanismEnabled><!--opt;xs:string,opt="false,true"--></confirmMechanismE
nabled>
    </ANRArmingHost>
</ANRArmingHostList>

```

8.2.16 Examples

Example: Getting the Network Settings

```

GET /ISAPI/System/Network/interfaces HTTP/1.1
...
HTTP/1.1 200 OK
Content-Type: application/xml; charset="UTF-8"
Content-Length: xxx

<?xml version="1.0" encoding="UTF-8"?>
<NetworkInterfaceList version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  <NetworkInterface>
    <id>1</id>
    <IPAddress>
      <ipVersion>v4</ipVersion>
      <addressingType>static</addressingType>
      <ipAddress>172.6.64.7</ipAddress>
      <subnetMask>255.255.255.0</subnetMask>
      <DefaultGateway>
        <ipAddress>172.6.64.1</ipAddress>
      </DefaultGateway>
      <PrimaryDNS>
        <ipAddress>192.0.0.200</ipAddress>
      </PrimaryDNS>
    </IPAddress>
    <Discovery>
      <UPnP>
        <enabled>true</enabled>
      </UPnP>
      <Zeroconf>
        <enabled>true</enabled>
      </Zeroconf>
    </Discovery>
    <Link>
      <MACAddress> 00:40:48:4C:7F:F2</MACAddress>
    </Link>
  </NetworkInterface>
</NetworkInterfaceList>

```

```
<autoNegotiation>true</autoNegotiation>
<speed>1000</speed>
<duplex>full</duplex>
<MTU>1500</MTU>
</Link>
<NetworkInterface>
</NetworkInterfaceList>
```

Example: Setting the IP Address

```
PUT /ISAPI/System/Network/interfaces/1/ipAddress HTTP/1.1
...
Content-Type: application/xml; charset="UTF-8"
Content-Length: xxx

<?xml version="1.0" encoding="UTF-8"?>
<IPAddress version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ipVersion>v4</ipVersion>
  <addressingType>static</addressingType>
  <ipAddress>172.6.64.16</ipAddress>
  <subnetMask>255.255.255.0</subnetMask>
  <DefaultGateway>
    <ipAddress>172.6.64.1</ipAddress>
  </DefaultGateway>
  <PrimaryDNS>
    <ipAddress>192.0.0.200</ipAddress>
  </PrimaryDNS>
</IPAddress>

HTTP/1.1 200 OK
...
Content-Type: application/xml; charset="UTF-8"
Content-Length:xxx

<?xml version="1.0" encoding="UTF-8"?>
<ResponseStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <requestURL>/Network/interfaces/1/ipAddress</requestURL>
  <statusCode>1</statusCode>
  <statusString>OK</statusString>
</ResponseStatus>
```

8.2.17 /ISAPI/System/Network/interfaces/<ID>/WPS

/ISAPI/System/Network/interfaces/ID/WPS		General Resource	v2.0
GET			
Description	It is used to access WPS configuration		
Query	None		
Inbound Data	None		
Success Return	WPS		
PUT			
Description	It is used to access WPS configuration		
Query	None		
Inbound Data	WPS		
Success Return	ResponseStatus		
Notes:			

WPSXML Block

```
<WPS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enable> <!-- req, xs:boolean--> </enable>
</WPS>
```

8.2.18 /ISAPI/System/Network/interfaces/ID/WPS/Auto

Connect

/ISAPI/System/Network/interfaces/ID/WPS/AutoConnect		General Resource	v2.0
PUT			
Description	It is used to WPS auto connection mode		
Query	None		
Inbound Data	WPS		
Success Return	ResponseStatus		
Notes:			

8.2.19 /ISAPI/System/Network/interfaces/ID/WPS/devicePinCode

/ISAPI/System/Network/interfaces/ID/WPS/devicePinCode		General Resource	v2.0
e			
GET			
Description	It is used to get WPS device PIN code		
Query	None		
Inbound Data	None		
Success Return	PIN code string		
Notes:			

8.2.20 /ISAPI/System/Network/interfaces/ID/WPS/devicePinCodeUpdate

/ISAPI/System/Network/interfaces/ID/WPS/devicePinCodeUpdate		General Resource	v2.0
eUpdate			
GET			
Description	It is used to generate a new device PIN code		
Query	None		
Inbound Data	None		
Success Return	PIN code string		
Notes:			

8.2.21 /ISAPI/System/Network/interfaces/ID/WPS/ApiPinCode

/ISAPI/System/Network/interfaces/ID/WPS/ApiPinCode		General Resource	v2.0
e			
GET			
Description	It is used to access WPS configuration		
Query	None		
Inbound Data	None		
Success Return	WpsApiPincode		
PUT			

Description	It is used to access WPS configuration
Query	None
Inbound Data	WpsApPincode
Success Return	ResponseStatus
Notes:	

WpsApPincodeXML Block

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

8.2.22 /ISAPI/System/Network/interfaces/ID/ieee802.1

X

/ISAPI/System/Network/interfaces/ID/ieee802.1x		General Resource v2.0
GET		
Description	It is used to access IEEE 802.1x settings	
Query	None	
Inbound Data	None	
Success Return	IEEE802_1x	
PUT		
Description	It is used to configure IEEE 802.1x settings	
Query	None	
Inbound Data	IEEE802_1x	
Success Return	ResponseStatus	
Notes:		
<p>If the <authenticationProtocolType> tag corresponds to "EAP-TTLS", then the <innerTTLSAuthenticationMethod> tag must be provided.</p> <p>If the <authenticationProtocolType> corresponds to "EAP-PEAP" or "EAP-FAST", then the <innerEAPProtocolType> tag must be provided.</p> <p>The <anonymousID> tag is optional. If the <authenticationProtocolType> corresponds to "EAP-FAST", then the <autoPACProvisioningEnabled> tag must be provided.</p> <p><anonymousID> is the optional anonymous ID to be used in place of the <userName>.</p>		

IEEE802_1x XML Block

```
<IEEE802_1x version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
```

```

<authenticationProtocolType>
  <!-- req, xs:string, "EAP-TLS,EAP-TTLS,EAP-PEAP,EAP-LEAP,EAP-FAST,EAP-MD5" -->
</authenticationProtocolType>
<innerTTLSAuthenticationMethod>
  <!-- dep, xs:string, "MS-CHAP,MS-CHAPv2,PAP,EAP-MD5" -->
</innerTTLSAuthenticationMethod>
<innerEAPProtocolType>
  <!-- dep, xs:string, "EAP-POTP,MS-CHAPv2" -->
</innerEAPProtocolType>
<validateServerEnabled> <!-- dep, xs:boolean --> </validateServerEnabled>
<userName> <!-- dep, xs:string --> </userName>
<password><!-- dep, xs:string --> </password>
<anonymousID> <!-- opt, xs:string --> </anonymousID>
<autoPACProvisioningEnabled> <!-- dep, xs:boolean --> </autoPACProvisioningEnabled>
<Extensions> <!-- opt -->
  <EAPOLVersion xmlns="http://www.isapi.org/ver20/XMLSchema">
    <!--opt, xs:string, "1, 2"-->
  </EAPOLVersion>
</Extensions>
</IEEE802_1x>

```

8.2.23 /ISAPI/System/Network/PPPoE

/ISAPI/System/Network/PPPoE		General Resource v2.0
GET		
Description	It is used to get the configurations of pppoe.	
Query	None	
Inbound Data	None	
Success Return	PPPoEList	
PUT		
Description	It is used to set the configurations of pppoe.	
Query	None	
Inbound Data	PPPoEList	
Success Return	ResponseStatus	
Notes:		

PPPoEList XML Block

```

<PPPoEList xmlns="http://www.isapi.org/ver20/XMLSchema">
  <PPPoE/> <!--req-->
</PPPoEList>

```

8.2.24 /ISAPI/System/Network/PPPoE/status

/ISAPI/System/Network/PPPoE/status		General Resource v2.0
GET		
Description	It is used to get the status of pppoe.	
Query	None	
Inbound Data	None	
Success Return	PPPoEStatusList	
Notes:		

PPPoEStatusList XML Block

```
<PPPoEStatusList xmlns="http://www.isapi.org/ver20/XMLSchema">
  <PPPoEStatus/> <!--req-->
</PPPoEStatusList>
```

8.2.25 /ISAPI/System/Network/PPPoE/<ID>

/ISAPI/System/Network/PPPoE/ID		General Resource v2.0
GET		
Description	It is used to get the configuration of a particular pppoe.	
Query	None	
Inbound Data	None	
Success Return	PPPoE	
PUT		
Description	It is used to set the configurations of a particular pppoe.	
Query	None	
Inbound Data	PPPoE	
Success Return	ResponseStatus	
Notes:		
<p><ethernetIfId> links the PPPoE to a network interface that the PPPoE dial up used, see /ISAPI/System/Network/interfaces/<ID>.</p>		

PPPoE XML Block

```
<PPPoE xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string --> </id>
  <enabled> <!-- req, xs:boolean --> </enabled>
  <ethernetIfId> <!-- opt, xs:string; id --> </ethernetIfId>
  <userName> <!-- req, xs:string --> </userName>
  <password> <!-- wo, req, xs:string --> </password>
```

</PPPoE>

8.2.26 /ISAPI/System/Network/PPPoE/<ID>/status

/ISAPI/System/Network/PPPoE/ID/status		General Resource	v2.0
GET			
Description	It is used to get the status of a particular pppoe.		
Query	None		
Inbound Data	None		
Success Return	PPPoEStatus		
Notes:			

PPPoEStatus XML Block

```
<PPPoEStatus xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string --> </id>
  <enabled> <!-- req, xs:boolean --> </enabled>
  <ethernetIfId> <!-- opt, xs:string; id --> </ethernetIfId>
  <ipAddress> <!-- dep, xs:string --> </ipAddress>
  <subnetMask> <!-- dep, xs:string, subnet mask for IPv4 address --> </subnetMask>
  <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  <bitMask> <!-- dep, xs:integer, bitmask IPv6 address --> </bitMask>
  <DefaultGateway> <!-- dep -->
    <ipAddress> <!-- dep, xs:string --> </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  </DefaultGateway>
  <PrimaryDNS> <!-- dep -->
    <ipAddress> <!-- dep, xs:string --> </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  </PrimaryDNS>
  <SecondaryDNS> <!-- dep -->
    <ipAddress> <!-- dep, xs:string --> </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  </SecondaryDNS>
</PPPoEStatus>
```

8.2.27 /ISAPI/System/Network/Bond

URI	/ISAPI/System/Network/Bond	Type	Service
-----	----------------------------	------	---------

Function	Get or set the configuration information of Bond net interfaces.		
Methods	Query String(s)	Inbound Data	Return Result
GET			<BondList>
Notes	Bond NIC configuration		

BondList XML Block

```
<BondList version="2.0" xmlns="urn:selfextension:ISAPIext-ver10-xsd">
  <Bond>
</BondList>
```

8.2.28 /ISAPI/System/Network/Bond/<ID>

URI	/ISAPI/System/Network/Bond/ID		Type	Resource
Function	Get or set the configuration information of Bond net interface			
Methods	Query String(s)	Inbound Data	Return Result	
GET			<Bond>	
PUT		<Bond>	<ResponseStatus>	
Notes				

Bond XML Block

```
<Bond version="2.0" xmlns="urn:selfextension:ISAPIext-ver10-xsd">
  <id>      <!-- req, xs:string -->  </id>
  <enabled> <!-- req, xs:boolean --> </enabled>
  <workMode> <!-- req, xs:string;"balance-rr, active-backup" --> </workMode>
  <primaryIf> <!-- req, xs:string;id --></primaryIf>
  <slaveIfList> <!-- req -->
    <ethernetIfId>  <!-- req, xs:string; id -->    </ethernetIfId>
  </slaveIfList>
  <IPAddress>
    <ipVersion>      <!-- req, xs:string, "v4,v6,dual" --></ipVersion>
    <addressingType> <!-- req, xs:string, "static,dynamic,apipa" --> </addressingType>
    <ipAddress>      <!-- dep, xs:string -->          </ipAddress>
    <subnetMask>    <!-- dep, xs:string, subnet mask for IPv4 address -->    </subnetMask>
    <ipv6Address>    <!-- dep, xs:string -->          </ipv6Address>
    <bitMask>        <!-- dep, xs:integer, bitmask IPv6 address -->  </bitMask>
    <DefaultGateway> <!-- dep -->
      <ipAddress>    <!-- dep, xs:string -->          </ipAddress>
```

```

    <ipv6Address>      <!-- dep, xs:string -->          </ipv6Address>
  </DefaultGateway>
  <PrimaryDNS>       <!-- dep -->
    <ipAddress>      <!-- dep, xs:string -->          </ipAddress>
    <ipv6Address>    <!-- dep, xs:string -->          </ipv6Address>
  </PrimaryDNS>
  <SecondaryDNS>     <!-- dep -->
    <ipAddress>      <!-- dep, xs:string -->          </ipAddress>
    <ipv6Address>    <!-- dep, xs:string -->          </ipv6Address>
  </SecondaryDNS>
</IPAddress>
<Link xmlns="urn:selfextension:ISAPIext-ver10-xsd" >      <!-- opt -->
  <MACAddress> <!-- req, xs:string> </MACAddress>
  <autoNegotiation> <!-- req, xs:boolean> </autoNegotiation>
  <speed> <!-- req, xs:integer, "10, 100, 1000" --><speed>
  <duplex> <!-- req, xs:string, "half, full"> </duplex>
  <MTU> <!-- req, xs:integer --> </MTU>
</Link>
</Bond>

```

8.2.29 /ISAPI/System/Network/extension

URI	/ISAPI/System/Network/extension		Type	Resource
Function	Get or set the configuration information of network extension			
Methods	Query String(s)	Inbound Data	Return Result	
GET			<networkExtension>	
PUT		<networkExtension>	<ResponseStatus>	
Notes				

networkExtension XML Block

```

<networkExtension version="2.0" xmlns="urn:selfextension:ISAPIext-ver10-xsd">
  <multicastAddress> <!-- opt -->
    <ipVersion>      <!-- req, xs:string, "v4,v6,dual" --></ipVersion>
    <ipAddress>      <!-- dep, xs:string --> </ipAddress>
    <ipv6Address><!-- dep, xs:string --> </ipv6Address>
  </multicastAddress>

```

```
<enVirtualHost> <!--opt, xs:Boolean --> <enVirtualHost>
</networkExtension>
```

8.2.30 /ISAPI/System/Network/DDNS

/ISAPI/System/Network/DDNS		General Resource v2.0
GET		
Description	It is used to get the configurations of DDNS.	
Query	None	
Inbound Data	None	
Success Return	DDNSList	
PUT		
Description	It is used to set the configurations of pppoe.	
Query	None	
Inbound Data	DDNSList	
Success Return	ResponseStatus	
Notes:		

DDNSList XML Block

```
<DDNSList xmlns="http://www.isapi.org/ver20/XMLSchema">
  <DDNS/> <!--req-->
</DDNSList>
```

8.2.31 /ISAPI/System/Network/DDNS/<ID>

/ISAPI/System/Network/DDNS/ID		General Resource v2.0
GET		
Description	It is used to get the configuration of a particular DDNS.	
Query	None	
Inbound Data	None	
Success Return	DDNS	
PUT		
Description	It is used to set the configurations of a particular pppoe.	
Query	None	
Inbound Data	DDNS	
Success Return	ResponseStatus	
Notes:		

<serverAddress> DDNS server's address.

Depending on the value of <addressingFormatType>, either the <hostName> or the IP address fields will be used to locate the NTP server.

Use of IPv4 or IPv6 addresses depends on the value of the <ipVersion> field in /ISAPI/System/Network/interfaces/ID/ipAddress.

When <provider> is "IPServer", <serverIPAddress> is required.

When <provider> is "DysDNS", all fields are required except the <portNo>.

When <provider> is "PeanutHall", all fields are required except the <serverIPAddress> and <portNo>.

<deviceDomainName> the device's domain name.

<password> is a write-only field.

<countryID> see the Country List.

DDNS XML Block

```
<DDNS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string -->
  <enabled> <!-- req, xs:boolean --> </enabled>
  <provider>
    <!-- req, xs:string, "IPServer, DynDNS, PeanutHall, HiDDNS ..." -->
  </provider>
  <serverAddress>
    <addressingFormatType>
      <!-- req, xs:string, "ipaddress,hostname" -->
    </addressingFormatType>
    <hostName> <!-- dep, xs:string --> </hostName> // Chinese characters aren't valid
    <ipAddress> <!-- dep, xs:string --> </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  </serverAddress>
  <portNo> <!-- opt, xs:integer --> </portNo>
  <deviceDomainName> <!-- dep, xs:string --> </deviceDomainName>
  <userName> <!-- dep, xs:string --> </userName> // Chinese characters aren't valid
  <password> <!-- wo, dep, xs:string --> </password>
  <countryID> <!-- dep, xs:string --> </countryID>
  <status> <!-- ro, opt, xs:string, DDNS running status: failed to connect server(connServerfail),
failed to parse server message(solveServerMesFail), failed to connect heartbeat
server(connHeartSrvfail), failed to parse heartbeat server message(solveHeartSrvMesFail), failed
to connect domain server(connHostSrvfail), failed to parse domain server
message(solveHostSrvMesFail), DDNS status normal(updateSuccess), not enabled(disable),
register to domain server success(registHostSuccess), DNS server configuration
error(DNSSrvError), domain is conflict(DomainConflict), invalid domain name(invalidAlias),
authentication failed(authenticationFail), register server error(registServerError), failed to
register(registFail) , in connecting status(connecting)--> </status>
```

</DDNS>

8.2.32 /ISAPI/System/Network/DDNS/CountryID/capabilities

/ISAPI/System/Network/DDNS/CountryID/capabilities		General Resource v2.0
GET		
Description	It is used to get DDNS country id capability.	
Query	None	
Inbound Data	None	
Success Return	<DDNSCountry>	
Notes: the value of <id> and <name> is in Country List below.		

DDNS Country List XML Block

```
<DDNSCountry version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ContinentList>
    <Continent>
      <id><!--req, xs:integer--></id>
      <name><!-- req, xs:string --></name>
      <CountryList>
        <Country>
          <id><!--req, xs:integer--></id>
          <name><!-- req, xs:string --></name>
        </Country>
      </CountryList>
    </Continent>
  </ContinentList>
</DDNSCountry>
```

Country List:

Continent	Country	ID
Europe	Europe	100
	Andorra	101
	Austria	102
	Albania	103
	Ireland	104
	Estonia	105
	Iceland	106
	Belarus	107
	Bulgaria	108

	Poland	109
	Bosnia	110
	Belgium	111
	Germany	112
	Denmark	113
	Russia	114
	France	115
	Finland	116
	Holland	117
	Czech	118
	Croatia	119
	Latvia	120
	Lithuania	121
	Liechtenstein	122
	Romania	123
	Macedonia	124
	Malta	125
	Luxembourg	126
	Monaco	127
	Moldova	128
	Norway	129
	Serbia	130
	Portugal	131
	Sweden	132
	Switzerland	133
	Slovak	134
	Slovenia	135
	San marino	136
	Ukraine	137
	Spain	138
	Greece	139
	Hungary	140
	Italy	141
	United Kingdom	142
	Europe Other	143
Asia	Asia	200
	Afghanistan	201
	United Arab Emirates	202
	Oman	203
	Azerbaijan	204
	Pakistan	205
	Palestine	206

	Bahrain	207
	Bhutan	208
	North Korea	209
	Timor	210
	Philippines	211
	Georgia	212
	Kazakhstan	213
	Korea	214
	Kirgizstan	215
	Cambodia	216
	Qatar	217
	Kuwait	218
	Laos	219
	Lebanon	220
	Maldives	221
	Malaysia	222
	Mongolia	223
	Bangladesh	224
	Myanmar	225
	Nepal	226
	Japan	227
	Cyprus	228
	Saudi Arabia	229
	Srilanka	230
	Tajikistan	231
	Thailand	232
	Turkey	233
	Turkmenistan	234
	Brunei	235
	Uzbekistan	236
	Singapore	237
	Syria	238
	Armenia	239
	Yemen	240
	Iran	241
	Iraq	242
	Israel	243
	India	244
	Indonesia	245
	Jordan	246
	Vietnam	247
	China	248

	Asia Other	249
America	America	300
	Argentina	301
	Antigua and Barbuda	302
	Barbados	303
	Bolivia	304
	Brazil	305
	Dominica	306
	Ecuador	307
	Cuba	308
	Colombia	309
	Grenada	310
	Guyana	311
	Canada	312
	Peru	313
	United States	314
	Mexico	315
	Surinam	316
	Saint-Lucia	317
	Trinidad and Tobago	318
	Uruguay	319
	Venezuela	320
	Jamaica	321
	Chile	322
	Bahamas	323
	America Other	324
	Paraguay	325
	Haiti	326
	Netherlands Antilles	327
	El Salvador	328
	Panama	329
	Guatemala	330
	Nicaragua	331
	Honduras	332
	Costa Rica	333
Aruba	334	
Belize	335	
Cayman Islands	336	
Curaçao	337	
Dominican Republic	338	
Martinique	339	
Puerto Rico	340	

Africa	Africa	400
	Algeria	401
	Egypt	402
	Ethiopia	403
	Angola	404
	Benin	405
	Botswana	406
	Burkina Faso	407
	Burundi	408
	Equatorial Guinea	409
	Togo	410
	Eritrea	411
	Verde	412
	Gambia	413
	Congo	414
	Congo-Kinshasa	415
	Djibouti	416
	Guinea	417
	Guinea-Bissau	418
	Gabon	419
	Ghana	420
	Zimbabwe	421
	Cameroon	422
	Comoros	423
	Cote d'Ivoire	424
	Kenya	425
	Lesotho	426
	Liberia	427
	Libya	428
	Rwanda	429
	Madagascar	430
	Mali	431
	Mauritius	432
	Mauritania	433
	Morocco	434
	Mozambique	435
	Namibia	436
	South Africa	437
	Niger	438
	Nigeria	439
	Sierra Leone	440
Senegal	441	

	Seychelles	442
	Sao Tome and Principe	443
	Sudan	444
	Somali	445
	Tanzania	446
	Tunisia	447
	Uganda	448
	Zambia	449
	Chad	450
	Central African Republic	451
	Africa Other	452
Oceania	Oceania	500
	Australia	501
	Papua New Guinea	502
	Fiji	503
	Cook Islands	504
	Samoa	505
	Micronesia	506
	Nauru	507
	Tonga	508
	Vanuatu	509
	New Zealand	510
	Oceania Other	511

8.2.33 /ISAPI/System/Network/SNMP

/ISAPI/System/Network/SNMP		General Resource v2.0
GET		
Description	Get SNMP Settings.	
Query	None	
Inbound Data	None	
Success Return	SNMP	
PUT		
Description	Set SNMP Settings	
Query	None	
Inbound Data	SNMP	
Success Return	ResponseStatus	
Notes:		
At least one of the <SNMPv2c> block or <SNMPAdvanced> block must be provided.		
<snmpPort> snmp agent listen port		

SNMP XML Block

```
<SNMP version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SNMPv1c/>
  <!-- dep, choose one mode in <SNMPv1c> <SNMPv2c> <SNMPAdvanced> is required -->
  < SNMPv2c/>          <!-- dep -->
  <SNMPAdvanced/>    <!-- dep -->
  <listenPort> <!--opt, xs:integer ,snmp port--><listenPort>
</SNMP>
```

8.2.34 /ISAPI/System/Network/SNMP/v1c

/ISAPI/System/Network/SNMP/v1c		General Resource v2.0
GET		
Description	Get SNMP v1c parameters.	
Query	None	
Inbound Data	None	
Success Return	SNMPv1c	
PUT		
Description	Set SNMP v1c parameters	
Query	None	
Inbound Data	SNMPv1c	
Success Return	ResponseStatus	
Notes: SNMP v1c configuration includes SNMP notification parameters and a set of SNMP trap receivers. SNMP v1c comprises SNMP v1 without the controversial new SNMP v1 security model, using instead the simple community-based security scheme of SNMP v1		

SNMPv1c XML Block

```
<SNMPv1c version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <notificationEnabled>          <!-- req, xs:boolean --> </notificationEnabled>
  <SNMPTrapReceiverList/>      <!-- opt -->
  <enabled> <!--req, xs:boolean; is enabled snmpv2c--> </enabled>
  <writeCommunity> <!--req, xs:string --> </writeCommunity>
  <readCommunity> <!-- req, xs:string --> </readCommunity>
</SNMPv1c>
```


8.2.35 /ISAPI/System/Network/SNMP/v1c/trapReceiver

S

/ISAPI/System/Network/SNMP/v1c/trapReceivers		General Resource	v2.0
GET			
Description	Get SNMP trap receiver list.		
Query	None		
Inbound Data	None		
Success Return	SNMPTrapReceiverList		
PUT			
Description	Set SNMP trap receiver list		
Query	None		
Inbound Data	SNMPTrapReceiverList		
Success Return	ResponseStatus		
POST			
Description	create a new SNMP trap receiver		
Query	None		
Inbound Data	SNMPTrapReceiver		
Success Return	ResponseStatus		
DELETE			
Description	Delete SNMP trap receiver list		
Query	None		
Inbound Data	None		
Success Return	ResponseStatus		
Notes:			

8.2.36 /ISAPI/System/Network/SNMP/v1c/trapReceiver

/<ID>

/ISAPI/System/Network/SNMP/v2c/trapReceivers/<ID>		General Resource	v2.0
GET			
Description	Get SNMP trap receiver information.		
Query	None		
Inbound Data	None		
Success Return	SNMPTrapReceiver		
PUT			
Description	Set SNMP trap receiver information		

Query	None
Inbound Data	SNMPTrapReceiver
Success Return	ResponseStatus
DELETE	
Description	Delete SNMP trap receiver
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

8.2.37 /ISAPI/System/Network/SNMP/v2c

/ISAPI/System/Network/SNMP/v2c		General Resource v2.0
GET		
Description	Get SNMP v2c parameters.	
Query	None	
Inbound Data	None	
Success Return	SNMPv2c	
PUT		
Description	Set SNMP v2c parameters	
Query	None	
Inbound Data	SNMPv2c	
Success Return	ResponseStatus	
Notes:		
<p>SNMP v2c configuration includes SNMP notification parameters and a set of SNMP trap receivers. SNMP v2c comprises SNMP v2 without the controversial new SNMP v2 security model, using instead the simple community-based security scheme of SNMP v1</p>		

SNMPv2c XML Block

```
<SNMPv2c version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <notificationEnabled>    <!-- req, xs:boolean --> </notificationEnabled>
  <SNMPTrapReceiverList/>    <!-- opt -->
  <enabled> <!--req, xs:boolean; is enabled snmpv2c--> </enabled>
  <writeCommunity> <!--req, xs:string --> </writeCommunity>
  <readCommunity> <!-- req, xs:string --> </readCommunity>
</SNMPv2c>
```

8.2.38 /ISAPI/System/Network/SNMP/v2c/trapReceiver

S

/ISAPI/System/Network/SNMP/v2c/trapReceivers		General Resource	v2.0
GET			
Description	Get SNMP trap receiver list.		
Query	None		
Inbound Data	None		
Success Return	SNMPTrapReceiverList		
PUT			
Description	Set SNMP trap receiver list		
Query	None		
Inbound Data	SNMPTrapReceiverList		
Success Return	ResponseStatus		
POST			
Description	create a new SNMP trap receiver		
Query	None		
Inbound Data	SNMPTrapReceiver		
Success Return	ResponseStatus		
DELETE			
Description	Delete SNMP trap receiver list		
Query	None		
Inbound Data	None		
Success Return	ResponseStatus		
Notes:			

SNMPTrapReceiverList XML Block

```
<SNMPTrapReceiverList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SNMPTrapReceiver/>    <!-- opt -->
</SNMPTrapReceiverList>
```

8.2.39 /ISAPI/System/Network/SNMP/v2c/trapReceiver

s/<ID>

/ISAPI/System/Network/SNMP/v2c/trapReceivers/<ID>		General Resource	v2.0
GET			
Description	Get SNMP trap receiver information.		

Query	None
Inbound Data	None
Success Return	SNMPTrapReceiver
PUT	
Description	Set SNMP trap receiver information
Query	None
Inbound Data	SNMPTrapReceiver
Success Return	ResponseStatus
DELETE	
Description	Delete SNMP trap receiver
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

SNMPTrapReceiver XML Block

```

<SNMPTrapReceiver version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>                                <!-- req, xs:string:id -->                                </id>
  <ReceiverAddress/>                   <!-- req -->
  <notificationType/>                  <!-- req, xs:string, "trap,inform" -->
  <communityString>                    <!-- opt, xs:string -->                                </communityString>
</SNMPTrapReceiver>

```

8.2.40 /ISAPI/System/Network/SNMP/advanced

/ISAPI/System/Network/SNMP/advanced		General Resource v2.0
GET		
Description	Get SNMP Advanced parameters.	
Query	None	
Inbound Data	None	
Success Return	SNMPAdvanced	
PUT		
Description	Set SNMP Advanced parameters	
Query	None	
Inbound Data	SNMPAdvanced	
Success Return	ResponseStatus	
Notes:		
<p><localEngineID> is a hexadecimal string indicating the local device engine ID.</p> <p><authenticationNotificationEnabled> indicates if SNMP authentication failure notification is enabled</p>		

on the device.

<SNMPNotificationFilterList> is a list to filter traps based on OIDs

SNMPAdvanced XML Block

```
<SNMPAdvanced version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  <localEngineID> <!-- req, xs:hexBinary, see RFC2571 --> </localEngineID>
  <authenticationNotificationEnabled>
    <!-- opt, xs:boolean -->
  </authenticationNotificationEnabled>
  <SNMPUserList/><!-- opt -->
  <SNMPNotificationFilterList/> <!-- opt -->
  <notificationEnabled> <!-- opt, xs:boolean --> </notificationEnabled>
  <SNMPNotificationReceiverList/> <!-- opt -->
  <enabled> <!--req, xs:boolean --> </enabled>
</SNMPAdvanced>
```

8.2.41 /ISAPI/System/Network/SNMP/advanced/users

/ISAPI/System/Network/SNMP/advanced/users		General Resource v2.0
GET		
Description	Get SNMP advanced user list.	
Query	None	
Inbound Data	None	
Success Return	SNMPUserList	
PUT		
Description	Set SNMP advanced list	
Query	None	
Inbound Data	SNMPUserList	
Success Return	ResponseStatus	
POST		
Description	create a new SNMP advanced user	
Query	None	
Inbound Data	SNMPUser	
Success Return	ResponseStatus	
DELETE		
Description	Delete SNMP advanced user list	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes: Defines the set of SNMP users and their permissions.		

SNMPUserList XML Block

```
<SNMPUserList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SNMPUser/>  <!-- opt -->
</SNMPUserList>
```

8.2.42 /ISAPI/System/Network/SNMP/advanced/users/

<ID>

/ISAPI/System/Network/SNMP/advanced/users/ID		General Resource v2.0
GET		
Description	Get SNMP advanced user information.	
Query	None	
Inbound Data	None	
Success Return	SNMPUser	
PUT		
Description	Set SNMP advanced user information	
Query	None	
Inbound Data	SNMPUser	
Success Return	ResponseStatus	
DELETE		
Description	Delete SNMP advanced user	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		
<p><remoteEngineID> indicates the remote SNMP entity to which the user is connected.</p> <p><snmpAuthenticationMethod> indicates the authentication method used.</p> <p><snmpAuthenticationKey> defines the authentication key if encryption is used for <snmpAuthenticationMethod>.</p> <p><snmpAuthenticationPassword> optional password used to calculate the <snmpAuthenticationKey> value if encryption is used for <snmpAuthenticationMethod>.</p> <p><snmpPrivacyMethod> indicates if messages are protected from disclosure, and if so, the type of privacy protocol used.</p> <p><snmpPrivacyKey> defines the privacy key if encryption is used for <snmpPrivacyMethod>.</p> <p><snmpPrivacyPassword> optional password used to calculate the <snmpPrivacyKey> value if encryptions is used for <snmpPrivacyMethod></p>		

SNMPUser XML Block

```
<SNMPUser version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string;id --> </id>
  <userName><!-- req, xs:string --> </userName>
  <remoteEngineID> <!-- req, xs:hexBinary --></remoteEngineID>
  <snmpAuthenticationMethod>
    <!-- req, xs:string, "MD5,SHA,none" -->
  </snmpAuthenticationMethod>
  <snmpAuthenticationKey> <!-- dep, xs:string --> </snmpAuthenticationKey>
  <snmpAuthenticationPassword>
    <!-- dep, xs:string, see RFC3414 -->
  </snmpAuthenticationPassword>
  <snmpPrivacyMethod> <!-- req, xs:string, "DES,AES,none" --> </snmpPrivacyMethod>
  <snmpPrivacyKey> <!-- dep, xs:string --> </snmpPrivacyKey>
  <snmpPrivacyPassword> <!-- dep, xs:string, see RFC3414 --> </snmpPrivacyPassword>
</SNMPUser>
```

8.2.43 /ISAPI/System/Network/mailing

/ISAPI/System/Network/mailing		General Resource v2.0
GET		
Description	It is used to get the configuration of e-mail.	
Query	None	
Inbound Data	None	
Success Return	mailingList	
PUT		
Description	It is used to set the configuration of e-mail.	
Query	None	
Inbound Data	mailingList	
Success Return	ResponseStatus	
Notes:		

mailingList XML Block

```
<mailingList xmlns="http://www.isapi.org/ver20/XMLSchema">
  <mailing> <!-- opt, xs:string --> </mailing>
</mailingList>
```

8.2.44 /ISAPI/System/Network/mailing/<ID>

/ISAPI/System/Network/mailing/ID	General Resource v2.0
----------------------------------	-----------------------

GET	
Description	It is used to get the configuration of a particular e-mail.
Query	None
Inbound Data	None
Success Return	mailingList
PUT	
Description	It is used to set the configuration of a particular e-mail.
Query	None
Inbound Data	mailingList
Success Return	ResponseStatus
Notes:	

mailing XML Block

```

<mailing xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id/> <!-- req, xs:string, id -->
  <sender> <!-- req -->
    <name> <!-- req, xs:string --> </name>
    <emailAddress> <!-- req, xs:string --> </emailAddress>
    <smtp> <!-- req -->
      <enableAuthorization><!-- req, xs:boolean --></enableAuthorization>
      <enableSSL><!-- opt, xs:boolean --></enableSSL>
      <addressingFormatType>
        <!-- req, xs:string, "ipaddress,hostname" -->
      </addressingFormatType>
      <hostName> <!-- dep, xs:string --> </hostName>
      <ipAddress><!-- dep, xs:string --> </ipAddress>
      <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
      <portNo> <!-- opt, xs:integer --> </portNo>
      <accountName> <!-- dep, xs:string --> </accountName>
      <password><!-- dep, xs:string --> </password>
      <enableTLS><!-- opt, xs:boolean --></enableTLS>
      <startTLS><!-- dep, xs:boolean --></startTLS>
    </smtp>
  </sender>
  <receiverList> <!-- req -->
    <receiver>
      <id> <!-- req, xs:string; id --> </id>
      <name> <!-- req, xs:string --> </name>
      <emailAddress> <!-- req, xs:string --> </emailAddress>
    </receiver>
  </receiverList>
  <attachment><!-- opt -->
    <snapshot> <!-- opt -->

```



```

    <enabled><!--req, xs:boolean--></enabled>
    <interval><!--req, xs:integer, seconds></interval>
  </snapshot>
</attachment>
</mailing>

```

8.2.45 /ISAPI/System/Network/mailing/test

/ISAPI/System/Network/mailing/test		General Resource v2.0
GET		
Description	It is used to test the mail servers are functioning and the email address is valid.	
Query	None	
Inbound Data	mailingTestDescription	
Success Return	mailingTestResult	
POST		
Description	It is used to test the mail servers are functioning and the email address is valid.	
Query	None	
Inbound Data	mailingTestDescription	
Success Return	mailingTestResult	
Notes:		

mailingTestDescription XML Block

```

<mailingTestDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <sendName> <!--opt, xs:string --> </sendName>
  <sendEmailAddress> <!--req, xs:string --> </sendEmailAddress>
  <addressingFormatType>
    <!-- req, xs:string, "ipaddress,hostname" -->
  </addressingFormatType>
  <hostName> <!-- dep, xs:string --> </hostName>
  <ipAddress><!-- dep, xs:string --> </ipAddress>
  <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  <portNo> <!-- req, xs:integer --> </portNo>
  <enableSSL><!--opt, xs:boolean--></enableSSL>
  <enableAuthorization><!--req, xs:boolean--></enableAuthorization>
  <accountName> <!-- dep, xs:string --> </accountName>
  <password><!-- dep, xs:string --> </password>
  <receiverList> <!-- req -->
    <receiver>
      <id> <!--req, xs:string; id --> </id>
    </receiver>
  </receiverList>
</mailingTestDescription>

```

```

    <name> <!--req, xs:string --> </name>
    <emailAddress> <!-- req, xs:string --> </emailAddress>
  </receiver>
</receiverList>
</mailingTestDescription>

```

mailingTestResult XML Block

```

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

```

8.2.46 /ISAPI/System/Network/UPnP

/ISAPI/System/Network/UPnP		General Resource	v2.0
GET			
Description	Get theUPnP configuration on an IP media device.		
Query	None		
Inbound Data	None		
Success Return	UPnP		
PUT			
Description	Set theUPnP configuration on an IP media device.		
Query	None		
Inbound Data	UPnP		
Success Return	ResponseStatus		
Notes:			

UPnP XML Block

```

<UPnP version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled/> <!-- req -->
  <ports/> <!-- opt -->
</UPnP>

```

8.2.47 /ISAPI/System/Network/UPnP/ports

/ISAPI/System/Network/UPnP/ports		General Resource	v2.0
GET			
Description	Get the Ports configuration on an IP media device.		
Query	None		
Inbound Data	None		

Success Return	ports
PUT	
Description	Set Ports configuration on an IP media device.
Query	None
Inbound Data	ports
Success Return	ResponseStatus
Notes:	

ports XML Block

```
<ports version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled/> <!-- req -->
  <mapmode> <!-- req, xs:string, "auto,manual" --></mapmode>
  <natRouterLanAddr> <!-- opt -->
    <ipVersion> <!-- req, xs:string, "v4,v6,dual" --> </ipVersion>
    <ipAddress> <!-- dep, xs:string --> </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  </natRouterLanAddr>
  <portList> <!-- req -->
    <port/>
  </portList>
  <natType> <!-- req, xs:string, "manual, auto" --> </natType>
</ports>
```

8.2.48 /ISAPI/System/Network/UPnP/ports/status

/ISAPI/System/Network/UPnP/ports/status	General Resource v2.0
GET	
Description	Get NAT ports status on an IP media device.
Query	None
Inbound Data	None
Success Return	portsStatus
Notes:	
<natRouter> if this element is provided, the ip media device will use this nat router.	

portsStatus XML Block

```
<portsStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled/> <!-- req -->
  <natRouterLanAddr> <!-- req -->
    <ipVersion> <!-- req, xs:string, "v4,v6,dual" --> </ipVersion>
    <ipAddress> <!-- dep, xs:string --> </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  </natRouterLanAddr>
</portsStatus>
```

```

</natRouterLanAddr>
<natRouterWanAddr> <!-- req -->
  <ipVersion> <!-- req, xs:string, "v4,v6,dual" --> </ipVersion>
  <ipAddress> <!-- dep, xs:string --> </ipAddress>
  <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
</natRouterWanAddr>
<portStatusList> <!-- req -->
  <portStatus/> <!-- req -->
</portStatusList>
</portsStatus>

```

8.2.49 /ISAPI/System/Network/UPnP/ports/<ID>

/ISAPI/System/Network/UPnP/ports/<ID>		General Resource v2.0	
GET			
Description	Get a specific NAT port configuration on an IP media device.		
Query	None		
Inbound Data	None		
Success Return	port		
PUT			
Description	Set a specific NAT port configuration on an IP media device.		
Query	None		
Inbound Data	None		
Success Return	port		
Error Status Code	statusCode	subStausCode	description
	6	badPort	Port Conflict
Notes:			

port XML Block

```

<port version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id/> <!-- req, xs:string, id -->
  <enabled/> <!-- req, xs:boolean -->
  <internalPort/> <!-- req, xs:string, "http, admin, rtsp, ..." -->
  <externalPort/> <!-- req, xs:integer -->
</port>

```

8.2.50 /ISAPI/System/Network/UPnP/ports/<ID>/status

/ISAPI/System/Network/UPnP/ports/<ID>/status	General Resource v2.0
--	-----------------------

GET	
Description	Get NAT port status on an IP media device.
Query	None
Inbound Data	None
Success Return	portStatus
Notes:	
<natRouter> if this element is provided, the ip media device will use this nat router.	

portStatus XML Block

```
<portStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id/> <!-- req, xs:string, id -->
  <enabled/> <!-- req -->
  <internalPort/> <!-- req, xs:string, "http, admin, rtsp, ..." -->
  <externalPort/> <!-- req, xs:integer -->
  <status/> <!-- req, xs:string, "inactive, active, conflict, ..." -->
</portStatus>
```

8.2.51 /ISAPI/System/Network/ftp/capabilities

/ISAPI/System/Network/ftp/capabilities		General Resource v2.0
GET		
Description	It is used to get ftp capability.	
Query	None	
Inbound Data	None	
Success Return	< FTPNotificationList >	
Notes:		

FTPNotificationList XML Block

```
<FTPNotificationList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <FTPNotification/> <!-- opt -->
</FTPNotificationList>
```

FTPNotification XML Block

```
<FTPNotification version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string;id --> </id>
  <enabled> <!-- req, xs:boolean --> </enabled>
  <useSSL> <!-- opt, xs:boolean --> </useSSL>
  <addressingFormatType opt=" ipaddress,hostname">
    <!-- req, xs:string, -->
```

```

</addressingFormatType>
<hostName> <!-- dep, xs:string --> </hostName>
<ipAddress> <!-- dep, xs:string --> </ipAddress>
<ipv6Address> <!-- dep, xs:string --> </ipv6Address>
<portNo> <!-- opt, xs:integer --> </portNo>
<userName> <!-- req, xs:string --> </userName>
<password> <!-- wo, xs:string --> </password>
<passiveModeEnabled> <!-- opt, xs:boolean --> </passiveModeEnabled>
<annoyftp> <!--opt, xs:boolean --> </annoyftp>
<uploadPicture> <!--opt, xs:boolean --> </uploadPicture>
<uploadVideoClip> <!-- opt, xs:Boolean --> </uploadVideoClip>
<uploadPath> <!--req -->
  <pathDepth> <!--req, xs:integer, 0...2 --> </pathDepth>
  <topDirNameRule opt="devName,devId,devIp,customize">
    <!-- dep, xs:string, -->
  </topDirNameRule>
  <topDirName/> <!-- dep, xs:string-->
  <subDirNameRule opt="chanName,chanId,customize">
    <!-- dep, xs:string,
  </subDirNameRule>
  <subDirName/> <!-- dep, xs:string-->
</uploadPath>
<FtpUpload version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <vehiclePicName>
    <mode opt="default,custom"> <!--req, xs:string, --> </mode>
    <NameRuleType>
      <RuleTypeItem size="">
        <RuleTypeItem>
          <id><!-- req, xs: interger --></id>
          <item opt="capture_time,plate_No,alarm_type,camera_name"><!--
req, xs: string --></item>
          <cameraName min="" max=""><!-- dep, xs: string
"camera_name"--></cameraName>
        </RuleTypeItem>
      </RuleTypeItemList>
    </NameRuleType>
  </vehiclePicName>
</FtpUpload>
<picArchivingInterval min="" max=""><!--opt,xs:integer,"1~30,0-close"
--></picArchivingInterval>
<picNameRuleType opt="default,prefix"><!-- opt, xs:string --></picNameRuleType>
<picNamePrefix min="0" max="32"><!-- dep, xs:string --></picNamePrefix>
</FTPNotification>

```

8.2.52 /ISAPI/System/Network/ftp

/ISAPI/System/Network/ftp		General Resource v2.0
GET		
Description	It is used to get the configurations of FTP.	
Query	None	
Inbound Data	None	
Success Return	FTPNotificationList	
PUT		
Description	It is used to set the configurations of FTP.	
Query	None	
Inbound Data	FTPNotificationList	
Success Return	ResponseStatus	
Notes:		

FTPNotificationList XML Block

```
<FTPNotificationList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <FTPNotification/> <!-- opt -->
</FTPNotificationList>
```

8.2.53 /ISAPI/System/Network/ftp/<ID>

/ISAPI/System/Network/ftp/ID		General Resource v2.0
GET		
Description	It is used to get the configuration of a particular FTP.	
Query	None	
Inbound Data	None	
Success Return	FTPNotification	
PUT		
Description	It is used to set the configurations of a particular FTP.	
Query	None	
Inbound Data	FTPNotification	
Success Return	ResponseStatus	
Notes:		
Depending on the value of <addressingFormatType>, either the <hostName> or the IP address fields will be used to locate the NTP server.		
Note: FTP transfers are always in binary mode.		

1. <pathDepth> the depth of path. For example, / depth is 0, /a depth is 1, /a/b depth is 2
- 2.<ftpPicNameRuleType>:FTP picture naming rule type, videoIntercom-video intercom products using regulations;
- 3.<FTPPicNameRule>:Detailed FTP picture naming rule;
- 4.<ItemList>: multiple naming options, support 6 at present;
- 5.<delimiter>:The delimiter between naming options;
- 6.FTP picture name is composed by naming options and delimiters, and naming options are separated by delimiters;
- 7.<itemID>: naming options number
- 8.<itemOrder>:naming item, none, devIp-device IP, time, buildUnitNo-building number and unit number, outDoorDevNo-out door device number, unlockType-unlock type, devName-device name;

FTPNotification XML Block

```

<FTPNotification version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string;id --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <useSSL> <!--opt, xs:boolean> </useSSL>
  <addressingFormatType>
    <!-- req, xs:string, "ipaddress,hostname" -->
  </addressingFormatType>
  <hostName> <!-- dep, xs:string --> </hostName>
  <ipAddress> <!-- dep, xs:string --> </ipAddress>
  <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  <portNo> <!-- opt, xs:integer --> </portNo>
  <userName> <!-- req, xs:string --> </userName>
  <password> <!-- wo, xs:string --> </password>
  <passiveModeEnabled> <!-- opt, xs:boolean --> </passiveModeEnabled>
  <annoyftp> <!--opt, xs:boolean --> </annoyftp>
  <uploadPicture> <!--opt, xs:boolean --> </uploadPicture>
  <uploadVideoClip> <!-- opt, xs:Boolean --> </uploadVideoClip>
  <uploadPath> <!--req -->
    <pathDepth> <!--req, xs:integer, 0...2 --> </pathDepth>
    <topDirNameRule>
      <!-- dep, xs:string, "devName, devId, devIp, customize, time, buildUnitNo" -->
    </topDirNameRule>
    <topDirName/> <!-- dep, xs:string-->
    <subDirNameRule>
      <!-- dep, xs:string, "chanName, chanId, customize, time, buildUnitNo, outDoorDevNo"
    </subDirNameRule>
    <subDirName/> <!-- dep, xs:string-->
  </uploadPath>
  <picArchivingInterval><!--opt,xs:integer, --></picArchivingInterval>
  <picNameRuleType><!-- opt, xs:string;"default,prefix" --></picNameRuleType>

```



```

<picNamePrefix><!-- dep, xs:string --></picNamePrefix>
<ftpPicNameRuleType><!-- req, xs:string, "videoIntercom" --></ftpPicNameRuleType>
<FTPPicNameRule><!-- dep -->
  <ItemList/><!-- req -->
  <delimiter><!-- req, xs:string ,def="_" --></delimiter>
</FTPPicNameRule>
</FTPNotification>

```

ItemList XML Block

```

<ItemList size="6">
  <Item>
    <itemID> <!-- req, xs:string;id --> </itemID>
    <itemOrder> <!-- req, xs:string, "
none,devIp,time,buildUnitNo,outDoorDevNo,unlockType,devName" --></itemOrder>
  </Item>
</ItemList>

```

8.2.54 /ISAPI/System/Network/ftp/test

/ISAPI/System/Network/ftp/test		General Resource v2.0
GET		
Description	It is used to test the ftp server available or not	
Query	None	
Inbound Data	FTPTestDescription	
Success Return	FTPTestResult	
POST		
Description	It is used to test the ftp server available or not	
Query	None	
Inbound Data	FTPTestDescription	
Success Return	FTPTestResult	
Notes:		

FTPTestDescription XML Block

```

<FTPTestDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <useSSL> <!-- opt, xs:boolean --> </useSSL>
  <addressingFormatType>
    <!-- req, xs:string, "ipaddress,hostname" -->
  </addressingFormatType>
  <hostName> <!-- dep, xs:string --> </hostName>
  <ipAddress> <!-- dep, xs:string --> </ipAddress>
  <ipv6Address> <!-- dep, xs:string --> </ipv6Address>

```

```

<portNo> <!-- opt, xs:integer --> </portNo>
<userName> <!-- req, xs:string --> </userName>
<password> <!-- wo, xs:string --> </password>
<passiveModeEnabled> <!-- opt, xs:boolean --> </passiveModeEnabled>
<annoyftp> <!--opt, xs:boolean --> </annoyftp>
<uploadPath> <!--req -->
  <pathDepth> <!--req, xs:integer, 0...2 --> </pathDepth>
  <topDirNameRule>
    <!-- dep, xs:string, "devName, devId, devIp, customize" -->
  </topDirNameRule>
  <topDirName/> <!-- dep, xs:string-->
  <subDirNameRule>
    <!-- dep, xs:string, "chanName, chanId, customize"
  </subDirNameRule>
  <subDirName/> <!-- dep, xs:string-->
</uploadPath>
</FTPTestDescription>

```

FTPTestResult XML Block

```

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

```

8.2.55 /ISAPI/System/Network/ipFilter

/ISAPI/System/Network/ipFilter		General Resource v2.0
GET		
Description	Access IP filtering settings.	
Query	None	
Inbound Data	None	
Success Return	IPFilter	
PUT		
Description	Access IP filtering settings..	
Query	None	
Inbound Data	IPFilter	
Success Return	ResponseStatus	
Notes:		
<permissionType> field, if provided as a direct child of level configuration and will apply to all of the		<IPFilter>, acts as a system <IPFilterAddress> entries, overriding the

value provided in a particular <IPFilterAddress> block

IPFilter XML Block

```
<IPFilter version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
  <permissionType> <!-- opt, xs:string, "deny,allow" --> </permissionType>
  <IPFilterAddressList/> <!-- opt -->
</IPFilter>
```

8.2.56 /ISAPI/System/Network/ipFilter/filterAddresses

/ISAPI/System/Network/ipFilter/filterAddresses		General Resource v2.0
GET		
Description	Access IP filtering settings.	
Query	None	
Inbound Data	None	
Success Return	IPFilterAddressList	
PUT		
Description	Access IP filtering settings..	
Query	None	
Inbound Data	IPFilterAddressList	
Success Return	ResponseStatus	
POST		
Description	Access IP filtering settings..	
Query	None	
Inbound Data	IPFilterAddress	
Success Return	ResponseStatus	
DELETE		
Description	Access IP filtering settings..	
Query	None	
Inbound Data	IPFilterAddressList	
Success Return	ResponseStatus	
Notes:		
The IP filter address list allows addresses to be added and removed from the list, or the entire list to be uploaded at once.		

IPFilterAddressList XML Block

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

```
<IPFilterAddress/> <!-- opt -->
</IPFilterAddressList>
```

8.2.57 /ISAPI/System/Network/ipFilter/filterAddresses/

<ID>

/ISAPI/System/Network/ipFilter/filterAddresses/ID		General Resource v2.0
GET		
Description	Access IP filtering settings.	
Query	None	
Inbound Data	None	
Success Return	IPFilterAddress	
PUT		
Description	Access IP filtering settings..	
Query	None	
Inbound Data	IPFilterAddress	
Success Return	ResponseStatus	
DELETE		
Description	Access IP filtering settings..	
Query	None	
Inbound Data	IPFilterAddress	
Success Return	ResponseStatus	
Notes:		
<p>If the <permissionType> tag is not provided as a direct child of <IPFilter>, the <permissionType> tag must be provided for each <IPFilterAddress>.</p> <p>Since the ordering of the filters can change the behavior, filtering will be applied consecutively starting with the first <IPFilterAddress> in the list.</p> <p>The <bitMask> field is applied to the corresponding IP address to identify a range of addresses. It indicates the number of '1' bits used to mask the address. For example: '24' would correspond to a subnet mask of 255.255.255.0 and '32' would correspond to a subnet mask of 255.255.255.255 (a single IP address) for IPv4.</p> <p>If <addressFilterType> refers to "mask", the <AddressMask> block must be provided in place of the <AddressRange> block. If it refers to "range", the <Range> block must be provided in place of the <AddressMask> block.</p> <p>Use of IPv4 or IPv6 addresses depends on the value of the <ipVersion> field in /ISAPI/System/Network/interfaces/ID/ipAddress.</p>		

IPFilterAddress XML Block

```
<IPFilterAddress version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string;id --> </id>
  <permissionType><!-- dep, xs:string, "deny,allow" --></permissionType>
```

```

<addressFilterType> <!-- req, xs:string, "mask,range" --> </addressFilterType>
  <AddressRange> <!-- dep, depends on <addressFilterType> -->
    <startIPAddress> <!-- dep, xs:string --> </startIPAddress>
    <endIPAddress> <!-- dep, xs:string --> </endIPAddress>
    <startIPv6Address> <!-- dep, xs:string --> </startIPv6Address>
    <endIPv6Address> <!-- dep, xs:string --> </endIPv6Address>
  </AddressRange>
  <AddressMask><!-- dep, depends on <addressFilterType> -->
    <ipAddress> <!-- dep, xs:string --> </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
    <bitMask> <!-- req, xs:string --> </bitMask>
  </AddressMask>
</IPFilterAddress>

```

8.2.58 /ISAPI/System/Network/qos

/ISAPI/System/Network/qos		General Resource v2.0
GET		
Description	This function is used to get QoS Settings.	
Query	None	
Inbound Data	None	
Success Return	QoS	
PUT		
Description	This function is used to set QoS Settings	
Query	None	
Inbound Data	QoS	
Success Return	ResponseStatus	
Notes:		
At least one of <CoSList> or <DSCPList> must be provided.		

QoS XML Block

```

<QoS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <CoSList/> <!-- dep -->
  <DSCPList/> <!-- dep -->
</QoS>

```

8.2.59 /ISAPI/System/Network/qos/cos

/ISAPI/System/Network/qos/cos		General Resource v2.0
-------------------------------	--	-----------------------

GET	
Description	This function is used to get the QoS cos list setting for the device.
Query	None
Inbound Data	None
Success Return	CoSList
PUT	
Description	This function is used to set the QoS cos list setting for the device
Query	None
Inbound Data	CoSList
Success Return	ResponseStatus
POST	
Description	This function is used to create the QoS cos setting for the device
Query	None
Inbound Data	CoS
Success Return	ResponseStatus
DELETE	
Description	This function is used to delete the QoS cos list setting for the device
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

CoSList XML Block

```
<CoSList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <CoS/> <!-- opt -->
</CoSList>
```

8.2.60 /ISAPI/System/Network/qos/cos/<ID>

/ISAPI/System/Network/qos/cos/ID		General Resource v2.0
GET		
Description	This function is used to get the QoS cos setting for the device	
Query	None	
Inbound Data	None	
Success Return	CoS	
PUT		
Description	This function is used to set the QoS cos setting for the device	
Query	None	
Inbound Data	CoS	
Success Return	ResponseStatus	

DELETE	
Description	This function is used to delete the QoS cos setting for the device
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

CoS XML Block

```
<CoS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string;id --> </id>
  <enabled> <!-- req, xs:boolean --> </enabled>
  <priority> <!-- req, xs:integer --> </priority>
  <vlanID> <!-- req, xs:string --> </vlanID>
  <trafficType>
    <!-- req, xs:string, "devicemanagement,commandcontrol,video,audio" -->
  </trafficType>
</CoS>
```

8.2.61 /ISAPI/System/Network/qos/dscp

/ISAPI/System/Network/qos/dscp		General Resource v2.0
GET		
Description	This function is used to get the QoS dscp list setting for the device	
Query	None	
Inbound Data	None	
Success Return	DSCPList	
PUT		
Description	This function is used to set the QoS dscp list setting for the device	
Query	None	
Inbound Data	DSCPList	
Success Return	ResponseStatus	
POST		
Description	This function is used to create the QoS dscp setting for the device	
Query	None	
Inbound Data	DSCP	
Success Return	ResponseStatus	
DELETE		
Description	This function is used to delete the QoS cos list setting for the device	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	

Notes:

A list of DSCP parameter blocks is specified for each type of traffic: device management, command and control, video and audio streaming. Devices may extend the set of traffic types.

DSCPList XML Block

```
<DSCPList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <DSCP/>  <!-- opt -->
</DSCPList>
```

8.2.62 /ISAPI/System/Network/qos/dscp/<ID>

/ISAPI/System/Network/qos/dscp/ID		General Resource v2.0
GET		
Description	This function is used to get the QoS dscp setting for the device	
Query	None	
Inbound Data	None	
Success Return	DSCP	
PUT		
Description	This function is used to set the QoS dscp setting for the device	
Query	None	
Inbound Data	DSCP	
Success Return	ResponseStatus	
DELETE		
Description	This function is used to delete the QoS dscp setting for the device	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
<p>Notes:</p> <p><trafficType> determines which kind of traffic the settings apply to.</p>		

DSCP XML Block

```
<DSCP version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>  <!-- req, xs:string;id -->  </id>
  <enabled>  <!-- req, xs:boolean -->  </enabled>
  <priorityValue>  <!-- req, xs:integer, 6 bits - refer to RFC2474 -->  </priorityValue>
  <trafficType>
    <!-- req, xs:string, "devicemanagement,commandcontrol,video,audio" -->
  </trafficType>
```


</DSCP>

8.2.63 /ISAPI/System/Network/telnetd

/ISAPI/System/Network/telnetd		General Resource v2.0
GET		
Description	It is used to get the configurations of telnet.	
Query	None	
Inbound Data	None	
Success Return	Telnetd	
PUT		
Description	It is used to set the configurations of telnet.	
Query	None	
Inbound Data	Telnetd	
Success Return	ResponseStatus	
Notes:		

Telnetd XML Block

```
<Telnetd version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
</Telnetd>
```

8.2.64 /ISAPI/System/Network/SIP

/ISAPI/System/Network/SIP		General Resource v2.0
GET		
Description		
Query	None	
Inbound Data	None	
Success Return	SIPServerList	
PUT		
Description		
Query	None	
Inbound Data	SIPServerList	
Success Return	ResponseStatus	
Notes:		

SIPServerList XML Block

```
<SIPServerList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SIPServer/> <!-- opt -->
</SIPServerList>
```

8.2.65 /ISAPI/System/Network/SIP/<ID>

/ISAPI/System/Network/SIP/<ID>		General Resource v2.0
GET		
Description		
Query	None	
Inbound Data	None	
Success Return	SIPServer	
PUT		
Description		
Query	None	
Inbound Data	SIPServer	
Success Return	ResponseStatus	
Notes:		

SIPServer XML Block

```

<SIPServer version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string --> </id>
  <localPort> <!-- req, xs:integer, "1-65535"--> </localPort>
  <streamID> <!-- req, xs:integer, "1(main stream),2 (sub stream) "--> </streamID>
  <Standard> <!-- opt -->
    <registerStatus> <!-- ro, req, xs:boolean, "false (unregistered) ,true (registered) "
--></registerStatus>
    <enabled> <!-- req, xs:string, "true(sign in),false (log out) "--> </enabled>
    <registrar> <!-- req, xs:string--> </registrar>
    <registrarPort> <!-- req, xs:integer--> </registrarPort>
    <proxy> <!-- req, xs:string--> </proxy>
    <proxyPort> <!-- req, xs:integer--> </proxyPort>
    <displayName> <!-- req, xs:string--> </displayName>
    <userName> <!-- req, xs:string--> </userName>
    <authID> <!-- req, xs:string--> </authID>
    <password> <!-- wo, req, xs:string--> </password>
    <expires> <!-- req, xs:integer--> </expires>
  </Standard>
  <GB28181> <!-- opt -->
    <registerStatus> <!-- req, xs:boolean --></registerStatus>
    <enabled> <!-- req, xs:string, "true,false"--> </enabled>
    <registrar> <!-- req, xs:string--> </registrar>
    <registrarPort> <!-- req, xs:integer--> </registrarPort>
    <serverId> <!-- req, xs:string--> </serverId>
    <serverDomain> <!-- req, xs:integer--> </serverDomain>
    <userName> <!-- req, xs:string--> </userName>
    <authID> <!-- req, xs:string--> </authID>
    <password> <!-- wo, req, xs:string--> </password>
    <expires> <!-- req, xs:integer--> </expires>
    <liveTime> <!-- req, xs:integer--> </liveTime>
    <heartbeatTime> <!-- req, xs:integer--> </heartbeatTime>
    <heartbeatCount> <!-- req, xs:integer--> </heartbeatCount>
    <transportType> <!-- opt, xs:string, "UDP, TCP,TLS"--> </transportType>
    <registerInterval> <!-- opt, xs:integer, "60-600", second--> </registerInterval>
    <protocolVersion> <!-- opt, xs:string, "GB/T28181-2011,GB/T28181-2015"-->
  </protocolVersion>
</GB28181>
</SIPServer>

```

8.2.66 /ISAPI/System/Network/SIP/<ID>/SIPInfo

/ISAPI/System/Network/SIP/<ID>/SIPInfo

General Resource v2.0

GET

Description	Get device ID and alarm ID
Query	None
Inbound Data	None
Success Return	SIPInfo
PUT	
Description	Set device ID and alarm ID
Query	None
Inbound Data	SIPInfo
Success Return	ResponseStatus
Notes: For IP camera or Speed Dome, videoID only stands for “Device ID” and doesn’t need to provide VideoInputList elements; For NVRs/DVRs supporting multiple video channels, videoInputList indicates separate ID of each video channel.	

SIPInfo XML Block

```
<SIPInfo version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <videoID> <!-- req, xs:string--> <videoID>
  <AlarmInList>
  <AlarmIn>
    <id> <!-- req, xs:string--> </id>
    <alarmInID> <!-- req, xs:string--> <alarmInID>
  <AlarmIn>
  <AlarmInList>
  <VideoInputList> <!--opt -->
    <VideoInput>
      <id> <!-- req, xs:string--> </id>
      <videoInputID> <!--req, xs:string> </videoInputID>
    </VideoInput>
  </VideoInputList>
</SIPInfo>
```

8.2.67 /ISAPI/System/Network/EZVIZ

/ISAPI/System/Network/EZVIZ		General Resource v2.0
GET		
Description	It is used to get the configurations of EZVIZ	
Query	None	
Inbound Data	None	
Success Return	EZVIZ	
PUT		

Description	It is used to set the configurations of EZVIZ
Query	None
Inbound Data	EZVIZ
Success Return	ResponseStatus
Notes: <redirect> whether allow the device to redirect the server address. verificationCode: only admin account is permitted to see the verification code through web.	

EZVIZ XML Block

```
<EZVIZ version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
  <registerStatus> <!-- ro,opt xs:boolean --></registerStatus>
  <redirect><!--opt xs:boolean --></redirect>
  <serverAddress> <!--opt-->
  <addressingFormatType>
    <!-- req, xs:string, "ipaddress,hostname"-->
  </addressingFormatType>
  <hostName> <!-- dep, xs:string --> </hostName>
  <ipAddress> <!-- dep, xs:string --> </ipAddress>
  <ipv6Address><!-- dep, xs:string --> </ipv6Address>
  <serverAddress>
  <verificationCode><!--opt, xs:string --></verificationCode>
</EZVIZ>
```

8.2.68 /ISAPI/System/Network/pingtest

/ISAPI/System/Network/pingtest		General Resource v2.0
GET		
Description	It is used to check the IP address available or not.	
Query	None	
Inbound Data	pingTestDescription	
Success Return	pingTestResult	
POST		
Description	It is used to check the IP address available or not.	
Query	None	
Inbound Data	pingTestDescription	
Success Return	pingTestResult	
Notes:		

pingTestDescription XML Block

```
<pingTestDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ipAddress><!-- dep, xs:string --> </ipAddress>
</pingTestDescription>
```

pingTestResult XML Block

```
<pingTestResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <status><!-- req, xs:string,"used,not used" --></status>
</pingTestResult>
```

8.2.69 /ISAPI/System/Network/ssh

/ISAPI/System/Network/ssh		General Resource	v2.0
GET			
Description	It is used to get the configurations of ssh.		
Query	None		
Inbound Data	None		
Success Return	SSH		
PUT			
Description	It is used to set the configurations of ssh.		
Query	None		
Inbound Data	SSH		
Success Return	ResponseStatus		
Notes:			

SSH XML Block

```
<SSH version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
</SSH>
```

8.2.70 /ISAPI/System/Network/Ehome

/ISAPI/System/Network/Ehome		General Resource	v2.0
GET			
Description	It is used to get the configurations of ehome.		
Query	None		
Inbound Data	None		
Success Return	Ehome		
PUT			

Description	It is used to set the configurations of ehome.
Query	None
Inbound Data	Ehome
Success Return	ResponseStatus
Notes:	

Ehome XML Block

```
<Ehome version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><opt, xs:boolean></enabled>
  <addressingFormatType>
    <!-- req, xs:string, "ipaddress,hostname" -->
  </addressingFormatType>
  <hostName> <!-- dep, xs:string --> </hostName>
  <ipAddress> <!-- dep, xs:string --> </ipAddress>
  <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  <portNo> <!-- opt, xs:integer --> </portNo>
  <deviceID> <!-- req, xs:string --> </deviceID>
  <registerStatus> <!-- ro, xs:boolean --></registerStatus>
  <version> <!-- ro, xs:string --></version>
</Ehome>
```

8.2.71 /ISAPI/System/Network/WirelessDial

/ISAPI/System/Network/WirelessDial	General Resource v2.0
Notes: Wireless dial service	

8.2.72 /ISAPI/System/Network/WirelessDial/Interfaces

/ISAPI/System/Network/WirelessDial/Interfaces		General Resource v2.0
GET		
Description	It is used to get all wireless dial interaces.	
Query	None	
Inbound Data	None	
Success Return	WirelessDialInterfaceList	
PUT		
Description	It is used to get all wireless dial interaces.	
Query	None	
Inbound Data	WirelessDialInterfaceList	
Success Return	ResponseStatus	
Notes:		

WirelessDialInterfaceList XML Block

```
<WirelessDialInterfaceList version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <WirelessDialInterface/>
</WirelessDialInterfaceList>
```

8.2.73 /ISAPI/System/Network/WirelessDial/Interfaces/ <ID>

/ISAPI/System/Network/WirelessDial/Interfaces/<ID>		General Resource v2.0
GET		
Description	It is used to get a wireless dial interace.	
Query	None	
Inbound Data	None	
Success Return	WirelessDialInterface	
PUT		
Description	It is used to get a wireless dial interace.	
Query	None	
Inbound Data	WirelessDialInterface	
Success Return	ResponseStatus	
Notes:		

WirelessDialInterface XML Block

```
<WirelessDialInterface version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <Dial/> <!-- opt -->
  <Schedule> <!-- opt -->
  <Dialstatus/> <!-- opt -->
  <messageConfig/> <!-- opt -->
  <messageList/> <!-- opt -->
</WirelessDialInterface>
```

8.2.74 /ISAPI/System/Network/WirelessDial/Interfaces/ <ID>/dial/capabilities

/ISAPI/System/Network/WirelessDial/Interfaces/<ID>/dial/capabilities		General Resource v2.0
GET		
Description	It is used to access wireless dial dialing capabilities.	
Query	None	

Inbound Data	None
Success Return	Dial
Notes: The ID in “/Interfaces/ID” is defined as following declaration: 1,2,3...	

Dial XML Block

```
<Dial version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled opt="true,false" def="false"> <!-- req, xs:boolean --> </enabled>
  <DialMethod opt="auto,manual"> <!-- req, xs:string, "auto, manual" --></DialMethod>
  <SwitchMethod opt="auto,4GFirst,3GFirst,manualto2G,manualto3G,manualto4G,cableFirst">
    <!--req, xs:string, "auto,4GFirst,3GFirst, manualto2G, manualto3G,manualto4G,cableFirst"
  --></SwitchMethod>
  <OfflineTime min="30" max="65535"> <!-- opt, xs:integer,seconds --> </OfflineTime>
  <UIMCardNum min="1" max="32"> <!-- opt, xs:string --> </UIMCardNum>
  <DialNum min="1" max="32"> <!-- opt, xs:string --> </DialNum>
  <Username min="1" max="32"> <!-- opt, xs:string --> </Username>
  <Password min="1" max="32"> <!-- opt, xs:string --> </Password>
  <APNname min="1" max="32"> <!-- opt, xs:string --> </APNname>
  <MTU min="100" max="1500"> <!-- opt, xs: integer --> </MTU>
  <VerifyProto opt="auto,CHAP,PAP"> <!-- req, xs:string, "auto, CHAP, PAP" --> </VerifyProto>
</Dial>
```

8.2.75 /ISAPI/System/Network/WirelessDial/Interfaces/ <ID>/dial

/ISAPI/System/Network/WirelessDial/Interfaces/<ID>/dia		General Resource v2.0
GET		
Description	It is used to access wireless dial dialing configuratioin.	
Query	None	
Inbound Data	None	
Success Return	Dial	
PUT		
Description	It is used to access wireless dial dialing configuratioin.	
Query	None	
Inbound Data	Dial	
Success Return	ResponseStatus	
Notes: The ID in “/Interfaces/ID” is defined as following declaration: 1,2,3...		

Dial XML Block

```
<Dial version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
  <DialMethod> <!-- req, xs:string, "auto, manual" --> </DialMethod>
  <SwitchMethod><!--req, xs:string, "auto,4GFirst,3GFirst, manualto2G, manualto3G, manualto4G" --></SwitchMethod>
  <OfflineTime> <!-- opt, xs:integer --> </OfflineTime>
  <UIMCardNum> <!-- opt, xs:string --> </UIMCardNum>
  <DialNum> <!-- opt, xs:string --> </DialNum>
  <Username> <!-- opt, xs:string --> </Username>
  <Password> <!-- opt, xs:string --> </Password>
  <APNname> <!-- opt, xs:string --> </APNname>
  <MTU> <!-- opt, xs: integer --> </MTU>
  <VerifyProto> <!-- req, xs:string, "auto, CHAP, PAP" --> </VerifyProto>
</Dial>
```

8.2.76 /ISAPI/System/Network/WirelessDial/Interfaces/ <ID>/schedule

/ISAPI/System/Network/WirelessDial/Interfaces/<ID>/schedule		General Resource	v2.0
GET			
Description	It is used to get/update dial schedule.		
Query	None		
Inbound Data	None		
Success Return	Schedule		
PUT			
Description	It is used to get/update dial schedule.		
Query	None		
Inbound Data	Schedule		
Success Return	ResponseStatus		
Notes:			
The ID in "/Interfaces/ID" is defined as following declaration: 1,2,3...			

Schedule XML Block

```
<Schedule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <TimeBlockList size="8"> <!-- req -->
  <id> <!-- req, xs:string; id --> </id>
  <TimeBlock>
```

```

<dayOfWeek>
  <!-- opt, xs:integer, ISO8601 weekday number, 1=Monday, ... -->
</dayOfWeek>
<TimeRange>      <!-- req -->
  <beginTime>    <!-- req, xs:time, ISO8601 time --> </beginTime>
  <endTime>      <!-- req, xs:time, ISO8601 time --> </endTime>
</TimeRange>
</TimeBlock>
</TimeBlockList>
</Schedule>

```

8.2.77 /ISAPI/System/Network/WirelessDial/Interfaces/ <ID>/dialstatus

/ISAPI/System/Network/WirelessDial/Interfaces/<ID>/dia		General Resource v2.0
lstatus		
GET		
Description	It is used to access wireless dialing configuration.	
Query	None	
Inbound Data	None	
Success Return	Dialstatus	
PUT		
Description	It is used to access wireless dialing configuration.	
Query	None	
Inbound Data	Dialstatus	
Success Return	ResponseStatus	
Notes:		
The ID in “/Interfaces/ID” is defined as following declaration: 1,2,3...		

Dialstatus XML Block

```

<Dialstatus version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <RealtimeMode>      <!-- ro, xs:string, "CDMA
1x,EVDO,HYBRID,GSM,GPRS,EDGE,WCDMA,HSDPA,HSUPA,HSPA,TDSCDMA,TD-LTE,FDD-LTE,LTE,UNK
NOWN"--> </RealtimeMode>
  <UIMInfo> <!-- ro, xs:string, "UNKNOWN,VALID,NOVALID,ROAM,NOEXIST" --> </UIMInfo>
  <SignalStrength> <!-- ro, xs: integer --> </SignalStrength>
  <Dialstat> <!-- ro, xs:string --> </Dialstat>
  <IpAddress>      <!-- req -->
  <ipAddress><!-- dep, xs:string --> </ipAddress>
  <ipv6Address><!-- dep, xs:string --> </ipv6Address>

```

```

</IpAddress>
<SubnetMask><!-- req -->
<IpAddress><!-- dep, xs:string --> </IpAddress>
<ipv6Address><!-- dep, xs:string --> </ipv6Address>
</SubnetMask >
<Gateway> <!-- req -->
<IpAddress><!-- dep, xs:string --> </IpAddress>
<ipv6Address><!-- dep, xs:string --> </ipv6Address>
</Gateway>
<DNSAddress> <!-- req -->
<IpAddress><!-- dep, xs:string --> </IpAddress>
<ipv6Address><!-- dep, xs:string --> </ipv6Address>
</DNSAddress>
</Dialstatus>

```

8.2.78 /ISAPI/System/Network/WirelessDial/Interfaces/ <ID>/connect

/ISAPI/System/Network/WirelessDial/Interfaces/<ID>/connect		General Resource	v2.0
GET			
Description	It is used to connect the wireless network.		
Query	None		
Inbound Data	None		
Success Return	Connect		
Notes: The ID in “/Interfaces/ID” is defined as following declaration: 1,2,3...			

Connect XML Block

```

<Connect version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled/> <!-- req, xs:boolean,"true,false" -->
</Connect>

```

8.2.79 /ISAPI/System/Network/WirelessDial/Interfaces/ ID/messageConfig

/ISAPI/System/Network/WirelessDial/Interfaces/IDme	General Resource	v2.0
--	------------------	------

messageConfig	
GET	
Description	Access the message information.
Query	None
Inbound Data	
Success Return	messageConfig
PUT	
Description	configure the message information.
Query	None
Inbound Data	messageConfig
Success Return	ResponseStatus
Notes:	

MESSAGE CONFIG XML Block

```
<messageConfig version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled/> <!-- req, xs:boolean,"true,false" -->
  <SMSWhiteList/>
</messageConfig>
```

8.2.80 /ISAPI/System/Network/WirelessDial/Interfaces/ ID/messageConfig/WhiteList

/ISAPI/System/Network/WirelessDial/Interfaces/ID/m essageConfig/WhiteList		General Resource v2.0
GET		
Description	It is used to get all messages information of whitelist.	
Query	None	
Inbound Data		
Success Return	SMSWhiteList	
PUT		
Description	It is used to set all messages information of whitelist.	
Query	None	
Inbound Data	SMSWhiteList	
Success Return	ResponseStatus	
Notes:		

SMS WHITE LIST XML Block

```
<SMSWhiteList version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema" >
  <ListMember/>
</SMSWhiteList>
```

8.2.81 /ISAPI/System/Network/WirelessDial/Interfaces/ ID/messageConfig/WhiteList/ID

/ISAPI/System/Network/WirelessDial/Interfaces/ID/m essageConfig/WhiteList/ID		General Resource v2.0
GET		
Description	It is used to get single messages information of whitelist.	
Query	None	
Inbound Data		
Success Return	ListMember	
PUT		
Description	It is used to set single messages information of whitelist.	
Query	None	
Inbound Data	ListMember	
Success Return	ResponseStatus	
Notes:		

WHITE LIST MEMBER XML Block

```
<ListMember version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
<id> <!-- req, xs:string--> </id>
<phoneNumber> <!-- req, xs:string --> </phoneNumber>
<SupportEntryList> <!-- req -->
  <SupportEntry>
    <entry/> <!-- req, xs:string, "SMSAlarm, SMSCtrl, CallCtrl" -->
    <enabled/> <!-- opt, xs:boolean,"true,false" -->
  </SupportEntry>
</SupportEntryList>
<SMSAlarmTypeList> <!-- dep -->
  <SMSAlarmType>
    <type/> <!-- req, xs:string, "diskfull, diskerror, nicbroken, ipconflict, illaccess,
AlarmInErr, tamper, vmd, wireless, pir, callhelp, AudioDetection, scenechangeDetection,
defocusDetection, facedetection, LineDetection, FieldDetection, regionEntrance, regionExiting,
```

```

loitering, group, rapidMove, parking, unattendedBaggage, attendedBaggage" -->
    <enabled/> <!-- opt, xs:boolean,"true,false" -->
  </SMSAlarmType>
</SMSAlarmTypeList>
<SMSCtrlTypeList>
  <SMSCtrlType>
    <type/> <!-- req, xs:string, "messageReboot" -->
    <enabled/> <!-- opt, xs:boolean,"true,false" -->
  </SMSCtrlType>
</SMSCtrlTypeList>
</ListMember>

```

8.2.82 /ISAPI/System/Network/WirelessDial/Interfaces/ ID/messages/ID

URI	/ISAPI/System/Network/WirelessDial/Interfaces/ID/messages/ID	Type	Resource
Function	It is used to get/send message.		
Methods	Query String(s)	Inbound Data	Return Result
GET			<message>
PUT		<messag>	<ResponseStatus>
Notes			

MESSAGE CONTENT RESULT XML Block

```

<message version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- opt, xs:string--> </id>
  <phoneNum> <!-- req, xs:string--> </phoneNum>
  <status> <!-- opt, xs:string--> </status>
  <time> <!-- opt, xs:string--> </time>
  <SMSContent> <!-- opt, xs:string--> </SMSContent>
</message>

```

8.2.83 /ISAPI/System/Network/WirelessDial/Interfaces/ ID/messageConfig/messageConfigCap

/ISAPI/System/Network/WirelessDial/Interfaces/ID/messageConfig/messageConfigCap

GET

Description	Access the message cap information.
Query	None
Inbound Data	
Success Return	messageConfigCap

MESSAGE CONFIG XML Block

```
<messageConfigCap version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <supportEntry/>
  <SMSAlarmType/>
  <SMSCtrlType/>
</messageConfigCap>
```

8.2.84 /ISAPI/ System/Network/GB28181Service

/ISAPI/System/Network/GB28181Service	General Resource v2.0
GET	
Description	
Query	None
Inbound Data	None
Success Return	GB28181Service
PUT	
Description	
Query	None
Inbound Data	GB28181Service
Success Return	ResponseStatus
Notes:	

GB28181Service XML Block

```
<GB28181Service version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <serverID> <!-- opt, xs:string, SIP ID --> </serverID>
  <port> <!-- opt, xs:integer, "1025~65535", SIP Port--> </port>
  <authPasswd> <!-- opt,wo, xs:string --> </authPasswd>
  <liveTime> <!-- opt, xs:integer,5~3600s-> </liveTime>
```



```
<heartbeatCount> <!-- opt, xs:integer, 3~255--> </heartbeatCount>
<autoAddIPC><!-- opt, xs:Boolean --> </autoAddIPC>
</GB28181Service>
```

8.2.85 /ISAPI/System/Network/GB28181Service/capabilities

/ISAPI/System/Network/GB28181Service/capabilities		General Resource	v2.0
GET			
Description			
Query	None		
Inbound Data	None		
Success Return	GB28181Service cap		

GB28181Service cap XML Block

```
<GB28181Service version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <serverID size="20"> <!-- opt, xs:string, SIP ID --> </serverID>
  <port min="1025" max="65535"> <!-- opt, xs:integer, "1025~65535", SIP Port--> </port>
  <authPasswd size="16"> <!-- opt, xs:string, --> </authPasswd>
  <liveTime min="5" max="3600"> <!-- opt, xs:integer, 5~3600s--> </liveTime>
  <heartbeatCount min="3" max="255"> <!-- opt, xs:integer, 3~255--> </heartbeatCount>
  <autoAddIPC><!-- opt, xs:Boolean, true.false --> </autoAddIPC>
</GB28181Service>
```

8.2.86 /ISAPI/System/Network/interfaces/<ID>/wirelessServer

/ISAPI/System/Network/interfaces/<ID>/wirelessServer		General Resource	v2.0
GET			
Description	Get Device Wireless Server Info		
Query	NULL		
Inbound Data	NULL		
Success Return	WirelessServer		
PUT			
Description	Set Device Wireless Server Info		
Query	NULL		
Inbound Data	WirelessServer		

Success Return	ResponseStatus

WirelessServer XML Block

```
<WirelessServer version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <wifiApEnabled><!--opt,xs:boolean,"true,false"--></wifiApEnabled>
  <broadcastEnabled><!--opt,xs:boolean,"true,false"--></broadcastEnabled>
  <wlanShareEnabled><!--opt,xs:boolean,"true,false"--></wlanShareEnabled>
  <ssid min="" max=""><!-- opt, xs:string --> </ssid>
  <WirelessSecurity/> <!-- opt -->
  <DHCPEnabled><!--opt,xs:boolean,"true,false"--></DHCPEnabled>
  <ipVersion opt="v4,v6"><!-- opt, xs:string--></ipVersion>
  <HostIpAddress><!--opt-->
    <ipAddress><!-- dep, xs:string --></ipAddress>
    <ipv6Address><!-- dep, xs:string --></ipv6Address>
  </HostIpAddress>
  <IPMask><!--opt-->
    <subnetMask><!-- dep, xs:string, subnet mask for IPv4 address --></subnetMask>
    <bitMask><!-- dep, xs:integer, bitmask IPv6 address --></bitMask>
  </IPMask>
  <AddressPool><!--opt-->
    <startIPV4Address><!-- dep, xs:string --></startIPV4Address>
    <endIPV4Address><!-- dep, xs:string --></endIPV4Address>
    <startIPV6Address><!-- dep, xs:string --></startIPV6Address>
    <endIPV6Address><!-- dep, xs:string --></endIPV6Address>
  <AddressPool>
  <DNSAddressList size="2"><!--opt-->
    <DNSAddress><!--opt>
      <id><!--opt,xs:string,start from 1--></id>
      <ipAddress><!-- dep, xs:string --></ipAddress>
      <ipv6Address><!-- dep, xs:string --></ipv6Address>
    </DNSAddress>
  </DNSAddressList>
  <GatewayAddress>
    <ipAddress><!-- dep, xs:string --></ipAddress>
    <ipv6Address><!-- dep, xs:string --></ipv6Address>
  <GatewayAddress>
</WirelessServer>
```

WirelessSecurity XML Block

```

<WirelessSecurity> <!-- opt -->
  <securityMode
    opt="disable,WEP,WPA-personal,WPA2-personal,WPA-RADIUS,WPA-enterprise,WPA2-enterpri
    se">
    <!-- opt, xs:string,-->
  </securityMode>
  <WEP>
    <!-- dep, depends on <securityMode> -->
    <authenticationType opt="open,sharedkey,auto">
    <!-- req, xs:string, "" -->
  </authenticationType>
    <defaultTransmitKeyIndex min="" max="">
    <!-- req, xs:integer -->
  </defaultTransmitKeyIndex>
    <wepKeyLength opt="64,128"> <!-- opt, xs:integer "64,128" --> </wepKeyLength>
    <EncryptionKeyList size="">
      <encryptionKey
        <!-- req, xs:hexBinary, WEP encryption key in hexadecimal format -->
      </encryptionKey>
    </EncryptionKeyList>
  </WEP>
  <WPA>
    <!-- dep, depends on <securityMode> -->
    <algorithmType opt="TKIP,AES,TKIP/AES"> <!-- req, xs:string, "TKIP,AES,TKIP/AES"-->
  </algorithmType>
    <sharedKey> <!-- opt, xs:string, pre-shared key used in WPA --> </sharedKey>
    <wpaKeyLength min="" max=""> <!-- opt, xs: integer, "8-63"--> </wpaKeyLength>
    <defaultPassword><!--opt,xs:boolean,--></defaultPassword>
  </WPA>
</WirelessSecurity>

```

8.2.87 /ISAPI/System/Network/interfaces/<ID>/wireless Server/capabilities

/ISAPI/System/Network/interfaces/<ID>/wirelessServer/cap

General Resource v2.0

abilities	
GET	
Description	It is used to get WirelessServer configuration capability.
Query	None
Inbound Data	None
Success Return	WirelessServer
Notes:	

WirelessServer XML Block

```

<WirelessServer version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <wifiApEnabled><!--opt,xs:boolean,"true,false"--></wifiApEnabled>
  <broadcastEnabled><!--opt,xs:boolean,"true,false"--></broadcastEnabled>
  <wlanShareEnabled><!--opt,xs:boolean,"true,false"--></wlanShareEnabled>
  <ssid min="" max=""><!-- opt, xs:string --> </ssid>
  <WirelessSecurity/> <!-- req -->
  <DHCPEnabled><!--opt,xs:boolean,"true,false"--></DHCPEnabled>
  <ipVersion opt="v4,v6"><!-- opt, xs:string--></ipVersion>
  <HostIpAddress><!--opt-->
    <ipAddress><!-- dep, xs:string --></ipAddress>
    <ipv6Address><!-- dep, xs:string --></ipv6Address>
  </HostIpAddress>
  <IPMask><!--opt-->
    <subnetMask><!-- dep, xs:string, subnet mask for IPv4 address --></subnetMask>
    <bitMask><!-- dep, xs:integer, bitmask IPv6 address --></bitMask>
  </IPMask>
  <AddressPool><!--opt-->
    <startIPV4Address><!-- dep, xs:string --></startIPV4Address>
    <endIPV4Address><!-- dep, xs:string --></endIPV4Address>
    <startIPV6Address><!-- dep, xs:string --></startIPV6Address>
    <endIPV6Address><!-- dep, xs:string --></endIPV6Address>
  <AddressPool>
  <DNSAddressList size="2"><!--opt-->
    <DNSAddress><!--opt>
      <id><!--opt,xs:string,start from 1--></id>
      <ipAddress><!-- dep, xs:string --></ipAddress>
      <ipv6Address><!-- dep, xs:string --></ipv6Address>
    </DNSAddress>
  </DNSAddressList>
  <GatewayAddress>

```

```

<ipAddress><!-- dep, xs:string --></ipAddress>
<ipv6Address><!-- dep, xs:string --></ipv6Address>
<GatewayAddress>
</WirelessServer>

```

8.2.88 /ISAPI/System/Network/interfaces/<ID>/wireless Server/accessDeviceList

/ISAPI/System/Network/interfaces/ID/wirelessServer/accessDeviceList		General Resource v2.0
GET		
Description	Get Access Device List info	
Query	NULL	
Inbound Data	NULL	
Success Return	accessDeviceList	
注:		

accessDeviceList XML Block

```

<accessDeviceList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <accessDevice/>
</accessDeviceList

```

8.2.89 /ISAPI/System/Network/interfaces/<ID>/wireless Server/accessDeviceList/<ID>

/ISAPI/System/Network/interfaces/ID/wireless/accessDeviceList/ID		General Resource v2.0
GET		
Description	Get Network Interfaces Wireless Access ID	
Query	NULL	
Inbound Data	NULL	
Success Return	accessDevice	
注:		

accessDevice XML Block

```

<accessDevice version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:integer--> </id>
  <MACAddress> <!--opt, xs:string--> </MACAddress>

```

```

    <ipV4Address>      <!-- dep, xs:string --> </ipV4Address>
    <accessTime> <!-- req, xs:time, ISO8601 data --> </accessTime>
</accessDevice>

```

8.2.90 /ISAPI/System/Network/interfaces/<ID>/wireless Server/accessDeviceList/capabilities

/ISAPI/System/Network/interfaces/<ID>/wireless/accessDe		General Resource	v2.0
viceList/capabilities			
GET			
Description	It is used to get accessDeviceList configuration capability.		
Query	None		
Inbound Data	None		
Success Return	accessDeviceList		
Notes:			

accessDeviceList XML Block

```

<accessDeviceList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <accessDevice size="4">
    <id> <!-- req, xs:integer--> </id>
    <MACAddress> <!--opt, xs:string--> </MACAddress>
    <ipV4Address> <!-- opt, xs:string --> </ipV4Address>
    <accessTime> <!-- req, xs:time, ISO8601 data --> </accessTime>
  </accessDevice>
</accessDeviceList>

```

8.2.91 /ISAPI/System/Network/MACFilter/capabilities

/ISAPI/System/Network/MACFilter/capabilities		General Resource	v2.0
GET			
Description	It is used to get MACFilter capability.		
Query	None		
Inbound Data	None		
Success Return	MACFilter		
Notes:			
permissionType: MAC 地址过滤方式: deny-禁止, allow-允许			
MACAddress: Mac 地址			

MACFilter XML Block

```
<MACFilter version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled opt="true,false"><!--req, xs:boolean !--></enabled>
  <permissionType opt="deny, allow"> <!-- req, xs:string,"deny, allow",-->
  </permissionType>
  <MACFilterAddressList size="">
    <MACFilterAddress>
      <id> <!-- req, xs:string;id --> </id>
      <MACAddress max=""><!--req, xs:string --></MACAddress>
    </MACFilterAddress>
  </MACFilterAddressList>
</MACFilter>
```

8.2.92 /ISAPI/System/Network/MACFilter

/ISAPI/System/Network/MACFilter		General Resource v2.0
GET		
Description	Set MAC filtering settings.	
Query	None	
Inbound Data	None	
Success Return	MACFilter	
PUT		
Description	Get MAC filtering settings.	
Query	None	
Inbound Data	MACFilter	
Success Return	ResponseStatus	

MACFilter XML Block

```
<MACFilter version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--req, xs:boolean !--></enabled>
  <permissionType > <!-- req, xs:string,"deny, allow",--> </permissionType>
  <MACFilterAddressList>
    <MACFilterAddress>
      <id> <!-- req, xs:string;id --> </id>
      <MACAddress><!--req, xs:string --></MACAddress>
    </MACFilterAddress>
  </MACFilterAddressList>
</MACFilter>
```

8.2.93 /ISAPI/System/Network/WPS

/ISAPI/System/Network/WPS		General Resource v2.0
GET		
Description	It is used to access WPS configuration	
Success Return	WPS	
PUT		
Description	It is used to set WPS configuration	
Inbound Data	WPS	
Notes: WPS : Wi-Fi Protected Setup, PIN Code and PBC connection can only be used under wps configuration;		

WPSXML Block

```
<WPS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enable> <!-- opt, xs:boolean--> </enable>
</WPS>
```

8.2.94 /ISAPI/System/Network/WPS/capabilities

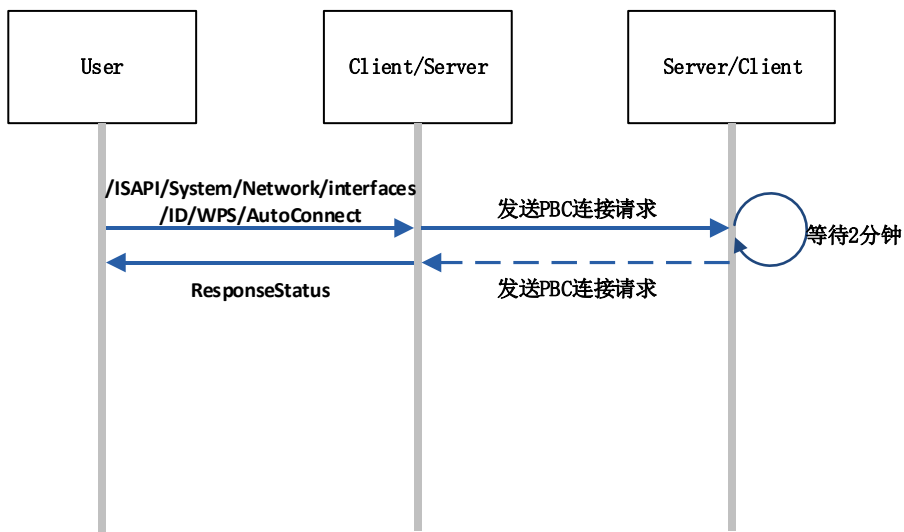
/ISAPI/System/Network/WPS/capabilities		General Resource v2.0
GET		
Description	It is used to access WPS capabilities	
Success Return	WPS	

WPSXML Block

```
<WPS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enable> <!-- req, xs:boolean--> </enable>
</WPS>
```

8.2.95 System/Network/WPS/AutoConnect

/ISAPI/System/Network/WPS/AutoConnect		General Resource v2.0
PUT		
Description	It is used to WPS auto connection mode	
Notes: PBC connection function, it's failed if there is no response in two minutes, refer to the sequence chart:		



System/Network/wirelessServer

/ISAPI/System/Network/wirelessServer		General Resource v2.0
Description	Get Device (Wifi NVR) Wireless Server Info	
Query	NULL	
Inbound Data	NULL	
Success Return	WirelessServerWithExternal	
PUT		
Description	Set Device (Wifi NVR) Wireless Server Info	
Query	NULL	
Inbound Data	WirelessServerWithExternal	
Notes:		
wifiNVR: "NVR+wifi router"		
The wifi router is independent of any NIC.		

WirelessServerWithExternal XML Block

```

<WirelessServerWithExternal version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <wifiApEnabled>
    <!--opt,xs:boolean,"true,false" enable AP mode or not-->
  </wifiApEnabled>
  <ssid>
    <!-- opt, xs:string -->
  </ssid>
  <WirelessSecurity/>
</WirelessServerWithExternal>
    
```

WirelessSecurity XML Block

```

<WirelessSecurity>
  <!-- opt -->
  <securityMode
opt="disable,WEP,WPA-personal,WPA2-personal,WPA-RADIUS,WPA-enterprise,WPA2-enterprise
">
    <!-- opt, xs:string,-->
  </securityMode>
  <WEP>
    <!-- dep, depends on <securityMode> -->
    <authenticationType opt="open,sharedkey,auto">
      <!-- req, xs:string, "" -->
    </authenticationType>
    <defaultTransmitKeyIndex min="" max="">
      <!-- req, xs:integer -->
    </defaultTransmitKeyIndex>
    <wepKeyLength opt="64,128">
      <!-- opt, xs:integer "64,128" -->
    </wepKeyLength>
    <EncryptionKeyList size="">
      <encryptionKey <!-- req, xs:hexBinary, WEP encryption key in hexadecimal format
-->
      </encryptionKey>
    </EncryptionKeyList>
  </WEP>
  <WPA>
    <!-- dep, depends on <securityMode> -->
    <algorithmType opt="TKIP,AES,TKIP/AES">
      <!-- req, xs:string, "TKIP,AES,TKIP/AES"-->
    </algorithmType>
    <sharedKey>
      <!-- opt, xs:string, pre-shared key used in WPA -->
    </sharedKey>
    <wpaKeyLength min="" max="">
      <!-- opt, xs:integer, "8-63"-->
    </wpaKeyLength>
    <defaultPassword>
      <!--opt,xs:boolean,-->

```

```

</defaultPassword>
</WPA>
</WirelessSecurity>

```

8.2.96 System/Network/wirelessServer/capabilities

/ISAPI/System/Network/wirelessServer/capabilities		General Resource v2.0
GET		
Description	It is used to get WirelessServer (Wifi NVR) configuration capability.	
Inbound Data	None	
Success Return	WirelessServerWithExternal	

WirelessServerWithExternal XML Block

```

<WirelessServerWithExternal version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <wifiApEnabled opt="true,false">
    <!--opt,xs:boolean,"true,false" enable AP mode or not-->
  </wifiApEnabled>
  <ssid min="" max="">
    <!-- opt, xs:string -->
  </ssid>
  <WirelessSecurity/>
</WirelessServerWithExternal>

```

8.3 /ISAPI/System/IO

/ISAPI/System/IO		Service v2.0
GET		
Description	It is used to get the I/O ports information.	
Query	None	
Inbound Data	None	
Success Return	IOPortList	

Notes:

The allocation of IDs between input and output ports must be unique.

IOPortList XML Block

```

<IOPortList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <IOInputPortList/> <!-- opt -->
  <IOOutputPortList/> <!-- opt -->

```

```
</IOPortList>
```

8.3.1 /ISAPI/System/IO/capabilities

/ISAPI/System/IO/capabilities		General Resource v2.0
GET		
Description	It is used to get device capability.	
Query	None	
Inbound Data	None	
Success Return	<IOCap>	
Notes:		

IOCap XML Block

```
<IOCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <IOInputPortNums> <!-- opt, xs:integer--> <IOInputPortNums>
  <IOOutputPortNums> <!-- opt, xs:integer--> <IOOutputPortNums>
  <isSupportStrobeLamp> <!-- opt, xs:integer--> <isSupportStrobeLamp>
</IOCap>
```

8.3.2 /ISAPI/System/IO/status

/ISAPI/System/IO/status		General Resource v2.0
GET		
Description	It is used to get the status of the I/O ports.	
Query	None	
Inbound Data	None	
Success Return	IOPortStatusList	
Notes:		
<ioPortID> refers to /IO/inputs/ID or /IO/outputs/ID. The port IDs are guaranteed to be unique across input and output ports.		
<ioState> indicates whether the input port is active or inactive. In most applications, a high signal is considered active.		

IOPortStatusList XML Block

```
<IOPortStatusList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <IOPortStatus> <!-- req -->
    <ioPortID> <!-- req, xs:integer, "1, 2" --> </ioPortID>
    <ioPortType> <!-- req, xs:string, "input,output" --> </ioPortType>
    <ioState> <!-- req, xs:string, "active,inactive" --> </ioState>
```

```
</IOPortStatus>
</IOPortStatusList>
```

8.3.3 /ISAPI/System/IO/inputs

/ISAPI/System/IO/inputs		General Resource v2.0
GET		
Description	It is used to get the Input ports information.	
Query	None	
Inbound Data	None	
Success Return	IOInputPortList	
Notes:		
IO inputs are hardwired, meaning that the inputs are statically allocated by the device and cannot be created or deleted.		

IOInputPortList XML Block

```
<IOInputPortList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <IOInputPort/>  <!-- opt -->
</IOInputPort>
```

8.3.4 /ISAPI/System/IO/inputs/<ID>

/ISAPI/System/IO/inputs/ <i>ID</i>		General Resource v2.0
GET		
Description	It is used to get particular input port information.	
Query	None	
Inbound Data	None	
Success Return	IOInputPort	
PUT		
Description	It is used to update particular input port information.	
Query	None	
Inbound Data	IOInputPort	
Success Return	ResponseStatus	
Notes:		
<triggering> indicates the signal conditions to trigger the input port. High/Low will continuously trigger for the duration of high/low input signal.		
<name> IO input port name.		
1.<IOUseType>: disable, openDoor, doorStatus,custom;		
2.Door bell unit: <id>,<name>,<IOUseType>		

IOInputPort XML Block

```
<IOInputPort version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>      <!-- req, xs:integer -->          </id>
  <enabled> <!--req, Boolean,"true,false"--> </enabled>
  <triggering> <!-- req, xs:string, "high,low" --> <triggering>
  <name> <!--opt,xs:string--></name>
  <IOUseType> <!-- opt, xs:string, "disable,openDoor,doorStatus,custom" -->
</IOUseType>
</IOInputPort>
```

8.3.5 /ISAPI/System/IO/inputs/<ID>/status

/ISAPI/System/IO/inputs/ID/status		General Resource v2.0
GET		
Description	It is used to get the status of a particular input port.	
Query	None	
Inbound Data	None	
Success Return	IOPortStatus	
Notes: See /IO/status for an explanation of the fields.		

8.3.6 /ISAPI/System/IO/outputs

/ISAPI/System/IO/outputs		General Resource v2.0
GET		
Description	It is used to get the output ports information.	
Query	None	
Inbound Data	None	
Success Return	IOOutputPortList	
Notes: IO outputs are hardwired, meaning that the outputs are statically allocated by the device and cannot be created or deleted.		

IOOutputPortList XML Block

```
<IOOutputPortList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <IOOutputPort/> <!-- opt -->
</IOOutputPort>
```

8.3.7 /ISAPI/System/IO/outputs/<ID>

/ISAPI/System/IO/outputs/ID		General Resource v2.0
GET		
Description	It is used to get particular output port information.	
Query	None	
Inbound Data	None	
Success Return	IOOutputPort	
PUT		
Description	It is used to update particular output port information.	
Query	None	
Inbound Data	IOOutputPort	
Success Return	ResponseStatus	
<p>Notes:</p> <p><PowerOnState> defines the output port configuration when the device is powered on. <defaultState> is the default output port signal when it is not being triggered. <outputState> is the output port signal when it is being triggered. Pulse will cause the output port to send a signal (opposite of the <defaultState>) for a duration specified by the <pulseDuration> tag. <pulseDuration> is the duration of a output port signal when it is being triggered. It must be provided if the <outputState> is "pulse".</p> <p>1.<IOUseType>: disable, electricLock, custom; 2.Villa out door unit: only <id>,<name>,<IOUseType> are effective;</p>		

IOOutputPort XML Block

```

<IOOutputPort version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>          <!-- req, xs:integer, "2" -->          </id>
  <PowerOnState>  <!-- req -->
    <defaultState> <!--ro, req, xs:string, "high,low" -->  </defaultState>
    <outputState> <!--ro, req, xs:string, "high,low,pulse" --> </outputState>
    <pulseDuration> <!-- dep, xs:integer, milliseconds --> </pulseDuration>
  </PowerOnState>
  <name> <!--opt, xs:string--> </name>
  <IOUseType> <!-- opt, xs:string, "disable,electricLock,custom"--> </IOUseType>
</IOOutputPort>

```

8.3.8 /ISAPI/System/IO/outputs/<ID>/status

/ISAPI/System/IO/outputs/ID/status		General Resource v2.0
GET		
Description	It is used to get the status of a particular output port.	
Query	None	
Inbound Data	None	
Success Return	IOPortStatus	
Notes: See /IO/status for an explanation of the fields.		

8.3.9 /ISAPI/System/IO/outputs/<ID>/trigger

/ISAPI/System/IO/outputs/ID/trigger		General Resource v2.0
PUT		
Description	It is used to manually trigger a particular output port.	
Query	None	
Inbound Data	IOPortData	
Success Return	ResponseStatus	
Notes: Note that the ID used here MUST correspond to the ID in /IO/outputs/ID. The IO output port is toggled to a high or low signal accordingly.		

IOPortData XML Block

```
<IOPortData xmlns="http://www.isapi.org/ver20/XMLSchema">
  <outputState>    <!-- req, xs:string, "high,low" -->  </outputState>
</IOPortData>
```

8.3.10 /ISAPI/System/IO/outputs/strobelampConf

/ISAPI/System/IO/outputs/strobelampConf		General Resource v2.0
GET		
Description		
Query	None	
Inbound Data	None	
Success Return	StrobeLampConf	
PUT		
Description		

Query	None
Inbound Data	StrobeLampConf
Success Return	ResponseStatus
Notes:	

StrobeLampConf XML Block

```

<StrobeLampConf  "version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema >
  <LineLock> <!-- opt -->
    <signalFrequency>  <!-- opt, ro, xs:string "0-50hz, 60hz" --> </signalFrequency>
    <phase>  <!-- opt, xs:integer -->  </phase>
    <enabled> <!-- opt, xs:Boolean -->  </enabled>
  </LineLock>
  <StrobeLampList>
    <StrobeLamp "version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema >
      <IOWorkMode>  <!-- req, xs:string, "strobelamp,alarmoutput" --> </IOWorkMode>
      <syncOutputNo>  <!-- req, xs:string, "F1,F2,F3" -->  </syncOutputNo>
      <defaultState> <!-- opt, xs:string, "high,low" -->  </defaultState>
      <workingState><!-- opt, xs:string, "high,low,pulse" --> </workingState>
      <frequencyMultiplication>  <!-- opt, xs:integer, 0-15 --> </frequencyMultiplication>
      <dutyRatio>  <!-- opt, xs:integer,0-40 -->  </dutyRatio>
      <FlashlightTime>
        <enabled>  <!-- req, xs:Boolean -->  </enabled>
        <Schedule> <!--dep-->
          <scheduleType><!-- req,xs:string,"day,night"></scheduleType>
          <TimeRange> <!-- req -->
            <beginTime> <!-- req, xs:time, ISO8601 time --> </beginTime>
            <endTime> <!-- req, xs:time, ISO8601 time --> </endTime>
          </TimeRange>
        </Schedule>
      </FlashlightTime>
    </StrobeLamp>
  </StrobeLampList>
</StrobeLampConf>

```

8.4 /ISAPI/System/Video

/ISAPI/System/Video	Service v2.0
Notes:	

8.4.1 /ISAPI/System/Video/capabilities

/ISAPI/System/Video/capabilities		General Resource v2.0
GET		
Description	It is used to get device capability.	
Query	None	
Inbound Data	None	
Success Return	<VideoCap>	
Notes:		

VideoCap XML Block

```
<VideoCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <videoInputPortNums> <!-- opt, xs:integer--> <videoInputPortNums>
  <videoOutputPortNums> <!-- opt, xs:integer--> <videoOutputPortNums>
  <isSupportHeatmap> <!-- opt, xs:boolean--> </isSupportHeatmap>
  <isSupportCounting> <!-- opt, xs:boolean--> </isSupportCounting>
  <countingType> <!-- dep, xs:string, "human,object"--> </countingType>
</VideoCap>
```

8.4.2 /ISAPI/System/Video/inputs

/ISAPI/System/Video/inputs		General Resource v2.0
GET		
Description	It is used to get the video inputs configuration on an IP media device.	
Query	None	
Inbound Data	None	
Success Return	VideoInput	
Notes:		
An IP media device may contain a set of video inputs. These inputs are hardwired by the device, meaning that the IDs can be discovered but not created or deleted.		

VideoInput XML Block

```
<VideoInput version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <VideoInputChannelList/> <!-- opt -->
</VideoInput>
```

8.4.3 /ISAPI/System/Video/inputs/channels

ISAPI/System/Video/inputs/channels		General Resource v2.0
GET		
Description	It is used to get the video input channels configuration on an IP media device.	
Query	None	
Inbound Data	None	
Success Return	VideInputChannelList	
Notes: Since video input channels are resources that are defined by the hardware configuration of the device, they cannot be created or deleted.		

VideInputChannelList XML Block

```
<VideInputChannelList version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <VideInputChannel/>    <!-- opt -->
</VideInputChannelList>
```

8.4.4 /ISAPI/System/Video/inputs/channels/<ID>

ISAPI/System/Video/inputs/channels/ID		General Resource v2.0
GET		
Description	It is used to get a particular video input channel configuration on an IP media device.	
Query	None	
Inbound Data	None	
Success Return	VideInputChannel	
PUT		
Description	It is used to update a particular video input channel configuration on an IP media device.	
Query	None	
Inbound Data	VideInputChannel	
Success Return	ResponseStatus	
Notes:		

VideInputChannel XML Block

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

```

<inputPort><!-- req, xs:string -->    </inputPort>
<videoInputEnabled><!-- opt, xs:boolean --> </videoInputEnabled>
<name><!-- opt, xs:string --> </name>
<videoFormat><!-- opt, xs:string, "PAL, NTSC" --> </videoFormat>
<portType><!--opt, xs:string, "SDI, OPT, VGA, HDMI, YPbPr" --> </portType>
<resDesc><!--opt, xs:string--> </resDesc>
</VideoInputChannel>

```

8.4.5 /ISAPI/System/Video/inputs/channels/<ID>/focus

/ISAPI/System/Video/inputs/channels/ID/focus		General Resource	v2.0
PUT			
Description	Manually focus a video input channel.		
Query	None		
Inbound Data	FocusData		
Success Return	ResponseStatus		
Notes:			
<p><focus>: focus vector data. Negative numbers focus near, positive numbers focus far. Numerical value is a percentage of the maximum focus speed of the lens module.</p>			

FocusData XML Block

```

<FocusData version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <focus><!-- req, xs:intger -->    </focus>
</FocusData>

```

8.4.6 /ISAPI/System/Video/inputs/channels/<ID>/iris

/ISAPI/System/Video/inputs/channels/ID/iris		General Resource	v2.0
PUT			
Description	Manually adjust iris for a video input channel.		
Query	None		
Inbound Data	IrisData		
Success Return	ResponseStatus		
Notes:			
<p><iris> negative numbers close iris, positive numbers open iris. Numerical value is a percentage of the maximum iris speed of the lens module.</p>			

IrisData XML Block

```
<IrisData version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <iris> <!-- req, xs:intger --> </iris>
</IrisData>
```

8.4.7 /ISAPI/System/Video/inputs/channels/<ID>/privacyMask

/ISAPI/System/Video/inputs/channels/ID/privacyMask		General Resource v2.0
GET		
Description	It is used to get the privacy masking configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	PrivacyMask	
PUT		
Description	It is used to update the privacy masking configuration for a video input channel.	
Query	None	
Inbound Data	PrivacyMask	
Success Return	ResponseStatus	
Notes: Privacy masking can be enabled and the region list configured per channel.		

PrivacyMask XML Block

```
<PrivacyMask version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
  <normalizedScreenSize> <!--opt-->
    <normalizedScreenWidth> <!-- req, xs:integer --></normalizedScreenWidth>
    <normalizedScreenHeight> <!-- req, xs:integer --></normalizedScreenHeight>
  </normalizedScreenSize>
  <PrivacyMaskRegionList/> <!-- opt -->
  <regionType> <!-- opt, xs:string,"quadrilateral" --> </regionType>
</PrivacyMask>
```

8.4.8 /ISAPI/System/Video/inputs/channels/<ID>/privacyMask/regions

/ISAPI/System/Video/inputs/channels/ID/privacyMask/regions		General Resource v2.0
GET		
Description	It is used to get the privacy mask regions configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	PrivacyMaskRegionList	
PUT		
Description	It is used to update the privacy mask regions configuration for a video input channel.	
Query	None	
Inbound Data	PrivacyMaskRegionList	
Success Return	ResponseStatus	
POST		
Description	It is used to add a privacy mask region for a video input channel.	
Query	None	
Inbound Data	PrivacyMaskRegion	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete the privacy mask regions configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		
Privacy masking consists of a set of regions that are combined to grey or black out areas of a video input.		

PrivacyMaskRegionList XML Block

```
<PrivacyMaskRegionList version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <PrivacyMaskRegion/> <!-- opt -->
</PrivacyMaskRegionList>
```

8.4.9 /ISAPI/System/Video/inputs/channels/<ID>/privacyMask/regions/<ID>

/ISAPI/System/Video/inputs/channels/ID/privacyMask/regions/ID		General Resource v2.0
GET		
Description	It is used to get a particular privacy mask region configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	PrivacyMaskRegion	
PUT		
Description	It is used to update a particular privacy mask region configuration for a video input channel.	
Query	None	
Inbound Data	PrivacyMaskRegion	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular privacy mask region configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
<p>Notes:</p> <p>Region coordinates are dependent on normalized screen size.</p> <p>The computer screen coordinate system is used, which the origin coordinate is on top-left corner, the Y axis is vertical downwards, the X axis is horizontal rightwards.</p> <p>Only support the rectangular region which will be “drawn” from four coordinates. The four points is counterclockwise direction, and the beginning point is the top-left point.</p> <p>Ordering of <PrivacyMaskRegion> blocks is insignificant.</p>		

PrivacyMaskRegion XML Block

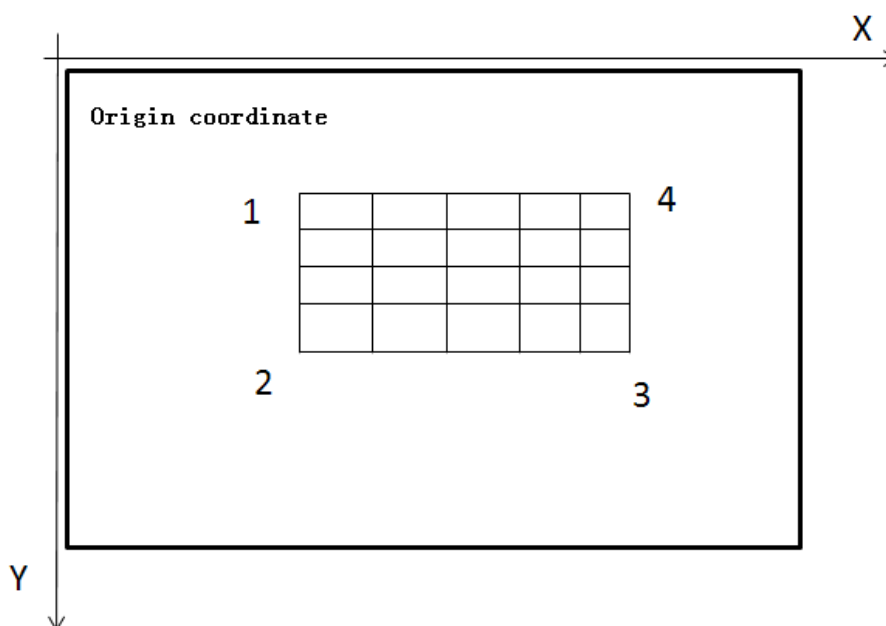
```
<PrivacyMaskRegion version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:integer --> </id>
  <enabled> <!-- req,xs:boolean --> </enabled>
  <RegionCoordinatesList> <!-- req -->
    <RegionCoordinates> <!-- req -->
      <positionX> <!-- req, xs:integer;coordinate --> </positionX>
```

```

    <positionY>      <!-- req, xs:integer;coordinate --> </positionY>
  </RegionCoordinates>
</RegionCoordinatesList>
<privacymaskName><!-- opt, xs:string--></privacymaskName>
<maskType>
  <!--opt, xs:string "gray,red,yellow,blue,orange,green,
    transparent,half-transparent,mosaic"-->
</maskType>
<zoomdoorlimit> <!-- opt, xs:integer "10-1000"--> </zoomdoorlimit>
</PrivacyMaskRegion>

```

Example for priavacyMask Region:



8.4.10 /ISAPI/System/Video/inputs/channels/<ID>/tamperDetection

/ISAPI/System/Video/inputs/channels/ID/tamperDetection		General Resource	v2.0
GET			
Description	It is used to get the shelter alarm configuration for a video input channel.		
Query	None		
Inbound Data	None		
Success Return	TamperDetection		
PUT			

Description	It is used to update the shelter alarm configuration for a video input channel.
Query	None
Inbound Data	TmaperDetection
Success Return	ResponseStatus
Notes:	

TameprDetection XML Block

```
<TamperDetection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
  <normalizedScreenSize> <!--req-->
    <normalizedScreenWidth> <!-- req, xs:integer --></normalizedScreenWidth>
    <normalizedScreenHeight> <!-- req, xs:integer --></normalizedScreenHeight>
  </normalizedScreenSize>
  <tampersensitivityLevel>
    <!--req, xs:integer, 0..100, 0 is the least sensitive -->
  </tampersensitivityLevel>
  <TamperDetectionRegionList/>
  <!-- req -->
</ TamperDetection >
```

8.4.11 /ISAPI/System/Video/inputs/channels/<ID>/tamperDetection/regions

/ISAPI/System/Video/inputs/channels/ID/tamperDetection/regions		General Resource v2.0
GET		
Description	It is used to get the shelter alarm regions configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	TamperDetectionRegionList	
PUT		
Description	It is used to update the shelter alarm regions configuration for a video input channel.	
Query	None	
Inbound Data	TamperDetectionRegionList	
Success Return	ResponseStatus	
POST		

Description	It is used to add a shelter alarm region for a video input channel.
Query	None
Inbound Data	TamperDetectionRegion
Success Return	ResponseStatus
DELETE	
Description	It is used to delete the shelter alarm regions configuration for a video input channel.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

TamperDetectionRegionList XML Block

```
<TamperDetectionRegionList version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <TamperDetectionRegion/> <!-- opt -->
</ TamperDetectionRegionList >
```

8.4.12 /ISAPI/System/Video/inputs/channels/<ID>/tamperDetection/regions/<ID>

/ISAPI/System/Video/inputs/channels/ID/tamperDetection/regions/ID		General Resource v2.0
GET		
Description	It is used to get a particular shelter alarm region configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	TamperDetectionRegion	
PUT		
Description	It is used to update a particular shelter alarm region configuration for a video input channel.	
Query	None	
Inbound Data	TamperDetectionRegion	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular shelter alarm region configuration for a video input channel.	
Query	None	

Inbound Data	None
Success Return	ResponseStatus
Notes:	
<p>Region coordinates are dependent on video resolution. Only support the rectangular region which will be “drawn” from four coordinates. The four points is clockwise direction, and the beginning point is the low-left point.</p> <p>Ordering of <TamperDetectionRegion> blocks is insignificant.</p>	

TamperDetectionRegion XML Block

```

<TamperDetectionRegion version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>          <!-- req, xs:string, id -->          </id>
  <sensitivityLevel>
    <!--req, xs:integer, 0..100, 0 is the least sensitive -->
  </sensitivityLevel>
  <RegionCoordinatesList> <!-- req -->
    <RegionCoordinates> <!-- req -->
      <positionX>      <!-- req, xs:integer;coordinate -->      </positionX>
      <positionY>      <!-- req, xs:integer;coordinate -->      </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</TamperDetectionRegion>

```

8.4.13 /ISAPI/System/Video/inputs/channels/<ID>/motionDetection

/ISAPI/System/Video/inputs/channels/ID		Service v2.0
/MotionDetection		
GET		
Description	It is used to get the motion detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	MotionDetection	
PUT		
Description	It is used to update the motion detection configuration for a video input channel.	
Query	None	
Inbound Data	MotionDetection	

Success Return	ResponseStatus
Notes: If motion detection is supported by the device, a motion detection ID will be allocated for each video input channel ID. The motion detection ID must correspond to the video input channel ID.	

MotionDetection XML Block

```

<MotionDetection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled>      <!-- req, xs:boolean -->      </enabled>
  <enableHighlight>    <!-- opt, xs:boolean -->    </enableHighlight>
  <samplingInterval> <!-- opt, xs:integer, number of frames --> </samplingInterval>
  <startTriggerTime> <!-- opt, xs:integer, milliseconds --> </startTriggerTime>
  <endTriggerTime> <!-- opt, xs:integer, milliseconds --> </endTriggerTime>
  <regionType>      <!-- ro, req, xs:string, "grid, roi, none, region" -->      </regionType>
  <Grid>          <!-- dep -->
    <rowGranularity>    <!-- ro, req, xs:integer -->    </rowGranularity>
    <columnGranularity> <!-- ro, req, xs:integer --> </columnGranularity>
  </Grid>
  <ROI>          <!-- dep -->
    <normalizedScreenWidth> <!-- ro, req, xs:integer --></normalizedScreenWidth>
    <normalizedScreenHeight> <!-- ro, req, xs:integer --></normalizedScreenHeight>
  </ROI>
  <MotionDetectionLayout/> <!-- req -->
  <Region>      <!-- dep -->
    <normalizedScreenWidth> <!-- ro, req, xs:integer --></normalizedScreenWidth>
    <normalizedScreenHeight> <!-- ro, req, xs:integer --></normalizedScreenHeight>
  </Region>
</MotionDetection>

```

8.4.14 /ISAPI/System/Video/inputs/channels/<ID>/motionDetection/layout

/ISAPI/System/Video/inputs/channels/<ID> /MotionDetection/layout	General Resource v2.0
Notes:	

MotionDetectionLayout XML Block

```

<MotionDetectionLayout version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  <sensitivityLevel>    <!-- req -->
    <!-- req, xs:integer, "0-100", 0 is least sensitive -->

```

```

</sensitivityLevel>
<layout>
  <gridMap> <!--dep, xs:hexstring--> </gridMap>
  <roiMap/>
  <RegionList> <!-- opt -->
    <Region>
      <id> <!-- req, xs:string --> </id>
      <RegionCoordinatesList> <!-- opt -->
        <RegionCoordinates> <!-- opt -->
          <positionX> <!-- req, xs:integer;coordinate -->
</positionX>
          <positionY> <!-- req, xs:integer;coordinate -->
</positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </Region>
  </RegionList>
</layout>
</MotionDetectionLayout>

```

8.4.15 /ISAPI/System/Video/inputs/channels/<ID>/motionDetection/layout/gridLayout

/ISAPI/System/Video/inputs/channels/ID		General Resource v2.0
/MotionDetection/layout/gridLayout		
GET		
Description	It is used to get the motion detection regions configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	MotionDetectionGridLayout	
PUT		
Description	It is used to update the motion detection regions configuration for a video input channel.	
Query	None	
Inbound Data	MotionDetectionGridLayout	
Success Return	ResponseStatus	

Notes:

All motion detection regions share a sensitivity level.

It is possible to define mask regions that are subtracted from other regions.

<gridMap> required when region type is grid.

A “1” denotes an grid to detect and a “0” no to detect.

The first cell is in the upper left corner. Then the cell order goes first from left to right and then from up to down (see flowing example).

If the number of cells is not a multiple of 8 the last byte is filled with zeros.

MotionDetectionGridLayout XML Block

```
<MotionDetectionGridLayout version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <sensitivityLevel>    <!-- req -->
    <!-- req, xs:integer, "0-100", 0 is least sensitive -->
  </sensitivityLevel>
  <layout>
    <gridMap> <!--dep, xs:hexstring--> </gridMap>
    <roiMap/>
    <RegionList size=""> <!-- opt -->
      <Region>
        <id>                <!-- req, xs:string -->                </id>
        <RegionCoordinatesList> <!-- opt -->
          <RegionCoordinates> <!-- opt -->
            <positionX>      <!-- req, xs:integer;coordinate -->    </positionX>
            <positionY>      <!-- req, xs:integer;coordinate -->    </positionY>
          </RegionCoordinates>
        </RegionCoordinatesList>
      </Region>
    </RegionList>
  </layout>
</MotionDetectionGridLayout>
```

8.4.16 Motion Detection Example

Set up Motion Detection

The following command configures two rectangular detection regions, with one “masked” region on video input channel ID 1. Example assumes a resolution of 1600x1200 and a grid motion detection algorithm:

- Motion detection is enabled with a granularity of a 22x18 grid (each row will reserve 2 grids, the actual region is 24x18; but generally the last two rows are ignored.) – this means the detection region coordinates will ultimately be defined by a grid of 432

Query	None
Inbound Data	None
Success Return	MotionDetectionExt
PUT	
Description	It is used to update the motion detection configuration for a video input channel.
Query	None
Inbound Data	MotionDetectionExt
Success Return	ResponseStatus
<p>Notes:</p> <p>If motion detection is supported by the device, a motion detection ID will be allocated for each video input channel ID. The motion detection ID must correspond to the video input channel ID. The device supports two kinds of motion detection, <activeMode> is used to check current motion detection mode, if the value is normal, please refer to /motionDetection branch; if the value is expert, please refer to /motionDetectionExt branch.</p>	

MotionDetectionExt XML Block

```

<MotionDetectionExt version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled>
  <minObjectSize>
    <!-- opt, xs:integer, min number of pixels per object -->
  </minObjectSize>
  <maxObjectSize>
    <!-- opt, xs:integer, max number of pixels per object -->
  </maxObjectSize>
  <ROI> <!-- dep -->
    <normalizedScreenWidth> <!-- ro, req, xs:integer --></normalizedScreenWidth>
    <normalizedScreenHeight> <!-- ro, req, xs:integer --></normalizedScreenHeight>
  </ROI>
  <enableHighlight> <!-- opt, xs:boolean --> </enableHighlight>
  <MotionDetectionSwitch/> <!--opt -->
  <activeMode> <!-- ro, xs:string, "normal,expert"> <activeMode>
  <MotionDetectionRegionList/> <!-- req -->
</MotionDetectionExt>

```

8.4.18 /ISAPI/System/Video/inputs/channels/<ID>/motionDetectionExt/regions

/motionDetectionExt/regions

GET

MotionDetectionRegionList XML Block

```
<MotionDetectionRegionList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <MotionDetectionRegion/> <!-- opt -->
</MotionDetectionRegionList>
```

8.4.19 /ISAPI/System/Video/inputs/channels/<ID>/motionDetectionExt/regions/<ID>

/ISAPI/System/Video/inputs/channels/ID		General Resource v2.0
/motionDetectionExt/ID/regions/ID		
GET		
Description	It is used to get the motion detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	MotionDetectionRegion	
PUT		
Description	It is used to update the motion detection configuration for a video input channel.	
Query	None	
Inbound Data	MotionDetectionRegion	
Success Return	ResponseStatus	
Notes:		
If motion detection is supported by the device, a motion detection ID will be allocated for each video input channel ID. The motion detection ID must correspond to the video input channel ID.		

MotionDetectionRegion XML Block

```
<MotionDetectionRegion version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string;id --></id>
  <enabled> <!-- req, xs:boolean --> </enabled>
  <sensitivityLevel><!-- req -->
    <!-- req, xs:integer, 0..100, 0 is least sensitive -->
  </sensitivityLevel>
  <daySensitivityLevel> <!-- dep -->
    <!-- req, xs:integer, 0..100, 0 is least sensitive-->
  </daySensitivityLevel>
```

```

<nightSensitivityLevel>    <!-- dep -->
    <!-- req, xs:integer, 0..100, 0 is least sensitive-->
</nightSensitivityLevel>
<objectSize><!-- dep -->
    <!-- req, xs:integer, 0..100, 0 is least sensitive -->
</objectSize>
<dayObjectSize> <!-- dep -->
    <!-- req, xs:integer, 0..100, 0 is least sensitive -->
</dayObjectSize>
<nightObjectSize>    <!-- dep -->
    <!-- req, xs:integer, 0..100, 0 is least sensitive -->
</nightObjectSize>
<RegionCoordinatesList> <!-- req -->
    <RegionCoordinates>    <!-- Note: at least two coordinates are required -->
        <positionX>    <!-- req, xs:integer --> </positionX>
        <positionY>    <!-- req, xs:integer --> </positionY>
    </RegionCoordinates>
</RegionCoordinatesList>
</MotionDetectionRegion>

```

8.4.20 /ISAPI/System/Video/inputs/channels/<ID>/motionDetectionExt/switch

/ISAPI/System/Video/inputs/channels/ID/motionDetectionExt/switch		General Resource v2.0
GET		
Description	It is used to get the motion detection switch day and night settings.	
Query	None	
Inbound Data	None	
Success Return	MotionDetectionSwitch	
PUT		
Description	It is used to update the motion detection switch day and night settings.	
Query	None	
Inbound Data	MotionDetectionSwitch	
Success Return	ResponseStatus	
Notes:		
If motion detection is supported by the device, a motion detection ID will be allocated for each video input channel ID. The motion detection ID must correspond to the video input channel ID.		

MotionDetectionSwitch XML Block

```
<MotionDetectionSwitch version="2.0"
  xmlns="http://www.isapi.com/ver10/XMLSchema">
  <type>
    <!-- opt, xs:string, "off,auto,schedule"-->
  </type>
  <Schedule> <!--dep-->
    <scheduleType><!-- req,xs:string,"day,night"></scheduleType>
    <TimeRange> <!-- req -->
      <beginTime> <!-- req, xs:time, ISO8601 time --> </beginTime>
      <endTime> <!-- req, xs:time, ISO8601 time --> </endTime>
    </TimeRange>
  </Schedule>
</MotionDetectionSwitch>
```

8.4.21 /ISAPI/System/Video/inputs/channels/<ID>/overlays

/ISAPI/System/Video/inputs/channels/ID/overlays		General Resource v2.0
GET		
Description	It is used to get the overlays configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	VideoOverlay	
PUT		
Description	It is used to update the overlays configuration for a video input channel.	
Query	None	
Inbound Data	VideoOverlay	
Success Return	ResponseStatus	
Notes:		
The <fontSize> is defined as following declaration. "adaptive,16*16,32*32,48*48,64*64"		

VideoOverlay XML Block

```
<VideoOverlay version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <normalizedScreenSize> <!--req-->
    <normalizedScreenWidth> <!--ro, req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--ro, req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <attribute> <!--opt-->
```

```

    <transparent> <!-- req, xs:boolean --></transparent>
    <flashing> <!-- req, xs:boolean--> <flashing>
</attribute>
<TextOverlayList/> <!-- opt -->
<DateTimeOverlay /> <!-- opt -->
<channelNameOverlay /> <!-- opt -->
<fontSize> <!-- opt, xs:string,"adaptive,16*16,32*32,48*48,64*64" --> </fontSize>
<frontColorMode> <!-- opt, string,"auto,customize" --> </frontColorMode>
<frontColor> <!-- dep, xs: hexBinary;color --> </frontColor>
<BatteryPowerOverlay/><!-- opt -->
<alignment><!--opt,xs:string"customize,alignRight,alignLeft"--></alignment>
<publicSecurity> <!-- req, xs:boolean--> </publicSecurity>
</VideoOverlay>

```

8.4.22 /ISAPI/System/Video/inputs/channels/<ID>/overlays/text

/ISAPI/System/Video/inputs/channels/ID/overlays/text		General Resource v2.0
GET		
Description	It is used to get the text overlays configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	TextOverlayList	
PUT		
Description	It is used to update the text overlays configuration for a video input channel.	
Query	None	
Inbound Data	TextOverlayList	
Success Return	ResponseStatus	
POST		
Description	It is used to add a text overlay for a video input channel.	
Query	None	
Inbound Data	TextOverlay	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete the text overlays configuration for a video input channel.	
Query	None	

Inbound Data	None
Success Return	ResponseStatus
Notes:	
A set of text overlays is managed. They are composited over the video signal in increasing ID-order.	

TextOverlayList XML Block

```
<TextOverlayList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <TextOverlay/> <!-- opt -->
</TextOverlayList>
```

8.4.23 /ISAPI/System/Video/inputs/channels/<ID>/overlays/text/<ID>

/ISAPI/System/Video/inputs/channels/ID/overlays/text/ID		General Resource v2.0
GET		
Description	It is used to get a particular text overlay configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	TextOverlay	
PUT		
Description	It is used to update a particular text overlay configuration for a video input channel.	
Query	None	
Inbound Data	TextOverlay	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular text overlay configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		
Position coordinates are dependent on normalized screen size.		
The computer screen coordinate system is used, which the origin coordinate is on top-left corner, the Y axis is vertical downwards, the X axis is horizontal rightwards.		

TextOverlay XML Block

```
<TextOverlay version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>          <!-- req, xs:string -->    </id>
  <enabled>     <!-- req, xs:boolean -->    </enabled>
  <positionX>   <!-- req, xs:float -->      </positionX>
  <positionY>   <!-- req, xs:float -->      </positionY>
  <displayText> <!-- req, xs:string -->          </displayText>
</TextOverlay>
```

8.4.24 /ISAPI/System/Video/inputs/channels/<ID>/overlays/channelNameOverlay

/ISAPI/System/Video/inputs/channels/ID/overlays/channelNameOverlay		General Resource v2.0
GET		
Description	It is used to get a particular channel name configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	channelNameOverlay	
PUT		
Description	It is used to update a particular channel name configuration for a video input channel.	
Query	None	
Inbound Data	channelNameOverlay	
Success Return	ResponseStatus	
Notes:		
Position coordinates are dependent on normalized screen size.		
The computer screen coordinate system is used, which the origin coordinate is on top-left corner, the Y axis is vertical downwards, the X axis is horizontal rightwards.		

channelNameOverlay XML Block

```
<channelNameOverlay version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled> //Show channel name
  <positionX> <!-- req, xs:integer;coordinate --> </positionX>
  <positionY> <!-- req, xs:integer;coordinate --> </positionY>
</channelNameOverlay>
```

8.4.25 /ISAPI/System/Video/inputs/channels/<ID>/overlays/dateTimeOverlay

/ISAPI/System/Video/inputs/channels/ID/overlays/dateTime		General Resource v2.0
GET		
Description	It is used to get the OSD configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	DatetimeOverlay	
PUT		
Description	It is used to update the OSD configuration for a video input channel.	
Query	None	
Inbound Data	DatetimeOverlay	
Success Return	ResponseStatus	
Notes:		
Position coordinates are dependent on normalized screen size.		
The computer screen coordinate system is used, which the origin coordinate is on top-left corner, the Y axis is vertical downwards, the X axis is horizontal rightwards.		

DateTimeOverlay XML Block

```
<DateTimeOverlay version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!-- req, xs:boolean --> </enabled> //check whether to display date
  <positionX> <!-- req, xs:integer;coordinate --> </positionX>
  <positionY> <!-- req, xs:integer;coordinate --> </positionY>
  <dateStyle>
    <!-- opt, xs:string, "YYYY-MM-DD, MM-DD-YYYY, DD-MM-YYYY, CHR-YYYY-MM-DD,
CHR-MM-DD-YYYY, CHR-DD-MM-YYYY, CHR-YYYY/MM/DD, CHR-MM/DD/YYYY,
CHR-DD/MM/YYYY" -->
  </dateStyle>
  <timeStyle> <!--opt, xs:string, "12hour, 24hour" --> </timeStyle>
  <displayWeek> <!-- opt, xs:boolean --> </displayWeek> //check whether to display week
</DateTimeOverlay>
```

8.4.26 /ISAPI/System/Video/inputs/channels/<ID>/image

e

/ISAPI/System/Video/inputs/channels/ID/image		General Resource v2.0
GET		
Description	Access on-screen Image for a special channel.	
Query	None	
Inbound Data	None	
Success Return	ImageOverlayList	
PUT		
Description	Configure the on-screen Image for a special channel.	
Query	None	
Inbound Data	ImageOverlayList	
Success Return	ResponseStatus	
Notes:		

ImageOverlayList XML Block

```
<ImageOverlayList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ImageOverlay/> <!-- opt -->
</ImageOverlayList>
```

8.4.27 /ISAPI/System/Video/inputs/channels/<ID>/image

e/<ID>

/ISAPI/System/Video/inputs/channels/ID/image/ID		General Resource v2.0
GET		
Description	Access on-screen Image for a special channel.	
Query	None	
Inbound Data	None	
Success Return	ImageOverlay	
PUT		
Description	Configure the on-screen Image for a special channel.	
Query	None	
Inbound Data	ImageOverlay	
Success Return	ResponseStatus	
Notes:		

ImageOverlay XML Block

```
<ImageOverlay version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:string;id --> </id>
  <enabled> <!-- req, xs:boolean --> </enabled>
  <imageName> <!-- req, xs:string --> </imageName>
  <positionX> <!-- opt, xs:integer;coordinate --> </positionX>
  <positionY> <!-- opt, xs:integer;coordinate --> </positionY>
  <transparentColorEnabled> <!-- opt, xs:boolean --> </transparentColorEnabled>
  <transparentColor> <!-- dep, xs:hexBinary;color --> </transparentColor>
  <imageWidth> <!--opt, xs:integer--> </imageWidth>
  <imageHeight> <!--opt, xs:integer--> </imageHeight>
</ImageOverlay>
```

8.4.28 /ISAPI/System/Video/inputs/channels/<ID>/image/picture

/ISAPI/System/Video/inputs/channels/ID/image/picture	
POST	
Description	Configure the on-screen Image for a special channel.
Query	None
Inbound Data	Picture over HTTP
Success Return	ResponseStatus
Notes:	

8.4.29 /ISAPI/System/Video/inputs/channels/<ID>/heatMap

/ISAPI/System/Video/inputs/channels/ID/heatMap		General Resource v2.0
GET		
Description	It is used to get the heat map configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	HeatMap	
PUT		
Description	It is used to update the heat map configuration for a video input channel.	

Query	None
Inbound Data	HeatMap
Success Return	ResponseStatus
Notes: Heat map can be enabled and the region list configured per channel.	

HeatMap XML Block

```
<HeatMap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled>          <!-- req, xs:boolean -->      </enabled>
  <normalizedScreenSize> <!-- opt -->
    <normalizedScreenWidth> <!-- req, xs:integer --></normalizedScreenWidth>
    <normalizedScreenHeight> <!-- req, xs:integer --></normalizedScreenHeight>
  </normalizedScreenSize>
  <HeatMapRegionList/> <!-- opt -->
</HeatMap>
```

8.4.30 /ISAPI/System/Video/inputs/channels/<ID>/heat Map/capabilities

/ISAPI/System/Video/inputs/channels/<ID>/heatMap/capabilities		General Resource v2.0
GET		
Description	It is used to get the heat map capabilities.	
Query	None	
Inbound Data	None	
Success Return	HeatMap	
Notes:		

HeatMap XML Block

```
<HeatMap version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <enabled opt="true,false">false</enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth>1000</normalizedScreenWidth>
    <normalizedScreenHeight>1000</normalizedScreenHeight>
  </normalizedScreenSize>
  <sensitivityLevel min="1" max="100">50</sensitivityLevel>
  <backgroundUpdateRate min="1" max="100">50</backgroundUpdateRate>
  <sceneChangeLevel min="1" max="100">50</sceneChangeLevel>
  <targetTracking opt="true,false">false</targetTracking>
  <minObjectSize min="1" max="100">50</minObjectSize>
```

```

<HeatMapRegionList size="8" >
  <HeatMapRegion>
    <id>1</id>
    <RegionCoordinatesList size="10" min="4">
      </RegionCoordinatesList>
    </HeatMapRegion>
  </HeatMapRegionList>
  <isSupportHeatMapPicInfo opt="true,false">false</isSupportHeatMapPicInfo>
</HeatMap>

```

8.4.31 /ISAPI/System/Video/inputs/channels/<ID>/heat Map/regions

/ISAPI/System/Video/inputs/channels/ID/heatMap/regions		General Resource v2.0
GET		
Description	It is used to get the heat map regions configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	HeatMapRegionList	
PUT		
Description	It is used to update the heat map regions configuration for a video input channel.	
Query	None	
Inbound Data	HeatMapRegionList	
Success Return	ResponseStatus	
POST		
Description	It is used to add a heat map region for a video input channel.	
Query	None	
Inbound Data	HeatMapRegion	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete the heat map regions configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	

Notes:

HeatMapRegionList XML Block

```
<HeatMapRegionList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <HeatMapRegion/> <!-- opt -->
</HeatMapRegionList>
```

8.4.32 /ISAPI/System/Video/inputs/channels/<ID>/heatMap/regions/<ID>

/ISAPI/System/Video/inputs/channels/ID/heatMap/regions/ID		General Resource v2.0
GET		
Description	It is used to get a particular heat map region configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	HeatMapRegion	
PUT		
Description	It is used to update a particular heat map region configuration for a video input channel.	
Query	None	
Inbound Data	HeatMapRegion	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular heat map region configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

HeatMapRegion XML Block

```
<HeatMapRegion version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:integer --> </id>
  <sensitivityLevel><!-- req, xs:integer --> </sensitivityLevel>
  <backgroundUpdateRate> <!-- opt, xs:integer --> </backgroundUpdateRate>
  <sceneChangeLevel> <!-- opt, xs:integer --> </sceneChangeLevel>
  <targetTracking> <!-- opt, xs:boolean --> </targetTracking>
```

```

<minObjectSize> <!-- opt, xs:integer --> </minObjectSize>
<RegionCoordinatesList> <!-- req -->
  <RegionCoordinates> <!-- req -->
    <positionX> <!-- req, xs:integer;coordinate --> </positionX>
    <positionY> <!-- req, xs:integer;coordinate --> </positionY>
  </RegionCoordinates>
</RegionCoordinatesList>
</HeatMapRegion>

```

8.4.33 /ISAPI/System/Video/inputs/channels/<ID>/heatMap/search

/ISAPI/System/Video/inputs/channels/ID/heatMap/search		General Resource v2.0
GET		
Description	It is used to get the value of heat for a time interval.	
Query	None	
Inbound Data	HeatMapDataDescription	
Success Return	HeatMapDataResult	
POST		
Description	It is used to get the value of heat for a time interval.	
Query	None	
Inbound Data	HeatMapDataDescription	
Success Return	HeatMapDataResult	
Notes:		

HeatMapDataDescription XML Block

```

<HeatMapDataDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <reportType>
    <!-- req, xs:string, "daily,weekly,monthly, yearly"-->
  </reportType>
  <timeSpanList>
    <timeSpan>
      <startTime><!-- req, xs:datetime --></startTime>
      <endTime><!-- req, xs:datetime --></endTime>
    </timeSpan>
  </timeSpanList>
</HeatMapDataDescription>

```

HeatMapDataResult XML Block

```

<HeatMapDataResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <responseStatus><!-- req, xs:boolean--></responseStatus>
  <responseStatusStrg><!-- req, xs:string--></responseStatusStrg>
  <numOfMatches><!-- req, xs:integer --></numOfMatches>
  <matchList> <!-- opt -->
    <matchElement> <!-- opt -->
      <timeSpan> <!-- opt -->
        <startTime><!-- req, xs:datetime --></startTime>
        <endTime><!-- req, xs:datetime --></endTime>
      </timeSpan>
      <value> <!-- req, xs:integer --> </value>
    </matchElement>
  </matchList>
</HeatMapDataResult>

```

8.4.34 /ISAPI/System/Video/inputs/channels/ID/heatMap/picture

/ISAPI/System/Video/inputs/channels/ID/heatMap/picture		General Resource	v2.0
GET			
Description	It is used to get the picture of heat map.		
Query	starttime endtime		
Inbound Data	None		
Success Return	Picture over HTTP		
Notes:			
Examples:			
GET			
/ISAPI/System/Video/inputs/channels/ID/heatMap/picture?starttime=2014-01-11T11:00:00Z&endtime=2014-01-11T11:59:59Z			

8.4.35 /ISAPI/System/Video/inputs/channels/ID/heatMap/pictureInfo

/ISAPI/System/Video/inputs/channels/ID/heatMap/pictureInfo		General Resource	v2.0
GET			
Description	It is used to get the picture of heat map Info.		
Query	None		
Inbound Data	HeatMapDataDescription		
Success Return	HeatMapPicInfo		
Notes:			

HeatMapDataDescription XML Block

```
<HeatMapDataDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <reportType>
    <!-- req, xs:string, "daily,weekly,monthly, yearly"-->
  </reportType>
  <timeSpanList>
    <timeSpan>
      <startTime><!-- req, xs:datetime --></startTime>
      <endTime><!-- req, xs:datetime --></endTime>
    </timeSpan>
  </timeSpanList>
</HeatMapDataDescription>
```

HeatMapPicInfo XML Block

```
<HeatMapPicInfo version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <MaxValue><!-- opt, xs:integer, "0~365*24*60*60" --></MaxValue>
  <MinValue><!-- opt, xs:integer, "0~365*24*60*60" --></MinValue>
</HeatMapPicInfo>
```

8.4.36 /ISAPI/System/Video/inputs/channels/<ID>/counting

/ISAPI/System/Video/inputs/channels/ID/counting		General Resource	v2.0
GET			

Description	It is used to get the counting configuration for a video input channel.
Query	None
Inbound Data	None
Success Return	Counting
PUT	
Description	It is used to update the counting configuration for a video input channel.
Query	None
Inbound Data	Counting
Success Return	ResponseStatus
Notes: <dataUploadCycle> : PDC data upload cycle <SECUploadEnabled> : Per second upload mechanism to enable <calibrateType opt="automatic,manual,no">: 标定类型, 自动标定、手动标定、没有标定 <tiltAngle>:俯仰角单位: 度; 俯仰角默认值: 0; 俯仰角范围: 0-180 度 <heelAngle>:倾斜角单位: 度; 倾斜角默认值: 0; 倾斜角范围: -90-90 度 <height>: 高度, 高度单位: 厘米; 高度默认值 300 厘米; 高度范围: 200-500 厘米 HeightFilterOverlay 节点中<enabled>: 表示是否开启高度过滤, 默认关闭 <heightFilter>:过滤高度, 单位: 厘米, 默认值: 120 厘米, 范围: 0-250 厘米	

Counting XML Block

```

<Counting version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled>          <!-- req, xs:boolean -->      </enabled>
  <normalizedScreenSize> <!--opt-->
    <normalizedScreenWidth> <!-- req, xs:integer --></normalizedScreenWidth>
    <normalizedScreenHeight> <!-- req, xs:integer --></normalizedScreenHeight>
  </normalizedScreenSize>
  <MountingConfiguration> <!-- opt -->
    <viewingAngle> <!-- req, xs:string, "vertical,tilt" --> </viewingAngle>
    <mountHeight> <!-- opt, xs:integer;cm --> </mountHeight>
    <horizontalDistance> <!-- opt, xs:integer;cm --> </horizontalDistance>
    <focalLength> <!-- opt, xs:integer;mm --> </focalLength>
  </MountingConfiguration>
  <OverlayConfiguration> <!-- opt -->
    <enabled>          <!-- req, xs:boolean -->      </enabled>
    <positionX>        <!-- req, xs:interger -->      </positionX>
    <positionY>        <!-- req, xs:interger -->      </positionY>
    <OSDType><!--dep 依赖于<enabled>节点为 true, xs:string, "enter, leave,
enterLeave,peoplePassing"></OSDType>
  </OverlayConfiguration>
  <Demarcation> <!-- opt -->
    <enabled>          <!-- req, xs:boolean -->      </enabled>

```



```

<DemarcationRegionList> <!-- req-->
  <DemarcationRegion> <!-- opt -->
    <id> <!-- req, xs:integer --> </id>
    <RegionCoordinatesList>
      <RegionCoordinates> <!-- req, -->
        <positionX> <!-- req, xs:integer;coordinate -->
</positionX>
        <positionY> <!-- req, xs:integer;coordinate -->
</positionY>
      </RegionCoordinates>
    </RegionCoordinatesList>
  </DemarcationRegion>
</DemarcationRegionList>
<DemarcationLine>
  <StartPoint> <!--req -->
    <positionX> <!-- req, xs:integer --> </positionX>
    <positionY> <!-- req, xs:integer --> </positionY>
  </StartPoint>
  <EndPoint> <!--req -->
    <positionX> <!-- req, xs:integer --> </positionX>
    <positionY> <!-- req, xs:integer --> </positionY>
  </EndPoint>
</DemarcationLine>
</Demarcation>
<CountingRegionType><!-- ro, req, xs:string, "region,line" --></CountingRegionType>
<CountingRegionList/> <!-- opt -->
<CountingLineItemList/> <!-- opt -->
<dataUploadCycle><!--opt, xs:integer, --></dataUploadCycle>
<SECUploadEnabled> <!-- opt, xs:boolean --> </SECUploadEnabled>
<InterferenceSuppression><!--,opt-->
  <shadow><!--opt, xs:boolean--></shadow>
  <loitering><!-- opt, xs:boolean--></loitering>
  <cart><!-- opt, xs:boolean--></cart>
</InterferenceSuppression>
<EmailReport><!--,opt-->
  <DayReport><!-- opt ,xs:boolean --></DayReport>
  <WeekReport><!-- opt ,xs:boolean --></WeekReport>
  <MonthReport><!-- opt ,xs:boolean --></MonthReport>
  <YearReport><!-- opt ,xs:boolean --></YearReport>
</EmailReport>
<CountingCalibrate>
  <!--req-->
  <calibrateType>

```

```

        <!-- opt ,xs:string,"automatic,manual,no" -->
    </calibrateType>
    <SetupParam>
        <!--req,-->
        <height>
            <!-- opt, xs:float, unit:cm -->
        </height>
        <tiltAngle>
            <!-- opt, ro,xs:float -->
        </tiltAngle>
        <heelAngle>
            <!-- opt, ro,xs:float -->
        </heelAngle>
    </SetupParam>
    <CountingArea>
        <!--req,ro,"计数区域（红框）"-->
        <RegionCoordinatesList>
            <RegionCoordinates>
                <!-- req, -->
                <positionX>
                    <!-- req, xs:integer;coordinate -->
                </positionX>
                <positionY>
                    <!-- req, xs:integer;coordinate -->
                </positionY>
            </RegionCoordinates>
        </RegionCoordinatesList>
    </CountingArea>
    <AutomaticCalib>
        <!--opt,dep if<calibrateType>automaticCalib</calibrateType>-->
        <CalibRegion>
            <!--opt,标定区域(绿框)-->
            <RegionCoordinatesList>
                <RegionCoordinates>
                    <!-- req, -->
                    <positionX>
                        <!-- req, xs:integer;coordinate -->
                    </positionX>
                    <positionY>
                        <!-- req, xs:integer;coordinate -->
                    </positionY>
                </RegionCoordinates>
            </RegionCoordinatesList>

```

```

        </CalibRegion>
    </AutomaticCalib>
</CountingCalibrate>
<HeightFilterOverlay>
    <!-- opt-->
    <enabled>
        <!-- opt, xs:boolean -->
    </enabled>
    <heightFilter>
        <!-- opt ,xs:integer -->
    </heightFilter>
</HeightFilterOverlay>
</Counting>

```

/ISAPI/System/Video/inputs/channels/ID/counting/lineltem/ID		General Resource v2.0
GET		
Description	It is used to get a particular counting Line configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	CountingLineltem	
PUT		
Description	It is used to update a particular counting Line configuration for a video input channel.	
Query	None	
Inbound Data	CountingLineltem	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular counting Line configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		
<horizontalDistance> is used to get or set Horizontal Distance between Camera and Entrance/Exit.		

CountingRegion XML Block

```

<CountingLineltem version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <id> <!-- req, xs:integer --> </id>
    <direction> <!-- req -->

```

```

<StartPoint> <!-- req -->
  <positionX> <!-- req, xs:integer --> </positionX>
  <positionY> <!-- req, xs:integer --> </positionY>
</StartPoint>
<EndPoint> <!-- req -->
  <positionX> <!-- req, xs:integer --> </positionX>
  <positionY> <!-- req, xs:integer --> </positionY>
</EndPoint>
</direction>
<sensitivityLevel><!-- req, xs:integer --> </sensitivityLevel>
<spaceGenerationSpeed> <!-- opt, xs:integer --> </spaceGenerationSpeed>
<timeGenerationSpeed> <!-- opt, xs:integer --> </timeGenerationSpeed>
<countingSpeed><!-- opt, xs:integer --> </countingSpeed>
<detectionType> <!-- opt, xs:string, "auto,head,shoulder"--> </detectionType>
<objectSizeCorrection> <!-- opt, xs: integer --> </objectSizeCorrection>
<LineCoordinatesList>
  <Coordinates> <!-- req, -->
    <positionX> <!-- req, xs:integer;coordinate --> </positionX>
    <positionY> <!-- req, xs:integer;coordinate --> </positionY>
  </Coordinates>
</LineCoordinatesList>
</CountingLineItem>

```

8.4.37 /ISAPI/System/Video/inputs/channels/<ID>/counting/capabilities

/ISAPI/System/Video/inputs/channels/<ID>/counting/capabilities		General Resource	v2.0
GET			
Description	It is used to get the counting configuration Capabilities for a video input channel.		
Query	None		
Inbound Data	None		
Success Return	CountingCap		
Notes:			
<calibrateType opt="automatic,manual,no">: calibration type, automatic calibration, manual calibration, no calibration			
<tiltAngle>: tilt angle unit: degree, the default value is 0, tilt range: 0-180.			
<heelAngle>:倾斜角单位: 度; 倾斜角默认值: 0; 倾斜角范围: -90-90 度			
<height>: 高度, 高度单位: 厘米; 高度默认值 300 厘米; 高度范围: 200-500 厘米			
HeightFilterOverlay 节点中<enabled>: 表示是否开启高度过滤, 默认关闭			

<heightFilter>:过滤高度，单位：厘米，默认值：120 厘米，范围：0-250 厘米。在
 <isSupportCalibrate>:是否支持架设标定

CountingCap XML Block

```
<CountingCap version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <CountingRegionType><!-- opt, xs:string,"line" --></CountingRegionType>
  <dataUploadCycle opt="1,5,10,15,20,30,60"><!--opt, xs:integer, --></dataUploadCycle>
  <isSupportSECUpload> <!-- opt, xs:boolean --> </isSupportSECUpload>
  <isSupportRecommendValue><!-- opt, xs:boolen,"true" --></isSupportRecommendValue>
  <isSupportFlashRemoveCouting><!-- opt,
xs:boolean,"true"--></isSupportFlashRemoveCouting>
  <OSDType opt="enter,leave,enterLeave, none"><!-- opt, xs:string --></OSDType>
  <InterferenceSuppression><!--opt-->
    <shadow opt="true,false"><!--opt, xs:boolean--></shadow>
    <loitering opt="true,false"><!-- opt, xs:boolean--></loitering>
    <cart opt="true,false"><!-- opt, xs:boolean--></cart>
  </InterferenceSuppression>
  <EmailReport><!--opt-->
    <DayReport opt="true,false"><!-- opt ,xs:boolean --></DayReport>
  <WeekReport opt="true,false"><!-- opt ,xs:boolean --></WeekReport>
    <MonthReport opt="true,false"><!-- opt ,xs:boolean --></MonthReport>
    <YearReport opt="true,false"><!-- opt ,xs:boolean --></YearReport>
  </EmailReport>
  <CountingCalibrate>
    <!--req-->
    <calibrateType opt="automatic,manual,no">
      <!-- opt ,xs:string, "" -->
    </calibrateType>
    <SetupParam>
      <!--req,-->
      <height min="" max="">
        <!-- opt, xs:float, unit:cm -->
      </height>
      <tiltAngle min="" max="">
        <!-- opt, ro,xs:float -->
      </tiltAngle>
      <heelAngle min="" max="">
        <!-- opt, ro,xs:float -->
      </heelAngle>
    </SetupParam>
    <CountingArea>
      <!--req,ro,"计数区域（红框）"-->
      <RegionCoordinatesList size="">
```

```

    <RegionCoordinates>
      <!-- req, -->
      <positionX>
        <!-- req, xs:integer;coordinate -->
      </positionX>
      <positionY>
        <!-- req, xs:integer;coordinate -->
      </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</CountingArea>
<AutomaticCalib>
  <!--opt,dep if<calibrateType>automatic</calibrateType>-->
  <CalibRegion>
    <!--opt,标定区域(绿框)-->
    <RegionCoordinatesList size="">
      <RegionCoordinates>
        <!-- req, -->
        <positionX>
          <!-- req, xs:integer;coordinate -->
        </positionX>
        <positionY>
          <!-- req, xs:integer;coordinate -->
        </positionY>
      </RegionCoordinates>
    </RegionCoordinatesList>
  </CalibRegion>
</AutomaticCalib>
</CountingCalibrate>
<HeightFilterOverlay>
  <!-- opt-->
  <enabled opt="true,false" default="">
    <!-- opt, xs:boolean -->
  </enabled>
  <heightFilter min="" max="" default="">
    <!-- opt ,xs:integer -->
  </heightFilter>
</HeightFilterOverlay>
<isSupportCalibrate opt="true,false">
  <!-- opt, xs:boolean -->
</isSupportCalibrate>
<isSupportPosInfoOverlay opt="true,false">
  <!-- opt, xs:boolean -->

```

```
</isSupportPosInfoOverlay>
</CountingCap>
```

8.4.38 /ISAPI/System/Video/inputs/channels/<ID>/counting/RecommendValue

/ISAPI/System/Video/inputs/channels/<ID>/counting/RecommendValue		General Resource	v2.0
GET			
Description	Get counting recommend value		
Query	None		
Inbound Data	None		
Success Return	CountingRecommendValue		
Notes:			
<widthPercent> : [0,1000]			

CountingRecommendValue XML Block

```
<CountingRecommendValue version="2.0"
xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <width><!--opt,xs:integer, --></width>
</CountingRecommendValue>
```

8.4.39 /ISAPI/System/Video/inputs/channels/<ID>/counting/regions

/ISAPI/System/Video/inputs/channels/<ID>/counting/regions		General Resource	v2.0
GET			
Description	It is used to get the counting regions configuration for a video input channel.		
Query	None		
Inbound Data	None		
Success Return	CountingRegionList		
PUT			
Description	It is used to update the counting regions configuration for a video input channel.		
Query	None		

Inbound Data	CountingRegionList
Success Return	ResponseStatus
POST	
Description	It is used to add a counting region for a video input channel.
Query	None
Inbound Data	CountingRegion
Success Return	ResponseStatus
DELETE	
Description	It is used to delete the counting regions configuration for a video input channel.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

CountingRegionList XML Block

```
<CountingRegionList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <CountingRegion/> <!-- opt -->
</CountingRegionList>
```

8.4.40 /ISAPI/System/Video/inputs/channels/<ID>/counting/regions/<ID>

/ISAPI/System/Video/inputs/channels/ID/counting/regions/ID		General Resource v2.0
GET		
Description	It is used to get a particular counting region configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	CountingRegion	
PUT		
Description	It is used to update a particular counting region configuration for a video input channel.	
Query	None	
Inbound Data	CountingRegion	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular counting region configuration	

	for a video input channel.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	
<horizontalDistance> is used to get or set Horizontal Distance between Camera and Entrance/Exit.	

CountingRegion XML Block

```
<CountingRegion version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:integer --> </id>
  <Direction> <!-- req -->
    <StartPoint> <!-- req -->
      <positionX> <!-- req, xs:integer --> </positionX>
      <positionY> <!-- req, xs:integer --> </positionY>
    </StartPoint>
    <EndPoint> <!-- req -->
      <positionX> <!-- req, xs:integer --> </positionX>
      <positionY> <!-- req, xs:integer --> </positionY>
    </EndPoint>
  </Direction>
  <sensitivityLevel><!-- req, xs:integer --> </sensitivityLevel>
  <spaceGenerationSpeed> <!-- opt, xs:integer --> </spaceGenerationSpeed>
  <timeGenerationSpeed> <!-- opt, xs:integer --> </timeGenerationSpeed>
  <countingSpeed><!-- opt, xs:integer --> </countingSpeed>
  <detectionType> <!-- opt, xs:string, "auto,head,shoulder"--> </detectionType>
  <objectSizeCorrection> <!-- opt, xs: integer --> </objectSizeCorrection>
  <RegionCoordinatesList> <!-- req -->
    <RegionCoordinates> <!-- req -->
      <positionX> <!-- req, xs:integer;coordinate --> </positionX>
      <positionY> <!-- req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</CountingRegion>
```

8.4.41 /ISAPI/System/Video/inputs/channels/<ID>/counting/search

/ISAPI/System/Video/inputs/channels/ID/counting/search

General Resource v2.0

h

GET	
Description	It is used to get the value of counter for a time range
Query	None
Inbound Data	CountingStatisticsDescription
Success Return	CountingStatisticsResult
POST	
Description	It is used to get the value of counter for a time range
Query	None
Inbound Data	CountingStatisticsDescription
Success Return	CountingStatisticsResult
Notes: statisticType: 统计类型, enternum-进入, exitnum-离开, peoplePassing-经过 reportType: 报表类型, daily-日, weekly-周, monthly-月, yearly-年	

CountingStatisticsDescription XML Block

```
<CountingStatisticsDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <statisticType> <!-- req, xs:string, "enternum, exitnum, peoplePassing" --> </statisticType>
  <reportType>
    <!-- req, xs:string, "daily, weekly, monthly, yearly" -->
  </reportType>
  <timeSpanList>
    <timeSpan>
      <startTime><!-- req, xs:datetime --></startTime>
      <endTime><!-- req, xs:datetime --></endTime>
    </timeSpan>
  </timeSpanList>
</CountingStatisticsDescription>
```

CountingStatisticsResult XML Block

```
<CountingStatisticsResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <responseStatus><!-- req, xs:boolean --></responseStatus>
  <responseStatusStrg><!-- req, xs:string --></responseStatusStrg>
  <numOfMatches><!-- req, xs:integer --></numOfMatches>
  <matchList> <!-- opt -->
    <matchElement> <!-- opt -->
      <timeSpan> <!-- opt -->
        <startTime><!-- req, xs:datetime --></startTime>
        <endTime><!-- req, xs:datetime --></endTime>
      </timeSpan>
    </matchElement>
  </matchList>
</CountingStatisticsResult>
```

```

<enterCount> <!--dep, xs:integer -> </enterCount>
<exitCount> <!--dep, xs:integer -> </exitCount>

</matchElement>
</matchList>
</CountingStatisticsResult>

```

8.4.42 /ISAPI/System/Video/inputs/channels/ID/counting/resetCount

/ISAPI/System/Video/inputs/channels/ID/counting/resetCount		General Resource	v2.0
PUT			
Description	It is used to reset the count of a video input channel.		
Query	None		
Inbound Data	None		
Success Return	ResponseStatus		
Notes:			

8.4.43 /ISAPI/System/Video/inputs/channels/ID/VCAResource/capabilities

/ISAPI/System/Video/inputs/channels/ID/VCAResource/capabilities		General Resource	v2.0
GET			
Description	Intelligent acquisition of resources capabilities		
Query	None		
Inbound Data	None		
Success Return	VCAResource		

VCAResource XML Block

```

<VCAResource version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <type opt="
basicBehavior,fullBehavior,facesnapBehavior,facesnap,TFS,smartVehicleDetection,smartHVTDetection,smart,judicial,smart264AndRoadDetection,smart264AndFaceDetection,smart264AndHeatMap,smartVehicleIllegalParkingDetection,smartIntelligentMonitor,smartTrafficDataCollection">
    <!--req, xs:string, -> </type>
</VCAResource>

```

8.4.44 /ISAPI/System/Video/inputs/channels/ID/VCAResource source

/ISAPI/System/Video/inputs/channels/ID/VCAResource		General Resource v2.0
GET		
Description	Intelligent acquisition of resources configuration parameters	
Query	None	
Inbound Data	None	
Success Return	VCAResource	
PUT		
Description	Intelligent resource parameter settings	
Query	None	
Inbound Data	VCAResource	
Success Return	ResponseStatus	
Notes:		

VCAResource XML Block

```
<VCAResource version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <type> <!--req,                                     xs:string,
  "basicBehavior,fullBehavior,facesnapBehavior,facesnap,TFS,smartVehicleDetection,smartHVTDe
  ction,smart,judicial,smart264AndRoadDetection,smart264AndFaceDetection,smart264AndHeatM
  ap,smartIntelligentMonitor,smartTrafficDataCollection" -> </type>
</VCAResource>
```

8.4.45 /ISAPI/System/Video/outputs

/ISAPI/System/Video/outputs		General Resource v2.0
GET		
Description	It is used to get the video outputs configuration on an IP media device.	
Query	None	
Inbound Data	None	
Success Return	VideoOutput	
Notes:		
An IP media device may contain a set of video outputs. These outputs are hardwired by the device, meaning that the IDs can be discovered but not created or deleted.		

VideoOutput XML Block

```
<VideoOutput version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <VideoOutputChannelList/> <!--opt -->
</VideoOutput>
```

8.4.46 /ISAPI/System/Video/outputs/channels

ISAPI/System/Video/outputs/channels		General Resource v2.0
GET		
Description	It is used to get the video output channels configuration on an IP media device.	
Query	None	
Inbound Data	None	
Success Return	VideoOutputChannelList	
Notes:		
Since video output channels are resources that are defined by the hardware configuration of the device, they cannot be created or deleted.		

VideoOutputChannelList XML Block

```
<VideoOutputChannelList version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  <VideoOutputChannel/> <!--opt -->
</VideoOutputChannelList>
```

8.4.47 /ISAPI/System/Video/outputs/channels/<ID

>

ISAPI/System/Video/outputs/channels/<ID>		General Resource v2.0
GET		
Description	It is used to get a particular video input channel configuration on an IP media device.	
Query	None	
Inbound Data	None	
Success Return	VideoOutputChannel	
Notes:		
<menu> required if the port support display menu.		
<mirrorMenu> check whether to support to display menu of another port simultaneously		

<outputId>: The ID number that corresponding to current output channel.

VideoOutputChannel XML Block

```
<VideoOutputChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id --> </id>
  <type> <!--req, xs:string, "VGA,CVBS,HDMI,Spot,SDI" --> </type>
  <menu> <!--dep, ro -->
    <mirrorMenu> <!--req, xs:boolean--> </mirrorMenu>
  </menu>
  <mode> <!--opt,xs:string,"close,clip,scale,open,SDI_1080P25..."--> <mode>
  <resolution> <!--opt, xs:string; "1920*1080/60HZ,1280*720/50HZ..." --> </resolution>
  <mirrorList>
    <outputId><!--opt, xs:string --></outputId>
  </mirrorList>
</VideoOutputChannel>
```

8.4.48 /ISAPI/System/Video/Menu

URI	/ISAPI/System/Video/Menu			Type	Resource
Function	Access the local menu configuration on an IP media device.				
Methods	Query String(s)	Inbound Data	Return Result		
GET			<MenuList>		
Notes	An IP media device may contain a set of local menus. These menus are hardwired by the device, meaning that the IDs can be discovered but not created or deleted. ID numbering or values should be considered arbitrary and				

MenuList XML Block

```
<MenuList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Menu/> <!--opt -->
</MenuList>
```

8.4.49 /ISAPI/System/Video/Menu/<ID>

URI	/ISAPI/System/Video/Menu/<ID>			Type	Resource
Function	Access menu configuration.				
Methods	Query String(s)	Inbound Data	Return Result		
GET		None	<Menu>		

PUT		<Menu>	<ResponseStatus>
Notes	If(mode == auto) VideoOutputPortList is ro		

Menu XML Block

```
<Menu version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <mode> <!--req, xs:string, "auto, manual" --> </mode>
  <VideoOutputPortList> <!--req -->
    <videoOutputPortID> <!--opt, xs:string, id --> </videoOutputPortID>
  </VideoOutputPortList>
</Menu>
```

8.4.50 /ISAPI/System/Video/inputs/channels/<ID>/overlays/capabilities

/ISAPI/System/Video/inputs/channels/ID/overlays/capabilities		General Resource	v2.0
GET			
Description	It is used to get the overlays configuration for a video input channel.		
Query	None		
Inbound Data	None		
Success Return	VideoOverlay		

VideoOverlay XML Block

```
<VideoOverlay version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <normalizedScreenSize> <!--req-->
    <normalizedScreenWidth> <!--ro, req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--ro, req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <attribute> <!--opt-->
    <transparent> <!--req, xs:boolean --> </transparent>
    <flashing> <!--req, xs:boolean --> <flashing>
  </attribute>
  <TextOverlayList/> <!--opt -->
  <DateTimeOverlay/> <!--opt -->
  <channelNameOverlay/> <!--opt -->
  <fontSize> <!--opt, xs:integer, pixels --> </fontSize>
  <frontColorMode opt="auto,customize"> <!--opt, string --> </frontColorMode>
  <frontColor> <!--dep, xs: hexBinary;color --> </frontColor>
  <BatteryPowerOverlay/><!--opt -->
```

</VideoOverlay>

8.4.51 /ISAPI/System/Video/inputs/channels/<ID>/overlays/BatteryPowerOverlay

/ISAPI/System/Video/inputs/channels/ID/overlays/BatteryPowerOverlay		General Resource v2.0
GET		
Description	It is used to get a BatteryPowerOverlayOverlay configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	BatteryPowerOverlay	
PUT		
Description	It is used to update BatteryPowerOverlayOverlay configuration for a video input channel.	
Query	None	
Inbound Data	BatteryPowerOverlay	
Success Return	ResponseStatus	
Notes: Position coordinates are dependent on normalized screen size. The computer screen coordinate system is used, which the origin coordinate is on top-left corner, the Y axis is vertical downwards, the X axis is horizontal rightwards.		

BatteryPowerOverlay XML Block

```
<BatteryPowerOverlay>
  <enabled><!--req, xs:boolean --></enabled>
  <positionX> <!--req, xs:integer;coordinate --> </positionX>
  <positionY> <!--req, xs:integer;coordinate --> </positionY>
</BatteryPowerOverlay>
```

8.4.52 /ISAPI/System/Video/inputs/channels/<ID>/overlays/BatteryPowerOverlay/capabilities

/ISAPI/System/Video/inputs/channels/<ID>/overlays/BatteryPowerOverlay/capabilities		General Resource v2.0
GET		

Description	It is used to get a BatteryPowerOverlay configuration for a video input channel capability.
Query	None
Inbound Data	None
Success Return	BatteryPowerOverlay
Notes:	

BatteryPowerOverlay XML Block

```
<BatteryPowerOverlay>
  <enabled><!--req, xs:boolean --></enabled>
  <positionX> <!--req, xs:integer;coordinate --> </positionX>
  <positionY> <!--req, xs:integer;coordinate --> </positionY>
</BatteryPowerOverlay>
```

8.4.53 /ISAPI/System/Video/inputs/channels/<ID>/roadInfo/<ID>/overlays/capabilities

/ISAPI/System/Video/inputs/channels/<ID>/roadInfo/overlays/capabilities	General Resource v2.0
GET	
Description	It is used to get road info overlays capability.
Query	None
Inbound Data	None
Success Return	RoadInfo
Notes:	

RoadInfo XML Block

```
<RoadInfo version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <displayRoadInfo> <!--req, xs:boolean --></displayRoadInfo>
  <intersection min="" max=""> <!--req, xs:integer,"路口ID" --> </intersection>
  <RoadInfoOverlayList size="6"> <!--opt -->
    <RoadInfoOverlay>
      <id> <!--req, xs:integer;id --> </id>
      <enabled> <!--req, xs:boolean --> </enabled>
      <displayText min="" max=""> <!--req, xs:string --> </displayText>
    </RoadInfoOverlay>
  </RoadInfoOverlayList>
  <alignment><!--opt,xs:string"customize,alignRight"--></alignment>
```

```
<publicSecurity> <!--opt, xs:boolean--> </publicSecurity>
</RoadInfo>
```

8.4.54 /ISAPI/System/Video/inputs/channels/<ID>/roadInfo/<ID>/overlays

/ISAPI/System/Video/inputs/channels/<ID>/roadInfo/<ID>/overlays		General Resource v2.0
GET		
Description	道路信息字符叠加，通道参数信息获取	
Query	None	
Inbound Data	None	
Success Return	RoadInfo	
PUT		
Description	道路信息字符叠加，通道参数信息设置	
Query	None	
Inbound Data	RoadInfo	
Success Return	ResponseStatus	
Notes:		

RoadInfo XML Block

```
<RoadInfo version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <displayRoadInfo> <!--req, xs:boolean --></displayRoadInfo>
  <intersection min="" max=""> <!--req, xs:integer, "路口 ID" --> </intersection>
  <RoadInfoOverlayList/> <!--opt -->
</RoadInfo>
```

8.4.55 /ISAPI/System/Video/inputs/channels/<ID>/roadInfo/<ID>/overlays/text

/ISAPI/System/Video/inputs/channels/<ID>/roadInfo/<ID>/overlays/text		General Resource v2.0
GET		
Description	It is used to get the text overlays configuration for a video input channel.	
Query	None	
Inbound Data	None	

Success Return	RoadInfoOverlayList
PUT	
Description	It is used to update the text overlays configuration for a video input channel.
Query	None
Inbound Data	RoadInfoOverlayList
Success Return	ResponseStatus
POST	
Description	It is used to add a text overlay for a video input channel.
Query	None
Inbound Data	RoadInfoOverlay
Success Return	ResponseStatus
DELETE	
Description	It is used to delete the text overlays configuration for a video input channel.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes: A set of text overlays is managed. They are composited over the video signal in increasing ID-order.	

RoadInfoOverlayList **XML Block**

```
<RoadInfoOverlayList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <RoadInfoOverlay/>  <!--opt -->
</RoadInfoOverlayList>
```

8.4.56 /ISAPI/System/Video/inputs/channels/<ID>/roadInfo/<ID>/overlays/text/<ID>

/ISAPI/System/Video/inputs/channels/<ID>/roadInfo/<ID>/overlays/text/<ID>	General Resource	v2.0
GET		
Description	It is used to get a particular text overlay configuration for a video input channel.	
Query	None	
Inbound Data	None	
Success Return	RoadInfoOverlay	
PUT		

Description	It is used to update a particular text overlay configuration for a video input channel.
Query	None
Inbound Data	RoadInfoOverlay
Success Return	ResponseStatus
DELETE	
Description	It is used to delete a particular text overlay configuration for a video input channel.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

RoadInfoOverlay XML Block

```
<RoadInfoOverlay version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:integer;id -> </id>
  <enabled> <!--req, xs:boolean -> </enabled>
  <displayText> <!--req, xs:string -> </displayText>
</RoadInfoOverlay>
```

8.4.57 /ISAPI/System/Video/inputs/channels/ID/counting/posInfoOverlay/capabilities

/ISAPI/System/Video/inputs/channels/ID/counting/posInfoOverlay/capabilities		General Resource v2.0
GET		
Description	It is used to Get pos Info Overlay of a video input channel capabilities.	
Query	None	
Inbound Data	PosInfoOverlay	
Success Return	ResponseStatus	
Notes:		
type: inOut,inOutPassIdHeight		
inOut:表示叠加---IN、OUT		
inOutPassIdHeight:表示叠加---IN、OUT、PASS、ID、高度，高度在左、ID在右		

PosInfoOverlay XML Block

```
<PosInfoOverlay version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <enabled><!--opt,xs:boolean, -></enabled>
```

```
<type opt="inOut,inOutPassIdHeight"><!--opt,xs:string--></type>
</PosInfoOverlay>
```

8.4.58 /ISAPI/System/Video/inputs/channels/ID/counting/posInfoOverlay

/ISAPI/System/Video/inputs/channels/ID/counting/posInfoOverlay		General Resource	v2.0
PUT			
Description	It is used to Set Pos Info Overlay of a video input channel.		
Query	None		
Inbound Data	PosInfoOverlay		
Success Return	ResponseStatus		
GET			
Description	It is used to Get Pos Info Overlay of a video input channel.		
Query	None		
Inbound Data	None		
Success Return	PosInfoOverlay		
Notes: type: inOut,inOutPassIdHeight inOut:表示叠加---IN、OUT inOutPassIdHeight:表示叠加---IN、OUT、PASS、ID、高度，高度在左、ID 在右			

PosInfoOverlay XML Block

```
<PosInfoOverlay version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <enabled><!--opt,xs:boolean, --></enabled>
  <type><!--opt,xs:string,opt="inOut,inOutPassIdHeight"--></type>
</PosInfoOverlay>
```

8.4.59 /ISAPI/System/Video/inputs/channels/<ID>/counting/search/capabilities

/ISAPI/System/Video/inputs/channels/ID/counting/search	General Resource	v2.0
--	------------------	------

h/capabilities	
GET	
Description	It is used to get the value of counter for a time range capabilities
Query	None
Inbound Data	CountingStatisticsDescription
Success Return	ResponseStatus
Notes: statisticType:统计类型, enternum-进入, exitnum-离开,peoplePassing-经过 reportType: 报表类型, daily-日,weekly-周,monthly-月, yearly-年	

CountingStatisticsDescription XML Block

```
<CountingStatisticsDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <statisticType> <!--req, xs:string, "enternum, exitnum,peoplePassing"--> </statisticType>
  <reportType>
    <!--req, xs:string, "daily,weekly,monthly, yearly"-->
  </reportType>
  <timeSpanList>
    <timeSpan>
      <startTime><!--req, xs:datetime --></startTime>
      <endTime><!--req, xs:datetime --></endTime>
    </timeSpan>
  </timeSpanList>
</CountingStatisticsDescription>
```

8.5 /ISAPI/System/Audio

/ISAPI/System/Audio	Service v2.0
Notes:	

8.3.1 /ISAPI/System/Audio/capabilities

/ISAPI/System/Audio/capabilities	General Resource v2.0
GET	
Description	It is used to get audio capability.
Query	None
Inbound Data	None

Success Return	<AudioCap>
Notes:	

AudioCap XML Block

```
<AudioCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <audioInputNums> <!--req, xs:integer> </audioInputNums>
  <audioOutputNums> <!--req, xs:integer> </audioOutputNums>
  <mixAudioInSet><!--opt xs:Boolean -></mixAudioInSet>
  <mixAudioOutSet"><!--opt xs:Boolean -></mixAudioOutSet>
</AudioCap>
```

8.3.2 /ISAPI/System/Audio/channels

/ISAPI/System//Audio/channels		General Resource v2.0
GET		
Description	It is used to get the audio channels configuration on an IP media device.	
Query	None	
Inbound Data	None	
Success Return	AudioChannelList	
Notes:		
Since inputs are resources that are defined by the hardware configuration of the device, audio channels cannot be created or deleted.		

AudioChannelList XML Block

```
<AudioChannelList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <AudioChannel/> <!--opt ->
</AudioChannelList>
```

8.3.3 /ISAPI/System/Audio/channels/<ID>

/ISAPI/System/Audio/channels/ID		General Resource v2.0
GET		
Description	It is used to get a particular audio channel configuration on an IP media device.	
Query	None	
Inbound Data	None	
Success Return	AudioChannel	
Notes:		
<audioMode> is the duplex mode for audio transmission between the client and media device.		

AudioChannel XML Block

```
<AudioChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>          <!--req, xs:string ->          </id>
  <enabled>     <!--req, xs:boolean ->         </enabled>
</AudioChannel>
```

8.3.4 /ISAPI/System/Audio/channels/<ID>/dynamicCap

/ISAPI/System/Audio/channels/ID/dynamicCap		General Resource v2.0
GET		
Description	Get dynamic capabilities, different audioSamplingRate have different audioBitRate; different audio compression types have different audio bit rate.	
Query	None	
Inbound Data	AudioDdescriptor	
Success Return	DynamicCap	
Notes:		

AudioDdescriptor XML Block

```
<AudioDdescriptor version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <audioCompressionType>
    <!--opt,
xs:string,"G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM,MP2L2"
->
    </audioCompressionType>
  <audioSamplingRate> <!--opt, xs:float,kHz -></audioSamplingRate>
</AudioDdescriptor>
```

DynamicCap XML Block

```
<DynamicCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ResolutionAvailableDdescriptorList>
    <ResolutionAvailableDdescriptor>
      <videoResolutionWidth> <!--req, xs:integer -> </videoResolutionWidth>
      <videoResolutionHeight> <!--req, xs:integer -> </videoResolutionHeight>
      <supportedFrameRate> <!--req, xs:string -> </supportedFrameRate>
    </ResolutionAvailableDdescriptor>
  </ResolutionAvailableDdescriptorList>
  <CodecParamDdescriptorList>
    <CodecParamDdescriptor>
      <videoCodecType>
```



```

<!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,HK.264" --></videoCodecType>
<isSupportProfile> <!--dep, xs:boolean,"" --> </isSupportProfile>
<CBRCap> 定码率
  <isSupportSmooth><!--dep, xs:boolean --></isSupportSmooth>
</CBRCap>
<VBRCap> 变码率
  <isSupportSmooth><!--dep, xs:boolean --></isSupportSmooth>
</VBRCap>
<isSupportSVC> <!--opt, xs:boolean --> </isSupportSVC>
<isSupportCABAC> <!--opt, xs:boolean --> </isSupportCABAC>
<SmartCodecCap><opt -->
  <readOnlyParams opt="keyFrameInterval,Profile,SVC,fixedQuality " --><!--opt, ro,
xs:string, --></readOnlyParams>
  <!--req, 当 Smart264 开启后, 在变码率情况下, 界面上码率上限下方增加一行,
标题为平均码率, 同时码率上限灰显, 不能修改,
  平均码率默认值根据码率上限做转换, 平均码率的范围为(0,码率上限)。平均码率
单独保存, 不复用码率上限;
  当码率类型为定码率时, 要求平均码率隐藏, 码率上限可以配置。 -->
  <BitrateType>
    <Constant><!--opt, 定码率 -->
      <support opt="videoBitrate" --><!--opt, xs:string,"averageVideoBitrate(平均码
率),videoBitrate(码率上限)" --></support>
      <hiddenAbility opt="averageVideoBitrate" --><!--opt,
xs:string,"averageVideoBitrate(平均码率),videoBitrate(码率上限)" --></hiddenAbility>
    </Constant>
    <Variable><!--opt, 变码率 -->
      <support opt="averageVideoBitrate" --><!--opt,
xs:string,"averageVideoBitrate(平均码率),videoBitrate(码率上限)" --></support>
      <readOnlyAbility opt="videoBitrate" --><!--opt,
xs:string,"averageVideoBitrate(平均码率),videoBitrate(码率上限)" --></readOnlyAbility>
    </Variable>
  </BitrateType>
  <vbrAverageDefault><!--dep,xs:integer in kbps " 平均码率推荐
值" --></vbrAverageDefault>
</SmartCodecCap>
</CodecParamDscriptor>
</CodecParamDscriptorList>
<AudioDscriptorList>
  <audioCompressionType>
    <!--req, xs:string,
    "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM
,
MP2L2" -->
  </audioCompressionType>

```

```

</AudioDescriptorList>
</DynamicCap>
<DynamicCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <AudioDescriptorList>
    <AudioDescriptor>
      <audioCompressionType>
        <!--req,
xs:string,"G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM,MP2L2"
→
      </audioCompressionType>
      <audioItemList>
        <audioItem>
          <audioSamplingRate, default = "">
            <!--opt,xs:string →</audioSamplingRate>
          <audioBitRate opt = ""> <!--dep, xs:integer → </audioBitRate>
          <noiseReduce>
            <!--default = "true,false"><!--req, xs:string,"true,false" →
          </noiseReduce>
        <audioItem>
      </audioItemList>
    </AudioDescriptor>
  </AudioDescriptorList>
  <CodecParamDescriptorList>
    <CodecParamDescriptor>
      <videoCodecType>
        <!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,HK.264" →</videoCodecType>
      <isSupportProfile> <!--dep, xs: boolean,"" → </isSupportProfile>
      <CBRCap> 定码率
        <isSupportSmooth><!--dep, xs:boolean→</isSupportSmooth>
      </CBRCap>
      <VBRCap> 变码率
        <isSupportSmooth><!--dep, xs:boolean→</isSupportSmooth>
      </VBRCap>
      <isSupportSVC> <!--opt, xs:boolean→ </isSupportSVC>
      <isSupportCABAC> <!--opt, xs:boolean→ </isSupportCABAC>
      <SmartCodecCap><opt→
        <readOnlyParams opt="keyFrameInterval,Profile,SVC"><!--opt, ro, xs:string, "需要灰显
的项有: 1 帧间隔、编码复杂度、SVC"→</readOnlyParams>
        <!--req, 当 Smart264 开启后, 在变码率情况下, 界面上码率上限下方增加一行,
标题为平均码率, 同时码率上限灰显, 不能修改,
        平均码率默认值根据码率上限做转换, 平均码率的范围为(0,码率上限)。平均码率
单独保存, 不复用码率上限;
        当码率类型为定码率时, 要求平均码率隐藏, 码率上限可以配置。→

```

```

<BitrateType>
  <Constant><!--opt,定码率-->
    <support opt="videoBitrate"><!--opt, xs:string,"averageVideoBitrate(平均码率),videoBitrate(码率上限)"--></support>
    <hiddenAbility opt="averageVideoBitrate"><!--opt, xs:string,"averageVideoBitrate(平均码率),videoBitrate(码率上限)"--></hiddenAbility>
  </Constant>
  <Variable><!--opt,变码率-->
    <support opt="averageVideoBitrate"><!--opt, xs:string,"averageVideoBitrate(平均码率),videoBitrate(码率上限)"--></support>
    <readOnlyAbility opt="videoBitrate"><!--opt, xs:string,"averageVideoBitrate(平均码率),videoBitrate(码率上限)"--></readOnlyAbility>
  </Variable>
</BitrateType>
  <vbrAverageDefault><!--dep,xs:integer in kbps "平均码率推荐值"--></vbrAverageDefault>
</SmartCodecCap>
</CodecParamDscriptor>
</CodecParamDscriptorList>
</DynamicCap>

```

8.3.5 /ISAPI/System/TwoWayAudio

/ISAPI/System/TwoWayAudio	General Resource v2.0
Notes: two way audio Service.	

8.3.6 /ISAPI/System/TwoWayAudio/channels

/ISAPI/System/TwoWayAudio/channels		General Resource v2.0
GET		
Description	It is used to get the two way audio channels list	
Query	None	
Inbound Data	None	
Success Return	TwoWayAudioChannelList	
Notes:		

TwoWayAudioChannelList XML Block

```
<TwoWayAudioChannelList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <TwoWayAudioChannel/> <!--opt -->
</TwoWayAudioChannelList>
```

8.3.7 /ISAPI/System/TwoWayAudio/channels/<ID>

/ISAPI/System/TwoWayAudio/channels/ID		General Resource v2.0
GET		
Description	It is used to get a particular two way audio channel	
Query	None	
Inbound Data	None	
Success Return	TwoWayAudioChannel	
PUT		
Description	It is used to get a particular transparent channel	
Query	None	
Inbound Data	TwoWayAudioChannel	
Success Return	ResponseStatus	
Notes: When <enabled>is true, two way audio is open; otherwise two way audio is closed. When <audioCompressionType> is MP212, <audioBitRate> supports to set bit rate.		

TwoWayAudioChannel XML Block

```
<TwoWayAudioChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <audioCompressionType>
    <!--req, xs:string,
    "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM,MP2L2"
    -->
  </audioCompressionType>
  <audioInboundCompressionType>
    <!--opt, xs:string,
    "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM"
    -->
  </audioInboundCompressionType>
  <speakerVolume> <!--opt, xs:int--> </speakerVolume>
  <microphoneVolume> <!--opt, xs:int--> </microphoneVolume>
```

```

<noisereduce> <!--opt, xs: Boolean,"true, false" -> </noisereduce>
<audioBitRate> <!--opt, xs:integer;kbs-> </audioBitRate>
<audioInputType > <!--opt, xs:string, "MicIn, LineIn"-> </audioInputType>
<associateVideoInputs> <!--opt ->
  <enabled> <!--req, xs:Boolean -> </enabled>
  <videoInputChannelList> <!--req ->
    <videoInputChannelID> <!--opt, xs:string; id -> </videoInputChannelID>
  </videoInputChannelList>
</associateVideoInputs>
<audioSamplingRate> <!--opt, xs:float, in kHz -> </audioSamplingRate>
</TwoWayAudioChannel>

```

8.3.8 /ISAPI/System/TwoWayAudio/channels/<ID>/open

/ISAPI/System/TwoWayAudio/channels/ID/open		General	Resource
		v2.0	
PUT			
Description	It is used to open the two way audio channel.		
Query	None		
Inbound Data	None		
Success Return	TwoWayAudioSession		
Notes:			
In sessionId 8.6.5, if send Voice data, need to use this field to represent the communication on which session.			

TwoWayAudioSession XML Block

```

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

```

8.3.9 /ISAPI/System/TwoWayAudio/channels/<ID>/close

/ISAPI/System/TwoWayAudio/channels/ID/close		General	Resource
		v2.0	
PUT			
Description	It is used to close the two way audio channel.		
Query	None		
Inbound Data	None		

Success Return	ResponseStatus
Notes:	

8.3.10 /ISAPI/System/TwoWayAudio/channels/<ID>/audioData

/ISAPI/System/TwoWayAudio/channels/ID/audioData		General Resource v2.0
GET		
Description	It is used to get data on the transparent channel.	
Query	sessionId	
Inbound Data	Raw Data	
Success Return	ResponseStatus	
PUT		
Description	It is used to send data on the transparent channel.	
Query	None	
Inbound Data	Raw Data	
Success Return	ResponseStatus	
Notes:		

Example: Client sends audio data to server

```
PUT /ISAPI/System/TwoWayAudio/channels/ID/transData HTTP 1.1
...
Content-Type: application/binary; charset="UTF-8"
\r\n
TwowayAudio Data...
...
```

Example: Client receives audio data from server

```
GET /ISAPI/System/TwoWayAudio/channels/ID/transData HTTP/1.1

HTTP/1.1 200 OK
...
Content-Type: application/binary; charset="UTF-8"
\r\n
TwoWayAudio Data.....
```

8.3.11 /ISAPI/System/Audio/AudioIn/channels/<ID>/capabilities

/ISAPI/System/Audio/AudioIn/channels/<ID>/capabilities		General Resource	v2.0
GET			
Description	It is used to get audioin capability.		
Query	None		
Inbound Data	None		
Success Return	<AudioInCap>		
Notes:			

AudioInCap XML Block

```
<AudioInCap version="20" xmlns="http://www.wisapi.org/ver20/XMLSchema">
  <id><!-- req, xs:string --></id>
  <MixAudioIn><!-- req, ro -->
    <enabled opt="true,false"><!-- req, xs:Boolean --></enabled>
    <audioInputType opt="micIn, lineIn"><!-- opt, xs:string --></audioInputType>
    <highPassFilter
      opt="0,8,16,24,31,39,47,55,63,71,79,87,94,102,110,118,126,134,142,150,157,165,173,181,189,1
      97,205,213,220,228,236,244,252,260,268,276,283,291,299,307,315,323,331,339,346,354,362,37
      0,378,386,394,402,409,417,425,433,441,449,457,465,472,480,488,496,504,512,520,528,535,543,
      551,559,567,575,583,591,598,606,614,622,630,638,646,654,661,669,677,685,693,701,709,717,7
      24,732,740,748,756,764,772,780,787,795,803,811,819,827,835,843,850,858,866,874,882,890,89
      8,906,913,921,929,937,945,953,961,969,976,984,992,1000" default="30"><!-- req,
      xs:integer;Hz --></highPassFilter>
    <noiseMargin
      opt="1000,660,657,653,650,647,643,640,637,633,-630,627,623,620,617,613,610,607,603,600,59
      7,593,590,587,583,580,577,573,570,567,563,560,557,553,550,547,543,540,537,533,530,527,523,
      520,517,513,510,507,503,500,497,493,490,487,483,480,477,473,470,467,463,460,457,453,450,4
      47,443,440,437,433,430,427,423,420,417,413,410,407,403,400,397,393,390,387,383,380,377,37
      3,370,367,363,360,357,353,350,347,343,340,337,333,330,327,323,320,317,313,310,307,303,300,
      297,293,290,287,283,280,277,273,270,267,263,260,257,253,250,247,243,240"
      default="30"><!-- req, xs:integer;-dB --></noiseMargin>
    <AutoLimitWave><!-- dep, audioInputType -->
      <FBCEnable opt="true,false"><!-- req, xs:Boolean --></FBCEnable>
      <mode opt="fast,general,slow" default="general"><!-- req, xs:string --></mode>
      <filterQValue opt="40,10" default="40"><!-- req, xs:integer;Oct --></filterQValue>
      <staticFilterNum min="0" max="12" default="0"><!-- req,
      xs:integer --></staticFilterNum>
    </AutoLimitWave>
  </MixAudioIn>
</AudioInCap>
```

```

<AudioInVolumelist>
  <AudioInVlome>
    <type><!--req, xs:string,"audioOutput,audioEncode" --></type>
    <volume min="0" max="127" defalut="50"><!--req, xs:integer --></volume>
  </AudioInVlome>
</AudioInVolumelist>
</AudioInCap>

```

8.3.12 /ISAPI/System/Audio/AudioOut/channels/<ID>/capabilities

/ISAPI/System/Audio/AudioOut/channels/<ID>/capabilities		General Resource	v2.0
GET			
Description	It is used to get audio out capability.		
Query	None		
Inbound Data	None		
Success Return	<AudioCap>		
Notes:			

AudioOutCap XML Block

```

<AudioOutCapversion="20"xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--req, xs:string --></id>
  <MixAudioOut>
    <enabled opt="true,false"><!--req, xs:Boolean --></enabled>
    <modulatorEnbale opt="true,false"><!--req, xs:Boolean --></modulatorEnbale>
    <postFilter opt="false,true" default="true"><!--req, xs:Boolean --></postFilter>
    <limitPressure opt="false,true" default="true"><!--req, xs:Boolean --></limitPressure>
    <modulatorValue min="0" max="127"
    default="10"><!--req, xs:integer;Oct --></modulatorValue>
    <triggerTime
    opt="1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,2,2,2,2,2,2,2,2,2,2,3,3,3,3,3,3,3,4,4,4,4,4,4,5,5,5,5,6,
    6,6,7,7,7,8,8,8,9,9,10,10,11,11,12,12,13,14,15,15,16,17,18,19,20,21,23,24,25,27,29,30,32,34,36,3
    8,41,43,46,49,52,55,59,63,67,72,76,82,87,93,10,
    17,114,123,132,141,152,163,175,188,23,218,235,254,274,296,320,347,375,47,441,479,520,566,6
    16,671,731,798,872" default="4"><!--req, xs:integer;ms --></triggerTime>
    <freeTime
    opt="98,11,15,18,112,116,120,124,129,133,138,143,148,154,159,165,171,177,184,191,198,26,21
    3,222,230,239,248,258,268,278,289,31,313,325,338,352,366,381,397,413,430,448,467,486,57,52
    8,551,575,60,626,653,682,712,743,776,811,848,887,927,970,1014,1062,1111,1163,1218,1276,13
    37,142,1470,1541,1617,1697,1781,1870,1964,2063,2168,2279,2397,2521,2653,2792,2940,3097,

```



```

3263,3439,3626,3825,4035,4259,
4497,4750,5020,536,5611,5936,6282,6651,7045,7465,7914,8393,895,9452,10037,10664,11335,1
2053,12824,13650,14537,15489,16511,17610,18793,20065,21435,22911,2452,26219,28073,300
75,32239,34580,37114,39859,42834,46062" default="42"><!req,xs:integer;ms></freeTime>
  <compressThreshold opt="1,2,4,8" defalut="2"><!req,xs:integer;x></compressThreshold>
  <compressMode opt="soft,hard" default="soft"><!req,xs:string;ms></compressMode>
    <compressRate min="0" max="127"><!req,xs:integer;x></compressRate>
    <recoveryGain opt="1,2,4,8" defalut="2"><!req,xs:integer;x></recoveryGain>
  <outputGain
opt="100,421,361,325,30,281,265,252,240,230,221,212,25,198,192,186,180,175,170,165,161,15
6,152,148,145,141,138,134,131,128,125,122,120,117,114,112,110,17,15,13,10,98,96,94,92,90,88
,86,85,83,81,79,78,76,74,73,71,70,68,67,65,64,62,61,60,58,57,56,54,53,52,51,49,48,47,46,45,43,
42,41,40,39,38,37,36,35,34,33,32,31,30,29,28,27,26,25,24,23,22,21,20,19,18,17,17,16,15,14,1
3,12,12,11,10,9,9,8,7,6,6,5,4,3,3,2,1,1,0"><!req,xs:integer></outputGain>
  </MixAudioOut>
  <AudioOutVolumelist>
    <AudioOutVlome>
      <type><!req,xs:string;"audioOutput,audioEncode"></type>
      <volume min="0" max="127" defalut="50"><!req,xs:integer></volume>
    </AudioOutVlome>
  </AudioOutVolumelist>
</AudioOutCap>

```

8.3.13 /ISAPI/System/Audio/AudioIn/channels/<ID>

/ISAPI/System/Audio/AudioIn/channels/<ID>		General Resource v2.0
GET		
Description	It is used to get audio capability.	
Query	None	
Inbound Data	None	
Success Return	< AudioIn>	
PUT		
Description	Loitering detection configuration for all video input channels.	
Query	None	
Inbound Data	AudioIn	
Success Return	ResponseStatus	
Notes:		

AudioIn XML Block

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

```

<id><!-- req, xs:string --></id>
<MixAudioIn><!-- req, ro -->
  <enabled><!-- req, xs:Boolean --></enabled>
  <audioInputType><!-- opt, xs:string --></audioInputType>
  <highPassFilter><!-- req, xs:integer;Hz --></highPassFilter>
  <noiseMargin><!-- req, xs:integer;dB --></noiseMargin>
  <AutoLimitWave><!-- dep,audioInputType -->
    <FBCEnable><!-- req, xs:Boolean --></FBCEnable>
    <mode><!-- req, xs:string --></mode>
    <filterQValue><!-- req, xs:string;Oct --></filterQValue>
    <staticFilterNum><!-- req, xs:integer --></staticFilterNum>
  </AutoLimitWave>
</MixAudioIn>
<AudioInVolumelist>
  <AudioInVlome>
    <type><!-- req, xs:string;"audioOutput,audioEncode" --></type>
    <volume><!-- req, xs:integer --></volume>
  </AudioInVlome>
</AudioInVolumelist>
</AudioIn>

```

8.3.14 /ISAPI/System/Audio/AudioOut/channels/<ID>

/ISAPI/System/Audio/capabilities		General Resource v2.0
GET		
Description	It is used to get audio capability.	
Query	None	
Inbound Data	None	
Success Return	< AudioOut>	
PUT		
Description	Loitering detection configuration for all video input channels.	
Query	None	
Inbound Data	AudioOut	
Success Return	ResponseStatus	
Notes:		

AudioOut XML Block

```

<AudioOut version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!-- req, xs:string --></id>
  <MixAudioOut>
    <enabled><!-- req, xs:Boolean --></enabled>

```

```

<modulatorEnbale><!--req, xs:Boolean--></modulatorEnbale>
<postFilter><!--req, xs:Boolean--></postFilter>
<limitPressure><!--req, xs:Boolean--></limitPressure>
<modulatorValue><!--req, xs:integer--></modulatorValue>
<triggerTime><!--req, xs:integer;ms--></triggerTime>
<freeTime><!--req, xs:integer;ms--></freeTime>
<compressThreshold><!--req, xs:integer;x--></compressThreshold>
<compressMode><!--req, xs:string;ms--></compressMode>
<compressRate><!--req, xs:integer;x--></compressRate>
<recoveryGain><!--req, xs:integer;x--></recoveryGain>
<outputGain><!--req, xs: integer --></outputGain>
</MixAudioOut>
<AudioOutVolumelist>
<AudioOutVlome>
    <type><!--req, xs:string;"audioOutput,audioEncode"--></type>
    <volume><!--req, xs:integer--></volume>
</AudioOutVlome>
</AudioOutVolumelist>
</AudioOut>

```

8.6 /ISAPI/System/Serial

/ISAPI/System/Serial	Service v2.0
Notes: Serial port service.	

8.6.1 /ISAPI/SystemSerial/capabilities

/ISAPI/System/Serial/capabilities		General Resource v2.0
GET		
Description	It is used to get device capability.	
Query	None	
Inbound Data	None	
Success Return	<SerialCap>	
Notes:		

SerialCap XML Block

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

```

<rs485PortNums> <!--opt, xs:integer → </rs485PortNums>
<supportRS232Config> <!--opt, xs:Boolean → </supportRS232Config>
<rs422PortNums> <!--opt, xs:integer→ </rs422PortNums>
<rs232PortNums> <!--opt, xs:integer→ </rs232PortNums>
</SerialCap>

```

8.6.2 /ISAPI/System/Serial/ports

/ISAPI/System/Serial/ports		General Resource v2.0
GET		
Description	It is used to get the list of serial ports supported by the device.	
Query	None	
Inbound Data	None	
Success Return	SerialPorList	
Notes:		
Since serial ports are resources that are defined by the hardware configuration of the device, they cannot be created or deleted.		

SerialPortList XML Block

```

<SerialPortList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SerialPort/> <!--opt →
</SerialPortList>

```

8.6.3 /ISAPI/System/Serial/ports/<ID>

/Serial/ports/ID		General Resource v2.0
GET		
Description	It is used to get the configuration of a serial port supported by the device.	
Query	None	
Inbound Data	None	
Success Return	SerialPort	
PUT		
Description	It is used to update the configuration of a serial port supported by the device.	
Query	None	
Inbound Data	SerialPort	
Success Return	ResponseStatus	

Notes:

Access to the serial port parameters.

<serialPortType> set the type of port; RS232, RS485, etc.

<direction> indicates whether the port is bidirectional.

<duplexMode> indicates whether the serial port runs in full or half duplex mode.

<workMode> is required only when serial port type is RS232

SerialPort XML Block

```
<SerialPort version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id -> </id>
  <enabled> <!--req, xs:boolean -> </enabled>
  <serialPortType><!--req, xs:string, "RS485,RS422,RS232" -></serialPortType>
  <duplexMode> <!--req, xs:string, "half,full" -> </duplexMode>
  <direction> <!--req, xs:string, "monodirectional,bidirectional" -> </direction>
  <baudRate><!--req, xs:integer -></baudRate>
  <dataBits> <!--req, xs:integer -> </dataBits>
  <parityType><!--req, xs:string, "none,even,odd,mark,space" -> </parityType>
  <stopBits> <!--req, xs:string, "1,1.5,2" -> </stopBits>
  <workMode> <!--dep, xs:string, "console, transparent" -> </workMode>
  <flowCtrl> <!--req, xs:string, "none, software, hardware" -> </flowCtrl>
</SerialPort>
```

8.6.4 /ISAPI/System/Serial/ports/<ID>/Transparent

/ISAPI/System/Serial/ports/ID/Transparent	General Resource v2.0
Notes: Transparent Service.	

8.6.5 /ISAPI/System/Serial/ports/<ID>/Transparent/channels

/ISAPI/System/Serial/ports/ID/Transparent/channels		General Resource v2.0
GET		
Description	It is used to get the transparent channels list	
Query	None	
Inbound Data	None	
Success Return	TransparentChannelList	
Notes:		

TransparentChannelList XML Block

```
<TransparentChannelList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <TransparentChannel/>  <!--opt -->
</TransparentChannelList>
```

8.6.6 /ISAPI/System/Serial/ports/<ID>/Transparent/channels /<ID>

/ISAPI/System/Serial/ports/ID/Transparent/channels/ID		General Resource v2.0
GET		
Description	It is used to get a particular transparent channel	
Query	None	
Inbound Data	None	
Success Return	TransparentChannel	
PUT		
Description	It is used to get a particular transparent channel	
Query	None	
Inbound Data	TransparentChannel	
Success Return	ResponseStatus	
Notes:		

TransparentChannel XML Block

```
<TransparentChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <serialPortID> <!--req,ro, xs:string; id --> </serialPortID>
</TransparentChannel>
```

8.6.7 /ISAPI/System/Serial/ports/<ID>/Transparent/channels /<ID>/open

/ISAPI/System/Serial/ports/ID/Transparent/channels/ID/open		General Resource v2.0
PUT		
Description	It is used to open the transparent channel.	

Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes: Only support RS485 transparent channel.	

8.6.8 /ISAPI/System/Serial/ports/<ID>/Transparent/channels /<ID>/close

/ISAPI/System/Serial/ports/ID/Transparent/channels/ID/close		General Resource v2.0
PUT		
Description	It is used to close the transparent channel.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

8.6.9 /ISAPI/System/Serial/ports/<ID>/Transparent/channels /<ID>/transData

/ISAPI/System/Serial/ports/ID/Transparent/channels/ID/transData		General Resource v2.0
GET		
Description	It is used to get data on the transparent channel.	
Query	None	
Inbound Data	Raw Data	
Success Return	ResponseStatus	
PUT		
Description	It is used to send data on the transparent channel.	
Query	None	
Inbound Data	Raw Data	
Success Return	ResponseStatus	
Notes:		

Example:

```
GET /ISAPI/System/Serial/ports/ID/Transparent/channels/ID/transData HTTP/1.1
```

```
HTTP/1.1 200 OK
```

```
...
```

```
Content-Type: application/binary; charset="UTF-8"
```

```
Content-Length: ISAPI
```

```
\r\n
```

```
Raw data...
```

Example:

```
PUT /ISAPI/System/Serial/ports/ID/Transparent/channels/ID/transData HTTP/1.1
```

```
...
```

```
Content-Type: application/binary; charset="UTF-8"
```

```
\r\n
```

```
Raw data...
```

8.7 /ISAPI/System/Hardware/

/ISAPI/System/Hardware/	Service v2.0
--------------------------------	---------------------

Notes:

8.7.1 /ISAPI/System/Hardware

/ISAPI/System/Hardware	General Resource v2.0
-------------------------------	------------------------------

GET

Description	It is used to get the configurations of hardware service.
--------------------	---

Query	None
--------------	------

Inbound Data	None
---------------------	------

Success Return	HardwareService
-----------------------	------------------------

PUT

Description	It is used to set the configurations of hardware service.
--------------------	---

Query	None
--------------	------

Inbound Data	HardwareService
---------------------	------------------------

Success Return	ResponseStatus
-----------------------	-----------------------

Notes:

HardwareService XML Block

```
<HardwareService version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <lrLightSwitch> <!--opt -->
```



```

    <mode> <!--req, xs:string,"open,close" → </mode>
</IrLightSwitch>
<ABF> <!--opt →
    <enabled> <!--req, xs:boolean → </enabled>
</ABF>
<LED> <!--opt →
    <enabled> <!--req, xs:boolean → </enabled>
</LED>
<Defog> <!--opt →
    <enabled> <!--req, xs:boolean → </enabled>
</Defog>
<SupplementLight><!--opt→
    <enabled> <!--req, xs:boolean → </enabled>
    <isSupportFireLaserLight                opt="true
false"><!--opt,xs:boolean→</isSupportFireLaserLight>
</SupplementLight >
<Deicing><!--opt→
    <enabled> <!--req, xs:boolean → </enabled>
</Deicing>
<ManualDeicing><!--opt→
    <enabled> <!--req, xs:boolean → </enabled>
</ManualDeicing>
</HardwareService>

```

8.7.2 /ISAPI/System/Hardware/IrLightSwitch

/ISAPI/System/Hardware/IrLightSwitch		General Resource v2.0
GET		
Description		
Query	None	
Inbound Data	None	
Success Return	IrLightSwitch	
PUT		
Description		
Query	None	
Inbound Data	IrLightSwitch	
Success Return	ResponseStatus	
Notes:		

IrLightSwitch XML Block

```
<IrLightSwitch version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <mode> <!--req, xs:string,"open,close" --> </mode>
</IrLightSwitch>
```

8.7.3 /ISAPI/System/Hardware/ABF

/ISAPI/System/Hardware/ABF		General Resource v2.0
GET		
Description	It is used to get the configurations of ABF	
Query	None	
Inbound Data	None	
Success Return	ABF	
PUT		
Description	It is used to set the configurations of ABF	
Query	None	
Inbound Data	ABF	
Success Return	ResponseStatus	
Notes:		

ABF XML Block

```
<ABF version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
</ABF>
```

8.7.4 /ISAPI/System/Hardware/LED

/ISAPI/System/Hardware/LED		General Resource v2.0
GET		
Description	It is used to get the configurations of LED	
Query	None	
Inbound Data	None	
Success Return	LED	
PUT		
Description	It is used to set the configurations of LED	
Query	None	
Inbound Data	LED	
Success Return	ResponseStatus	

Notes:

LED XML Block

```
<LED version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
</LED>
```

8.7.5 /ISAPI/System/Hardware/defog

/ISAPI/System/Hardware/defog		General Resource v2.0
GET		
Description	It is used to get the configurations of defog.	
Query	None	
Inbound Data	None	
Success Return	Defog	
PUT		
Description	It is used to set the configurations of defog	
Query	None	
Inbound Data	Defog	
Success Return	ResponseStatus	
Notes:		

Defog XML Block

```
<Defog version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
</Defog>
```

8.7.6 /ISAPI/System/Hardware/deicing

/ISAPI/System/Hardware/deicing		General Resource v2.0
GET		
Description	It is used to get the configurations of deicing.	
Query	None	
Inbound Data	None	
Success Return	Deicing	
PUT		
Description	It is used to set the configurations of deicing	
Query	None	
Inbound Data	Deicing	

Success Return	ResponseStatus
Notes: url: /ISAPI/System/Hardware/deicing	

Deicing XML Block

```
<Deicing version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
</Deicing>
```

8.7.7 /ISAPI/System/Hardware/deicing/capabilities

/ISAPI/System/Hardware/deicing/capabilities	General Resource v2.0
GET	
Description	It is used to get the capabilities of deicing.
Query	None
Inbound Data	None
Success Return	Deicing
Notes: url: /ISAPI/System/Hardware/deicing/capabilities	

Deicing XML Block

```
<Deicing version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
</Deicing>
```

8.7.8 /ISAPI/System/Hardware/manualDeicing

/ISAPI/System/Hardware/manualDeicing	General Resource v2.0
GET	
Description	It is used to get the configurations of manual deicing.
Query	None
Inbound Data	None
Success Return	ManualDeicing
PUT	
Description	It is used to set the configurations of manual deicing
Query	None
Inbound Data	ManualDeicing
Success Return	ResponseStatus

Notes:

能力的 url:

/ISAPI/System/Hardware/manualDeicing/capabilities

ManualDeicing XML Block

```
<ManualDeicing version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
</ManualDeicing>
```

8.7.9 /ISAPI/System/Hardware/manualDeicing/capabilities

/ISAPI/System/Hardware/manualDeicing/capabilities		General Resource v2.0
GET		
Description	It is used to get manual deicing capability.	
Query	None	
Inbound Data	None	
Success Return	ManualRanging	

ManualDeicing XML Block

```
<ManualDeicing version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
</ManualDeicing>
```

8.8 ISAPI/System/dbglog

ISAPI/System/dbglog		General Resource v2.0
PUT		
Description	It is used to get dbglog	
Query	None	
Inbound Data	None	
Success Return	Opaque Data	
Notes:		

8.9 /ISAPI/Security

/ISAPI/Security	Service v2.0
------------------------	---------------------

Notes:

8.9.1 /ISAPI/Security/capabilities

/ISAPI/Security/capabilities		General Resource v2.0
GET		
Description	It is used to get security capability.	
Query	None	
Inbound Data	None	
Success Return	<SecurityCap>	
Notes: 安全问题配置< isSupportSecurityQuestionConfig > 以及 导出 GUID < isSupportGUIDFileDataExport > 只有 admin 支持返回; <LoginPasswordLenLimit >用户登陆密码长度限制 < SecurityAnswerLenLimit >安全问题答案长度限制 < isSupportGetOnlineUserListSC >远程获取登陆用户信息 (短连接)		

SecurityCap XML Block

```

<SecurityCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <supportUserNums> <!--opt, xs:integer -> < supportUserNums>
  <userBondIpNums> <!--opt, xs:integer -> <userBondIpNums>
  <userBondMacNums> <!--opt, xs:integer -> < userBondIpNums >
  <issuplllegalLoginLock> <!--opt, xs: Boolean,"true, false" -> <issuplllegalLoginLock>
  <isSupportOnlineUser> <!--opt, xs: Boolean,"true,false" -> <isSupportOnlineUser>
  <isSupportAnonymous> <!--opt, xs: Boolean,"true,false" -> <isSupportAnonymous>
  <securityVersion opt="1,2"/> //表示加密能力集，每一个版本包括两个方面：加密算法及加密的节点范围。目前1表示AES128加密，2表示AES256加密，加密范围在各个协议中描述。
  <keyIterateNum><!--dep,xs:integer-></keyIterateNum> //depend on securityVersion,取值一般是100~1000
  <isSupportUserCheck><!--dep,opt,xs:boolean></isSupportUserCheck> //增加能力，表示是否支持用户参数修改(修改/增加/删除)时进行登录密码的校验，此功能只在支持敏感信息加密的版本上有效,即depend on securityVersion
  <isSupportGUIDFileDataExport>
    <!-- opt, xs: Boolean,"true,false" -->
  </isSupportGUIDFileDataExport>
  <isSupportSecurityQuestionConfig>
    <!-- opt, xs: Boolean,"true,false" -->
  </isSupportSecurityQuestionConfig>
  <isSupportGetOnlineUserListSC>

```

```

        <!-- opt, xs: Boolean,"true,false" -->
    </isSupportGetOnlineUserListSC>
    <SecurityLimits>
    <!-- opt -->
        <LoginPasswordLenLimit min="1" max="16"><!-- opt --></LoginPasswordLenLimit>
        <SecurityAnswerLenLimit min="1" max="128"><!-- opt --></SecurityAnswerLenLimit>
    </SecurityLimits>
</SecurityCap>

```

8.9.2 /ISAPI/Security/challenge

/ISAPI/Security/challenge		General Resource v2.0
POST		
Description	It is used to get challenge	
Query	None	
Inbound Data	<PublicKey>	
Success Return	<Challenge>	
Notes:		

PublicKey XML Block

```

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

```

Challenge XML Block

```

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

```

8.9.3 /ISAPI/Security/users

/ISAPI/Security/users		General Resource v2.0
GET		
Description	It is used to get the user list for the device.	
Query	None	
Inbound Data	None	

Success Return	UserList
PUT	
Description	It is used to update the user list for the device.
Query	None
Inbound Data	UserList
Success Return	ResponseStatus
POST	
Description	It is used to add a user for the device.
Query	None
Inbound Data	User
Success Return	ResponseStatus
DELETE Administrator	
Description	It is used to delete the user list for the device.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	
A default user account, “admin”, must be provided. Its default password is “12345”. It has an Administrator user level, and must not be deleted.	
Passwords can only be uploaded — they are never revealed during GET operations.	

UserList XML Block

```
<UserList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <User/>    <!--opt -->
</UserList>
```

8.9.4 /ISAPI/Security/users/<ID>

/ISAPI/Security/users/ID		General Resource v2.0
GET		Viewer
Description	It is used to get a particular user configuration for the device.	
Query	None	
Inbound Data	None	
Success Return	User	
PUT		Administrator
Description	It is used to update a particular user configuration for the device.	
Query	None	
Inbound Data	User	
Success Return	ResponseStatus	
DELETE		Administrator

Description	It is used to delete a particular user for the device.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes: <id> of "admin" account is 1. "admin" account must not be deleted. <password> is a write-only field.	

User XML Block

```

<User version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:integer, "1-16" --> </id>
  <userName> <!--req, xs:string --> </userName>
  <password> <!--wo, req, xs:string --> </password>
  <bondIpAddressList>
    <bondIpAddress/>
  </bondIpAddressList>
  <bondMacAddressList>
    <bondMacAddress/>
  </bondMacAddressList>
  <userLevel> <!--opt, xs:string, "Administrator, Operator, Viewer" --> </userLevel>
  <attribute> <!--opt -->
    <inherent> <!--xs:boolean --> </inherent>
  </attribute>
  <loginPassword><!--wo,dep,xs:string--></loginPassword> //depend on Query
  parameter "security" in url,没有 security 参数的时候没有这个节点,有 security 参数的时候
  必需有这个节点
</User>

```

bondIpAddress XML Block

```

< bondIpAddress>
  <id> <!--req, xs:integer --> </id>
  <ipAddress> <!--dep, xs:string --> </ipAddress>
  <ipv6Address> <!--dep, xs:string --> </ipv6Address>
</ bondIpAddress>

```

bondMacAddress XML Block

```

< bondMacAddress>
  <id> <!--req, xs:integer --> </id>
  <macAddress> <!--opt, xs:string --> </macAddress>
</ bondMacAddress>

```

8.9.5 /ISAPI/Security/adminAccesses

/ISAPI/Security/adminAccesses		General Resource v2.0
GET		Viewer
Description	It is used to get administrative access protocol for the device.	
Query	None	
Inbound Data	None	
Success Return	AdminAccessProtocolList	
PUT		Administrator
Description	It is used to update administrative access protocol for the device.	
Query	None	
Inbound Data	AdminAccessProtocolList	
Success Return	ResponseStatus	
Notes:		
<protocol> is the protocol name for admin access, i.e. "HTTP", "HTTPS", etc.		

AdminAccessProtocolList XML Block

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

8.9.6 /ISAPI/Security/adminAccesses/<ID>

/ISAPI/Security/adminAccesses/ID		General Resource v2.0
GET		Viewer
Description	It is used to get administrative access protocol for the device.	
Query	None	
Inbound Data	None	
Success Return	AdminAccessProtocol	
PUT		Administrator
Description	It is used to update administrative access protocol for the device.	
Query	None	
Inbound Data	AdminAccessProtocol	
Success Return	ResponseStatus	
Notes:		
<protocol> is the protocol name for admin access, i.e. "HTTP", "HTTPS", etc.		

AdminAccessProtocol XML Block

```
<AdminAccessProtocol version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>    <!--req, xs:string;id →    </id>
  <protocol> <!--req, xs:string; "HTTP, HTTPS,RTSP,DEV_MANAGE" → </protocol>
  <portNo> <!--req, xs:integer →    </portNo>
</AdminAccessProtocol>
```

8.9.7 /ISAPI/Security/userCheck

/ISAPI/Security/userCheck		General Resource v2.0
GET		
Description	It is used to check is password matche user name.	
Query	None	
Inbound Data	None	
Success Return	userCheck	
Notes:		
userCheck is successful, the device returns HTTP 200/OK		
userCheck is failed, the device returns HTTP 401/Unauthorized		
The client software checks user name/password via <statusValue>. If the value is 200, it means match, otherwise, if the value is 401, it means mismatch.		

userCheck XML Block

```
<userCheck version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <statusValue>    <!--req, xs:integer, '200, 401' → </statusValue>
  <statusString>    <!--opt, xs:string, 'OK, Unauthorized → </statusString>
  <isDefaultPassword><!--opt, xs:boolean→</isDefaultPassword>
  <isRiskPassword><!--opt, xs:boolean></isRiskPassword>
  <isActivated><!--opt, xs:boolean></isActivated>
</userCheck>
```

8.9.8 /ISAPI/Security/UserPermission

/ISAPI/Security/UserPermission		General Resource v2.0
GET		
Description	It is used to get user permission of the device.	
Query	None	
Inbound Data	None	

Success Return	UserPermissionList
PUT	
Description	It is used to set user permission of the device.
Query	None
Inbound Data	UserPermissionList
Success Return	ResponseStatus
Notes: only the user "admin" has the right to review or edit user's permission.	

UserPermissionList XML Block

```
<UserPermissionList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <UserPermission/> <!--opt -->
</UserPermissionList>
```

8.9.9 /ISAPI/Security/UserPermission/<ID>

/ISAPI/Security/UserPermission/ID		General Resource v2.0
GET		
Description	It is used to get a particular user's permission	
Query	None	
Inbound Data	None	
Success Return	UserPermission	
PUT		
Description	It is used to set a particular user's permission	
Query	None	
Inbound Data	UserPermission	
Success Return	ResponseStatus	
Notes: <userID> links the user permission to a user, see /ISAPI/Security/AAA/users/ID. <userType> The type value of the user, which can be 'admin', 'operator' or 'viewer'. 'admin' is the administrator of the IPMD, it have all permissions. 'operator' and 'viewer' have default permission policy. The default permission policy can be edited by providing <localPermission>, <remotePermission>.		

UserPermission XML Block

```
<UserPermission version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string !--> </id>
  <userID> <!--req, xs:string; id --> </userID>
  <userType> <!--req, xs:string, "admin, operator, viewer" --> </userType>
```

```

<localPermission/> <!--opt -->
<remotePermission/> <!--opt -->
</UserPermission>

```

8.9.10 /ISAPI/Security/UserPermission/<ID>/localPermission

/ISAPI/Security/UserPermission/ID/localPermission		General Resource v2.0
GET		
Description	It is used to get a particular user's local permission	
Query	None	
Inbound Data	None	
Success Return	localPermission	
PUT		
Description	It is used to set a particular user's local permission	
Query	None	
Inbound Data	localPermission	
Success Return	ResponseStatus	
Notes:		

localPermission XML Block

```

<localPermission version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <backup> <!--opt, xs:boolean --> </backup>
  <record> <!--opt, xs:boolean --> </record>
  <playBack> <!--opt, xs:boolean --> </playBack>
  <preview> <!--opt, xs:boolean --> </preview>
  <videoChannelPermissionList> <!--opt -->
    <videoChannelPermission> <!--opt -->
      <id> <!--req, must correspond to the video input channel id --> </id>
      <playBack> <!--opt, xs:boolean --> </playBack>
      <preview> <!--opt, xs:boolean --> </preview>
      <record> <!--opt, xs:boolean --> </record>
      <backup> <!--opt, xs:boolean --> </backup>
    </videoChannelPermission>
  </videoChannelPermissionList>
  <ptzControl> <!--req, xs:boolean --> </ptzControl>
  <ptzChannelPermissionList> <!--opt -->
    <ptzChannelPermission> <!--req -->
      <id> <!--req, must correspond to ptz id, see /ISAPI/PTZCtrl/channels/ID --> </id>
      <ptzControl> <!--opt, xs:boolean --> </ptzControl>
    </ptzChannelPermission>
  </ptzChannelPermissionList>
</localPermission>

```

```

    </ptzChannelPermission>
  </ptzChannelPermissionList>
  <logOrStateCheck> <!--opt, xs:boolean -> </logOrStateCheck>
  <parameterConfig> <!--opt, xs:boolean -> </parameterConfig>
  <restartOrShutdown> <!--opt, xs:boolean -> </restartOrShutdown>
  <upgrade> <!--opt, xs:boolean -> </upgrade>
</localPermission>

```

8.9.11 /ISAPI/Security/UserPermission/<ID>/remotePermission

/ISAPI/Security/UserPermission/ID/remotePermission		General Resource v2.0
GET		
Description	It is used to get a particular user's remote permission	
Query	None	
Inbound Data	None	
Success Return	remotePermission	
PUT		
Description	It is used to set a particular user's remote permission	
Query	None	
Inbound Data	remotePermission	
Success Return	ResponseStatus	
Notes:		

remotePermission XML Block

```

<remotePermission version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <record> <!--opt, xs:boolean -> </record>
  <playBack> <!--opt, xs:boolean -> </playBack>
  <preview> <!--opt, xs:boolean -> </preview>
  <videoChannelPermissionList> <!--opt ->
    <videoChannelPermission> <!--opt ->
      <id> <!--req, must correspond to the video input channel id -> </id>
      <preview> <!--opt, xs:boolean -> </preview>
      <palyBack> <!--opt, xs:boolean -> </palyBack>
      <record> <!--opt, xs:Boolean -> </record>
    </videoChannelPermission>
  </videoChannelPermissionList>
  <ptzControl> <!--opt, xs:boolean -> </ptzControl>
  <ptzChannelPermissionList> <!--opt ->
    <ptzChannelPermission> <!--opt ->

```

```

    <id> <!--req, must correspond to ptz id, see /ISAPI/PTZCtrl/channels/ID-> </id>
    <ptzControl> <!--opt, xs:boolean -> </ptzControl>
  </ptzChannelPermission>
</ptzChannelPermissionList>
<logOrStateCheck> <!--opt, xs:boolean -> </logOrStateCheck>
<parameterConfig> <!--opt, xs:boolean -> </parameterConfig>
<restartOrShutdown> <!--opt, xs:boolean -> </restartOrShutdown>
<upgrade> <!--opt, xs:boolean -> </upgrade>
<voiceTalk> <!--opt, xs:boolean -> </voiceTalk>
<transParentChannel> <!--opt, xs:boolean -> <transParentChannel>
<contorlLocalOut> <!--opt, xs:boolean -> </contorlLocalOut>
<alarmOutOrUpload> <!--opt, xs:boolean -> </alarmOutOrUpload>
</remotePermission>

```

8.9.12 /ISAPI/Security/UserPermission/anonymouslogin

/ISAPI/Security/UserPermission/anonymouslogin		General Resource v2.0
GET		
Description	Access and configure the user's permission.	
Query	None	
Inbound Data	None	
Success Return	anonymouslogin	
PUT		
Description	Access and configure the user's permission.	
Query	None	
Inbound Data	anonymouslogin	
Success Return	ResponseStatus	
Notes: Anonymouslogin owns corresponding privilege of interfaces below: /ISAPI/Streaming/channels is used to get the resolution /ISAPI/Security/userCheck /ISAPI/System/Network/interfaces and /ISAPI/System/Network/UpnP/ports/status /ISAPI/Security/adminAccesses		

anonymouslogin XML Block

```

<anonymouslogin version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean -> </enabled>
</anonymouslogin>

```

8.9.13 /ISAPI/Security/UserPermission/operatorCap

/ISAPI/Security/UserPermission/operatorCap		General Resource	v2.0
GET			
Description	It is used to get default capabilities of operator.		
Query	None		
Inbound Data	None		
Success Return	UserPermissionCap		
Notes:			

UserPermissionCap XML Block

```
<UserPermissionCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <userType> <!--req, xs:string, "admin, operator, viewer"--> </userType>
  <localPermissionCap><!--opt -->
</localPermissionCap>
  <remotePermissionCap> <!--opt -->
</remotePermissionCap>
</UserPermissionCap>
```

8.9.14 /ISAPI/Security/UserPermission/viewerCap

/ISAPI/Security/UserPermission/viewerCap		General Resource	v2.0
GET			
Description	It is used to get default capabilities of viewer.		
Query	None		
Inbound Data	None		
Success Return	UserPermissionCap		
Notes:			

8.9.15 /ISAPI/Security/deviceCertificate

/ISAPI/Security/deviceCertificate		General Resource	v2.0
GET			
Description	This function is used to upload a user certificate to the device. The user certificate is used for 802.1x (radius) with various authentication mechanisms.		
Query	None		
Inbound Data	None		
Success Return	Data		

PUT	
Description	This function is used to upload a user certificate to the device. The user certificate is used for 802.1x (radius) with various authentication mechanisms.
Query	None
Inbound Data	Data
Success Return	ResponseStatus
Notes: The format of the certificate is device-dependent. Distinguish different certificate by Content-type: CA- certificate (root certificate): application/x-x509-ca-cert Client certificate: application/x-x509-client-cert Client password : application/x-x509-client-key	

8.9.16 /ISAPI/Security/webCertificate

/ISAPI/Security/webCertificate		General Resource v2.0
GET		Administrator
Description	It is used to get the certificate type of webservice.	
Query	None	
Inbound Data	None	
Success Return	WebCertificate	
PUT		Administrator
Description	It is used to set the certificate type of webservice .	
Query	None	
Inbound Data	WebCertificate	
Success Return	ResponseStatus	
Notes:		

WebCertificate XML Block

```
< WebCertificate version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <CertificateType> <!--req, xs:string, basic, digest --> </CertificateType>
</ WebCertificate >
```

8.9.17 /ISAPI/Security/serverCertificate/certificate

/ISAPI/Security/serverCertificate/certificate		General Resource v2.0
GET		Administrator
Description	This function is used to get a certificate information of the device.	
Query	None	

Inbound Data	None
Success Return	CertificateInfo
PUT Administrator	
Description	This function is used to upload a certificated certificate to the device.
Query	None
Inbound Data	Data
Success Return	ResponseStatus
DELETE Administrator	
Description	This function is used to delete the installed certificate of the device.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

CertificateInfo XML Block

```
<CertificateInfo version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <version><!--opt, xs:string --> </version>
  <IssuerDN/> <!--req, isapi:DN>
  <SubjectDN/> <!--req, isapi:DN>
  <signatureAlgorithm> <!--req, xs:string, RSA_3, RSA_F4--> </signatureAlgorithm>
  <keyAlgorithm> <!--opt, xs:string --> </keyAlgorithm>
  <startDate> <!--req, xs:time, ISO8601 time --> </startDate>
  <endDate> <!--req, xs:time, ISO8601 time --> </endDate>
  <serialNumber> <!--req, xs:string,uuid --> </serialNumber>
</CertificateInfo>
```

DN XML Block

```
<countryName> <!--req, xs:string --> </countryName>
<stateOrProvinceName> <!--opt, xs:string --> </stateOrProvinceName>
<localityName> <!--opt, xs:string --> </localityName>
<organizationName> <!--opt, xs:string --> </organizationName>
<organizationUnitName> <!--opt, xs:string --> </organizationUnitName>
<commonName> <!--req, xs:string --> </commonName>
<email> <!--opt, xs:string --> </email>
```

8.9.18 /ISAPI/Security/serverCertificate/selfSignCert

/ISAPI/Security/serverCertificate/selfSignCert	General Resource v2.0
PUT Administrator	
Description	This function is used to create a new self-signed certificate of the device.

Query	None
Inbound Data	CertificateReq
Success Return	ResponseStatus
Notes: passwd: password to protect private key validity: validity days	

CertificateReq XML Block

```
<CertificateReq version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
<id> <!--req, xs:string -> </id>
<SubjectDN/> <!--req, isapi:DN>
<validity> <!--opt, xs:int,1-5000 -> </validity>
<passwd> <!--opt, xs:string -> </passwd>
</CertificateReq>
```

8.9.19 /ISAPI/Security/serverCertificate/certSignReq

/ISAPI/Security/serverCertificate/certSignReq		General Resource v2.0
GET		Administrator
Description	This function is used to get the certificate signature request information.	
Query	None	
Inbound Data	None	
Success Return	certificateReqInfo	
PUT		Administrator
Description	This function is used to Create a new PKCS #10 certificate signature request of the device.	
Query	None	
Inbound Data	certificateReq	
Success Return	ResponseStatus	
DELETE		Administrator
Description	This function is used to delete the PKCS #10 certificate signature.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

CertificateReqInfo XML Block

```
<CertificateReqInfo version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
<id> <!--req, xs:string -> </id>
<SubjectDN/> <!--req, isapi:DN ->
<version><!--opt, xs:string -> </version>
<keyAlgorithm> <!--opt, xs:string -> </keyAlgorithm>
```

```
<passwd> <!--opt, xs:string → </passwd>
</CertificateReqInfo>
```

8.9.20 /ISAPI/Security/serverCertificate/downloadCertSignReq

/ISAPI/Security/serverCertificate/downloadCertSignReq		General Resource
GET		Administrator
Description	This function is used to request download the certificate signature.	
Query	None	
Inbound Data	None	
Success Return	Data	
Notes:		
The returned data shall be either formatted exactly as specified in [PKCS#10] or PEM encoded [PKCS#10] format.		

8.9.21 /ISAPI/Security/previewLinkNum

/ISAPI/Security/previewLinkNum		General Resource v2.0
GET		Viewer
Description	It is used to get the maximum number of connections of the device.	
Query	None	
Inbound Data	None	
Success Return	PreviewLinkNum	
PUT		Administrator
Description	It is used to update the maximum number of connections of the device.	
Query	None	
Inbound Data	PreviewLinkNum	
Success Return	ResponseStatus	
Notes:		

PreviewLinkNum XML Block

```
<PreviewLinkNum version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <maxLinkNum> <!--req, xs:integer → </maxLinkNum>
</PreviewLinkNum>
```

8.9.22 /ISAPI/Security/illegalLoginLock

/ISAPI/Security/illegalLoginLock		General Resource v2.0
GET		
Description	It is used to get the configurations of illegalLoginLock .	
Query	None	
Inbound Data	None	
Success Return	IllegalLoginLock	
PUT		
Description	It is used to set the configurations of illegalLoginLock	
Query	None	
Inbound Data	IllegalLoginLock	
Success Return	ResponseStatus	
Notes:		

IllegalLoginLock XML Block

```
<IllegalLoginLock version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled opt="true,false" def="true">true</enabled>
</IllegalLoginLock>
```

8.9.23 /ISAPI/Security/onlineUser

/ISAPI/Security/onlineUser		General Resource v2.0
GET		Viewer
Description	It is used to get Online User Info.	
Query	None	
Inbound Data	None	
Success Return	OnlineUser	
Notes:		

OnlineUser XML Block

```
<OnlineUserList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <OnlineUser>
    <id><!--req, xs:string --></id>
    <name><!--opt,xs:string, --></name>
    <type><!--opt,xs:string,"admin,operator,viewer"--></type>
    <loginTime><!--opt,xs:time, ISO8601 time --></loginTime>
    <clientAddress>
      <ipAddress> <!--opt, xs:string --> </ipAddress>
```

```

        <ipv6Address> <!--opt, xs:string --> </ipv6Address>
    <clientAddress>
</OnlineUser>
</OnlineUserList>

```

8.9.24 /ISAPI/Security/extern/capabilities

/ISAPI/Security/extern/capabilities		General Resource v2.0
GET		
Description	It is used to get security extern capability.	
Query	None	
Inbound Data	None	
Success Return	< externSecurityCap >	
Notes:		
支持匿名访问		
<isSupportWithSecurityQuestion>是否支持通过回答安全问题重置密码		
<isSupportWithGUIDFileData>是否支持通过导入 GUID 文件重置密码		
<LoginPasswordLenLimit >用户登陆密码长度限制		
< SecurityAnswerLenLimit >安全问题答案长度限制		

externSecurityCap XML Block

```

<externSecurityCap>
    <RestAdminPassWord>
        <isSupportWithSecurityQuestion>
            <!-- opt, xs: Boolean,"true,false" -->
        </isSupportWithSecurityQuestion>
        <isSupportWithGUIDFileData>
            <!-- opt, xs: Boolean,"true,false" -->
        </isSupportWithGUIDFileData>
    </RestAdminPassWord>
    <SecurityLimits>
    <!-- opt -->
        <LoginPasswordLenLimit min="1" max="16"><!-- opt --></LoginPasswordLenLimit>
        <SecurityAnswerLenLimit min="1" max="128"><!-- opt --></SecurityAnswerLenLimit>
    </SecurityLimits>
</externSecurityCap>

```

8.9.25 /ISAPI/Security/GUIDFileData

/ISAPI/Security/GUIDFileData		General Resource v2.0	
POST			
Description	Get device's GUID data. 导出 GUID File		
Query	security,iv		
Inbound Data	<LoginPassword>		
Success Return	Opaque Data		
Failed Return	<ResponseStatus>		
Error Status Code	statusCode	subStatusCode	description
	2	upgrading	Device upgrading
	3	badFlash	Flash error
	6	badVersion	Version mismatch
	6	badDevType	Device type mismatch
6	badLanguage	Language mismatch	
<p>Notes:</p> <p>没有 security 表示数据不加密</p> <p>security=1,表示<LoginPassword>报文中子节点<password> 进行 AES128 加密</p> <p>iv 表示初始化向量, 在 security=1 或者 2 时为必须参数</p> <p>GUID file is device-dependant – it may be binary or any other format. May reboot device after GUID file is applied.</p> <p>协议支持能力参考节点 <isSupportGUIDFileDataExport></p> <p>所有涉及到锁定的功能分两类:</p> <ol style="list-style-type: none"> 1) 重置密码 (导入 GUID+回答安全问题) 时的锁定信息共用。 2) 除了第一类之外的情况, 例如: 登陆时密码尝试次数, 设置安全问题, 导出 GUID 文件等的锁定信息共用。 <p>这两类的锁定次数是分开计数的。每一类里面的, 共用一个计数。</p> <p>只有在 session 机制上通信时, 涉及到安全相关功能才能使用。否则返回不支持。</p> <p>锁定以后返回状态 401.</p>			

ResponseStatus XML Block

```
<ResponseStatus version="1.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <requestURL><!-- req, ro,xs:string --> </requestURL>
  <statusCode><!-- req, ro,xs:integer --></statusCode>
  <!-- 0 和 1-OK, 2-Device Busy, 3-Device Error, 4-Invalid Operation, 5-Invalid XML Format,
  6-Invalid XML Content; 7-Reboot Required -->
  <statusString><!-- req, ro,xs:string --></statusString>
  <subStatusCode><!-- req, ro,xs:string --></subStatusCode>
  <lockStatus><!-- opt, ro,xs:string, "unlock,locked", 锁定状态--></lockStatus>
  <retryTimes><!-- opt, ro,xs:integer, 剩余重试次数--></lockStatus>
```

```
<resLockTime><!-- opt, ro,xs:integer ,剩余锁定时间， 单位秒--></lockStatus>
</ResponseStatus>
```

LoginPassword XML Block

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

/ISAPI/Security/GUIDFileData General Resource v2.0

PUT

Description	Update device's GUID data. 导入 GUID File		
Query	resetpassword		
Inbound Data	Opaque Data		
Success Return	<ResponseStatus>		
Error Status Code	statusCode	subStatusCode	description
	2	upgrading	Device upgrading
	3	badFlash	Flash error
	6	badVersion	Version mismatch
	6	badDevType	Device type mismatch
	6	badLanguage	Language mismatch

Notes:

加密走的 激活的加密方案

协议支持能力参考节点 `<isSupportGUIDFileDataExport>`

导入支持 匿名访问交互；网传加密 先 BASE64 后 AES128CBE 的加密方式；

Resetpassword=加密后的新密码，参考激活方案 填写加密后的新密码，密码需要 utf8 转换后加密，不进行实体转换

Opaque Data 不加密

所有涉及到锁定的功能分两类：

- 1) 重置密码（导入 GUID+回答安全问题）时的锁定信息共用。
- 2) 除了第一类之外的情况，例如：登陆时密码尝试次数，设置安全问题，导出 GUID 文件等的锁定信息共用。

这两类的锁定次数是分开计数的。每一类里面的，共用一个计数。

只有在 session 机制上通信时，涉及到安全相关功能才能使用。否则返回不支持。

锁定以后返回错误码：GUID 文件不匹配

ResponseStatus XML Block

```
<ResponseStatus version="1.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <requestURL><!-- req, ro,xs:string --> </requestURL>
  <statusCode><!-- req, ro,xs:integer --></statusCode>
  <!--0 和 1-OK, 2-Device Busy, 3-Device Error, 4-Invalid Operation, 5-Invalid XML Format,
```



```

6-Invalid XML Content; 7-Reboot Required -->
  <statusString><!-- req, ro,xs:string --></statusString>
  <subStatusCode><!-- req, ro,xs:string --></subStatusCode>
  <lockStatus><!-- opt, ro,xs:string ,"unlock,locked",锁定状态--></lockStatus>
  <retryTimes><!-- opt, ro,xs:integer,剩余重试次数--></lockStatus>
  <resLockTime><!-- opt, ro,xs:integer ,剩余锁定时间，单位秒--></lockStatus>
</ResponseStatus>

```

8.9.26 /ISAPI/Security/questionConfiguration/<ID>

/ISAPI/Security/questionConfiguration/ID		General Resource v2.0
GET		Viewer
Description	It is used to get 单个设备安全问题	
Query	None	
Inbound Data	None	
Success Return	Question	
PUT		Administrator
Description	It is used to set 单个设备安全问题.	
Query	None	
Inbound Data	Question	
Success Return	ResponseStatus	
Notes: <id> 表示 设备支持的安全问题 序号，设备保证唯一性； <answer> 表示 安全问题的答案，GET 时不应该返回，PUT 时可写，网传加密 先 BASE64 后 AES128CBE 的加密方式； <mark> 表示 安全问题的标记，标记用户设置过安全问题；配置时只处理选中位 当前设备配置安全问题支持 3 个（一个都不能少） -- 增加相关错误码		

Question XML Block

```

<Question version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>
    <!-- req, xs:integer;id -->
  </id>
  <answer>
    <!-- wo, xs:string -->
  </answer>
  <mark>
    <!-- req ro, xs:boolean -->
  </mark>

```

</Question>

8.9.27 /ISAPI/Security/questionConfiguration

/ISAPI/Security/questionConfiguration		General Resource v2.0
GET		Viewer
Description	It is used to get 设备安全问题.	
Query	None	
Inbound Data	None	
Success Return	SecurityQuestion	
PUT		Administrator
Description	It is used to set 设备安全问题.	
Query	security,iv	
Inbound Data	SecurityQuestion	
Success Return	ResponseStatus	
<p>Notes:</p> <p>没有 security 表示数据不加密 security=1,表示<Question>报文中子节点<answer> 进行 AES128 加密 iv 表示初始化向量, 在 security=1 或者 2 时为必须参数</p> <p>password CBC 加密, GET 时不应该返回, PUT 时必须填 没有 security 表示数据不加密 security=1,表示< SecurityQuestion >报文中子节点<password> 进行 AES128 加密 iv 表示初始化向量, 在 security=1 或者 2 时为必须参数</p> <p>安全问题设置 SDK 实现走私有协议的敏感信息加密方案</p> <p>所有涉及到锁定的功能分两类:</p> <ol style="list-style-type: none"> 1) 重置密码 (导入 GUID+回答安全问题) 时的锁定信息共用。 2) 除了第一类之外的情况, 例如: 登陆时密码尝试次数, 设置安全问题, 导出 GUID 文件等的锁定信息共用。 <p>这两类的锁定次数是分开计数的。每一类里面的, 共用一个计数。</p> <p>只有在 session 机制上通信时, 涉及到安全相关功能才能使用。否则返回不支持。</p> <p>锁定以后返回状态 401</p>		

SecurityQuestion XML Block

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

```

    <Question/>
  </QuestionList>
  <password>
    <!-- wo, xs:string, CBC -->
  </password>
</SecurityQuestion>

```

ResponseStatus XML Block

```

<ResponseStatus version="1.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <requestURL><!-- req, ro,xs:string --> </requestURL>
  <statusCode><!-- req, ro,xs:integer --> </statusCode>
  <!-- 0 和 1-OK, 2-Device Busy, 3-Device Error, 4-Invalid Operation, 5-Invalid XML Format,
  6-Invalid XML Content; 7-Reboot Required -->
  <statusString><!-- req, ro,xs:string --> </statusString>
  <subStatusCode><!-- req, ro,xs:string --> </subStatusCode>
  <lockStatus><!-- opt, ro,xs:string, "unlock,locked", 锁定状态 --> </lockStatus>
  <retryTimes><!-- opt, ro,xs:integer, 剩余重试次数 --> </lockStatus>
  <resLockTime><!-- opt, ro,xs:integer, 剩余锁定时间, 单位秒 --> </lockStatus>
</ResponseStatus>

```

8.9.28 /ISAPI/Security/questionCertification

/ISAPI/Security/questionCertification		General Resource v2.0
PUT		Administrator
Description	It is used to 认证 设备安全问题.	
Query	None	
Inbound Data	SecurityQuestion	
Failed/Success Return	ResponseStatus	
<p>Notes:</p> <p>加密走的 激活的加密方案网传加密 先 BASE64 后 AES128CBE 的加密方式 密码答案加密需要先进行 utf8 转换再进行 base64 转码后 再进行加密，不进行实体转换</p> <p>所有涉及到锁定的功能分两类：</p> <ol style="list-style-type: none"> 1) 重置密码（导入 GUID+回答安全问题）时的锁定信息共用。 2) 除了第一类之外的情况，例如：登陆时密码尝试次数，设置安全问题，导出 GUID 文件等的锁定信息共用。 <p>这两类的锁定次数是分开计数的。每一类里面的，共用一个计数。</p> <p>只有在 session 机制上通信时，涉及到安全相关功能才能使用。否则返回不支持。</p> <p>锁定以后返回错误码：安全问题回答错误</p>		

SecurityQuestion XML Block

```

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

```

```

<QuestionList>
  <Question/>
</QuestionList>
<Resetpassword>
  <!-- req, xs:string -->
</Resetpassword>
</SecurityQuestion>

```

ResponseStatus XML Block

```

<ResponseStatus version="1.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <requestURL><!-- req, ro,xs:string --> </requestURL>
  <statusCode><!-- req, ro,xs:integer --></statusCode>
  <!--0 和 1-OK, 2-Device Busy, 3-Device Error, 4-Invalid Operation, 5-Invalid XML Format,
  6-Invalid XML Content; 7-Reboot Required -->
  <statusString><!-- req, ro,xs:string --></statusString>
  <subStatusCode><!-- req, ro,xs:string --></subStatusCode>
  <lockStatus><!-- opt, ro,xs:string ,"unlock,locked",锁定状态--></lockStatus>
  <retryTimes><!-- opt, ro,xs:integer,剩余重试次数--></lockStatus>
  <resLockTime><!-- opt, ro,xs:integer,剩余锁定时间, 单位秒--></lockStatus>
</ResponseStatus>

```

8.10 /ISAPI/Streaming

/ISAPI/Streaming	Service v2.0
Notes:	

8.10.1 /ISAPI/Streaming/status

/ISAPI/Streaming/status	General Resource v2.0
GET	
Description	It is used to get a device streaming status.
Query	None
Inbound Data	None
Success Return	StreamingStatus
Notes:	
This command accesses the status of all device streaming sessions.	

StreamingStatus XML Block

```

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

```

```

<totalStreamingSessions>    <!--req, xs:integer --> </totalStreamingSessions>
<StreamingSessionStatusList/>    <!--dep, only if there are sessions -->
</StreamingStatus>

```

8.10.2 /ISAPI/Streaming/channels

/ISAPI/Streaming/channels		General Resource v2.0
GET		
Description	It is used to get the properties of streaming channels for the device.	
Query	None	
Inbound Data	None	
Success Return	StreamingChannelList	
PUT		
Description	It is used to update the properties of streaming channels for the device.	
Query	None	
Inbound Data	StreamingChannelList	
Success Return	ResponseStatus	
POST		
Description	It is used to add a streaming channel for the device.	
Query	None	
Inbound Data	StreamingChannel	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete the list of streaming channels for the device.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		
<p>Streaming channels may be hardwired, or it may be possible to create multiple streaming channels per input if the device supports it. To determine whether it is possible to dynamically create streaming channels, check the defined HTTP methods in /ISAPI/Streaming/channels/description.</p>		

StreamingChannelList XML Block

```

<StreamingChannelList version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <StreamingChannel/> <!--opt -->
</StreamingChannelList>

```

8.10.3 /ISAPI/Streaming/channels/<ID>

/ISAPI/Streaming/channels/ID		General Resource v2.0
GET		
Description	It is used to get the properties of a particular streaming channel for the device.	
Query	None	
Inbound Data	None	
Success Return	StreamingChannel	
PUT		
Description	It is used to update the properties of a particular streaming channel for the device.	
Query	None	
Inbound Data	StreamingChannel	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular streaming channel for the device.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
<p>Notes:</p> <p>To support multi video input devices , the streaming ID in URL should be indicate video input channel number , so it is defined as : straming-Id + video-input-Id *100, for example : /Streaming/channels/101 indicates the first streaming from the first video input /Streaming/channels/202 indicates the second streaming from the second video input</p> <p>For IPC, becouse of only one video input, case is simeple, it can acceopt 1 as the main stream id , 2 as the sub-stream.</p> <p><ControlProtocolList> identifies the control protocols that are valid for this type of streaming. <Unicast> is for direct unicast streaming. <Multicast> is for direct multicast streaming. <videoSourcePortNo> and <audioSourcePortNo> are the source port numbers for the outbound video or audio streams. <videoInputChannelID> refers to /ISAPI/System/Video/inputs/channel/ID. <audioInputChannelID> refers to /ISAPI/System/Audio/channels/ID. It must be configured as an input channel.</p> <p>Use of Ipv4 or Ipv6 addresses depends on the value of the <ipVersion> field in /ISAPI/System/Network/interfaces/ID/ipAddress.</p> <p><Security> determines whether SRTP is used for stream encryption. <audioResolution> is the resolution for the outbound audio stream in bits.</p>		

voiceChanger: voice change

StreamingChannel XML Block

```
<StreamingChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id --> </id>
  <channelName> <!--req, xs:string --></channelName>
  <enabled> <!--req, xs:boolean --> </enabled>
  <Transport> <!--req -->
    <maxPacketSize> <!--opt, xs:integer --> </maxPacketSize>
    <audioPacketLength> <!--opt, xs:integer --> </audioPacketLength>
    <audioInboundPacketLength><!--opt, xs:integer --> </audioInboundPacketLength>
    <audioInboundPortNo> <!--opt, xs:integer --> </audioInboundPortNo>
    <videoSourcePortNo> <!--opt, xs:integer --> </videoSourcePortNo>
    <audioSourcePortNo> <!--opt, xs:integer --> </audioSourcePortNo>
    <ControlProtocolList> <!--req -->
      <ControlProtocol>
        <!--req -->
        <streamingTransport>
          <!--req, xs:string, "HTTP,RTSP,SHTTP" -->
          </streamingTransport>
        </ControlProtocol>
      </ControlProtocolList>
    <Unicast><!--opt -->
      <enabled> <!--req, xs:boolean --> </enabled>
      <interfaceID> <!--opt, xs:string --> </interfaceID>
      <rtpTransportType>
        <!--opt, xs:string, "RTP/UDP,RTP/TCP" -->
        </rtpTransportType>
      </Unicast>
    <Multicast> <!--opt -->
      <enabled> <!--req, xs:boolean --> </enabled>
      <userTriggerThreshold> <!--opt, xs:integer --> </userTriggerThreshold>
      <destIPAddress> <!--dep, xs:string --> </destIPAddress>
      <videoDestPortNo><!--opt, xs:integer --></videoDestPortNo>
      <audioDestPortNo><!--opt, xs:integer --></audioDestPortNo>
      <destIPv6Address><!--dep, xs:string --></destIPv6Address>
      <ttl><!--opt, xs:integer --></ttl>
    </Multicast>
    <Security>
      <!--opt -->
      <enabled><!--req, xs:boolean --></enabled>
    </Security>
  </StreamingChannel>
```

```

</Transport>
<Video>
  <!--opt -->
  <enabled><!--req, xs:boolean --></enabled>
  <videoInputChannelID> <!--req, xs:string;id --> </videoInputChannelID>
  <videoCodecType>
    <!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,HK.264,MPNG,SVAC" -->
  </videoCodecType>
  <videoScanType>
    <!--opt, xs:string, "progressive,interlaced" -->
  </videoScanType>
  <videoResolutionWidth> <!--req, xs:integer --> </videoResolutionWidth>
  <videoResolutionHeight> <!--req, xs:integer --> </videoResolutionHeight>
  <videoResolutionName>
    <!--opt, xs:string, "3MP,5MP,none" -->
  </videoResolutionName>
  <videoPositionX> <!--opt, xs:integer --> </videoPositionX>
  <videoPositionY> <!--opt, xs:integer --> </videoPositionY>
  <videoQualityControlType>
    <!--opt, xs:string, "CBR,VBR" -->
  </videoQualityControlType>
  <constantBitRate> <!--dep, xs:integer, in kbps --> </constantBitRate>
  <fixedQuality><!--opt, xs:integer, percentage, 0..100 --> </fixedQuality>
  <vbrUpperCap> <!--dep, xs:integer, in kbps --> </vbrUpperCap>
  <vbrLowerCap> <!--dep, xs:integer, in kbps --> </vbrLowerCap>
  <maxFrameRate> <!--req, xs:integer, maximum frame rate x100 --> </maxFrameRate>
  <keyFrameInterval> <!--opt, xs:integer, milliseconds --> </keyFrameInterval>
  <rotationDegree> <!--opt, xs:integer, degrees, 0..360 --> </rotationDegree>
  <mirrorEnabled> <!--opt, xs:boolean --> </mirrorEnabled>
  <snapshotImageType>
    <!--opt, xs:string, "JPEG,GIF,PNG" -->
  </snapshotImageType>
  <Mpeg4Profile> <!--dep, xs:string, "SP,ASP" --> </Mpeg4Profile>
  <H264Profile>
    <!--dep, xs:string, "Baseline,Main,High, Extended" -->
  </H264Profile>
  <SVACProfile>
    <!--dep, xs:string, "Baseline,Main,High,Extended" -->
  </SVACProfile>
  <GovLength> <!--opt, xs:integer --> </GovLength>
  <SVC>
    <enabled> <!--req, xs:boolean --> </enabled>
    <SVCMode> <!--dep, xs:string, "manual,auto" --> </SVCMode>

```



```

<SVC>
<smoothing> <!--opt, xs:integer--> </smoothing>
<SmartCodec><!--dep, -->
    <enabled> <!--req, xs:boolean --></enabled>
</SmartCodec>
<vbrAverageCap> <!--dep, xs:integer, in kbps , --> </vbrAverageCap>
</Video>
<Audio>
    <!--opt -->
    <enabled> <!--req, xs:boolean --> </enabled>
    <audioInputChannelID> <!--req, xs:string;id --> </audioInputChannelID>
    <audioCompressionType>
        <!--req, xs:string,
        "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM, MP2L2"
        -->
    </audioCompressionType>
    <audioInboundCompressionType>
        <!--opt, xs:string,
        "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM,MP2L2"
        -->
    </audioInboundCompressionType>
    <audioBitRate> <!--opt, xs:integer, in kbps --> </audioBitRate>
    <audioSamplingRate> <!--opt, xs:float, in kHz --> </audioSamplingRate>
    <audioResolution> <!--opt, xs:integer, in bits --> </audioResolution>
    <VoiceChanger><!--opt, xs:integer, -12..0..12, -->
        <enabled><!--req, xs:boolean --></enabled>
        <level><!--req, xs:integer, "-12..12" --></level>
    </VoiceChanger>
</Audio>
<enableCABAC> <!--opt, xs: boolean --> <enableCABAC>
<subStreamRecStatus> <!--opt, xs: boolean --> </subStreamRecStatus>
</StreamingChannel>

```

Example: Getting Streaming Channel Properties

The following is an example of a GET on the streaming parameters of a particular channel that has been preconfigured by the IP media device. Depending on the device, some streaming channels may be already preconfigured or the device while other may require that channels be manually configured before use.

```

GET /ISAPI/Streaming/channels/444 HTTP/1.1
...
HTTP/1.1 200 OK
Content-Type: application/xml; charset="UTF-8"

```

Content-Length: ISAPI

```
<?xml version="1.0" encoding="UTF-8"?>
<StreamingChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>444</id>
  <channelName>Input 1 MPEG-4 ASP</channelName>
  <enabled>>true</enabled>
  <Transport>
    <rtspPortNo>554</rtspPortNo>
    <maxPacketSize>1446</maxPacketSize>
    <ControlProtocollist>
      <ControlProtocol>
        <streamingTransport>RTSP</streamingTransport>
      </ControlProtocol>
      <ControlProtocol>
        <streamingTransport>HTTP</streamingTransport>
      </ControlProtocol>
    </Transport>
  <Video>
    <enabled>>true</enabled>
    <videoInputChannelID>2</videoInputChannelID>
    <videoCodecType>MPEG4</videoCodecType>
    <videoScanType>progressive</videoScanType>
    <videoResolutionWidth> 640</videoResolutionWidth>
    <videoResolutionHeight>480</videoResolutionHeight>
    <videoPositionX>0</videoPositionX>
    <videoPositionY>0</videoPositionY>
    <videoQualityControlType>CBR</videoQualityControlType>
    <constantBitRate>2000</constantBitRate>
    <maxFrameRate>2500</maxFrameRate>
    <keyFrameInterval>1000</keyFrameInterval>
    <rotationDegree>0</rotationDegree>
    <mirrorEnabled>>false</mirrorEnabled>
    <snapshotImageType>JPEG</snapshotImageType>
  </Video>
  <Audio>
    <enabled>>false</enabled>
    <audioInputChannelID>2</audioInputChannelID>
    <audioCompressionType> G.726</audioCompressionType>
    <audioBitRate>24</audioBitRate>
    <audioSamplingRate>8</audioSamplingRate>
  </Audio>
</StreamingChannel>
```

Example: Getting Streaming Capabilities

```

GET /ISAPI/Streaming/channels/444/capabilities HTTP/1.1
...
HTTP/1.1 200 OK
Content-Type: application/xml; charset="UTF-8"
Content-Length: ISAPI

<?xml version="1.0" encoding="UTF-8"?>
<StreamingChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id opt="111,222,333,444">444</id>
  <channelName min="0" max="64">Input 1 MPEG-4 ASP</channelName>
  <enabled opt="true,false" def="true">true</enabled>
  <Transport>
    <rtspPortNo min="0" max="65535" def="554">554</rtspPortNo>
    <maxPacketSize min="0" max="1500">1446</maxPacketSize>
    <audioPacketLength min="0" max="5000"/>
    <audioInboundPacketLength min="0" max="5000"/>
    <audioInboundPortNo min="0" max="65535"/>
    <videoSourcePortNo min="0" max="65535"/>
    <audioSourcePortNo min="0" max="65535"/>
    <ControlProtocolList>
      <ControlProtocol>
        <streamingTransport opt="RTSP/RTP,HTTP">RTSP</streamingTransport>
      </ControlProtocol>
      <ControlProtocol>
        <streamingTransport opt="RTSP/RTP,HTTP">HTTP</streamingTransport>
      </ControlProtocol>
    </ControlProtocolList>
  </Transport>
  <Unicast>
    <enabled opt="true,false" def="false"/>
    <rtpTransportType opt="RTP/UDP,RTP/TCP"/>
  </Unicast>
  <Multicast>
    <enabled opt="true,false" def="false"/>
    <userTriggerThreshold/>
    <videoDestPortNo min="0" max="65535"/>
    <audioDestPortNo min="0" max="65535"/>
    <destIPAddress min="8" max="16"/>
    <destIPv6Address min="15" max="39"/>
    <tTL min="0" max="127" def="1"/>
  </Multicast>
  <Security>

```

```

    <enabled opt="true,false" def="false"/>
  </Security>
</Transport>
<Video>
  <enabled opt="true,false">true</enabled>
  <videoInputChannelID opt="1,2,3,4">2</videoInputChannelID>
  <videoCodecType opt="MJPEG,MPEG4">MPEG4</videoCodecType>
  <videoScanType opt="interlaced,progressive">progressive</videoScanType>
  <videoResolutionWidth min="0" max="640">640</videoResolutionWidth>
  <videoResolutionHeight min="0" max="480">480</videoResolutionHeight>
  <videoPositionX min="0" max="640">0</videoPositionX>
  <videoPositionY min="0" max="480">0</videoPositionY>
  <videoQualityControlType opt="CBR,VBR">CBR</videoQualityControlType>
  <constantBitRate min="50" max="4000" dynamic="true">2000</constantBitRate>
  <maxFrameRate opt="2500,1250,625,312,156,78" dynamic="true">2500</maxFrameRate>
  <keyFrameInterval min="0", max="10000">1000</keyFrameInterval>
  <rotationDegree opt="0,90,180,270" def="0">0</rotationDegree>
  <mirrorEnabled opt="true,false" def="false">false</mirrorEnabled>
  <snapshotImageType opt="JPEG" def="JPEG">JPEG</snapshotImageType>
</Video>
<Audio>
  <enabled opt="true,false" def="false">false</enabled>
  <audioInputChannelID opt="1,2,3,4">2</audioInputChannelID>
  <audioCompressionType                                opt="G.726,G.711ulaw"
def="G.726">G.726</audioCompressionType>
  <audioBitRate opt="16,24,32,40" def="32" dynamic="true">24</audioBitRate>
  <audioSamplingRate opt="8" dynamic="true">8</audioSamplingRate>
  <audioResolution opt="3,4,5,6" dynamic="true"/>
</Audio>
</StreamingChannel>

```

8.10.4 /ISAPI/Streaming/channels/<ID>/dynamicCap

/ISAPI/Streaming/channels/ID/dynamicCap		General Resource v2.0
GET		
Description	Get dynamic capabilities, different resolutions have different frame rates; different audio compression types have different audio bit rate.	
Query	None	
Inbound Data	None	
Success Return	DynamicCap	
Notes:		

DynamicCap XML Block

```

<DynamicCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ResolutionAvailableDescriptorList>
    <ResolutionAvailableDescriptor>
      <videoResolutionWidth> <!--req, xs:integer --> </videoResolutionWidth>
      <videoResolutionHeight> <!--req, xs:integer --> </videoResolutionHeight>
      <videoResolutionName>
        <!--opt, xs:string, "3MP,5MP,none" -->
      </videoResolutionName>
      <supportedFrameRate> <!--req, xs:string --> </supportedFrameRate>
    </ResolutionAvailableDescriptor>
  </ResolutionAvailableDescriptorList>
  <CodecParamDescriptorList>
    <CodecParamDescriptor>
      <videoCodecType>
        <!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,HK.264,H.265" --></videoCodecType>
      <isSupportProfile> <!--dep, xs:boolean,"" --> </isSupportProfile>
      <CBRCap>
        <isSupportSmooth><!--dep, xs:boolean --></isSupportSmooth>
      </CBRCap>
      <VBRCap>
        <isSupportSmooth><!--dep, xs:boolean --></isSupportSmooth>
      </VBRCap>
      <isSupportSVC> <!--opt, xs:boolean --> </isSupportSVC>
      <isSupportCABAC> <!--opt, xs:boolean --> </isSupportCABAC>
      <SmartCodecCap><opt -->
        <readOnlyParams opt="keyFrameInterval,Profile,SVC,fixedQuality"><!--opt, ro,
xs:string, --></readOnlyParams>
        <BitrateType>
          <Constant><!--opt, -->
            <support opt="videoBitrate"><!--opt,
xs:string,"averageVideoBitrate,videoBitrate" --></support>
            <hiddenAbility opt="averageVideoBitrate"><!--opt,
xs:string,"averageVideoBitrate,videoBitrate" --></hiddenAbility>
          </Constant>
          <Variable><!--opt, -->
            <support opt="averageVideoBitrate"><!--opt,
xs:string,"averageVideoBitrate,videoBitrate" --></support>
            <readOnlyAbility opt="videoBitrate"><!--opt,
xs:string,"averageVideoBitrate,videoBitrate" --></readOnlyAbility>
          </Variable>
        </BitrateType>
      </SmartCodecCap>
    </CodecParamDescriptor>
  </CodecParamDescriptorList>
</DynamicCap>

```

```

    <vbrAverageDefault><!--dep,xs:integer in kbps --></vbrAverageDefault>
    <smart264EnabledPrompt opt="prompt1,prompt2, prompt3"><!--opt,wo,xs:string,
    --></smart264EnabledPrompt>
    <smart265EnabledPrompt opt="prompt1,prompt2, prompt3"><!--opt,wo,xs:string,
    --></smart265EnabledPrompt>
    </SmartCodecCap>
  </CodecParamDescriptor>
</CodecParamDescriptorList>
<AudioDescriptorList>
  <audioCompressionType>
    <!--req, xs:string,
    "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM
    ,
    MP2L2"-->
    </audioCompressionType>
  </AudioDescriptorList>
</DynamicCap>

```

Example: Getting the Dynamic Capabilities

```

GET /ISAPI/Streaming/Channels/101/dynamicCap HTTP/1.1
...
HTTP/1.1 200 OK
Content-Type: application/xml; charset="UTF-8"
Content-Length: xxx

<?xml version="1.0" encoding="UTF-8"?>
<DynamicCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ResolutionAvailableDescriptorList>
    <ResolutionAvailableDescriptor>
      <videoResolutionWidth>176</videoResolutionWidth>
      <videoResolutionHeight>144</videoResolutionHeight>
      <supportedFrameRate>2500,6,12,25,50,100,200,400,600,800,1000,1200,1500,1600,1800,
      2000,2200</supportedFrameRate>
    </ResolutionAvailableDescriptor>
    <ResolutionAvailableDescriptor>
      <videoResolutionWidth>352</videoResolutionWidth>
      <videoResolutionHeight>288</videoResolutionHeight>
      <supportedFrameRate>2500,6,12,25,50,100,200,400,600,800,1000,1200,1500,1600,1800,
      2000,2200</supportedFrameRate>
    </ResolutionAvailableDescriptor>
    <ResolutionAvailableDescriptor>
      <videoResolutionWidth>704</videoResolutionWidth>
      <videoResolutionHeight>576</videoResolutionHeight>

```

```

    <supportedFrameRate>2500,6,12,25,50,100,200,400,600,800,1000,1200,1500,1600,1800,
2000,2200</supportedFrameRate>
  </ResolutionAvailableDescriptor>
</ResolutionAvailableDescriptorList>
<CodecParamDescriptorList>
  <CodecParamDescriptor>
    <videoCodecType>
      <!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,HK.264,H.265" --></videoCodecType>
      <isSupportProfile> <!--dep, xs:boolean,"" --> </isSupportProfile>
      <CBRCap>
        <isSupportSmooth><!--dep, xs:boolean --></isSupportSmooth>
      </CBRCap>
      <VBRCap>
        <isSupportSmooth><!--dep, xs:boolean --></isSupportSmooth>
      </VBRCap>
      <isSupportSVC> <!--opt, xs:boolean --> </isSupportSVC>
      <isSupportCABAC> <!--opt, xs:boolean --> </isSupportCABAC>
      <SmartCodecCap><opt -->
        <readOnlyParams opt="keyFrameInterval,Profile,SVC,fixedQuality"><!--req, ro,
xs:string, --></readOnlyParams>
        <smart264EnabledPrompt
opt="prompt1,prompt2"><!--opt,wo,xs:string, --></smart264EnabledPrompt>
        <smart265EnabledPrompt
opt="prompt1,prompt2"><!--opt,wo,xs:string, --></smart265EnabledPrompt>
      </SmartCodecCap>
    </CodecParamDescriptor>
  </CodecParamDescriptorList>
<AudioDescriptorList>
  <audioCompressionType
SupportedAudioBitRate="32,64,128">MP2L2</audioCompressionType>
</AudioDescriptorList>
</DynamicCap>

```

8.10.5 /ISAPI/Streaming/channels/<ID>/status

/ISAPI/Streaming/channels/ID/status		General Resource v2.0
GET		
Description	It is used to get the list of streaming sessions associated with a particular channel.	
Query	None	
Inbound Data	None	

Success Return	StreamingSessionStatusList
Notes:	

StreamingSessionStatusList XML Block

```
<StreamingSessionStatusList version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <StreamingSessionStatus>
    <clientAddress> <!--req -->
      <ipAddress> <!--dep, xs:string --> </ipAddress>
      <ipv6Address> <!--dep, xs:string --> </ipv6Address>
    </clientAddress>
  </StreamingSessionStatus>
</StreamingSessionStatusList>
```

8.10.6 /ISAPI/Streaming/channels/<ID>/picture

/ISAPI/Streaming/channels/ID/picture		General Resource v2.0
GET		
Description	It is used to get a snapshot of the current image.	
Query	videoResolutionWidth videoResolutionHeight snapShotImageType	
Inbound Data	None	
Success Return	Picture over HTTP	
Notes:		
<p>All devices must support <snapShotImageType> of "JPEG".</p> <p>Only support the main stream channel snapshot.</p> <p>To determine the format of the picture returned either the parameters in <Video> or the query string values are used, or, if the Accept: header field is present in the request and the server supports it, the picture is returned in that format.</p> <p>For supported values, query /Streaming/channels/ID/picture/capabilities.</p> <p>Examples:</p> <pre>GET /ISAPI/Streaming/channels/101/picture?snapShotImageType=JPEG ... GET /ISAPI/Streaming/channels/101/picture Accept: image/jpeg ...</pre>		

8.10.7 /ISAPI/Streaming/channels/<ID>/requestKeyFrame

/ISAPI/Streaming/channels/ID/requestKeyFrame		General Resource v2.0
PUT		Operator
Description	It is used to request that the device issue a key frame on a particular channel.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes: The key frame that is issued should include everything necessary to initialize a video decoder, i.e. parameter sets for H.264 or VOS for MPEG-4.		

8.10.8 /ISAPI/Streaming/channels/ID/dualVCA

/ISAPI/Streaming/channels/ID/dualVCA		General Resource v2.0
GET		
Description	It is used to get the configuration of intelligence back retrieval.	
Query	None	
Inbound Data	None	
Success Return	DualVCA	
PUT		
Description	It is used to update the configuration of intelligence back retrieval.	
Query	None	
Inbound Data	DualVCA	
Success Return	ResponseStatus	
Notes:		

DualVCA XML Block

```
<DualVCA version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
</DualVCA>
```

8.10.9 /ISAPI/Streaming/channels/<ID>/regionClip/capabilities

/ISAPI/Streaming/channels/<ID>/regionClip/capabilities		General Resource v2.0
GET		

Description	It is used to get Region Clip capability.
Query	None
Inbound Data	None
Success Return	<RegionClip>
Notes:	
<p>The ID in “/Streaming/channels/ID” is defined as following declaration:</p> <p>101: Region Clip of video input channel “video1-main stream”.</p> <p>102: Region Clip of video input channel “video1-sub stream”.</p> <p>103: Region Clip of video input channel “video1-third stream”.</p>	

RegionClip XML Block

```

<RegionClip version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize> <!--req, ro -->
    <normalizedScreenWidth> <!--req, ro, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <regionType opt="rectangle,convexPolygon,concavePolygon"><!--req, ro, xs:string-->
  </regionType>
  <videoResolutionWidth opt="704">704</videoResolutionWidth>
  <videoResolutionHeight opt="576">576</videoResolutionHeight>
  <ClipRegionList>
    <ClipRegion>
      <RegionCoordinatesList size="1">
        <RegionCoordinates> <!--req, -->
          <positionX> <!--req, xs:integer;coordinate --> </positionX>
          <positionY> <!--req, xs:integer;coordinate --> </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </ClipRegion>
  </ClipRegionList>
</RegionClip>

```

8.10.10 /ISAPI/Streaming/channels/<ID>/regionClip

/ISAPI/Streaming/channels/<ID>/regionClip		General Resource v2.0
GET		
Description	Region Clip configuration for a video input channels.	
Query	None	
Inbound Data	None	

Success Return	RegionClip
PUT	
Description	Region Clip configuration for a video input channels.
Query	None
Inbound Data	RegionClip
Success Return	ResponseStatus
Notes: The ID in “/Streaming/channels/ID” is defined as following declaration: 101: Region Clip of video input channel “video1-main stream”. 102: Region Clip of video input channel “video1-sub stream”. 103: Region Clip of video input channel “video1-third stream”.	

RegionClip XML Block

```

<RegionClip version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id>    <!--req, xs:string -->    </id>
  <enabled>    <!--req, xs:boolean -->    </enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--ro, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--ro, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <regionType> <!--req, ro, xs:string --> </regionType>
  <videoResolutionWidth>704</videoResolutionWidth>
  <videoResolutionHeight>576</videoResolutionHeight>
  <ClipRegionList>
    <ClipRegion>
      <RegionCoordinatesList>
        <RegionCoordinates> <!--req, size=4 -->
          <positionX>    <!--req, xs:integer;coordinate -->    </positionX>
          <positionY>    <!--req, xs:integer;coordinate -->    </positionY>
        </RegionCoordinates>
      <RegionCoordinatesList>
    </ClipRegion>
  </ClipRegionList>
</RegionClip>

```

8.10.11 /ISAPI/Streaming/channels/<ID>/httppreview

/ISAPI/Streaming/channels/<ID>/httppreview	General Resource v2.0
GET	
Description	Access a live stream via http.

Query	None
Inbound Data	None
Success Return	Stream over HTTP
Notes: This function is used to request a stream from the device using HTTP or HTTPS. This API uses HTTP server-push with the MIME type multipart/x-mixed-replace. HTTP streaming must be enabled on the channel.	

Example

```
GET /ISAPI/Streaming/channels/102/httppreview HTTP/1.1
...
HTTP/1.1 200 OK
Content-Type: multipart/x-mixed-replace; boundary=<boundary>
--<boundary>
Content-Type: image/jpeg
Content-Length: xxx
Image data for a single frame
--<boundary>
...
```

8.10.12 /ISAPI/Streaming/channels/<ID>/dynamicCapWithCondition

/ISAPI/Streaming/channels/<ID>/dynamicCapWithCondition		General Resource v2.0
GET		
Description	Get Video Streaming dynamic capabilities	
Query	None	
Inbound Data	StreamingDescriptor	
Success Return	StreamingDynamicCap	
Notes: VBR variable bit rate CBR Constant bit rate		

StreamingDescriptor XML Block

```
<StreamingDescriptor version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <VbrAverageCapDynamicLinkTo><!--opt, -->
    <streamType><!--opt,xs:string, "mainstream,substream,stream3 "--></streamType>
```

```

<codeType><!--opt, xs:string, "smart264,smart265" -></codeType>
<videoQualityControlType><!--opt, xs:string, "CBR,VBR" -></videoQualityControlType>
<vbrUpperCap><!--opt, xs:integer, in kbps -></vbrUpperCap>
</VbrAverageCapDynamicLinkTo>
</StreamingDescriptor>

```

StreamingDynamicCap XML Block

```

<StreamingDynamicCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <vbrAverageCap> <!--opt, xs:integer, in kbps, dep VbrAverageCapDynamicLinkTo->
  </vbrAverageCap>
</StreamingDynamicCap>

```

8.10.13 /ISAPI/Streaming/channels/<ID>/RTMPCfg

/ISAPI/Streaming/channels/<ID>/RTMPCfg		General Resource	v2.0
GET			
Description	Get RTMP param		
Query	None		
Inbound Data	None		
Success Return	RTMPCfg		
PUT			
Description	Set RTMP param		
Query	None		
Inbound Data	RTMPCfg		
Success Return	ResponseStatus		

RTMPCfg XML Block

```

<RTMPCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string, channel+ streamType,use"101"mode -> </id>
  <enabled><!--req, xs: boolean-></enabled>
  <url><!--req, xs:string-></url>
  <packetLen><!--opt, xs:integer-></packetLen>
</RTMPCfg>

```

8.10.14 /ISAPI/Streaming/channels/<ID>/RTMPCfg/capabilities

/ISAPI/Streaming/channels/<ID>/RTMPCfg/capabilities		General Resource	v2.0
---	--	------------------	------

GET	
Description	Get RTMP param capabilities
Query	None
Inbound Data	None
Success Return	VGAParam

RTMPCfg XML Block

```
<RTMPCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string, channel+ streamType,use"101"mode--> </id>
  <enabled><!--req, xs:boolean,--></enabled>
  <url><!--req, xs:string,--></url>
  <packetLen><!--opt, xs:integer,--></packetLen>
</RTMPCfg>
```

8.10.15 /ISAPI/Streaming/channels/<ID>/capabilities

/ISAPI/Streaming/channels/<ID>/capabilities	General Resource	v2.0
GET		
Description	It is used to get Streaming capability.	
Query	None	
Inbound Data	None	
Success Return	<StreamingChannel>	
Notes:		
isSupportRefreshFrame: whether support refresh frame when Smart264 enabled		

StreamingChannel XML Block

```
<StreamingChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id --> </id>
  <channelName> <!--req, xs:string --></channelName>
  <enabled> <!--req, xs:boolean --> </enabled>
  <Transport> <!--req -->
    <maxPacketSize> <!--opt, xs:integer --> </maxPacketSize>
    <audioPacketLength> <!--opt, xs:integer --> </audioPacketLength>
    <audioInboundPacketLength><!--opt, xs:integer --> </audioInboundPacketLength>
    <audioInboundPortNo> <!--opt, xs:integer --> </audioInboundPortNo>
    <videoSourcePortNo> <!--opt, xs:integer --> </videoSourcePortNo>
    <audioSourcePortNo> <!--opt, xs:integer --> </audioSourcePortNo>
    <ControlProtocolList> <!--req -->
      <ControlProtocol>
        <!--req -->
        <streamingTransport>
          <!--req, xs:string, "HTTP,RTSP,SHTTP" -->
```

```

    </streamingTransport>
  </ControlProtocol>
</ControlProtocolList>
<Unicast><!--opt -->
  <enabled> <!--req, xs:boolean --> </enabled>
  <interfaceID> <!--opt, xs:string --> </interfaceID>
  <rtpTransportType>
    <!--opt, xs:string, "RTP/UDP,RTP/TCP" -->
  </rtpTransportType>
</Unicast>
<Multicast> <!--opt -->
  <enabled> <!--req, xs:boolean --> </enabled>
  <userTriggerThreshold> <!--opt, xs:integer --> </userTriggerThreshold>
  <destIPAddress> <!--dep, xs:string --> </destIPAddress>
  <videoDestPortNo><!--opt, xs:integer --></videoDestPortNo>
  <audioDestPortNo><!--opt, xs:integer --></audioDestPortNo>
  <destIPv6Address><!--dep, xs:string --></destIPv6Address>
  <tTl><!--opt, xs:integer --></tTl>
</Multicast>
<Security>
  <!--opt -->
  <enabled><!--req, xs:boolean --></enabled>
</Security>
</Transport>
<Video>
  <!--opt -->
  <enabled><!--req, xs:boolean --></enabled>
  <videoInputChannelID> <!--req, xs:string;id --> </videoInputChannelID>
  <videoCodecType>
    <!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,HK.264,MPNG,SVAC" -->
  </videoCodecType>
  <videoScanType>
    <!--opt, xs:string, "progressive,interlaced" -->
  </videoScanType>
  <videoResolutionWidth> <!--req, xs:integer --> </videoResolutionWidth>
  <videoResolutionHeight> <!--req, xs:integer --> </videoResolutionHeight>
  <videoPositionX> <!--opt, xs:integer --> </videoPositionX>
  <videoPositionY> <!--opt, xs:integer --> </videoPositionY>
  <videoQualityControlType>
    <!--opt, xs:string, "CBR,VBR" -->
  </videoQualityControlType>
  <constantBitRate> <!--dep, xs:integer, in kbps --> </constantBitRate>
  <fixedQuality><!--opt, xs:integer, percentage, 0..100 --> </fixedQuality>

```

```

<vbrUpperCap> <!--dep, xs:integer, in kbps -> </vbrUpperCap>
<vbrLowerCap> <!--dep, xs:integer, in kbps -> </vbrLowerCap>
<maxFrameRate> <!--req, xs:integer, maximum frame rate x100 -> </maxFrameRate>
<keyFrameInterval> <!--opt, xs:integer, milliseconds -> </keyFrameInterval>
<rotationDegree> <!--opt, xs:integer, degrees, 0..360 -> </rotationDegree>
<mirrorEnabled> <!--opt, xs:boolean -> </mirrorEnabled>
<snapshotImageType>
  <!--opt, xs:string, "JPEG,GIF,PNG" ->
</snapshotImageType>
<Mpeg4Profile> <!--dep, xs:string, "SP,ASP" -> </Mpeg4Profile>
<H264Profile>
  <!--dep, xs:string, "Baseline,Main,High, Extended" ->
</H264Profile>
<SVACProfile>
  <!--dep, xs:string, "Baseline,Main,High,Extended" ->
</SVACProfile>
<GovLength> <!--opt, xs:integer -> </GovLength>
<SVC>
  <enabled> <!--req, xs:boolean -> </enabled>
  <SVCMODE> <!--dep, xs:string, "manual,auto" -> </SVCMODE>
</SVC>
  <smoothing> <!--opt, xs:integer -> </smoothing>
</Video>
<Audio>
  <!--opt ->
  <enabled> <!--req, xs:boolean -> </enabled>
  <audioInputChannelID> <!--req, xs:string;id -> </audioInputChannelID>
  <audioCompressionType>
    <!--req, xs:string,
    "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM, MP2L2"
    ->
  </audioCompressionType>
  <audioInboundCompressionType>
    <!--opt, xs:string,
    "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM,MP2L2"
    ->
  </audioInboundCompressionType>
  <audioBitRate> <!--opt, xs:integer, in kbps -> </audioBitRate>
  <audioSamplingRate> <!--opt, xs:float, in kHz -> </audioSamplingRate>
  <audioResolution> <!--opt, xs:integer, in bits -> </audioResolution>
</Audio>
<enableCABAC> <!--opt, xs: boolean -> <enableCABAC>
<subStreamRecStatus> <!--opt, xs: boolean -> </subStreamRecStatus>

```



```

<isSupportRefreshFrame> <!--opt, xs:boolean --> </isSupportRefreshFrame>
<isSupportBareDataOverlay> <!--opt, xs:boolean --> </isSupportBareDataOverlay>
</StreamingChannel>

```

8.10.16 /ISAPI/Streaming/channels/<ID>/calibPanoramicPic

/ISAPI/Streaming/channels/ID/ calibPanoramicPic		General Resource v2.0
Get		
Description	It is used to get a Calib Panoramic Pic of the current image.	
Query	None	
Inbound Data	None	
Success Return	Picture over HTTP	
Notes:		
<p>鹰眼正常运行时候图片是拼接过的，抓标定图片需要将拼接的码流切换为原始的码流再抓图，每次切换后都会在flash里面保存一份，没有new的会从flash里面获取，如果有new就会重新切换为原始图像再获取；</p> <p>FPJA 重启刷新获取图片</p> <p>8+1 模式下 获取两张图片</p> <p>/ISAPI/Streaming/channels/ID/calibPanoramicPic?starttime=2014-01-11T11:00:00Z&endtime=2014-01-11T11:59:59Z</p> <p>能 力 存 在 于 <a href="URL(/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCameraCalibrating/capabilities)">URL(/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCameraCalibrating/capabilities) 中的节点 CalibPanoramicPic</p>		

8.10.17 /ISAPI/Streaming/channels/<ID>/calibPanoramicFlashPic

/ISAPI/Streaming/channels/ID/calibPanoramicFlashPic		General Resource v2.0
Get		
Description	It is used to get a Calib Panoramic Flash Pic of the current image.	
Query	None	
Inbound Data	None	
Success Return	Picture over HTTP	
Notes:		

鹰眼正常运行时候图片是拼接过的，抓标定图片需要将拼接的码流切换为原始的码流再抓图，每次切换后都会在flash里面保存一份，没有new的会从flash里面获取，如果有new就会重新切换为原始图像再获取；

获取 Flash 中已存在的图片

8+1 模式下 获取两张图片

/ISAPI/Streaming/channels/ID/calibPanoramicPic?starttime=2014-01-11T11:00:00Z&endtime=2014-01-11T11:59:59Z

能 力 存 在 于
URL(/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCameraCalibrating/capabilities) 中的节点 CalibPanoramicPic

8.10.18 /ISAPI/Streaming/channels/<ID>/resolutionSwitch/capabilities

/ISAPI/Streaming/channels/<ID>/resolutionSwitch/capabilities		General Resource v2.0
GET		
Description	It is used to get the resolution Switch Capabilities for a channel.	
Query	None	
Inbound Data	None	
Success Return	ResolutionSwitch	
Notes: ResolutionType:分辨率模式, all, 20:9,20:6		

ResolutionSwitch XML Block

```
<ResolutionSwitch version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <ResolutionType opt="all,20:9,20:6"><!--opt,xs:string><ResolutionType>
</ResolutionSwitch>
```

8.10.19 /ISAPI/Streaming/channels/<ID>/resolutionSwitch

/ISAPI/Streaming/channels/<ID>/resolutionSwitch		General Resource v2.0
---	--	--------------------------

GET	
Description	It is used to get the resolution Switch Capabilities for a channel.
Query	None
Inbound Data	None
Success Return	ResolutionSwitch
SET	
Description	It is used to set the resolution Switch Capabilities for a channel.
Query	None
Inbound Data	ResolutionSwitch
Success Return	ResponseStatus
Notes: ResolutionType:分辨率模式, all, 20:9,20:6	

ResolutionSwitch XML Block

```
<ResolutionSwitch version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <ResolutionType><!--opt,xs:string,opt="all,20:9,20:6"><ResolutionType>
</ResolutionSwitch>
```

8.10.20 Smart264

/ISAPI/Streaming/channels/ID		General Resource v2.0
GET		
Description	It is used to get the properties of a particular streaming channel for the device.	
Query	None	
Inbound Data	None	
Success Return	StreamingChannel	
PUT		
Description	It is used to update the properties of a particular streaming channel for the device.	
Query	None	
Inbound Data	StreamingChannel	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular streaming channel for the device.	
Query	None	

Inbound Data	None
Success Return	ResponseStatus
<p>Notes:</p> <p>To support multi video input devices , the streaming ID in URL should be indicate video input channel number , so it is defined as : straming-Id + video-input-Id *100, for example : /Streaming/channels/101 indicates the first streaming from the first video input /Streaming/channels/202 indicates the second streaming from the second video input</p> <p>For IPC, because of only one video input, case is simeple, it can accept 1 as the main stream id , 2 as the sub-stream.</p> <p><ControlProtocolList> identifies the control protocols that are valid for this type of streaming. <Unicast> is for direct unicast streaming. <Multicast> is for direct multicast streaming. <videoSourcePortNo> and <audioSourcePortNo> are the source port numbers for the outbound video or audio streams. <videoInputChannelID> refers to /ISAPI/System/Video/inputs/channel/ID. <audioInputChannelID> refers to /ISAPI/System/Audio/channels/ID. It must be configured as an input channel. Use of Ipv4 or Ipv6 addresses depends on the value of the <ipVersion> field in /ISAPI/System/Network/interfaces/ID/ipAddress. <Security> determines whether SRTP is used for stream encryption. <audioResolution> is the resolution for the outbound audio stream in bits.</p>	

StreamingChannel XML Block

```

<StreamingChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id -> </id>
  <channelName> <!--req, xs:string -></channelName>
  <enabled> <!--req, xs:boolean -> </enabled>
  <Transport> <!--req ->
</Transport>
  <Video>
    <!--opt ->
    <enabled><!--req, xs:boolean -></enabled>
    <videoInputChannelID> <!--req, xs:string;id -> </videoInputChannelID>
    <videoCodecType>
      <!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,HK.264,MPNG,SVAC" ->
    </videoCodecType>
    <videoScanType>
      <!--opt, xs:string, "progressive,interlaced" ->
    </videoScanType>
    <videoResolutionWidth> <!--req, xs:integer -> </videoResolutionWidth>

```

```

<videoResolutionHeight> <!--req, xs:integer --> </videoResolutionHeight>
<videoPositionX> <!--opt, xs:integer --> </videoPositionX>
<videoPositionY> <!--opt, xs:integer --> </videoPositionY>
<videoQualityControlType>
  <!--opt, xs:string, "CBR,VBR" -->
</videoQualityControlType>
<constantBitRate> <!--dep, xs:integer, in kbps --> </constantBitRate>
<fixedQuality> <!--opt, xs:integer, percentage, 0..100 --> </fixedQuality>
<vbrUpperCap> <!--dep, xs:integer, in kbps --> </vbrUpperCap>
<vbrLowerCap> <!--dep, xs:integer, in kbps --> </vbrLowerCap>
<maxFrameRate> <!--req, xs:integer, maximum frame rate x100 --> </maxFrameRate>
<keyFrameInterval> <!--opt, xs:integer, milliseconds --> </keyFrameInterval>
<rotationDegree> <!--opt, xs:integer, degrees, 0..360 --> </rotationDegree>
<mirrorEnabled> <!--opt, xs:boolean --> </mirrorEnabled>
<snapshotImageType>
  <!--opt, xs:string, "JPEG,GIF,PNG" -->
</snapshotImageType>
<Mpeg4Profile> <!--dep, xs:string, "SP,ASP" --> </Mpeg4Profile>
<H264Profile>
  <!--dep, xs:string, "Baseline,Main,High, Extended" -->
</H264Profile>
<SVACProfile>
  <!--dep, xs:string, "Baseline,Main,High,Extended" -->
</SVACProfile>
<GovLength> <!--opt, xs:integer --> </GovLength>
<SVC>
  <enabled> <!--req, xs:boolean --> </enabled>
  <SVCMMode> <!--dep, xs:string, "manual,auto" --> </SVCMMode>
</SVC>
<smoothing> <!--opt, xs:integer --> </smoothing>
<SmartCodec> <!--dep, ncode type: H.264 H.265 -->
  <enabled> <!--req, xs:boolean --> </enabled>
</SmartCodec>
  <vbrAverageCap> <!--dep, xs:integer, in kbps --, "average bitrate, depends on whether
SmartCodec is enabled or not" --> </vbrAverageCap>
</Video>
<Audio>
  <!--opt -->
</Audio>
<enableCABAC> <!--opt, xs: boolean --> <enableCABAC>
<subStreamRecStatus> <!--opt, xs: boolean --> </subStreamRecStatus>
</StreamingChannel>

```

8.10.20.1 Smart264 Function Configuration and Cue words

Ability

/ISAPI/Streaming/channels/ID/dynamicCap		General Resource v2.0
GET		
Description	Get dynamic capabilities, different resolutions have different frame rates; different video/audio compression types have different video/audio bit rate.	
Query	None	
Inbound Data	None	
Success Return	DynamicCap	
<p>Notes:</p> <p><profile>:When the <videoCodecType> is assigned to "H.264",the valid values of <profile> are: Baseline,Main,High, Extended,while "SP,ASP" for "MPEG4".</p> <p>Prompt1:</p> <p>H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.</p> <p>Notice:</p> <ol style="list-style-type: none"> 1. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons 2. H264+ is not supported simultaneously with third stream, SVC, smoothing, target cropping, high frame rate. <p>Do you want to reboot the unit?</p> <p>Prompt2:</p> <p>H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.</p> <p>Notice:</p> <ol style="list-style-type: none"> 1. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons 2. H264+ is not supported simultaneously with third stream, ROI, SVC, main stream smoothing, target cropping, high frame rate, WDR, HLC, 4000*3000 resolution, 3840*2160 resolution, counting, vehicle detection etc. <p>Do you want to reboot the unit?</p> <p>Prompt3:</p> <p>H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.</p> <p>Notice:</p> <ol style="list-style-type: none"> 3. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons 4. H264+ is not supported simultaneously with third stream, ROI, SVC, main stream smoothing, target cropping, high frame rate, WDR, HLC, 4000*3000 resolution, 3840*2160 		

resolution, counting, vehicle detection etc.

Do you want to reboot the unit?

Prompt4: Available for back-end products

H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.

Notice:

1. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons
2. H264+ is not supported simultaneously with SVC etc.

Do you want to reboot the unit?

Prompt5:

H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.

Notice:

5. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons
6. H265 is not supported simultaneously with ROI, SVC, main stream smoothing, high frame rate, electronic stabilization.

Do you want to reboot the unit?

Prompt6:

H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.

Notice:

3. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons
4. H264+ is not supported simultaneously with third stream, ROI, SVC, main stream smoothing.

Do you want to reboot the unit?

Prompt7:

H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.

Notice:

5. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons
6. H264+ is not supported simultaneously with ROI, SVC, main stream smoothing.

Do you want to reboot the unit?

Prompt8:

H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.

Notice:

7. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons
8. H264+ is not supported simultaneously with third stream, ROI, SVC, main stream

smoothing, target cropping.

Do you want to reboot the unit?

Prompt9:

H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.

Notice:

9. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons
10. H264+ is not supported simultaneously with third stream, ROI, SVC, main stream smoothing, high frame rate, target cropping, 2048*1536 resolution, vehicle detection, HVT detection, Violation Forensic, heatmap,.

Do you want to reboot the unit?

Prompt10:

H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.

Notice:

7. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons
8. H264+ is not supported simultaneously with third stream, ROI, SVC, main stream smoothing, target cropping, high frame rate, vehicle detection.

Do you want to reboot the unit?

Prompt11:

H264+ reduces bandwidth by 50% in most scenes while maintaining image quality compared to H264.

Notice:

9. Update your video player to the latest version if live view or playback is not working due to the capabilities reasons
10. H264+ is not supported simultaneously with third stream, ROI, SVC, main stream smoothing, high frame rate, electronic stabilization, vehicle detection.

Do you want to reboot the unit?

<smart264EnabledPrompt>: Smart264

<smart265EnabledPrompt>: Smart265

DynamicCap XML Block

```
<DynamicCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ResolutionAvailableDescriptorList>
    <ResolutionAvailableDescriptor>
      <videoResolutionWidth> <!-- req, xs:integer --> </videoResolutionWidth>
      <videoResolutionHeight> <!-- req, xs:integer --> </videoResolutionHeight>
      <supportedFrameRate> <!-- req, xs:string --> </supportedFrameRate>
    </ResolutionAvailableDescriptor>
  </ResolutionAvailableDescriptorList>
```



```

<CodecParamDescriptorList>
  <CodecParamDescriptor>
    <videoCodecType>
      <!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,HK.264" --></videoCodecType>
      <isSupportProfile> <!--dep, xs:boolean,"" --> </isSupportProfile>
      <CBRCap>
        <isSupportSmooth><!--dep, xs:boolean--></isSupportSmooth>
      </CBRCap>
      <VBRCap>
        <isSupportSmooth><!--dep, xs:boolean--></isSupportSmooth>
      </VBRCap>
      <isSupportSVC> <!--opt, xs:boolean--> </isSupportSVC>
      <isSupportCABAC> <!--opt, xs:boolean--> </isSupportCABAC>
      <SmartCodecCap><opt-->
        <readOnlyParams opt="keyFrameInterval,Profile,SVC,fixedQuality"><!--opt, ro,
xs:string, "The following functions option are read only :keyFrameInterva,Profile,SVC,
fixedQuality"--></readOnlyParams>
        <BitrateType>
          <Constant><!--opt, Constant bitrate-->
            <support opt="videoBitrate"><!--opt,
xs:string,"averageVideoBitrate,videoBitrate"--></support>
            <hiddenAbility opt="averageVideoBitrate"><!--opt,
xs:string,"averageVideoBitrate,videoBitrate"--></hiddenAbility>
          </Constant>
          <Variable><!--opt, Variable bitrate-->
            <support opt="averageVideoBitrate"><!--opt,
xs:string,"averageVideoBitrate,videoBitrate"--></support>
            <readOnlyAbility opt="videoBitrate"><!--opt,
xs:string,"averageVideoBitrate,videoBitrate"--></readOnlyAbility>
          </Variable>
        </BitrateType>
        <vbrAverageDefault><!--dep,xs:integer in kbps "default value of average video
bitrate"--></vbrAverageDefault>
        <smart264EnabledPrompt opt="prompt1,prompt2,prompt3"><!--opt,wo,xs:string,"
Smart264 enabled prompt"--></smart264EnabledPrompt>
        <smart265EnabledPrompt opt="prompt1,prompt2, prompt3"><!--opt,wo,xs:string,"
Smart265 enabled prompt"--></smart265EnabledPrompt>
      </SmartCodecCap>
    </CodecParamDescriptor>
  </CodecParamDescriptorList>
</DynamicCap>

```

Example: Getting the Dynamic Capabilities

```

GET /ISAPI/Streaming/Channels/101/dynamicCap HTTP/1.1
...
HTTP/1.1 200 OK
Content-Type: application/xml; charset="UTF-8"
Content-Length: xxx

<?xml version="1.0" encoding="UTF-8"?>
<DynamicCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ResolutionAvailableDescriptorList>
    <ResolutionAvailableDescriptor>
      <videoResolutionWidth>176</videoResolutionWidth>
      <videoResolutionHeight>144</videoResolutionHeight>
      <supportedFrameRate>2500,6,12,25,50,100,200,400,600,800,1000,1200,1500,1600,1800,
2000,2200</supportedFrameRate>
    </ResolutionAvailableDescriptor>
    <ResolutionAvailableDescriptor>
      <videoResolutionWidth>352</videoResolutionWidth>
      <videoResolutionHeight>288</videoResolutionHeight>
      <supportedFrameRate>2500,6,12,25,50,100,200,400,600,800,1000,1200,1500,1600,1800,
2000,2200</supportedFrameRate>
    </ResolutionAvailableDescriptor>
  </ResolutionAvailableDescriptorList>
  <CodecParamDescriptorList>
    <CodecParamDescriptor>
      <videoCodecType>
        <!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,HK.264" --></videoCodecType>
        <isSupportProfile> <!--dep, xs:boolean,"" --></isSupportProfile>
        <CBRCap> 定码率
          <isSupportSmooth><!--dep, xs:boolean --></isSupportSmooth>
        </CBRCap>
        <VBRCap> 变码率
          <isSupportSmooth><!--dep, xs:boolean --></isSupportSmooth>
        </VBRCap>
        <isSupportSVC> <!--opt, xs:boolean --> </isSupportSVC>
        <isSupportCABAC> <!--opt, xs:boolean --> </isSupportCABAC>
        <SmartCodecCap> <opt -->
          <readOnlyParams opt="keyFrameInterval,Profile,SVC"><!--req, ro, xs:string,
" keyFrameInterval,Profile. SVC" --></readOnlyParams>
          <smart264EnabledPrompt
opt="prompt1,prompt2,prompt3"><!--opt,wo,xs:string, --></smart264EnabledPrompt>
          <smart265EnabledPrompt
opt="prompt1,prompt2"><!--opt,wo,xs:string, --></smart265EnabledPrompt>
        </SmartCodecCap>

```

```

    </CodecParamDescriptor>
  </CodecParamDescriptorList>
  <AudioDescriptorList>
    <audioCompressionType
SupportedAudioBitRate="32,64,128">MP2L2</audioCompressionType>
  </AudioDescriptorList>
</DynamicCap>

```

8.10.20.2/ISAPI/Streaming/channels/<ID>/dynamicCapWithCondition

/ISAPI/Streaming/channels/<ID>/dynamicCapWithCondition		General Resource	v2.0
GET			
Description	Get Video Streaming dynamic capabilities		
Query	None		
Inbound Data	StreamingDescriptor		
Success Return	StreamingDynamicCap		
Notes:			
VBR variable bit rate			
CBR Constant bit rate			

StreamingDescriptor XML Block

```

<StreamingDescriptor version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <VbrAverageCapDynamicLinkTo><!--opt, " Get Video Streaming dynamic capabilities" -->
    <vbrUpperCap><!--opt, xs:integer, in kbps --></vbrUpperCap>
    <streamType><!--opt,xs:string, stream type "mainstream,substream,stream3" --></streamType>
    <codeType><!--opt, xs:string, encode type "smart264,smart265" --></codeType>
    <videoQualityControlType><!--opt, xs:string, "CBR,VBR" --></videoQualityControlType>
  </VbrAverageCapDynamicLinkTo>
</StreamingDescriptor>

```

StreamingDynamicCap XML Block

```

<StreamingDynamicCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <vbrAverageCap> <!--opt, xs:integer, in kbps, VbrAverageCapDynamicLinkTo -->
  </vbrAverageCap>
</StreamingDynamicCap>

```

/ISAPI/Streaming/channels/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get the properties of a particular streaming channel for the device capabilities.	
Query	None	
Inbound Data	None	
Success Return	StreamingChannel	
Notes:		
isSpportDynamicCapWithCondition : whether support the dynamic capabilities with condition		

StreamingChannel XML Block

```
<StreamingChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id -> </id>
  <channelName> <!--req, xs:string -></channelName>
  <enabled> <!--req, xs:boolean -> </enabled>
  <Transport> <!--req ->
    <maxPacketSize> <!--opt, xs:integer -> </maxPacketSize>
    <audioPacketLength> <!--opt, xs:integer -> </audioPacketLength>
    <audioInboundPacketLength><!--opt, xs:integer -> </audioInboundPacketLength>
    <audioInboundPortNo> <!--opt, xs:integer -> </audioInboundPortNo>
    <videoSourcePortNo> <!--opt, xs:integer -> </videoSourcePortNo>
    <audioSourcePortNo> <!--opt, xs:integer -> </audioSourcePortNo>
    <ControlProtocolList> <!--req ->
      <ControlProtocol>
        <!--req ->
        <streamingTransport>
          <!--req, xs:string, "HTTP,RTSP,SHTTP" ->
          </streamingTransport>
        </ControlProtocol>
      </ControlProtocolList>
    <Unicast><!--opt ->
      <enabled> <!--req, xs:boolean -> </enabled>
      <interfaceID> <!--opt, xs:string -> </interfaceID>
      <rtpTransportType>
        <!--opt, xs:string, "RTP/UDP,RTP/TCP" ->
        </rtpTransportType>
      </Unicast>
    <Multicast> <!--opt ->
      <enabled> <!--req, xs:boolean -> </enabled>
      <userTriggerThreshold> <!--opt, xs:integer -> </userTriggerThreshold>
      <destIPAddress> <!--dep, xs:string -> </destIPAddress>
      <videoDestPortNo><!--opt, xs:integer -></videoDestPortNo>
</StreamingChannel>
```

```

    <audioDestPortNo><!--opt, xs:integer --></audioDestPortNo>
    <destIPv6Address><!--dep, xs:string --></destIPv6Address>
    <ttl><!--opt, xs:integer --></ttl>
</Multicast>
<Security>
    <!--opt -->
    <enabled><!--req, xs:boolean --></enabled>
</Security>
</Transport>
<Video>
    <!--opt -->
    <enabled><!--req, xs:boolean --></enabled>
    <videoInputChannelID> <!--req, xs:string;id --> </videoInputChannelID>
    <videoCodecType>
        <!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,HK.264,MPNG,SVAC" -->
    </videoCodecType>
    <videoScanType>
        <!--opt, xs:string, "progressive,interlaced" -->
    </videoScanType>
    <videoResolutionWidth> <!--req, xs:integer --> </videoResolutionWidth>
    <videoResolutionHeight> <!--req, xs:integer --> </videoResolutionHeight>
    <videoPositionX> <!--opt, xs:integer --> </videoPositionX>
    <videoPositionY> <!--opt, xs:integer --> </videoPositionY>
    <videoQualityControlType>
        <!--opt, xs:string, "CBR,VBR" -->
    </videoQualityControlType>
    <constantBitRate> <!--dep, xs:integer, in kbps --> </constantBitRate>
    <fixedQuality><!--opt, xs:integer, percentage, 0..100 --> </fixedQuality>
    <vbrUpperCap> <!--dep, xs:integer, in kbps --> </vbrUpperCap>
    <vbrLowerCap> <!--dep, xs:integer, in kbps --> </vbrLowerCap>
    <maxFrameRate> <!--req, xs:integer, maximum frame rate x100 --> </maxFrameRate>
    <keyFrameInterval> <!--opt, xs:integer, milliseconds --> </keyFrameInterval>
    <rotationDegree> <!--opt, xs:integer, degrees, 0..360 --></rotationDegree>
    <mirrorEnabled> <!--opt, xs:boolean --> </mirrorEnabled>
    <snapshotImageType>
        <!--opt, xs:string, "JPEG,GIF,PNG" -->
    </snapshotImageType>
    <Mpeg4Profile> <!--dep, xs:string, "SP,ASP" --> </Mpeg4Profile>
    <H264Profile>
        <!--dep, xs:string, "Baseline,Main,High, Extended" -->
    </H264Profile>
    <SVACProfile>
        <!--dep, xs:string, "Baseline,Main,High,Extended" -->

```

```

</SVACProfile>
<GovLength> <!--opt, xs:integer --> </GovLength>
<SVC>
  <enabled> <!--req, xs:boolean --> </enabled>
  <SVCMODE> <!--dep, xs:string, "manual,auto" --> </SVCMODE>
</SVC>
<smoothing> <!--opt, xs:integer--> </smoothing>
<H265Profile>
  <!--dep, xs:string, "Baseline,Main,High, Extended" -->
</H265Profile>
</Video>
<Audio>
  <!--opt -->
  <enabled> <!--req, xs:boolean --> </enabled>
  <audioInputChannelID> <!--req, xs:string;id --> </audioInputChannelID>
  <audioCompressionType>
    <!--req, xs:string,
    "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM, MP2L2"
    -->
  </audioCompressionType>
  <audioInboundCompressionType>
    <!--opt, xs:string,
    "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM,MP2L2"
    -->
  </audioInboundCompressionType>
  <audioBitRate> <!--opt, xs:integer, in kbps --> </audioBitRate>
  <audioSamplingRate> <!--opt, xs:float, in kHz --> </audioSamplingRate>
  <audioResolution> <!--opt, xs:integer, in bits --> </audioResolution>
</Audio>
<enableCABAC> <!--opt, xs: boolean --> <enableCABAC>
<subStreamRecStatus> <!--opt, xs: boolean --> </subStreamRecStatus>
  <isSupportDynamicCapWithCondition><!--opt, xs:boolean," whether support the dynamic
capabilities with condition "--></isSupportDynamicCapWithCondition>
  <isSupportRefreshFrame> <!--opt, xs:boolean --> </isSupportRefreshFrame>
</StreamingChannel>

```

8.10.20.3 Smart264 Refresh Frame Function

/ISAPI/Streaming/channels/<ID>/refreshFrame

/ISAPI/Streaming/channels/ID/refreshFrame		General Resource	v2.0
PUT		Operator	
Description	Provide forced to refresh the frame control interface, just for streaming media server using; By calling the SDK interface, to sends the server refresh frame (big P frame)		
Inbound Data	None		
Success Return	ResponseStatus		
Notes: The Smart264 need to be enabled at first. <ID> 101---channel 1 with main stream; 102—channel 1 with sub stream;			

/ISAPI/Streaming/channels/<ID>/refreshFrame/capabilities

/ISAPI/Streaming/channels/ID/refreshFrame/capabilities		General Resource	v2.0
GET		Operator	
Description	It is used to get Streaming capability.		
Inbound Data	None		
Success Return	<RefreshFrame>		
Notes: The Smart264 need to be enabled at first.			

RefreshFrame XML Block

```
<RefreshFrame version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <streamType opt="mainStream,subStream,stream3"><!--req, xs:string --></streamType>
</RefreshFrame>
```

8.10.21 /ISAPI/Streaming/channels/<ID>/bareDataOverlay

/ISAPI/Streaming/channels/ID/bareDataOverlay		General Resource	v2.0
GET			
Description	Stack heating imaging data in the stream		
Query	None		
Inbound Data	None		

Success Return	BareDataOverlay
PUT	
Description	Stack heating imaging data in the stream
Query	None
Inbound Data	BareDataOverlay
Success Return	ResponseStatus
Notes: intervalTime: 上传的时间间隔可配置: 1 2 3 4 5.单位为秒, 默认为 3 秒	

BareDataOverlay XML Block

```
<BareDataOverlay version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--req, xs:Boolean, def="false" --></enabled>
  <intervalTime><!--req, xs:integer, 1~5s, def:3s--></intervalTime >
</BareDataOverlay>
```

8.10.22 /ISAPI/Streaming/channels/<ID>/bareDataOverlay/capabilities

/ISAPI/Streaming/channels/ID/bareDataOverlay/capabilities	General Resource	v2.0
GET		Operator
Description	Stack heating imaging data in the stream	
Query	None	
Inbound Data	None	
Success Return	BareDataOverlay	
Notes: intervalTime: 上传的时间间隔可配置: 1 2 3 4 5.单位为秒, 默认为 3 秒		

BareDataOverlay XML Block

```
<BareDataOverlay version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--req, xs:boolean --></enabled>
  <intervalTime min="1" max="5" def="3"><!--req, xs:integer;unit:s--></intervalTime >
</BareDataOverlay>
```

8.11 /ISAPI/Snapshot

/ISAPI/Snapshot	Service	v2.0
Notes: snapshot service		

8.11.1 /ISAPI/Snapshot/channels

/ISAPI/Snapshot/channels		General Resource v2.0
GET		
Description	It is used to get the properties of snapshot channels for the device.	
Query	None	
Inbound Data	None	
Success Return	SnapshotChannellist	
PUT		
Description	It is used to update the properties of snapshot channels for the device.	
Query	None	
Inbound Data	SnapshotChannellist	
Success Return	ResponseStatus	
Notes:		

SnapshotChannellist XML Block

```
<SnapshotChannellist version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SnapshotChannel/> <!--opt -->
</SnapshotChannellist>
```

8.11.2 /ISAPI/Snapshot/channels/<ID>

/ISAPI/Snapshot/channel/ID		General Resource v2.0
GET		
Description	It is used to get the properties of a particular snapshot channel.	
Query	None	
Inbound Data	None	
Success Return	SnapshotChannel	
PUT		
Description	It is used to update the properties of a particular snapshot channel.	
Query	None	
Inbound Data	SnapshotChannel	
Success Return	ResponseStatus	
Notes:		

SnapshotChannel XML Block

```

<SnapshotChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id -> </id>
  <videoInputChannelID> <!--req, xs:string;id -> </videoInputChannelID>
  <timingCapture> <!--opt ->
    <enabled> <!--req, xs:boolean -> </enabled>
    <supportSchedule> <!--opt, ro, xs:boolean> </supportSchedule>
    <compress>
      <pictureCodecType>
        <!--req, xs:string, "JPEG,BMP,GIF,PNG" ->
      </pictureCodecType>
      <pictureWidth> <!--req, xs:integer -> </pictureWidth>
      <pictureHeight> <!--req, xs:integer -> </pictureHeight>
      <quality> <!--opt, xs:integer, percentage, 0..100 -> </quality>
      <captureInterval> <!--opt, xs:integer, milliseconds -> </captureInterval>
    </compress>
  </timingCapture>
  <eventCapture> <!--opt ->
    <enabled> <!--req, xs:boolean -> </enabled>
    <supportSchedule> <!--opt, ro, xs:boolean> </supportSchedule>
    <compress>
      <pictureCodecType>
        <!--req, xs:string, "JPEG,BMP,GIF,PNG" ->
      </pictureCodecType>
      <pictureWidth> <!--req, xs:integer -> </pictureWidth>
      <pictureHeight> <!--req, xs:integer -> </pictureHeight>
      <quality> <!--opt, xs:integer, percentage, 0..100 -> </quality>
      <captureInterval> <!--opt, xs:integer, milliseconds -> </captureInterval>
    </compress>
  </eventCapture>
</SnapshotChannel>

```

8.11.3 /ISAPI/Snapshot/channels/<ID>/capabilities

/ISAPI/Snapshot/channels/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get snapshot capabilities.	
Query	None	
Inbound Data	None	
Success Return	SnapshotChannelCapabilities	

SnapshotChannel XML Block

```
<?xml version="1.0" encoding="UTF-8"?>
```

```

<SnapshotChannel version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
<id opt="1">1</id>
<videoInputChannelID opt="1">1</videoInputChannelID>
<timingCapture>
<enabled opt="true,false">>false</enabled>
<supportSchedule opt="true,false">>true</supportSchedule>
<compress>
<pictureCodecType opt="JPEG">JPEG</pictureCodecType>
<pictureWidth opt="1280">1280</pictureWidth>
<pictureHeight opt="720">720</pictureHeight>
<quality opt="40,60,80">80</quality>
<captureInterval min="1000" max="604800000">0</captureInterval>
<captureNumber min="1" max="120" def="4" >0</captureNumber>
</compress>
</timingCapture>
<eventCapture>
<enabled opt="true,false">>false</enabled>
<supportSchedule opt="false">>false</supportSchedule>
<compress>
<pictureCodecType opt="JPEG">JPEG</pictureCodecType>
<pictureWidth opt="1280">1280</pictureWidth>
<pictureHeight opt="720">720</pictureHeight>
<quality opt="40,60,80">80</quality>
<captureInterval min="1000" max="65535">0</captureInterval>
<captureNumber min="1" max="120" def="4" >4</captureNumber>
</compress>
</eventCapture>
<PromptDescription>
  <prompt1>true<prompt1><!--opt, just return successfully when supported. If it doesn't
support, the upper note still exists.-->
</PromptDescription>
</SnapshotChannel>

```

8.12 /ISAPI/Event

/ISAPI/Event		Service v2.0
GET		Viewer
Description	It is used to get the configuration of the device event behavior, scheduling and notifications.	

Query	None
Inbound Data	None
Success Return	EventNotification
PUT	
Operator	
Description	It is used to update the configuration of the device event behavior, scheduling and notifications.
Query	None
Inbound Data	EventNotification
Success Return	ResponseStatus
Notes: The event trigger list defines the set of device behaviors that trigger events. The event schedule defines when event notifications are active. The event notification methods define what types of notification (e-mail) are supported.	

EventNotification XML Block

```
<EventNotification version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <EventTriggerList/>      <!--opt -->
  <EventNotificationMethods/> <!--opt -->
</EventNotification>
```

8.12.1 /ISAPI/Event/capabilities

/ISAPI/Event/capabilities		General Resource v2.0
GET		
Description	It is used to get network capability.	
Query	None	
Inbound Data	None	
Success Return	< EventCap>	
Notes:		

EventCap XML Block

```
<EventCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isSupportHDFull> <!--opt, xs:boolean --> </isSupportHDFull>
  <isSupportHDError> <!--opt, xs:boolean --> </isSupportHDError>
  <isSupportNicBroken> <!--opt, xs:boolean --> </isSupportNicBroken>
  <isSupportIpConflict> <!--opt, xs:boolean --> </isSupportIpConflict>
  <isSupportIllumAccess> <!--opt, xs:boolean --> </isSupportIllumAccess>
  <isSupportViException> <!--opt, xs:boolean --> </isSupportViException>
```

```

<isSupportViMismatch> <!--opt, xs:boolean -> </isSupportViMismatch>
<isSupportRecordException> <!--opt, xs:boolean -> </isSupportRecordException>
<isSupportRaidException> <!--opt, xs:boolean -> </isSupportRaidException>
<isSupportSpareException> <!--opt, xs:boolean -> </isSupportSpareException>
<isSupportPoePowerException><!--opt, xs:boolean-></isSupportPoePowerException>
<isSupportTriggerFocus><!--opt, xs:boolean -> </isSupportTriggerFocus>
<isSupportMotionDetection><!--opt, xs:boolean -> </isSupportMotionDetection>
<isSupportVideoLoss><!--opt, xs:boolean -> </isSupportVideoLoss>
<isSupportTamperDetection><!--opt, xs:boolean -> </isSupportTamperDetection>
</EventCap>

```

8.12.2 /ISAPI/Event/triggersCap

/ISAPI/Event/triggersCap		General Resource v2.0
GET		
Description	It is used to get the triggers capabilities of all event.	
Query	None	
Inbound Data	None	
Success Return	EventTriggersCap	
Notes:		
<maxPresetActionNum>, <maxPatrolActionNum> and <maxPatternActionNum> are only required if the <isSupportPTZ> is true;		

EventTriggerCap XML Block

```

<EventTriggersCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <DiskfullTriggerCap><!--opt,xs: EventTriggerCapType -></DiskfullTriggerCap>
  <DiskerrorTriggerCap><!--opt,xs: EventTriggerCapType -></DiskerrorTriggerCap>
  <NicbrokenTriggerCap><!--opt,xs: EventTriggerCapType -></NicbrokenTriggerCap>
  <IpconflictTriggerCap><!--opt,xs: EventTriggerCapType -></ IpconflictTriggerCap>
  <IllaccesTriggerCap><!--opt,xs: EventTriggerCapType -></IllaccesTriggerCap>
  <BadvideoTriggerCap><!--opt,xs: EventTriggerCapType -></BadvideoTriggerCap>
  <VideomismatchTriggerCap><!--opt,xs: EventTriggerCapType ->
  </VideomismatchTriggerCap>
  <IOTriggerCap><!--opt,xs: EventTriggerCapType -></IOTriggerCap>
  <FiledDetectTriggerCap><!--opt,xs: EventTriggerCapType -></FiledDetectTriggerCap>
  <LineDetectTriggerCap><!--opt,xs: EventTriggerCapType -></LineDetectTriggerCap>
  <RegionEntranceTriggerCap><!--opt,xs: EventTriggerCapType -></RegionEntranceTriggerCap>
  >
  <RegionExitingTriggerCap><!--opt,xs: EventTriggerCapType -></RegionExitingTriggerCap>
  <LoiteringTriggerCap><!--opt,xs: EventTriggerCapType -></LoiteringTriggerCap>

```

```

<GroupDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></GroupDetectionTriggerCap
>
<RapidMoveTriggerCap><!--opt,xs:EventTriggerCapType--></RapidMoveTriggerCap>
<ParkingTriggerCap><!--opt,xs:EventTriggerCapType--></ParkingTriggerCap>
<UnattendedBaggageTriggerCap><!--opt,xs:EventTriggerCapType--></UnattendedBaggageTr
iggerCap>
<AttendedBaggageTriggerCap><!--opt,xs:EventTriggerCapType--></AttendedBaggageTrigger
Cap>
<FireDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></FireDetectionTriggerCap>
<FireDetectionCap><!--opt,xs:EventTriggerCapType--></FireDetectionCap>
<StorageDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></StorageDetectionTrigger
Cap>
<ShipsDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></ShipsDetectionTriggerCap>
<ThermometryCap><!--opt,xs:EventTriggerCapType--></ThermometryCap>
<VandalProofTriggerCap><!--opt,xs:EventTriggerCapType--></VandalProofTriggerCap>
<BlackListTriggerCap><!--opt,xs:EventTriggerCapType--></BlackListTriggerCap>
<WhiteListTriggerCap><!--opt,xs:EventTriggerCapType--></WhiteListTriggerCap>
<AllVehicleListTriggerCap><!--opt,xs:EventTriggerCapType--></AllVehicleListTriggerCap>
<OtherVehicleListTriggerCap><!--opt,xs:EventTriggerCapType--></OtherVehicleListTriggerCa
p>
<PeopleDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></PeopleDetectionTriggerCa
p>
<PIRAAlarmCap><!--opt,xs:EventTriggerCapType--></PIRAAlarmCap>
<VideoLossTriggerCap><!--opt,xs:EventTriggerCapType--></VideoLossTriggerCap>
<TamperDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></TamperDetectionTriggerC
ap>
<DefocusDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></DefocusDetectionTrigger
Cap>
<FaceDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></FaceDetectionTriggerCap>
<SceneChangeDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></SceneChangeDetec
tionTriggerCap>
<VandalProofAlarmCap><!--opt,xs:EventTriggerCapType--></VandalProofAlarmCap>
<JudgmentTriggerCap><!--opt,xs:EventTriggerCapType--></JudgmentTriggerCap>
<FightingTriggerCap><!--opt,xs:EventTriggerCapType--></FightingTriggerCap>
<RisingTriggerCap><!--opt,xs:EventTriggerCapType--></RisingTriggerCap>
<DozingTriggerCap><!--opt,xs:EventTriggerCapType--></DozingTriggerCap>
<CountingTriggerCap><!--opt,xs:EventTriggerCapType--></CountingTriggerCap>
<HideTriggerCap><!--opt,xs:EventTriggerCapType--></HideTriggerCap>
<AlarmInTriggerCap><!--opt,xs:EventTriggerCapType--></AlarmInTriggerCap>
<VehicleDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></VehicleDetectionTriggerC
ap>
<HVTVehicleDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></HVTVehicleDetection
TriggerCap>

```

```

<IntelligentTriggerCap><!--opt,xs:EventTriggerCapType--></IntelligentTriggerCap>
<VCATriggerCap><!--opt,xs:EventTriggerCapType--></VCATriggerCap>
<AudioExceptionCap><!--opt,xs:EventTriggerCapType--></AudioExceptionCap>
<PIRCap><!--opt,xs:EventTriggerCapType--></PIRCap>
<MotionDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></MotionDetectionTriggerCap>
<TemperatureCap><!--opt,xs:EventTriggerCapType--></TemperatureCap>
<ShipsDetectionTriggerCap><!--opt,xs:EventTriggerCapType--></ShipsDetectionTriggerCap>
</EventTriggersCap>

```

EventTriggerCap XML Block

```

<EventTriggerCapType version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isSupportCenter><!--opt, xs:boolean --></isSupportCenter>
  <isSupportRecord><!--opt, xs:boolean --></isSupportRecord>
  <isSupportMonitorAlarm><!--opt, xs:boolean --></isSupportMonitorAlarm>
  <isSupportBeep><!--opt, xs:boolean --></isSupportBeep>
  <isSupportIO><!--opt, xs:boolean --></isSupportIO>
  <isSupportFTP><!--opt, xs:boolean --></isSupportFTP>
  <isSupportEmail><!--opt, xs:boolean --></isSupEmail>
  <isSupportLightAudioAlarm><!--opt, xs:boolean --></isSupportLightAudioAlarm>
  <isSupportFocus><!--opt, xs:boolean --></isSupportFocus>
  <isSupportPTZ><!--opt, xs:boolean --></isSupportPTZ>
  <maxPresetActionNum><!--dep,xs:integer--></maxPresetActionNum>
  <maxPatrolActionNum><!--dep,xs:integer--></maxPatrolActionNum>
  <maxPatternActionNum><!--dep,xs:integer--></maxPatternActionNum>
  <isSupportTrack><!--opt, xs:boolean --></isSupportTrack>
  <isSupportCloud><!--opt, xs:boolean --></isSupportCloud>
</EventTriggerCapType>

```

8.12.3 /ISAPI/Event/triggers

/ISAPI/Event/triggers		General Resource v2.0
GET		
Description	It is used to get the list of event triggers.	
Query	None	
Inbound Data	None	
Success Return	EventTriggerList	
PUT		
Description	It is used to update the list of event triggers.	
Query	None	
Inbound Data	EventTriggerList	

Success Return	ResponseStatus
POST	
Description	It is used to add an event trigger.
Query	None
Inbound Data	EventTrigger
Success Return	ResponseStatus
DELETE	
Description	It is used to delete the list of event triggers.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	
Event triggering defines how the device reacts to particular events, such as video loss or motion detection.	

EventTriggerList XML Block

```
<EventTriggerList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <EventTrigger/> <!--opt -->
</EventTriggerList>
```

8.12.4 /ISAPI/Event/triggers/<ID>

/ISAPI/Event/triggers/ID		General Resource v2.0
GET		
Description	It is used to get a particular event trigger configuration.	
Query	None	
Inbound Data	None	
Success Return	EventTrigger	
PUT		
Description	It is used to update a particular event trigger configuration.	
Query	None	
Inbound Data	EventTrigger	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular event trigger.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

An event trigger determines how the device reacts when a particular event is detected. The following types are supported:

IO: trigger when an input IO port changes state.

VMD: trigger on video motion detection.

Video loss: trigger when the input video signal cannot be detected.

Disk failure: trigger when a disk fails.

Recording failure: trigger when recording fails: either there is a problem with the disk, or the storage volume is full, or the volume is corrupt.

Bad video: trigger when the input video is bad.

POS: trigger when a point-of-sale event is detected.

Analytics: trigger on a general analytics event. Currently analytics events apart from VMD, which has its own event trigger, are not supported. Fan failure: trigger when a fan fails.

Nicbroken: trigger when net interface is broken.

Resolution mismatch: trigger when video input port resolution is not matched up to compress resolution.

The ID in **"/Event/triggers/ID"** is defined as following declaration:

If the event type is IO, the ID is IO-InputPortNumber.

Examples :

IO-1 :the first IO input port

If the event type is VMD, videoloss or tamperdetection, the ID style is VMD/videoloss/tamper/regionEntrance/regionExiting/loitering/group/rapidMove/parking/unattendedBaggage/attendedBaggage-InputChannelID.

Examples:

If video input channel id is "video1", the id is as follows:

VMD-1: Video Motion Detection of video input channel "video1".

Videoloss-1: Video Loss Detection of video input channel "video1".

Tamper-1: Tamper Detection of video input channel "video1".

regionEntrance-1: Region Entrance Detection of video input channel "video1".

regionExiting-1: Region Exiting Detection of video input channel "video1".

Loitering-1: Loitering Detection of video input channel "video1".

Group-1: Group Detection of video input channel "video1".

rapidMove-1: Rapid Move Detection of video input channel "video1".

Parking-1: Parking Detection of video input channel "video1".

unattendedBaggage-1: Unattended Baggage Detection of video input channel "video1".

attendedBaggage-1: Attended Baggage Detection of video input channel "video1".

blackList-1:channel 1 black list

whiteList-1:channel1 white list

allVehicleList-1: channel1 allVehicle list

otherVehicleList-1: channel1 otherVehicle list

peopleDetection-1: People Detection of video input channel "video1".

shipsDetection-1: Face Capture of video input channel "video1".

EventTrigger XML Block

```

<EventTrigger version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id → </id>
  <eventType>
    <!--req, xs:string,
      "IO,VMD,videoloss,raidfailure,recordingfailure,
      badvideo,POS,analytics,fanfailure,overheat, tamperdetection, diskfull, diskerror,
      nicbroken, ipconflict, illaccess, videomismatch, resolutionmismatch, radifailure,PIR,
      WLSensor, spareException, poePowerException,heatmap,
      counting,linedetection,fielddetection,regionEntrance,regionExiting,loitering,group,rapid
      Move,parking,unattendedBaggage,attendedBaggage,blackList,whitelist,peopleDetectio
      n,vehicledetection,HVTVehicleDetection,storageDetection,allVehicleList,otherVehicleLis
      t, shipsDetection"
    →
  </eventType>
  <eventDescription><!--opt, xs:string →</eventDescription>
  <inputIOPortID> <!--dep, xs:string; id → </inputIOPortID>
  <dynInputIOPortID> <!--dep, xs:string; id → </dynInputPortID>
  <videoInputChannelID> <!--dep, xs:string; id, if <eventType> is "VMD,videoloss,
  tamperdetection,regionEntrance,regionExiting,loitering,group,rapidMove,parking,unattendedBag
  gage,attendedBaggage" → </videoInputChannelID>
  <dynVideoInputChannelID> <!--dep, xs:string; id → </dynVideoInputChannelID>
  <intervalBetweenEvents><!--opt, xs:integer, seconds →</intervalBetweenEvents>
  <WLSensorID> <!--dep, xs:string; id → </WLSensorID>
  <EventTriggerNotificationList/> <!--opt →
</EventTrigger>

```

8.12.5 /ISAPI/Event/triggers/<ID>/notifications

/ISAPI/Event/triggers/ID/notifications		General Resource v2.0
GET		
Description	It is used to get the list of notification methods and behaviors for an event trigger.	
Query	None	
Inbound Data	None	
Success Return	EventTriggerNotificationList	
PUT		
Description	It is used to update the list of notification methods and behaviors for an event trigger.	
Query	None	

Inbound Data	EventTriggerNotificationList
Success Return	ResponseStatus
DELETE	
Description	It is used to delete the list of notification method and behavior for an event trigger.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes: ptz: PTZ action record: recording monitorAlarm : monitor alarm center:send alarm to center LightAudioAlarm : light blink and sound the alarm <outputIOPortID> or <dynOutputIOPortID> is only required if the <notificationMethod> is "IO". <videoInputID> or <dynVideoInputID> is only required if the <notificationMethod> is "record". <ptzAction> is only required if the <notificationMethod> is "ptz";	

EventTriggerNotificationList XML Block

```
<EventTriggerNotificationList version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <EventTriggerNotification/> <!--opt -->
</EventTriggerNotificationList>
```

EventTriggerNotification XML Block

```

<EventTriggerNotification> <!--opt -->
  <id> <!--req, xs:string;id --> </id>
  <notificationMethod>
    <!--req, xs:string, "email,IM,IO,syslog,HTTP,FTP,beep, ptz, record
    , monitorAlarm, center, LightAudioAlarm,focus,trace,cloud" -->
  </notificationMethod>
  <notificationRecurrence>
    <!--opt, xs:string, "beginning,beginningandend,recurring" -->
  </notificationRecurrence>
  <notificationInterval> <!--dep, xs:integer, milliseconds --> </notificationInterval>
  <outputIOPortID> <!--dep, xs:string;id --> </outputIOPortID>
  <dynOutputIOPortID> <!--dep, xs:string;id --> </dynOutputIOPortID>
  <videoInputID> <!--dep, xs:string;id --> </videoInputID>
  <dynVideoInputID> <!--dep, xs:string;id --> </dynVideoInputID>
  <ptzAction> <!--dep -->
    <ptzChannelID> <!--req, xs:string; id --> </ptzChannelID>
    <actionName> <!--req, xs:string, "preset, pattern, patrol" --> </actionName>
    <actionNum> <!--dep, xs:integer --> </actionNum>
  </ptzAction>
</EventTriggerNotification>

```

8.12.6 /ISAPI/Event/schedules

/ISAPI/Event/schedules	General Resource v2.0
Notes:	

8.12.7 /ISAPI/Event/schedules/inputs

/ISAPI/Event/schedules/inputs		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	InputScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	InputScheduleList	
Success Return	ResponseStatus	
Notes:		

InputScheduleList XML Block

```
< InputScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  < Schedule/>  <!--opt -->
</InputScheduleList>
```

8.12.8 /ISAPI/Event/schedules/inputs/<ID>

/ISAPI/Event/schedules/inputs/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		

Schedule XML Block

```
<Schedule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id --> </id>
  <eventType> <!--req, xs:string, --></eventType>
  <inputIOPortID> <!--dep, xs:integer> </inputIOPortID>
  <outputIOPortID> <!--dep, xs:integer> </outputIOPortID>
  <videoInputChannelID> <!--dep, xs:integer> </videoInputChannelID>
  <TimeBlockList >
    <TimeBlock >
      <dayOfWeek ><!--dep, xs:integer> </ dayOfWeek >
      <TimeRange>
        <beginTime><!--dep, xs:integer></beginTime>
        <endTime><!--dep, xs:integer></endTime>
      </TimeRange>
    </TimeBlock>
  </TimeBlockList>
</Schedule>
```

8.12.9 /ISAPI/Event/schedules/outputs

/ISAPI/Event/schedules/outputs		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	OutputScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	OutputScheduleList	
Success Return	ResponseStatus	
Notes:		

OutputScheduleList XML Block

```
<OutputScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Schedule/>          <!--opt -->
</OutputScheduleList>
```

8.12.10 /ISAPI/Event/schedules/outputs/<ID>

/ISAPI/Event/schedules/outputs/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		

Schedule XML Block

```
<Schedule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id --> </id>
  <eventType> <!--req, xs:string, --></eventType>
  <inputIOPortID> <!--dep, xs:integer> </inputIOPortID>
  <outputIOPortID> <!--dep, xs:integer> </outputIOPortID>
```

```

<videoInputChannelID> <!--dep, xs:integer> </videoInputChannelID>
<TimeBlockList >
  <TimeBlock >
    <dayOfWeek ><!--dep, xs:integer> </ dayOfWeek >
    <TimeRange>
      <beginTime><!--dep, xs:integer></beginTime>
      <endTime><!--dep, xs:integer></endTime>
    </TimeRange>
  </TimeBlock >
</TimeBlockList >
</Schedule>

```

8.12.11 /ISAPI/Event/schedules/motionDetections

/ISAPI/Event/schedules/motionDetections		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	MotionDetectionScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	MotionDetectionScheduleList	
Success Return	ResponseStatus	
Notes:		

MotionDetectionScheduleList XML Block

```

<MotionDetectionScheduleList version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  < Schedule/> <!--opt -->
</MotionDetectionScheduleList>

```

8.12.12 /ISAPI/Event/schedules/motionDetections/<ID>

/ISAPI/Event/schedule/motionDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	

Inbound Data	None
Success Return	Schedule
PUT	
Description	It is used to update trigger schedule.
Query	None
Inbound Data	Schedule
Success Return	ResponseStatus
Notes:	

8.12.13 /ISAPI/Event/schedules/tamperDetections

/ISAPI/Event/schedules/tamperDetections		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	TamperDetectionScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	TamperDetectionScheduleList	
Success Return	ResponseStatus	
Notes:		

TamperDetectionScheduleList XML Block

```
<TamperDetectionScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  < Schedule/>          <!--opt -->
</ TamperDetectionScheduleList>
```

8.12.14 /ISAPI/Event/schedules/tamperDetections/<ID>

/ISAPI/Event/schedule/tamperDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	

Inbound Data	Schedule
Success Return	ResponseStatus
Notes:	

8.12.15 /ISAPI/Event/schedules/videolosses

/ISAPI/Event/schedules/videolosses		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	videolossScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	videolossScheduleList	
Success Return	ResponseStatus	
Notes:		

videolossScheduleList XML Block

```
<videolossScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Schedule/>          <!--opt -->
</videolossScheduleList>
```

8.12.16 /ISAPI/Event/schedules/videolosses/<ID>

/ISAPI/Event/schedule/videolosses/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		

Schedule XML Block

```

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

```

8.12.17 /ISAPI/Event/schedules/PIR

/ISAPI/Event/schedules/PIR/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	

Notes:

Schedule XML Block

```

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

```

8.12.18 /ISAPI/Event/schedules/fieldDetections

/ISAPI/Event/schedules/fieldDetections		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	FieldDetectionScheduleList	
PUT		
Description	It is used to update trigger schedule.	

Query	None
Inbound Data	FieldDetectionScheduleList
Success Return	ResponseStatus
Notes:	

FieldDetectionScheduleList XML Block

```
<FieldDetectionScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Schedule/>          <!--opt -->
</FieldDetectionScheduleList>
```

8.12.19 /ISAPI/Event/schedules/fieldDetections/<ID>

/ISAPI/Event/schedules/fieldDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		

Schedule XML Block

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

```

</TimeBlock>
</TimeBlockList>
<HolidayBlockList> <!--opt -->
  <TimeBlock>
    <TimeRange>      <!--req -->
      <beginTime>    <!--req, xs:time, ISO8601 time --> </beginTime>
      <endTime>      <!--req, xs:time, ISO8601 time --> </endTime>
    </TimeRange>
  </TimeBlock>
</HolidayBlockList>
</Schedule>

```

8.12.20 /ISAPI/Event/schedules/lineDetections

/ISAPI/Event/schedules/lineDetections		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	LineDetectionScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	LineDetectionScheduleList	
Success Return	ResponseStatus	
Notes:		

LineDetectionScheduleList XML Block

```

<LineDetectionScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Schedule/>      <!--opt -->
</LineDetectionScheduleList>

```

8.12.21 /ISAPI/Event/schedules/lineDetections/<ID>

/ISAPI/Event/schedule/lineDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	

PUT	
Description	It is used to update trigger schedule.
Query	None
Inbound Data	Schedule
Success Return	ResponseStatus
Notes:	

Schedule XML Block

```

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

```

8.12.22 /ISAPI/Event/schedules/sceneChangeDetections

/ISAPI/Event/schedules/sceneChangeDetections		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	

Query	None
Inbound Data	None
Success Return	SceneChangeDetectionScheduleList
PUT	
Description	It is used to update trigger schedule.
Query	None
Inbound Data	SceneChangeDetectionScheduleList
Success Return	ResponseStatus
Notes:	

SceneChangeDetectionScheduleList XML Block

```
<SceneChangeDetectionScheduleList version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Schedule/>          <!--opt -->
</SceneChangeDetectionScheduleList>
```

8.12.23 /ISAPI/Event/schedules/sceneChangeDetections/<ID

>

/ISAPI/Event/schedule/sceneChangeDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		

Schedule XML Block

```
<Schedule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string; id --> </id>
  <eventType> <!--opt, xs:string --> </eventType>
  <inputIOPortID> <!--ro, dep, xs:string; id --> </inputIOPortID>
  <outputIOPortID> <!-- ro, dep, xs:string; id --> </inputIOPortID>
  <videoInputChannelID><!-- ro, dep, xs:string; id --></videoInputChannelID>
```

```

<TimeBlockList> <!--req -->
  <TimeBlock>
    <dayOfWeek>
      <!--opt, xs:integer, ISO8601 weekday number, 1=Monday, ... -->
    </dayOfWeek>
    <TimeRange> <!--req -->
      <beginTime> <!--req, xs:time, ISO8601 time --> </beginTime>
      <endTime> <!--req, xs:time, ISO8601 time --> </endTime>
    </TimeRange>
  </TimeBlock>
</TimeBlockList>
<HolidayBlockList> <!--opt -->
  <TimeBlock>
    <TimeRange> <!--req -->
      <beginTime> <!--req, xs:time, ISO8601 time --> </beginTime>
      <endTime> <!--req, xs:time, ISO8601 time --> </endTime>
    </TimeRange>
  </TimeBlock>
</HolidayBlockList>
</Schedule>

```

8.12.24 /ISAPI/Event/schedules/audioDetections

/ISAPI/Event/schedules/audioDetections		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	AudioDetectionScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	AudioDetectionScheduleList	
Success Return	ResponseStatus	
Notes:		

AudioDetectionScheduleList XML Block

```

<AudioDetectionScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Schedule/> <!--opt -->
</AudioDetectionScheduleList>

```


8.12.25 /ISAPI/Event/schedules/audioDetections/<ID>

/ISAPI/Event/schedule/audioDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		

Schedule XML Block

```

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

```

</Schedule>

8.12.26 /ISAPI/Event/schedules/faceDetections

/ISAPI/Event/schedules/faceDetections		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	FaceDetectionScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	FaceDetectionScheduleList	
Success Return	ResponseStatus	
Notes:		

FaceDetectionScheduleList XML Block

```
<FaceDetectionScheduleList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Schedule/>          <!--opt -->
</FaceDetectionScheduleList>
```

8.12.27 /ISAPI/Event/schedules/faceDetections/<ID>

/ISAPI/Event/schedule/faceDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		

Schedule XML Block

```

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

```

8.12.28 /ISAPI/Event/schedules/regionEntrances

/ISAPI/Event/schedules/regionEntrances		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	RegionEntranceScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	RegionEntranceScheduleList	
Success Return	ResponseStatus	
Notes:		

RegionEntranceScheduleList XML Block

```

<RegionEntranceScheduleList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  < Schedule/>          <!--opt -->
</RegionEntranceScheduleList>

```

8.12.29 /ISAPI/Event/schedules/regionEntrances/<ID>

/ISAPI/Event/schedules/regionEntrances/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		
The ID in "/regionEntrances/ID" is defined as following declaration: regionEntrance-1: Region Entrance Detection of video input channel "video1".		

8.12.30 /ISAPI/Event/schedules/regionExitings

/ISAPI/Event/schedules/regionExitings		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	RegionExitingScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	RegionExitingScheduleList	
Success Return	ResponseStatus	
Notes:		

RegionExitingScheduleList XML Block

```

<RegionExitingScheduleList                                version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  < Schedule/>                                <!--opt -->
</RegionExitingScheduleList>

```

8.12.31 /ISAPI/Event/schedules/regionExitings/<ID>

/ISAPI/Event/schedules/regionExitings/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		
The ID in "/regionExiting/ID" is defined as following declaration: regionExiting-1: Region Exiting Detection of video input channel "video1".		

8.12.32 /ISAPI/Event/schedules/loiterings

/ISAPI/Event/schedules/loiterings		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	LoiteringScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	LoiteringScheduleList	
Success Return	ResponseStatus	
Notes:		

LoiteringScheduleList XML Block

```

<LoiteringScheduleList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <Schedule/>          <!--opt -->
</LoiteringScheduleList>

```

8.12.33 /ISAPI/Event/schedules/loiterings/<ID>

/ISAPI/Event/schedules/loiterings/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		
The ID in "/loitering/ID" is defined as following declaration: loitering-1: Loitering Detection of video input channel "video1".		

8.12.34 /ISAPI/Event/schedules/groups

/ISAPI/Event/schedules/groups		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	GroupScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	GroupScheduleList	
Success Return	ResponseStatus	
Notes:		

GroupScheduleList XML Block

```

<GroupDetectionScheduleList                                version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  < Schedule/>                                           <!--opt -->
</GroupScheduleList>

```

8.12.35 /ISAPI/Event/schedules/groups/<ID>

/ISAPI/Event/schedules/groups/ID		General Resource	v2.0
GET			
Description	It is used to get trigger schedule.		
Query	None		
Inbound Data	None		
Success Return	Schedule		
PUT			
Description	It is used to update trigger schedule.		
Query	None		
Inbound Data	Schedule		
Success Return	ResponseStatus		
Notes:			
The ID in "/groups/ID" is defined as following declaration: group-1: Group Detection of video input channel "video1".			

8.12.36 /ISAPI/Event/schedules/rapidMoves

/ISAPI/Event/schedules/rapidMoves		General Resource	v2.0
GET			
Description	It is used to get trigger schedule.		
Query	None		
Inbound Data	None		
Success Return	RapidMoveScheduleList		
PUT			
Description	It is used to update trigger schedule.		
Query	None		
Inbound Data	RapidMoveScheduleList		
Success Return	ResponseStatus		
Notes:			

RapidMoveScheduleList XML Block

```

<RapidMoveScheduleList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <Schedule/>          <!--opt -->
</RapidMoveScheduleList>

```

8.12.37 /ISAPI/Event/schedules/rapidMoves/<ID>

/ISAPI/Event/schedules/rapidMoves/ID		General Resource	v2.0
GET			
Description	It is used to get trigger schedule.		
Query	None		
Inbound Data	None		
Success Return	Schedule		
PUT			
Description	It is used to update trigger schedule.		
Query	None		
Inbound Data	Schedule		
Success Return	ResponseStatus		
Notes:			
The ID in “/rapidMoves/ID” is defined as following declaration: rapidMove-1: Rapid Move Detection of video input channel “video1”.			

8.12.38 /ISAPI/Event/schedules/parkings

/ISAPI/Event/schedules/parkings		General Resource	v2.0
GET			
Description	It is used to get trigger schedule.		
Query	None		
Inbound Data	None		
Success Return	ParkingScheduleList		
PUT			
Description	It is used to update trigger schedule.		
Query	None		
Inbound Data	ParkingScheduleList		
Success Return	ResponseStatus		
Notes:			

ParkingScheduleList XML Block


```

<ParkingScheduleList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <Schedule/>          <!--opt -->
</ParkingScheduleList>

```

8.12.39 /ISAPI/Event/schedules/parkings/<ID>

/ISAPI/Event/schedules/parkings/ID		General Resource	v2.0
GET			
Description	It is used to get trigger schedule.		
Query	None		
Inbound Data	None		
Success Return	Schedule		
PUT			
Description	It is used to update trigger schedule.		
Query	None		
Inbound Data	Schedule		
Success Return	ResponseStatus		
Notes:			
The ID in “/parkings/ID” is defined as following declaration: parking-1: Parking Detection of video input channel “video1”.			

8.12.40 /ISAPI/Event/schedules/unattendedBaggages

/ISAPI/Event/schedules/unattendedBaggages		General Resource	v2.0
GET			
Description	It is used to get trigger schedule.		
Query	None		
Inbound Data	None		
Success Return	UnattendedBaggageScheduleList		
PUT			
Description	It is used to update trigger schedule.		
Query	None		
Inbound Data	UnattendedBaggageScheduleList		
Success Return	ResponseStatus		
Notes:			

UnattendedBaggageScheduleList XML Block

```

<UnattendBaggageScheduleList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">

```

```
< Schedule/>           <!--opt -->
</UnattendBaggageScheduleList>
```

8.12.41 /ISAPI/Event/schedules/unattendedBaggages/<ID>

/ISAPI/Event/schedules/unattendedBaggages/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		
The ID in “/unattendedBaggages/ID” is defined as following declaration: unattendedBaggage-1: Unattended Baggage Detection of video input channel “video1”.		

8.12.42 /ISAPI/Event/schedules/attendedBaggages

/ISAPI/Event/schedules/attendedBaggages		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	AttendBaggageScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	AttendBaggageScheduleList	
Success Return	ResponseStatus	
Notes:		

AttendBaggageScheduleList XML Block

```
<AttendBaggageScheduleList                               version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  < Schedule/>           <!--opt -->
</AttendBaggageScheduleList>
```

8.12.43 /ISAPI/Event/schedules/attendedBaggages/<ID>

/ISAPI/Event/schedules/attendedBaggages/ID		General Resource	v2.0
GET			
Description	It is used to get trigger schedule.		
Query	None		
Inbound Data	None		
Success Return	Schedule		
PUT			
Description	It is used to update trigger schedule.		
Query	None		
Inbound Data	Schedule		
Success Return	ResponseStatus		
Notes:			
The ID in “/attendedBaggages/ID” is defined as following declaration: attendedBaggage-1: Unattended Baggage Detection of video input channel “video1”.			

8.12.44 /ISAPI/Event/schedules/blackList

/ISAPI/Event/schedules/blackList		General Resource	v2.0
GET			
Description	It is used to get trigger schedule.		
Query	None		
Inbound Data	None		
Success Return	BlackListScheduleList		
PUT			
Description	It is used to update trigger schedule.		
Query	None		
Inbound Data	BlackListScheduleList		
Success Return	ResponseStatus		
Notes:			

BlackListScheduleList XML Block

```
<BlackListScheduleList version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  < Schedule/>          <!--opt -->
</BlackListScheduleList>
```

/ISAPI/Event/schedules/ blackList/ID		General Resource	v2.0
GET			

Description	It is used to get trigger schedule.
Query	None
Inbound Data	None
Success Return	Schedule
PUT	
Description	It is used to update trigger schedule.
Query	None
Inbound Data	Schedule
Success Return	ResponseStatus
Notes:	
ID: blackList-1	

Schedule XML Block

```

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

```

8.12.45 /ISAPI/Event/schedules/whiteList

/ISAPI/Event/schedules/whiteList		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	WhiteListScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	WhiteListScheduleList	
Success Return	ResponseStatus	
Notes:		

WhiteListScheduleList XML Block

```
<WhiteListScheduleList version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Schedule/>          <!--opt -->
</WhiteListScheduleList>
```

/ISAPI/Event/schedules/ whiteList/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		
ID: whiteList-1		

Schedule XML Block

```
<Schedule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string; id --> </id>
  <inputIOPortID>          <!--ro, dep, xs:string; id -->          </inputIOPortID>
  <outputIOPortID>        <!-- ro, dep, xs:string; id -->          </inputIOPortID>
```

```

<videoInputChannelID><!-- ro, dep, xs:string; id →></videoInputChannelID>
<TimeBlockList> <!--req →
  <TimeBlock>
    <dayOfWeek>
      <!--opt, xs:integer, ISO8601 weekday number, 1=Monday, ... →
    </dayOfWeek>
    <TimeRange> <!--req →
      <beginTime> <!--req, xs:time, ISO8601 time → </beginTime>
      <endTime> <!--req, xs:time, ISO8601 time → </endTime>
    </TimeRange>
  </TimeBlock>
</TimeBlockList>
<HolidayBlockList> <!--opt →
  <TimeBlock>
    <TimeRange> <!--req →
      <beginTime> <!--req, xs:time, ISO8601 time → </beginTime>
      <endTime> <!--req, xs:time, ISO8601 time → </endTime>
    </TimeRange>
  </TimeBlock>
</HolidayBlockList>
</Schedule>

```

8.12.46 /ISAPI/Event/schedules/peopleDetections

/ISAPI/Event/schedules/peopleDetections		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	PeopleDetectionScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	PeopleDetectionScheduleList	
Success Return	ResponseStatus	
Notes:		

PeopleDetectionScheduleList XML Block

```

<PeopleDetectionScheduleList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  < Schedule/> <!--opt →

```

```
</PeopleDetectionScheduleList>
```

8.12.47 /ISAPI/Event/schedules/peopleDetections/<ID>

/ISAPI/Event/schedules/peopleDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		
The ID in "/peopleDetections/ID" is defined as following declaration: peopleDetection-1: People Detection of video input channel "video1".		

Schedule XML Block

```
<Schedule version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string; id --> </id>
  <eventType>
    <!--opt, xs:string,"IO,VMD,videoIoss, PIR,linedetection,fielddetection,
audioexception,facedetection,RegionPeopleDetection,regionExiting,loitering,group,rapidMove,pa
rking,unattendedBaggage,attendedBaggage,peopleDetection"-->
  </eventType>
  <inputIOPortID> <!--ro, dep, xs:string; id --> </inputIOPortID>
  <outputIOPortID> <!-- ro, dep, xs:string; id --> </inputIOPortID>
  <videoInputChannelID><!-- ro, dep, xs:string; id --></videoInputChannelID>
  <TimeBlockList> <!--req -->
    <TimeBlock>
      <dayOfWeek>
        <!--opt, xs:integer, ISO8601 weekday number, 1=Monday, ... -->
      </dayOfWeek>
      <TimeRange> <!--req -->
        <beginTime> <!--req, xs:time, ISO8601 time --> </beginTime>
        <endTime> <!--req, xs:time, ISO8601 time --> </endTime>
      </TimeRange>
    </TimeBlock>
  </TimeBlockList>
</Schedule>
```

```

</TimeBlockList>
<HolidayBlockList> <!--opt -->
  <TimeBlock>
    <TimeRange>      <!--req -->
      <beginTime>    <!--req, xs:time, ISO8601 time --> </beginTime>
      <endTime>      <!--req, xs:time, ISO8601 time --> </endTime>
    </TimeRange>
  </TimeBlock>
</HolidayBlockList>
</Schedule>

```

8.12.48 /ISAPI/Event/schedules/HVTVehicleDetects

/ISAPI/Event/schedules/HVTVehicleDetects		General Resource	v2.0
GET			
Description	It is used to get trigger schedule.		
Query	None		
Inbound Data	None		
Success Return	HVTVehicleDetectScheduleList		
PUT			
Description	It is used to update trigger schedule.		
Query	None		
Inbound Data	HVTVehicleDetectScheduleList		
Success Return	ResponseStatus		
Notes:			

HVTVehicleDetectScheduleList XML Block

```

<HVTVehicleDetectScheduleList xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <Schedule/>      <!--opt -->
</HVTVehicleDetectScheduleList>

```

8.12.49 /ISAPI/Event/schedules/HVTVehicleDetects/ID

/ISAPI/Event/schedules/HVTVehicleDetects/ID		General Resource	v2.0
GET			
Description	It is used to get trigger schedule.		
Query	None		
Inbound Data	None		
Success Return	Schedule		

PUT	
Description	It is used to update trigger schedule.
Query	None
Inbound Data	Schedule
Success Return	ResponseStatus
Notes: ID: HVTVehicleDetects_video1	

Schedule XML Block

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

8.12.50 /ISAPI/Event/schedules/storageDetection

/ISAPI/Event/schedules/storageDetection		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	StorageDetectionScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	StorageDetectionScheduleList	

Success Return	ResponseStatus
Notes:	

StorageDetectionScheduleList XML Block

```
<StorageDetectionScheduleList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <Schedule/>
  <!--opt -->
</StorageDetectionScheduleList>
```

8.12.51 /ISAPI/Event/schedules/storageDetections/<ID>

/ISAPI/Event/schedules/storageDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		
The ID in "/storageDetections/ID" is defined as following declaration: storageDetection-1: Face Capture of video input channel "video1". 布防时间段个数的能力在获取协议中给出。		

Schedule XML Block

```
<Schedule version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string; id --> </id>
  <eventType>
    <!--opt, xs:string,"IO,VMD,video loss, PIR,linedetection,fielddetection,
audioexception,facedetection,regionEntrance,regionExiting,loitering,group,rapidMove,parking,un
attendedBaggage,attendedBaggage,storageDetection"-->
  </eventType>
  <inputIOPortID> <!--ro, dep, xs:string; id --> </inputIOPortID>
  <outputIOPortID> <!-- ro, dep, xs:string; id --> </inputIOPortID>
  <videoInputChannelID><!-- ro, dep, xs:string; id --></videoInputChannelID>
  <TimeBlockList size="8"> <!--req -->
    <TimeBlock>
      <dayOfWeek>
```

```

    <!--opt, xs:integer, ISO8601 weekday number, 1=Monday, ... -->
  </dayOfWeek>
  <TimeRange>      <!--req -->
    <beginTime>    <!--req, xs:time, ISO8601 time --> </beginTime>
    <endTime>      <!--req, xs:time, ISO8601 time --> </endTime>
  </TimeRange>
</TimeBlock>
</TimeBlockList>
<HolidayBlockList> <!--opt -->
  <TimeBlock>
    <TimeRange>    <!--req -->
      <beginTime>  <!--req, xs:time, ISO8601 time --> </beginTime>
      <endTime>    <!--req, xs:time, ISO8601 time --> </endTime>
    </TimeRange>
  </TimeBlock>
</HolidayBlockList>
</Schedule>

```

8.12.52 /ISAPI/Event/notification

/ISAPI/Event/notification		General Resource v2.0
GET		
Description	It is used to get the configuration of notifications.	
Query	None	
Inbound Data	None	
Success Return	EventNotificationMethods	
PUT		
Description	It is used to set the configuration of notifications.	
Query	None	
Inbound Data	EventNotificationMethods	
Success Return	ResponseStatus	
Notes:		
The following notification types are supported:		
HTTP: the device connects to a given address and port and issues an HTTP GET/POST with the given parameters.		
FTP: a video clip or snapshot is uploaded to an FTP server.		
E-mail: a mail with the video clip or snapshot is sent in an e-mail to a list of servers.		
<MediaFormat> determines the type of snapshot, video clip and the video clip pre and post		

recording times.

EventNotificationMethods XML Block

```
<EventNotificationMethods version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <MailingNotificationList/><!--opt -->
  <FTPNotificationList/><!--opt -->
  <HttpHostNotificationList/><!--opt -->
  <FTPFormat><!--opt -->
    <uploadSnapShotEnabled><!--req, xs:boolean --></uploadSnapShotEnabled>
    <uploadVideoClipEnabled><!--req, xs:boolean --></uploadVideoClipEnabled>
  </FTPFormat>
  <EmailFormat><!--opt -->
    <senderEmailAddress><!--req, xs:string --></senderEmailAddress>
    <receiverEmailAddress><!--req, xs:string --></receiverEmailAddress>
    <subject><!--req, xs:string --></subject>
    <BodySetting><!--opt -->
      <attachedVideoURLEnabled><!--req, xs:boolean --></attachedVideoURLEnabled>
      <attachedSnapShotEnabled><!--req, xs:boolean --></attachedSnapShotEnabled>
      <attachedVideoClipEnabled><!--req, xs:boolean --></attachedVideoClipEnabled>
    </BodySetting>
  </EmailFormat>
  <MediaFormat> <!--opt -->
    <snapShotImageType> <!--opt, xs:string, "JPEG,GIF,PNG" --></snapShotImageType>
    <videoClipFormatType> <!--opt, xs:string, "ASF,MP4,3GP,264" --></videoClipFormatType>
    <preCaptureLength> <!--opt, xs:integer, milliseconds --></preCaptureLength>
    <postCaptureLength> <!--opt, xs:integer, milliseconds --></postCaptureLength>
  </MediaFormat>
</EventNotificationMethods>
```

8.12.53 /ISAPI/Event/notification/httpHosts

/ISAPI/Event/notification/httpHosts		General Resource v2.0
GET		
Description	It is used to get the configuration of e-mail.	
Query	None	
Inbound Data	None	
Success Return	HttpHostNotificationList	
PUT		
Description	It is used to set the configuration of e-mail.	
Query	None	
Inbound Data	HttpHostNotificationList	

Success Return	ResponseStatus
Notes:	

HttpHostNotificationList XML Block

```
<HttpHostNotificationList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <HttpHostNotification/>  <!--opt -->
</HttpHostNotificationList>
```

8.12.54 /ISAPI/Event/notification/httpHosts/<ID>

/ISAPI/Event/notification/httpHosts/ID		General Resource v2.0
GET		
Description	It is used to get the configuration of a particular e-mail.	
Query	None	
Inbound Data	None	
Success Return	HttpHostNotification	
PUT		
Description	It is used to set the configuration of a particular e-mail.	
Query	None	
Inbound Data	HttpHostNotification	
Success Return	ResponseStatus	
Notes:		

HttpHostNotification XML Block

```
<HttpHostNotification version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>  <!--req, xs:string;id -->  </id>
  <url>  <!--req, xs:string -->  </url>
  <protocolType>  <!--req, xs:string, "HTTP,HTTPS" -->  </protocolType>
  <parameterFormatType>
  <!--req, xs:string, "XML,querystring" -->
  </parameterFormatType>
  <addressingFormatType>
    <!--req, xs:string, "ipaddress,hostname" -->
  </addressingFormatType>
  <hostName>  <!--dep, xs:string -->  </hostName>
  <ipAddress><!--dep, xs:string -->  </ipAddress>
  <ipv6Address>  <!--dep, xs:string -->  </ipv6Address>
  <portNo>  <!--opt, xs:integer -->  </portNo>
  <userName>  <!--dep, xs:string -->  </userName>
  <password><!--dep, xs:string -->  </password>
  <httpAuthenticationMethod>
  <!--req, xs:string, "MD5digest,none" -->
```

```

</httpAuthenticationMethod>
<Extensions>
  <intervalBetweenEvents> <!--opt, xs:integer -> </intervalBetweenEvents>
</Extensions>
</HttpHostNotification>

```

8.12.55 /ISAPI/Event/notification/streaming

/ISAPI/Event/notification/streaming		General Resource v2.0
GET		
Description	It is used to get the list of recording notifications.	
Query	None	
Inbound Data	None	
Success Return	StreamingNotificationList	
PUT		
Description	It is used to update the list of E-mail notifications.	
Query	None	
Inbound Data	StreamingNotificationList	
Success Return	ResponseStatus	
POST		
Description	It is used to add an E-mail notification.	
Query	None	
Inbound Data	StreamingNotification	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete the list of E-mail notifications.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		
When an event occurs, modifying the compression parameters of a video stream		

StreamingNotificationList XML Block

```

<StreamingNotificationList version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <StreamingNotification/> <!--opt ->
</StreamingNotificationList>

```

8.12.56 /ISAPI/Event/notification/streaming/<ID>

/ISAPI/Event/notification/Streaming/ID		General Resource v2.0
GET		
Description	It is used to get a particular E-mail notification configuration.	
Query	None	
Inbound Data	None	
Success Return	StreamingNotification	
PUT		
Description	It is used to update a particular E-mail notification configuration.	
Query	None	
Inbound Data	StreamingNotification	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular E-mail notification.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

StreamingNotification XML Block

```

<StreamingNotification version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id --> </id> //101 201 301
  <streamingId> <!--req, xs:string;id --> <streamingId>
  <Video>
    <!--opt -->
    <enabled><!--req, xs:boolean --></enabled>
    <videoInputChannelID> <!--req, xs:string;id --> </videoInputChannelID>
    <videoCodecType>
      <!--req, xs:string, "MPEG4,MJPEG,3GP,H.264,MPNG" -->
    </videoCodecType>
    <videoScanType>
      <!--opt, xs:string, "progressive,interlaced" -->
    </videoScanType>
    <videoResolutionWidth> <!--req, xs:integer --> </videoResolutionWidth>
    <videoResolutionHeight> <!--req, xs:integer --> </videoResolutionHeight>
    <videoResolutionName>
      <!--opt, xs:string, "3MP,5MP,none" -->
    </videoResolutionName>
    <videoPositionX> <!--opt, xs:integer --> </videoPositionX>
    <videoPositionY> <!--opt, xs:integer --> </videoPositionY>
  </Video>
</StreamingNotification>

```

```

<videoQualityControlType>
  <!--opt, xs:string, "CBR,VBR" -->
</videoQualityControlType>
<constantBitRate> <!--dep, xs:integer, in kbps --> </constantBitRate>
<fixedQuality><!--opt, xs:integer, percentage, 0..100 --> </fixedQuality>
<vbrUpperCap> <!--dep, xs:integer, in kbps --> </vbrUpperCap>
<vbrLowerCap> <!--dep, xs:integer, in kbps --> </vbrLowerCap>
<maxFrameRate> <!--req, xs:integer, maximum frame rate x100 --> </maxFrameRate>
<keyFrameInterval> <!--opt, xs:integer, milliseconds --> </keyFrameInterval>
<rotationDegree> <!--opt, xs:integer, degrees, 0..360 --></rotationDegree>
<mirrorEnabled> <!--opt, xs:boolean --> </mirrorEnabled>
<snapshotImageType>
  <!--opt, xs:string, "JPEG,GIF,PNG" -->
</snapshotImageType>
<Mpeg4Profile> <!--dep, xs:string, "SP,ASP" --> </Mpeg4Profile>
<H264Profile>
  <!--dep, xs:string, "Baseline,Main,High, Extended" -->
</H264Profile>
<GovLength> <!--opt, xs:integer --> </GovLength>
</Video>
<Audio>
  <!--opt -->
  <enabled> <!--req, xs:boolean --> </enabled>
  <audioInputChannelID> <!--req, xs:string;id --> </audioInputChannelID>
  <audioCompressionType>
    <!--req, xs:string,
    "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM"
    -->
  </audioCompressionType>
  <audioInboundCompressionType>
    <!--opt, xs:string,
    "G.711alaw,G.711ulaw,G.726,G.729,G.729a,G.729b,PCM,MP3,AC3,AAC,ADPCM"
    -->
  </audioInboundCompressionType>
  <audioBitRate> <!--opt, xs:integer, in kbps --> </audioBitRate>
  <audioSamplingRate> <!--opt, xs:float, in kHz --> </audioSamplingRate>
  <audioResolution> <!--opt, xs:integer, in bits --> </audioResolution>
</Audio>
</StreamingNotification>

```


8.12.57 /ISAPI/Event/notification/alarmCenter

URI	/ISAPI/Event/notification/alarmCenter		Type	Resource
Function	Access the list of alarm center notification hosts.			
Methods	Query String(s)	Inbound Data	Return Result	
GET			<alarmCenterNotificationList>	
PUT		<alarmCenterNotificationList>	<ResponseStatus>	
POST		<alarmCenterNotification>	<ResponseStatus>	
DELETE			<ResponseStatus>	
Notes	Alarm center notification involves the device connecting to a particular alarm center delivering an privacy event message whenever the event triggers.			

alarmCenterNotificationList XML Block

```
<alarmCenterNotificationList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <alarmCenterNotification/>  <!--opt -->
</alarmCenterNotificationList>
```

8.12.58 /ISAPI/Event/notification/alarmCenter/<ID>

URI	/ISAPI/Event/notification/alarmCenter/<ID>		Type	Resource
Function	Access a particular HTTP notification host.			
Methods	Query String(s)	Inbound Data	Return Result	
GET			<alarmCenterNotification>	
PUT		<alarmCenterNotification>	<ResponseStatus>	
DELETE			<ResponseStatus>	
Notes	Depending on the value of <addressingFormatType>, either the <hostName> or the IP address fields will be used to locate the alarm center			

alarmCenterNotification XML Block

```
<alarmCenterNotification version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>  <!--req, xs:string;id -->  </id>
  <addressingFormatType>
    <!--req, xs:string, "ipaddress,hostname" -->
  </addressingFormatType>
```

```

<hostName>          <!--dep, xs:string -->          </hostName>
<ipAddress>         <!--dep, xs:string -->          </ipAddress>
<ipv6Address>       <!--dep, xs:string -->          </ipv6Address>
<portNo>            <!--req, xs:integer -->         </portNo>
</alarmCenterNotification>

```

8.12.59 /ISAPI/Event/notification/alertStream

/ISAPI/Event/notification/alertStream		General Resource v2.0
GET		Viewer
Description	It is used to get the event notification data stream through HTTP server push.	
Query	None	
Inbound Data	None	
Success Return	Stream of <EventNotificationAlert>	
Notes:		
<p>This function is used to get an event notification alert stream from the media device via HTTP or HTTPS. This function does not require that a client/VMS system be added as an HTTP(S) destination on the media device. Instead, the client/VMS system can call this API to initialize a stream of event information from the device. In other words, a connection is established with the device when this function is called, and stays open to constantly receive event notifications. This API uses HTTP server-push with the MIME type multipart/mixed defined in RFC 2046.</p> <p><protocol> is the protocol name, i.e. "HTTP" or "HTTPS".</p> <p><channelID> is present for video and analytics events.</p> <p><activePostCount> is the sequence number of current notification for this particular event. It starts at 1. Useful for recurring notifications of an event. Each event maintains a separate post count.</p>		

EventNotificationAlert XML Block

```

<EventNotificationAlert version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ipAddress>          <!--dep, xs:string -->          </ipAddress>
  <ipv6Address><!--dep, xs:string --></ipv6Address>
  <portNo>             <!--opt, xs:integer -->         </portNo>
  <protocol>           <!--opt, xs:string -->          </protocol>
  <macAddress>         <!--opt, xs:string;MAC -->       </macAddress>
  <channelID>          <!--dep, xs:string -->          </channelID>
  <dateTime>           <!--req, xs:datetime -->        </dateTime>
  <activePostCount>    <!--req, xs:integer -->          </activePostCount>
  <eventType>         <!--req, xs:string, "IO,VMD,videoloss, shelteralarm, facedetection, defocus,
audioexception, scenechangedetection, fielddetection, linedetection, regionEntrance,

```

```

regionExiting, loitering, group, rapidMove, parking, unattendedBaggage, attendedBaggage,
PIR,peopleDetection" → </eventType>
<eventState> <!--req, xs:string, "active,inactive" → </eventState>
<eventDescription> <!--req, xs:string → </eventDescription>
<inputIOPortID> <!--dep, xs:integer, if <eventType> is "IO" → </inputIOPortID>
<dynInputIOPortID> <!--dep, xs:string, if <eventType> is "IO" → </dynInputIOPortID>
<DetectionRegionList> <!--dep, if <eventType> is "VMD" →
  <DetectionRegionEntry> <!--req →
    <regionID> <!--req, xs:string → </regionID>
    <sensitivityLevel> <!--req, xs:integer, 0..100 → </sensitivityLevel>
  </DetectionRegionEntry>
</DetectionRegionList>
</EventNotificationAlert>

```

Example

The following is an example of an HTTP event stream that pushes a VMD event from video channel 1.

```

GET /Event/notification/alertStream HTTP/1.1
...
HTTP/1.1 200 OK
MIME-Version: 1.0
Content-Type: multipart/mixed; boundary="<boundary>"
--<boundary>
Content-Type: application/xml; charset="UTF-8"
Content-Length: ISAPI

<?xml version="1.0" encoding="UTF-8"?>
<EventNotificationAlert version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ipAddress>172.6.64.7</ipAddress>
  <portNo>80</portNo>
  <protocol>HTTP</protocol>
  <macAddress>01:17:24:45:D9:F4</macAddress>
  <channelID>1</channelID>
  <dateTime>2009-11-14T15:27Z</dateTime>
  <activePostCount>1</activePostCount>
  <eventType>VMD</eventType>
  <eventState>active</eventState>
  <eventDescription>Motion alarm</eventDescription>
  <DetectionRegionList>
    <DetectionRegionEntry>
      <regionID>2</regionID>

```

```

        <sensitivityLevel>4</sensitivityLevel>
    </DetectionRegionEntry>
</DetectionRegionList>
</EventNotificationAlert>
--<boundary>
...

```

8.12.60 HTTP Notification Alert

http://<ipAddress>:<portNo>/<url>

POST

Description	Send alert info to alarm center by HTTP POST method.
Query	None
Inbound Data	None
Success Return	Notification Alert

Notes:

Either GET or POST can be used. If GET is used, the corresponding query string parameters are provided in place of the inbound XML. If Post is used, the inbound XML is provided in place of the corresponding query string parameters.

The "DeviceID=" and "DeviceName=" fields are taken from the <DeviceInfo> settings for the device.

The <parameterFormatType> tag indicates whether XML or query string parameters should be used for this API.

The <protocolType> tag under <HttpHostList> determines whether HTTP or HTTPS is used for this API.

The <portNo> tag under <HttpHostList> determines the port number to be used for the notification alert.

The <portNo> and <protocolType> tags in the alert are provided for a client application to connect/manage the device after it sends out this notification.

The <addressingFormatType> tag under <HttpHostList> determines whether <ipAddress>/IPAddress or <ipv6Address>/Ipv6Address is used.

The <url> tag under <HttpHostList> indicates the URL base to be used for the alert.

If <eventType>/EventType refers to an input-port-related event, the <inputIOPortID> tag or InputIOPortID parameter must be provided.

If <eventType>/EventType refers to a motion-related event, the <DetectionRegionList> block or RegionIndexX parameter(s) must be provided if detection regions have been defined. If the motion event is for a full-screen configuration, these region indexes should not be provided.

The <sensitivityLevel>/SensitivityLevelX and <detectionThreshold>/DetectionThresholdX parameters are used to indicate the current values of the activity detection at the time that the notification is sent out.

If the alert is for a motion-related event, multiple region indexes may be provided per single API. If query string parameters are used, the format "RegionIndexX" is used where "X" is a number starting

with “1” and incrementing by one for every subsequent region index provided.

If the <httpAuthenticationMethod> tag under <HttpHostList> is configured for “MD5 Digest Authentication”, the corresponding security values must be stored in the header fields of the HTTP(S) request.

The <activePostCount>/ActivePostCount parameter is a sequence number starting at 1 and incrementing by one for every event notification sent.

Notification Alert

```
version=1.0
DeviceID=
DeviceName=
IPAddress=
Ipv6Address=
PortNo=
Protocol=
MacAddress=
version=1.0
DeviceID=
DeviceName=
IPAddress=
Ipv6Address=
PortNo=
Protocol=
MacAddress=
ChannelID=
DateTime=
ActivePostCount=
EventType=
EventState=
EventDescription=
InputIOPortID=
RegionIndex1=
SensitivityLevel1=
DetectionThreshold1=
RegionIndex2=
SensitivityLevel2=
DetectionThreshold2=
...
```

8.12.61 8.11.32 Event Triggering Examples

Example: Trigger Events on IO Port

The command below enables detection for input port 1. When the input signal is detected according to <inputIOPortID>, two event notification responses are used – output port 1 will be triggered for the duration of the input signal detection, and an SMTP server will be notified with the “E-mail Event Notification Alert”. The behavior of this notification is as follows:

- A SMTP notification is sent at detection time, and every some seconds after while the signal is present. This is denoted by the <notificationRecurrence> tags. These APIs will have an <eventState> of “active”.
- When the input port 1 signal detection stops, one last E-mail notification is sent to the server with an <eventState> of “active”.
- After the signal detection stops for input port 1, the device will wait some seconds before starting to detect the signal again for this port.

```
PUT /ISAPI/Event/triggers/IO-1 HTTP/1.1
Content-Type: application/xml; charset="UTF-8"
Content-Length: xxx

<?xml version="1.0" encoding="UTF-8"?>
<EventTrigger version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>IO-1</id> <!-- "eventType: IO" ->
  <EventTriggerNotificationList>
    <EventTriggerNotification>
      <id>1</id>
      <notificationMethod>email</notificationMethod>
    </EventTriggerNotification>
    <EventTriggerNotification>
      <id>2</id>
      <notificationMethod> IO</notificationMethod>
      <outputIOPortID>1</outputIOPortID>
    </EventTriggerNotification>
  </EventTriggerNotificationList>
</EventTrigger>
```

Example: Schedule event detection and triggering

The command below schedules event detection and triggering from 7:00 am to 5:00 pm. Every Tuesday.

```
PUT /ISAPI/Event/schedule/IO-IN-1 HTTP/1.1
Content-Type: application/xml; charset="UTF-8"
Content-Length: xxx

<?xml version="1.0" encoding="UTF-8"?>
<EventSchedule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>IO-IN-1</id>
  <eventType>IO</eventType>
```

```

<inputIOPortID>1</inputIOPortID>
<TimeBlockList>
  <TimeBlock>
    <dayOfWeek>2</dayOfWeek>
    <TimeRange>
      <beginTime>07:00:00</beginTime>
      <endTime>17:00:00</endTime>
    </TimeRange>
  </TimeBlock>
</TimeBlockList>
</EventSchedule>

```

8.12.62 /ISAPI/Event/triggers/<ID>/preset/<ID>

/ISAPI/Event/triggers/ID/preset/<ID>		General Resource v2.0
GET		
Description	It is used to get a particular event trigger configuration.	
Query	None	
Inbound Data	None	
Success Return	EventTrigger	
PUT		
Description	It is used to update a particular event trigger configuration.	
Query	None	
Inbound Data	EventTrigger	
Success Return	ResponseStatus	
DELETE		
Description	It is used to delete a particular event trigger.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		
<p>An event trigger determines how the device reacts when a particular event is detected. The following types are supported:</p> <ul style="list-style-type: none"> IO: trigger when an input IO port changes state. VMD: trigger on video motion detection. Video loss: trigger when the input video signal cannot be detected. Disk failure: trigger when a disk fails. Recording failure: trigger when recording fails: either there is a problem with the disk, or the storage volume is full, or the volume is corrupt. Bad video: trigger when the input video is bad. POS: trigger when a point-of-sale event is detected. 		

Analytics: trigger on a general analytics event. Currently analytics events apart from VMD, which has its own event trigger, are not supported. Fan failure: trigger when a fan fails.

Nicbroken: trigger when net interface is broken.

Resolution mismatch: trigger when video input port resolution is not matched up to compress resolution.

The ID in “/Event/triggers/*ID*” is defined as following declaration:

If the event type is IO, the ID is IO-InputPortNumber.

Examples :

IO-1 :the first IO input port

If the event type is VMD, videoloss, tamperdetection, regionEntrance, regionExiting, loitering, the ID style is VMD/videoloss/tamper/regionEntrance/regionExiting/loitering/group/rapidMove/parking/unattendedBaggage/attendedBaggage-InputChannelID.

Examples:

If video input channel id is “video1”, the id is as follows:

thermometry-Channel1-Preset1: Temperature measurement of video input channel “video 1” and the preset “preset 1”.

Triggers/<ID> **thermometry-1** : Temperature measurement of video input channel “video 1”.

Preset/<ID> **PresetNo** : Temperature measurement of video input preset “preset No”.

example: /ISAPI/Event/triggers/**thermometry-1/preset/1** (测温)

example: /ISAPI/Event/triggers/**temperature-1/preset/1** (测差)

SDK 内部转换逻辑判断 “triggers/<ID>” 类型为 thermometry 的时候，同时 Preset No 有赋值 (!= 0) 的时候，使用新增的 URL

Remart:

倘若，只发送 URL “/ISAPI/Event/triggers/**thermometry-1**” 测温设备值返回 默认预置点的联动信息（后端返回默认的联动信息）

倘若，只发送 URL “/ISAPI/Event/triggers” 测温设备值返回 默认预置点的联动信息（后端返回默认的联动信息）

热成像中载测温项目中，不同预置点场景中对应的联动信息是一致。故当前只实现到 (/ISAPI/Event/triggers/<ID>)

ID 的含义为 **thermometry-1**

EventTrigger XML Block


```

<EventTrigger version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id -> </id>
  <eventType>
    <!--req, xs:string,
      "IO,VMD,videoloss,raidfailure,recordingfailure,
      badvideo,POS,analytics,fanfailure,overheat, tamperdetection, diskfull, diskerror,
      nicbroken, ipconflict, illaccess, videomismatch, resolutionmismatch,
      radifailure,PIR, WLSensor, spareException, poePowerException,heatmap,
      counting,regionEntrance,regionExiting,loitering,group,rapidMove,parking,unattend
      edBaggage,attendedBaggage,thermometry"
    ->
  </eventType>
  <eventDescription><!--opt, xs:string -></eventDescription>
  <inputIOPortID> <!--dep, xs:string; id, if <eventType> is "IO" -> </inputIOPortID>
  <dynInputIOPortID> <!--dep, xs:string; id -> </dynInputPortID>
  <videoInputChannelID> <!--dep, xs:string; id, if <eventType> is "VMD,videoloss,
  tamperdetection,regionEntrance,regionExiting,loitering,group,rapidMove,parking,unattend
  edBaggage,attendedBaggage,thermometry" -> </videoInputChannelID>
  <dynVideoInputChannelID> <!--dep, xs:string; id -> </dynVideoInputChannelID>
  <intervalBetweenEvents> <!--opt, xs:integer, seconds -></intervalBetweenEvents>
  <WLSensorID> <!--dep, xs:string; id -> </WLSensorID>
  <EventTriggerNotificationList/> <!--opt ->
</EventTrigger>

```

8.12.63 /ISAPI/Event/triggers/<ID>/notifications/preset/<ID

>

/ISAPI/Event/triggers/ID/notifications/preset/<ID>	
GET	
Description	It is used to get the list of notification methods and behaviors for an event trigger.
Query	None
Inbound Data	None
Success Return	EventTriggerNotificationList
PUT	
Description	It is used to update the list of notification methods and behaviors for an event trigger.
Query	None
Inbound Data	EventTriggerNotificationList
Success Return	ResponseStatus

DELETE	
Description	It is used to delete the list of notification method and behavior for an event trigger.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes: Remart: 倘若，只发送 URL ” /ISAPI/Event/triggers/thermometry-1/notifications” 测温设备值返回 所有预置点的联动配置信息 节点<presetID>区分 预置点号。 热成像中载测温项目中，不同预置点场景中对应的联动信息是一致。故当前只实现到 (/ISAPI/Event/triggers/ID/notifications) ID 的含义为 thermometry-1	

EventTriggerNotificationList XML Block

```
<EventTriggerNotificationList version="2.0"
  xmlns="http://www.isapi.org/ver20/XMLSchema">
  <EventTriggerNotification/> <!--opt ->
</EventTriggerNotificationList>
```

EventTriggerNotification XML Block

```
<EventTriggerNotification> <!--opt ->
  <id> <!--req, xs:string;id -> </id>
  <notificationMethod>
    <!--req, xs:string, "email,IM,IO,syslog,HTTP,FTP,beep, ptz, record
, monitorAlarm, center, LightAudioAlarm,focus,trace" ->
  </notificationMethod>
  <notificationRecurrence>
    <!--opt, xs:string, "beginning,beginningandend,recurring" ->
  </notificationRecurrence>
  <notificationInterval> <!--dep, xs:integer, milliseconds -> </notificationInterval>
  <outputIOPortID> <!--dep, xs:string;id -> </outputIOPortID>
  <dynOutputIOPortID> <!--dep, xs:string;id -> </dynOutputIOPortID>
  <videoInputID> <!--dep, xs:string;id -> </videoInputID>
  <dynVideoInputID> <!--dep, xs:string;id -> </dynVideoInputID>
  <ptzAction> <!--dep ->
    <ptzChannelID> <!--req, xs:string; id -> </ptzChannelID>
    <actionName> <!--req, xs:string, "preset, pattern, patrol" -> </actionName>
    <actionNum> <!--dep, xs:integer> </actionNum>
  </ptzAction>
  <presetID><!--opt,xs:integer,-></presetID>
```

</EventTriggerNotification>

8.12.64 /ISAPI/Event/schedules/shipsDetections

/ISAPI/Event/schedules/shipsDetections		General Resource v2.0
GET		
Description	It is used to get trigger ships detection schedule.	
Query	None	
Inbound Data	None	
Success Return	ShipsDetectionScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	ShipsDetectionScheduleList	
Success Return	ResponseStatus	
Notes:		

ShipsDetectionScheduleList XML Block

```
<ShipsDetectionScheduleList version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  <Schedule/> <!--opt -->
</ShipsDetectionScheduleList>
```

8.12.65 /ISAPI/Event/schedules/shipsDetections/<ID>

/ISAPI/Event/schedules/shipsDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes:		
<p>The ID in “/shipsDetections/ID” is defined as following declaration: shipsDetection-1: Face Capture of video input channel “video1”. 布防时间段个数的能力在获取协议中给出。</p>		

Schedule XML Block

```

<Schedule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string; id -> </id>
  <eventType>
    <!--opt, xs:string, " IO,VMD,videoloss, PIR,linedetection,fielddetection,
audioexception,facedetection,regionEntrance,regionExiting,loitering,group,rapidMove,par
king,unattendedBaggage,attendedBaggage,storageDetection,shipsDetection"->
  </eventType>
  <inputIOPortID> <!--ro, dep, xs:string; id -> </inputIOPortID>
  <outputIOPortID> <!-- ro, dep, xs:string; id -> </inputIOPortID>
  <videoInputChannelID><!-- ro, dep, xs:string; id -></videoInputChannelID>
  <TimeBlockList size="8"> <!--req ->
    <TimeBlock>
      <dayOfWeek>
        <!--opt, xs:integer, ISO8601 weekday number, 1=Monday, ... ->
      </dayOfWeek>
      <TimeRange> <!--req ->
        <beginTime> <!--req, xs:time, ISO8601 time -> </beginTime>
        <endTime> <!--req, xs:time, ISO8601 time -> </endTime>
      </TimeRange>
    </TimeBlock>
  </TimeBlockList>
  <HolidayBlockList> <!--opt ->

```

```

<TimeBlock>
  <TimeRange>      <!--req -->
    <beginTime>    <!--req, xs:time, ISO8601 time --> </beginTime>
    <endTime>      <!--req, xs:time, ISO8601 time --> </endTime>
  </TimeRange>
</TimeBlock>
</HolidayBlockList>
</Schedule>

```

8.13 /ISAPI/Smart

/ISAPI/Smart	Service v2.0
Notes: Smart service	

8.13.1 /ISAPI/Smart/capabilities

/ISAPI/Smart/capabilities		General Resource v2.0
GET		
Description	It is used to get Smart capability.	
Query	None	
Inbound Data	None	
Success Return	< SmartCap>	
Notes:		

SmartCap XML Block

```

<SmartCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isSupportROI> <!--opt, xs:boolean --> </isSupportROI>
  <isSupportFaceDetect> <!--opt, xs:boolean --> </isSupportFaceDetect>
  <isSupportIntelliTrace> <!--opt, xs:boolean --> </isSupportIntelliTrace>
  <isSupportFieldDetection> <!--opt, xs:boolean --> </isSupportFieldDetection>
  <isSupportDefocusDetection> <!--opt, xs:boolean --> </isSupportDefocusDetection>
  <isSupportAudioDetection> <!--opt, xs:boolean --> </isSupportAudioDetection>
  <isSupportSceneChangeDetection> <!--opt, xs:boolean --> </isSupportSceneChangeDetection>
  <isSupportLineDetection> <!--opt, xs:boolean --> </isSupportLineDetection>
  <isSupportRegionEntrance> <!--opt, xs:boolean --> </isSupportRegionEntrance>
  <isSupportRegionExiting> <!--opt, xs:boolean --> </isSupportRegionExiting>
  <isSupportLoitering> <!--opt, xs:boolean --> </isSupportLoitering>

```

```

<isSupportGroup> <!--opt, xs:boolean -> </isSupportGroup>
<isSupportRapidMove> <!--opt, xs:boolean -> </isSupportRapidMove>
<isSupportParking> <!--opt, xs:boolean -> </isSupportParking>
<isSupportUnattendedBaggage><!--opt, xs:boolean -></isSupportUnattendedBaggage>
<isSupportAttendedBaggage><!--opt, xs:boolean -></isSupportAttendedBaggage>
<isSupportPeopleDetection><!--opt, xs:boolean -></isSupportPeopleDetection>
<isSupportStorageDetection><!--opt, xs:boolean -></isSupportStorageDetection>
<isSupportShipsDetection><!--opt, xs:boolean -></isSupportShipsDetection>
<isSupportSmartCalibration><!--opt, xs:boolean -></isSupportSmartCalibration>
</SmartCap>

```

8.13.2 /ISAPI/Smart/ROI/channels

/ISAPI/Smart/ROI/channels		General Resource v2.0
GET		
Description	Access and configure the ROI.	
Query	None	
Inbound Data	None	
Success Return	ROIList	
PUT		
Description	Access and configure the ROI.	
Query	None	
Inbound Data	ROIList	
Success Return	ResponseStatus	
Notes:		

ROIList XML Block

```

<ROIList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ROI/> <!--opt ->
</ROIList>

```

8.13.3 /ISAPI/Smart/ROI/channels/<ID>

/ISAPI/Smart/ROI/channels/ID		General Resource v2.0
GET		
Description	Access and configure the ROI for a special channel.	
Query	None	

Inbound Data	None
Success Return	ROI
PUT	
Description	Access and configure the ROI for a special channel.
Query	None
Inbound Data	ROI
Success Return	ResponseStatus
DELETE	
Description	Access and configure the ROI for a special channel.
Query	None
Inbound Data	None
Success Return	ResponseStatus
<p>Notes:</p> <p>normalizedScreenSize: the size of normalized screen ROIRegionList:the list of ROI region <ID> should be consistent with <ID> of streaming. <enabled/> <!--req, xs:string --> if the value of this tag is "disable", all of regions are invalid.</p>	

ROI XML Block

```

<ROI version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id/> <!--req, xs:string, id -->
  <enabled/> <!--req, xs:string -->
  <normalizedScreenSize> <!--req-->
    <normalizedScreenWidth> <!--req, xs:integer --></normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer --></normalizedScreenHeight>
  </normalizedScreenSize>
  <ROIRegionList/> <!--dep-->
  <FaceTrace/> <!--dep-->
  <ObjectTrace/> <!--dep-->
</ROI>

```

8.13.4 /ISAPI/Smart/ROI/channels/<ID>/regions

/ISAPI/Smart/ROI/channels/ID/regions		General Resource v2.0
GET		
Description	Access and configure the ROI regions for a special channel.	
Query	None	
Inbound Data	None	

Success Return	ROIRegionsList
PUT	
Description	Access and configure the ROI regions for a special channel
Query	None
Inbound Data	ROIRegionsList
Success Return	ResponseStatus
Notes:	

ROIRegionsList XML Block

```
<ROIRegionsList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema" size=>
  <ROIRegion/> <!--opt -->
</ROIRegionsList>
```

8.13.5 /ISAPI/Smart/ROI/channels/<ID>/regions/<ID>

/ISAPI/Smart/ROI/channels/ID/regions/ID		General Resource v2.0
GET		
Description	Access and configure one ROI region for a special channel.	
Query	None	
Inbound Data	None	
Success Return	ROIRegion	
PUT		
Description	Access and configure one ROI region for a special channel	
Query	None	
Inbound Data	ROIRegion	
Success Return	ResponseStatus	
DELETE		
Description	Access and configure one ROI region for a special channel	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		
qualityLevel:quality level of a region		
RegionCoordinatesList:coordinate of ROI		

ROIRegion XML Block

```
<ROIRegion version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:integer--> </id>
```



```

<enabled> <!--req, xs:boolean → </enabled>
<name> <!--opt, xs:string → </name>
<qualityLevelOfROI> <!--req, xs:integer "1-6" → </qualityLevelOfROI>
<RegionCoordinatesList/>
</ROIRegion>

```

8.13.6 /ISAPI/Smart/ROI/channels/<ID>/facettrace

/ISAPI/Smart/ROI/channels/ID/facettrace		General Resource v2.0
GET		
Description	Access and configure the ROI regions for a special channel.	
Query	None	
Inbound Data	None	
Success Return	FaceTrace	
PUT		
Description	Access and configure the ROI regions for a special channel	
Query	None	
Inbound Data	FaceTrace	
Success Return	ResponseStatus	
Notes:		

FaceTrace XML Block

```

<FaceTrace version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean → </enabled>
  <name> <!--opt, xs:string → </name>
  <qualityLevelOfROI> <!--req, xs:integer → </qualityLevelOfROI>
</FaceTrace>

```

8.13.7 /ISAPI/Smart/ROI/channels/<ID>/objecttrace

/ISAPI/Smart/ROI/channels/ID/objecttrace		General Resource v2.0
GET		
Description	Access and configure the ROI regions for a special channel.	
Query	None	
Inbound Data	None	
Success Return	ObjectTrace	
PUT		

Description	Access and configure the ROI regions for a special channel
Query	None
Inbound Data	ObjectTrace
Success Return	ResponseStatus
Notes:	

ObjectTrace XML Block

```
<ObjectTrace version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
  <qualityLevelOfROI> <!--req, xs:integer--> </qualityLevelOfROI>
</ObjectTrace>
```

8.13.8 /ISAPI/Smart/ROI/channels/<ID>/platetrace

/ISAPI/Smart/ROI/channels/<ID>/platetrace		General Resource v2.0
GET		
Description	Access and configure the ROI regions for a special channel.	
Query	None	
Inbound Data	None	
Success Return	PlateTrace	
PUT		
Description	Access and configure the ROI regions for a special channel	
Query	None	
Inbound Data	PlateTrace	
Success Return	ResponseStatus	
Notes:		
The ID in "/channels/ID" is defined as following declaration:		
101: Region Clip of video input channel "video1-main stream".		
102: Region Clip of video input channel "video1-sub stream".		
103: Region Clip of video input channel "video1-third stream".		

PlateTrace XML Block

```
<PlateTrace version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
  <qualityLevelOfROI> <!--req, xs:integer, "1-6"--> </qualityLevelOfROI>
</PlateTrace>
```

8.13.9 /ISAPI/Smart/FaceDetect/<ID>

/ISAPI/Smart/FaceDetect/ID		General Resource v2.0
GET		
Description	Access and configure the FaceDetect.	
Query	None	
Inbound Data	None	
Success Return	FaceDetect	
PUT		
Description	Access and configure the FaceDetect.	
Query	None	
Inbound Data	FaceDetect	
Success Return	ResponseStatus	
Notes:		
<ID> stands for channel number		

FaceDetect XML Block

```

<FaceDetect version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id/> <!--req, xs:string, id ->
  <enabled> <!--req, xs:boolean -> </enabled>
  <minObjectSize>
    <!--opt, xs:integer, min number of pixels per object ->
  </minObjectSize>
  <maxObjectSize>
    <!--opt, xs:integer, max number of pixels per object ->
  </maxObjectSize>
  <ROI> <!--opt ->
    <minHorizontalResolution> <!--req, xs:integer -> </minHorizontalResolution>
    <minVerticalResolution> <!--req, xs:integer -> </minVerticalResolution>
  </ROI>
  <sensitivityLevel> <!--req ->
    <!--req, xs:integer ->
  </sensitivityLevel>
  <detectionThreshold> <!--dep ->
    <!--req, xs:integer ->
  </detectionThreshold>
  <highlightsenabled> <!--req, xs:boolean -> </highlightsenabled>
</FaceDetect>

```

8.13.10 /ISAPI/Smart/IntelliTrace/<ID>

/ISAPI/Smart/IntelliTrace/<ID>		General Resource v2.0
GET		
Description		
Query	None	
Inbound Data	None	
Success Return	IntelliTrace	
PUT		
Description		
Query	None	
Inbound Data	IntelliTrace	
Success Return	ResponseStatus	
Notes:		

IntelliTrace XML Block

```
<IntelliTrace version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> <id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <tracktime> <!--opt, xs:integer, 0-300 --> </tracktime>
</IntelliTrace>
```

8.13.11 /ISAPI/Smart/IntelliTrace/<ID>/ZoomRatial

/ISAPI/Smart/IntelliTrace/<ID>/ZoomRatial		General Resource v2.0
PUT		
Description		
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

8.13.12 /ISAPI/Smart/FieldDetection

/ISAPI/Smart/FieldDetection		General Resource v2.0
GET		
Description	Field detection configuration for all video input channels.	
Query	None	

Inbound Data	None
Success Return	FieldDetectionList
PUT	
Description	Field detection configuration for all video input channels.
Query	None
Inbound Data	FieldDetectionList
Success Return	ResponseStatus
Notes:	

FieldDetectionList XML Block

```
<FieldDetectionList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <FieldDetection/>  <!--opt -->
</FieldDetectionList>
```

8.13.13 /ISAPI/Smart/FieldDetection/<ID>

/ISAPI/Smart/FieldDetection/ID	General Resource v2.0
GET	
Description	Field detection configuration for a video input channels.
Query	None
Inbound Data	None
Success Return	FieldDetection
PUT	
Description	Field detection configuration for a video input channels.
Query	None
Inbound Data	FieldDetection
Success Return	ResponseStatus
Notes:	

FieldDetection XML Block

```
<FieldDetection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>  <!--req, xs:string -->  </id>
  <enabled>  <!--req, xs:boolean -->  </enabled>
  <intelliBackSearch>  <!--opt, xs:boolean -->  </intelliBackSearch>
  <startTriggerTime> <!--req, xs:integer, milliseconds -->  </startTriggerTime>
  <endTriggerTime>  <!--req, xs:integer, milliseconds -->  </endTriggerTime>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
```

```

<minObjectSize>
  <!--opt, xs:integer, min number of pixels per object -->
</minObjectSize>
  <maxObjectSize>
  <!--opt, xs:integer, max number of pixels per object -->
</maxObjectSize>
<FieldDetectionRegionList size="4"/>
</FieldDetection>

```

8.13.14 /ISAPI/Smart/FieldDetection/<ID>/regions

/ISAPI/Smart/FieldDetection/ID/regions		General Resource v2.0
GET		
Description	Access the list of regions for Field detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	FieldDetectionRegionList	
PUT		
Description	Access the list of regions for Field detection on a particular video input channel.	
Query	None	
Inbound Data	FieldDetectionRegionList	
Success Return	ResponseStatus	
POST		
Description	Access the list of regions for Field detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	FieldDetectionRegion	
DETELE		
Description	Access the list of regions for Field detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

FieldDetectionRegionsList XML Block

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

```
<FieldDetectionRegion/>
</FieldDetectionRegionList>
```

8.13.15 /ISAPI/Smart/FieldDetection/<ID>/regions/<ID>

/ISAPI/Smart/FieldDetection/ID/regions/ID		General Resource v2.0
GET		
Description	Access the list of regions for Field detection.	
Query	None	
Inbound Data	None	
Success Return	FieldDetectionRegion	
PUT		
Description	Access the list of regions for Field detection.	
Query	None	
Inbound Data	FieldDetectionRegion	
Success Return	ResponseStatus	
DELETE		
Description	Access the list of regions for Field detection.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

FieldDetectionRegion XML Block

```
<FieldDetectionRegion version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <sensitivityLevel>
    <!--req, xs:integer -->
  </sensitivityLevel>
  <timeThreshold>
    <!--req, xs:integer -->
  </timeThreshold>
  <objectOccupation>
    <!--req, xs:integer -->
  </objectOccupation>
  <detectionTarget><!--opt, xs:string,"all,human,vehicle" --> </detectionTarget>
  <RegionCoordinatesList>
    <RegionCoordinates> <!--req, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
```

```

    <positionY>      <!-- req, xs:integer;coordinate  ->  </positionY>
  </RegionCoordinates>
</RegionCoordinatesList>
</FieldDetectionRegion>

```

8.13.16 /ISAPI/Smart/LineDetection

/ISAPI/Smart/LineDetection		General Resource v2.0
GET		
Description	Line detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	LineDetectionList	
PUT		
Description	Line detection configuration for all video input channels.	
Query	None	
Inbound Data	LineDetectionList	
Success Return	ResponseStatus	
Notes:		

LineDetectionList XML Block

```

<LineDetectionList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <LineDetection/>  <!--opt ->
</LineDetectionList>

```

8.13.17 /ISAPI/Smart/LineDetection/<ID>

/ISAPI/Smart/LineDetection/ID		General Resource v2.0
GET		
Description	Line detection configuration for a video input channels.	
Query	None	
Inbound Data	None	
Success Return	LineDetection	
PUT		
Description	Line detection configuration for a video input channels.	
Query	None	
Inbound Data	LineDetection	
Success Return	ResponseStatus	

Notes:

LineDetection XML Block

```

<LineDetection version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string -> </id>
  <enabled> <!--req, xs:boolean -> </enabled>
  <intelliBackSearch> <!--opt, xs:boolean -> </intelliBackSearch>
  <duration> <!--opt, xs:integer -></duration>
  <startTriggerTime> <!--req, xs:integer, milliseconds -> </startTriggerTime>
  <endTriggerTime> <!--req, xs:integer, milliseconds -> </endTriggerTime>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer -> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer -> </normalizedScreenHeight>
  </normalizedScreenSize>
  <minObjectSize>
    <!--opt, xs:integer, min number of pixels per object ->
  </minObjectSize>
  <maxObjectSize>
    <!--opt, xs:integer, max number of pixels per object ->
  </maxObjectSize>
  <LineItem size="4"/>
</LineDetection>

```

8.13.18 /ISAPI/Smart/LineDetection/<ID>/lineItem

/ISAPI/Smart/LineDetection/ID/lineItem		General Resource v2.0
GET		
Description	Access the list of polyline for line detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	LineItemList	
PUT		
Description	Access the list of polyline for line detection on a particular video input channel.	
Query	None	
Inbound Data	LineItemList	
Success Return	ResponseStatus	
POST		
Description	Access the list of polyline for line detection on a particular video input channel.	

Query	None
Inbound Data	None
Success Return	Linelist
DELETE	
Description	Access the list of polyline for line detection on a particular video input channel.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

Linelist XML Block

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

8.13.19 /ISAPI/Smart/LineDetection/<ID>/linelist/<ID>

/ISAPI/Smart/LineDetection/ID/linelist/ID		General Resource v2.0
GET		
Description	Access the list of polyline for line detection.	
Query	None	
Inbound Data	None	
Success Return	Linelist	
PUT		
Description	Access the list of polyline for line detection.	
Query	None	
Inbound Data	Linelist	
Success Return	ResponseStatus	
DELETE		
Description	Access the list of polyline for line detection.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

Linelist XML Block

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

```

    <enabled> <!-- req, xs:boolean -> </enabled>
  <sensitivityLevel>
    <!-- req, xs:integer ->
  </sensitivityLevel>
  <directionSensitivity>
    <!-- opt, xs:string, "left-right,right-left,any" ->
  </directionSensitivity>
  <CoordinatesList>
    <Coordinates> <!-- req, ->
      <positionX> <!-- req, xs:integer;coordinate -> </positionX>
      <positionY> <!-- req, xs:integer;coordinate -> </positionY>
    </Coordinates>
  </CoordinatesList>
  <detectionTarget><!-- opt, xs:string,"all,human,vehicle" -> </detectionTarget>
</LinelItem>

```

8.13.20 /ISAPI/Smart/DefocusDetection

/ISAPI/Smart/DefocusDetection		General Resource	v2.0
GET			
Description	Defocus detection configuration for all audio input channels.		
Query	None		
Inbound Data	None		
Success Return	DefocusDetectionList		
PUT			
Description	Defocus detection configuration for all audio input channels.		
Query	None		
Inbound Data	DefocusDetectionList		
Success Return	ResponseStatus		
Notes:			

DefocusDetectionList XML Block

```

<DefocusDetectionList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <DefocusDetection/> <!-- opt ->
</DefocusDetectionList>

```

8.13.21 /ISAPI/Smart/DefocusDetection/<ID>

/ISAPI/Smart/ DefocusDetection/ID	General Resource	v2.0
-----------------------------------	------------------	------

GET	
Description	Defocus detection configuration for a audio input channel.
Query	None
Inbound Data	None
Success Return	DefocusDetection
PUT	
Description	Defocus detection configuration for a audio input channel.
Query	None
Inbound Data	DefocusDetection
Success Return	ResponseStatus
Notes:	

DefocusDetection XML Block

```
<DefocusDetection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <sensitivityLevel> <!--opt, xs:integer--> </sensitivityLevel>
</DefocusDetection>
```

8.13.22 /ISAPI/Smart/AudioDetection/channels

/ISAPI/Smart/AudioDetection/channels		General Resource v2.0
GET		
Description	Audio detection configuration for all audio input channels.	
Query	None	
Inbound Data	None	
Success Return	AudioDetectionList	
PUT		
Description	Audio detection configuration for all audio input channels.	
Query	None	
Inbound Data	AudioDetectionList	
Success Return	ResponseStatus	
Notes:		

AudioDetectionList XML Block

```
<AudioDetectionList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <AudioDetection/> <!--opt -->
</AudioDetectionList>
```

8.13.23 /ISAPI/Smart/AudioDetection/channels/<ID>

/ISAPI/Smart/AudioDetection/channels/ID		General Resource v2.0
GET		
Description	Audio detection configuration for a audio input channel.	
Query	None	
Inbound Data	None	
Success Return	AudioDetection	
PUT		
Description	Audio detection configuration for a audio input channel.	
Query	None	
Inbound Data	AudioDetection	
Success Return	ResponseStatus	
Notes:		

AudioDetection XML Block

```

<AudioDetection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id -> </id>
  <audioInputException>
    <enabled> <!--req, xs:boolean -> </enabled>
  </audioInputException>
  <soundIntensityMutation> <!--opt ->
    <enabled> <!--req, xs:boolean -> </enabled>
    <sensitivityLevel>
      <!--req, xs:integer ->
    </sensitivityLevel>
    <mutationThreshold>
      <!--req, xs:integer ->
    </mutationThreshold>
  </soundIntensityMutation>
  <SteepFall> <!--opt ->
    <enabled> <!--req, xs:boolean -> </enabled>
    <sensitivityLevel>
      <!--req, xs:integer ->
    </sensitivityLevel>
  </SteepFall>
  <AudioLoss> <!--opt ->
    <enabled><!--req, xs:boolean -></enabled>
    <sensitivityLevel>
      <!--opt, xs:integer "1...100" def="50" ->
    </sensitivityLevel>
  </AudioLoss>

```

</AudioDetection>

8.13.24 /ISAPI/Smart/AudioDetection/channels/<ID>/capabilities

/ISAPI/Smart/AudioDetection/channels/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get Audio detection capability.	
Query	None	
Inbound Data	None	
Success Return	AudioDetection	
Notes:		
<p><mutexAbility opt="PDC"/><!--opt indicates that audio exception detection and people counting functions are mutual exclusion--></p> <p><isSupportMultiScene>:Whether to support multiple scene(speed dome supports multiple scene area)</p>		

AudioDetection XML Block

```
<AudioDetection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id --> </id>
  <audioInputException>
    <enabled> <!--req, xs:boolean --> </enabled>
  </audioInputException>
  <soundIntensityMutation>
    <enabled> <!--req, xs:boolean --> </enabled>
    <sensitivityLevel>
      <!--req, xs:integer-->
    </sensitivityLevel>
    <mutationThreshold>
      <!--req, xs:integer -->
    </mutationThreshold>
  </soundIntensityMutation>
  <SteepFall><!--opt -->
    <enabled> <!--req, xs:boolean --> </enabled>
    <sensitivityLevel>
      <!--req, xs:integer-->
    </sensitivityLevel>
  </SteepFall>
  <mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" -->
  <isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
```

```

<AudioLoss> <!--opt -->
  <enabled><!--req, xs:boolean --></enabled>
  <sensitivityLevel min="" max="" def="">
    <!--opt, xs:integer "1...100" def="50"-->
  </sensitivityLevel>
</AudioLoss>
</AudioDetection>

```

8.13.25 /ISAPI/Smart/AudioDetection/channels/<ID>/status

/ISAPI/Smart/AudioDetection/channels/ID/status		General Resource v2.0
GET		
Description	It is used to get audio strength.	
Query	None	
Inbound Data	None	
Success Return	AudioStrengthStatus	
Notes:		

AudioStrengthStatus XML Block

```

<AudioStrengthStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <audioStrength> <!--ro, req, xs:integer--> </audioStrength>
</AudioStrengthStatus>

```

8.13.26 /ISAPI/Smart/SceneChangeDetection

/ISAPI/Smart/SceneChangeDetection		General Resource v2.0
GET		
Description	Scene change detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	SceneChangeDetectionList	
PUT		
Description	Scene change detection configuration for all video input channels.	
Query	None	
Inbound Data	SceneChangeDetectionList	
Success Return	ResponseStatus	
Notes:		

SceneChangeDetectionList XML Block

```
<SceneChangeDetectionList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SceneChangeDetection/> <!--opt -->
</SceneChangeDetectionList>
```

8.13.27 /ISAPI/Smart/SceneChangeDetection/<ID>

/ISAPI/Smart/SceneChangeDetection/ID		General Resource	v2.0
GET			
Description	Scene change detection configuration for a video input channels.		
Query	None		
Inbound Data	None		
Success Return	SceneChangeDetection		
PUT			
Description	Scene change detection configuration for a video input channels.		
Query	None		
Inbound Data	SceneChangeDetection		
Success Return	ResponseStatus		
Notes:			

SceneChangeDetection XML Block

```
<SceneChangeDetection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <sensitivityLevel> <!--req, xs:integer --> </sensitivityLevel>
</SceneChangeDetection>
```

8.13.28 /ISAPI/Smart/regionEntrance

/ISAPI/Smart/regionEntrance		General Resource	v2.0
GET			
Description	Region Entrance detection configuration for all video input channels.		
Query	None		
Inbound Data	None		
Success Return	RegionEntranceList		
PUT			
Description	Region Entrance detection configuration for all video input channels.		

Query	None
Inbound Data	RegionEntranceList
Success Return	ResponseStatus
Notes:	
<p>1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes.</p> <p>2. If <RegionEntranceRegionList> doesn't exist, it means the region and sensitivity remain the same.</p> <p>3. If <RegionEntranceRegionList> is listed, but <RegionEntranceRegion> is not, it means the region and sensitivity are empty.</p> <p>Please refer to /ISAPI/Smart/regionEntrance/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.</p>	

RegionEntranceList XML Block

```
<RegionEntranceList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <RegionEntrance/>  <!--opt -->
</RegionEntranceList>
```

8.13.29 /ISAPI/Smart/regionEntrance/<ID>/capabilities

/ISAPI/Smart//regionEntrance/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get Region Entrance Detection capability.	
Query	None	
Inbound Data	None	
Success Return	<RegionEntrance>	
Notes:		
<p><mutexAbility opt="PDC"/><!--opt it means the region entrance function is mutually exclusive to people counting statistics --></p> <p><isSupportMultiScene>: whether or not support multiple scenes, speed dome supports this function.</p>		

RegionEntrance XML Block

```
<RegionEntrance version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id>  <!--req, xs:string -->  </id>
  <enabled>  <!--req, xs:boolean -->  </enabled>
  <normalizedScreenSize><!--req, ro -->
    <normalizedScreenWidth> <!--req, ro,xs:integer --> </normalizedScreenWidth>
```

```

    <normalizedScreenHeight> <!--req, ro,xs:integer -> </normalizedScreenHeight>
</normalizedScreenSize>
<RegionEntranceRegionList size="4"> <!--opt ->
    <RegionEntranceRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
        <id> <!--req, xs:string -> </id>
        <sensitivityLevel min="1" max="100"><!--opt, xs:integer, 1..100, 1 is the least
sensitive-></sensitivityLevel>
        <RegionCoordinatesList> <!--opt ->
            <RegionCoordinates> <!--opt ->
                <positionX> <!--req, xs:integer;coordinate -> </positionX>
                <positionY> <!--req, xs:integer;coordinate -> </positionY>
            </RegionCoordinates>
        </RegionCoordinatesList>
        <detectionTarget><!--opt, xs:string,"all,human,vehicle" -> </detectionTarget>
    </RegionEntranceRegion>
</RegionEntranceRegionList>
<mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" ->
<isSupportMultiScene> <!--opt, xs:boolean -> </isSupportMultiScene>
</RegionEntrance>

```

8.13.30 /ISAPI/Smart/regionEntrance/<ID>

/ISAPI/Smart/regionEntrance/ID		General Resource v2.0
GET		
Description	Region Entrance detection configuration for a video input channels.	
Query	None	
Inbound Data	None	
Success Return	RegionEntrance	
PUT		
Description	Region Entrance detection configuration for a video input channels.	
Query	None	
Inbound Data	RegionEntrance	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <RegionEntranceRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <RegionEntranceRegionList> is listed, but <RegionEntranceRegion> is not, it means the region and sensitivity are empty. Please refer to /ISAPI/Smart/regionEntrance/<ID>/region/<ID> for detailed multiple scenes		

configuration on Speed Dome.

RegionEntrance XML Block

```
<RegionEntrance version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <RegionEntranceRegionList/> <!--opt -->
  <mutexAbility opt="PDC"/> <!--opt,ro, xs:string, "PDC" -->
  <isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
</RegionEntrance>
```

8.13.31 /ISAPI/Smart/regionEntrance/<ID>/regions

/ISAPI/Smart/regionEntrance/ID/regions		General Resource v2.0
GET		
Description	Access the list of regions for Region Entrance detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	RegionEntranceRegionList	
PUT		
Description	Access the list of regions for Region Entrance detection on a particular video input channel.	
Query	None	
Inbound Data	RegionEntranceRegionList	
Success Return	ResponseStatus	
Notes:		
<p>1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes.</p> <p>2. If <RegionEntranceRegionList> is listed, but <RegionEntranceRegion> is not, it means the region and sensitivity are empty.</p> <p>Please refer to /ISAPI/Smart/regionEntrance/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.</p>		

RegionEntranceRegionList XML Block

```
<RegionEntranceRegionList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
```

```
<RegionEntranceRegion/>
</RegionEntranceRegionList>
```

8.13.32 /ISAPI/Smart/regionEntrance/<ID>/regions/<ID>

/ISAPI/Smart/regionEntrance/ID/regions/ID		General Resource v2.0
GET		
Description	Access the list of regions for Region Entrance detection.	
Query	None	
Inbound Data	None	
Success Return	RegionEntranceRegion	
PUT		
Description	Access the list of regions for Region Entrance detection.	
Query	None	
Inbound Data	RegionEntranceRegion	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. If <RegionCoordinatesList> doesn't exist, it means that this coordinates for this region remains unchanged. 2. If <RegionCoordinatesList> is listed, but <RegionCoordinates> is not, it means the region and sensitivity are empty. 		

RegionEntranceRegion XML Block

```
<RegionEntranceRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <sensitivityLevel><!--opt, xs:integer, 1..100, 0 is the least sensitive --></sensitivityLevel>
  <RegionCoordinatesList> <!--opt -->
    <RegionCoordinates> <!--opt, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
  <detectionTarget><!--opt, xs:string,"all,human,vehicle" --> </detectionTarget>
</RegionEntranceRegion>
```

8.13.33 /ISAPI/Smart/regionExiting

/ISAPI/Smart/regionExiting		General Resource v2.0
GET		
Description	Region Exiting detection configuration for all video input channels.	

Query	None
Inbound Data	None
Success Return	RegionExitingList
PUT	
Description	Region Exiting detection configuration for all video input channels.
Query	None
Inbound Data	RegionExitingList
Success Return	ResponseStatus
<p>Notes:</p> <ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <RegionExitingRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <RegionExitingRegionList> is listed, but <RegionExitingRegion> is not, it means the region and sensitivity are empty. <p>Please refer to /ISAPI/Smart/regionEntrance/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.</p>	

RegionExitingList XML Block

```
<RegionExitingList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <RegionExiting/><!--opt →
</RegionExitingList>
```

8.13.34 /ISAPI/Smart/regionExiting/<ID>/capabilities

/ISAPI/Smart/regionExiting/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get Region Exiting Detection capability.	
Query	None	
Inbound Data	None	
Success Return	<RegionExiting>	
<p>Notes:</p> <p><mutexAbility opt="PDC"/><!--opt it means the region exit function is mutually exclusive to people counting statistics→</p> <p><isSupportMultiScene>>: whether or not support multiple scenes, speed dome supports this function</p>		

RegionExiting XML Block

```
<RegionExiting version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
```

```

<id> <!--req, xs:string --> </id>
<enabled> <!--req, xs:boolean --> </enabled>
<normalizedScreenSize><!--req, ro -->
  <normalizedScreenWidth> <!--req, ro,xs:integer --> </normalizedScreenWidth>
  <normalizedScreenHeight> <!--req, ro,xs:integer --> </normalizedScreenHeight>
</normalizedScreenSize>
<RegionExitingRegionList size="4"> <!--opt -->
  <RegionExitingRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
    <id> <!--req, xs:string --> </id>
    <sensitivityLevel min="1" max="100"><!--opt, xs:integer, 1..100, 1 is the least
sensitive--></sensitivityLevel>
    <RegionCoordinatesList> <!--opt -->
      <RegionCoordinates> <!--opt, -->
        <positionX> <!--req, xs:integer;coordinate --> </positionX>
        <positionY> <!--req, xs:integer;coordinate --> </positionY>
      </RegionCoordinates>
    </RegionCoordinatesList>
    <detectionTarget><!--opt, xs:string,"all,human,vehicle" --> </detectionTarget>
  </RegionExitingRegion>
</RegionExitingRegionList>
<mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" -->
<isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
</RegionExiting>

```

8.13.35 /ISAPI/Smart/regionExiting/<ID>

/ISAPI/Smart/regionExiting/ID		General Resource v2.0
GET		
Description	Region Exiting detection configuration for a video input channels.	
Query	None	
Inbound Data	None	
Success Return	RegionExiting	
PUT		
Description	Region Exiting detection configuration for a video input channels.	
Query	None	
Inbound Data	RegionExiting	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <RegionExitingRegionList> doesn't exist, it means the region and sensitivity remain the same. 		

3. If <RegionExitingRegionList> is listed, but <RegionExtingRegion> is not, it means the region and sensitivity are empty.

Please refer to /ISAPI/Smart/regionExiting/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.

RegionExiting XML Block

```
<RegionExiting version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <RegionExitingRegionList/> <!--opt -->
  <mutexAbility opt="PDC"/> <!--opt,ro, xs:string, "PDC" -->
  <isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
</RegionExiting>
```

8.13.36 /ISAPI/Smart/regionExiting/<ID>/regions

/ISAPI/Smart/regionExiting/ID/regions		General Resource v2.0
GET		
Description	Access the list of regions for Region Exiting detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	RegionExitingRegionList	
PUT		
Description	Access the list of regions for Region Exiting detection on a particular video input channel.	
Query	None	
Inbound Data	RegionExitingRegionList	
Success Return	ResponseStatus	
Notes:		
<p>1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes.</p> <p>3. If <RegionExitingRegionList> is listed, but <RegionExtingRegion> is not, it means the region and sensitivity are empty.</p> <p>Please refer to /ISAPI/Smart/regionExiting/<ID>/region/<ID> for detailed multiple scenes</p>		

configuration on Speed Dome.

RegionExitingRegionList XML Block

```
<RegionExitingRegionList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <RegionExitingRegion/>
</RegionExitingRegionList>
```

8.13.37 /ISAPI/Smart/regionExiting/<ID>/regions/<ID>

/ISAPI/Smart/regionExiting/ID/regions/ID		General Resource v2.0
GET		
Description	Access the list of regions for Region Exiting detection.	
Query	None	
Inbound Data	None	
Success Return	RegionExitingRegion	
PUT		
Description	Access the list of regions for Region Exiting detection.	
Query	None	
Inbound Data	RegionExitingRegion	
Success Return	ResponseStatus	
Notes: 1. If <RegionCoordinatesList> doesn't exist, it means that this coordinates for this region remains unchanged. 2. If <RegionCoordinatesList> is listed, but <RegionCoordinates> is not, it means the region and sensitivity are empty.		

RegionExitingRegion XML Block

```
<RegionExitingRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <sensitivityLevel><!--opt, xs:integer, 0..100, 0 is the least sensitive --></sensitivityLevel>
  <RegionCoordinatesList> <!--opt -->
    <RegionCoordinates> <!--opt, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
  <detectionTarget><!--opt, xs:string,"all, human, vehicle" --> </detectionTarget>
</RegionExitingRegion>
```


8.13.38 /ISAPI/Smart/loitering

/ISAPI/Smart/loitering		General Resource v2.0
GET		
Description	Loitering detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	LoiteringList	
PUT		
Description	Loitering detection configuration for all video input channels.	
Query	None	
Inbound Data	LoiteringList	
Success Return	ResponseStatus	
Notes: 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <LoiteringRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <LoiteringRegionList> is listed, but <LoiteringRegion> is not, it means the region and sensitivity are empty. Please refer to /ISAPI/Smart/regionEntrance/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.		

LoiteringList XML Block

```
<LoiteringList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <Loitering/><!--opt -->
</LoiteringList>
```

8.13.39 /ISAPI/Smart/loitering/<ID>/capabilities

/ISAPI/Smart/loitering/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get Loitering Detection capability.	
Query	None	
Inbound Data	None	
Success Return	<Loitering>	
Notes: <mutexAbility opt="PDC"/><!--opt it means the loitering detection function is mutually exclusive		

to people counting statistics→

<isSupportMultiScene>: whether or not support multiple scenes, speed dome supports this function

Loitering XML Block

```
<Loitering version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string → </id>
  <enabled> <!--req, xs:boolean → </enabled>
  <normalizedScreenSize><!--req, ro →
    <normalizedScreenWidth> <!--req, ro,xs:integer → </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro,xs:integer → </normalizedScreenHeight>
  </normalizedScreenSize>
  <LoiteringRegionList size="4"> <!--opt →
    <LoiteringRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
      <id> <!--req, xs:string → </id>
      <sensitivityLevel min="1" max="100"><!--opt, xs:integer, 1..100, 1 is the least
sensitive→</sensitivityLevel>
      <timeThreshold min="1" max="10"/> <!--req, xs:integer,seconds →
      <RegionCoordinatesList> <!--opt →
        <RegionCoordinates> <!--opt, →
          <positionX> <!--req, xs:integer;coordinate → </positionX>
          <positionY> <!--req, xs:integer;coordinate → </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </LoiteringRegion>
  </LoiteringRegionList>
  <mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" →
  <isSupportMultiScene> <!--opt, xs:boolean → </isSupportMultiScene>
</Loitering>
```

8.13.40 /ISAPI/Smart/loitering/<ID>

/ISAPI/Smart/loitering/ID		General Resource v2.0
GET		
Description	Loitering detection configuration for a video input channels.	
Query	None	
Inbound Data	None	
Success Return	Loitering	
PUT		
Description	Loitering detection configuration for a video input channels.	

Query	None
Inbound Data	Loitering
Success Return	ResponseStatus
Notes:	
<p>1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes.</p> <p>2. If <LoiteringRegionList> doesn't exist, it means the region and sensitivity remain the same.</p> <p>3. If <LoiteringRegionList> is listed, but <LoiteringRegion> is not, it means the region and sensitivity are empty.</p> <p>Please refer to /ISAPI/Smart/loitering/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.</p>	

Loitering XML Block

```
<Loitering version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <LoiteringRegionList/> <!--opt -->
  <mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" -->
  <isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
</Loitering>
```

8.13.41 /ISAPI/Smart/loitering/<ID>/regions

/ISAPI/Smart/loitering/ID/regions		General Resource v2.0
GET		
Description	Access the list of regions for Loitering detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	LoiteringRegionList	
PUT		
Description	Access the list of regions for Loitering detection on a particular video input channel.	
Query	None	
Inbound Data	LoiteringRegionList	
Success Return	ResponseStatus	

Notes:

1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes.
2. If <LoiteringRegionList> is listed, but <LoiteringRegion> is not, it means the region and sensitivity are empty.

Please refer to /ISAPI/Smart/loitering/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.

LoiteringRegionList XML Block

```
<LoiteringRegionList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <LoiteringRegion/>
</LoiteringRegionList>
```

8.13.42 /ISAPI/Smart/loitering/<ID>/regions/<ID>

/ISAPI/Smart/loitering/ID/regions/ID		General Resource v2.0
GET		
Description	Access the list of regions for Loitering detection.	
Query	None	
Inbound Data	None	
Success Return	LoiteringRegion	
PUT		
Description	Access the list of regions for Loitering detection.	
Query	None	
Inbound Data	LoiteringRegion	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. If <RegionCoordinatesList> doesn't exist, it means that this coordinates for this region remains unchanged. 2. If <RegionCoordinatesList> is listed, but <RegionCoordinates> is not, it means the region and sensitivity are empty. 		

LoiteringRegion XML Block

```
<LoiteringRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <sensitivityLevel><!--opt, xs:integer, 0..100, 0 is the least sensitive --></sensitivityLevel>
  <timeThreshold><!--opt, xs:integer --> </timeThreshold>
```

```

<RegionCoordinatesList> <!--opt -->
  <RegionCoordinates> <!--opt, -->
    <positionX> <!--req, xs:integer;coordinate --> </positionX>
    <positionY> <!--req, xs:integer;coordinate --> </positionY>
  </RegionCoordinates>
</RegionCoordinatesList>
</LoiteringRegion>

```

8.13.43 /ISAPI/Smart/group

/ISAPI/Smart/group		General Resource v2.0
GET		
Description	Group detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	GroupList	
PUT		
Description	Group detection configuration for all video input channels.	
Query	None	
Inbound Data	GroupList	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <GroupRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <GroupRegionList> is listed, but <GroupRegion> is not, it means the region and sensitivity are empty. 		
Please refer to /ISAPI/Smart/group/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.		

GroupList XML Block

```

<GroupList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <Group/> <!--opt -->
</GroupList>

```

8.13.44 /ISAPI/Smart/group/<ID>/capabilities

/ISAPI/Smart/group/<ID>/capabilities		General Resource v2.0
GET		

Description	It is used to get Group Detection capability.
Query	None
Inbound Data	None
Success Return	<Group>
Notes:	
<p><mutexAbility opt="PDC"/><!--opt it means the group detection function is mutually exclusive to people counting statistics--></p> <p><isSupportMultiScene>: whether or not support multiple scenes, speed dome supports this function</p>	

Group XML Block

```

<Group version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize><!--req, ro -->
    <normalizedScreenWidth> <!--req, ro,xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro,xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <GroupRegionList size="4"> <!--opt -->
    <GroupRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
      <id> <!--req, xs:string --> </id>
      <objectOccupation min="1" max="100"/> <!--req, xs:integer -->
      <RegionCoordinatesList> <!--opt -->
        <RegionCoordinates> <!--opt -->
          <positionX> <!--req, xs:integer;coordinate --> </positionX>
          <positionY> <!--req, xs:integer;coordinate --> </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </GroupRegion>
  </GroupRegionList>
  <mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" -->
  <isSupportMultiScene> <!--opt, xs:boolen --> </isSupportMultiScene>
</Group>

```

8.13.45 /ISAPI/Smart/group/<ID>

/ISAPI/Smart/group/ID		General Resource v2.0
GET		
Description	Group detection configuration for a video input channels.	
Query	None	

Inbound Data	None
Success Return	Group
PUT	
Description	Group detection configuration for a video input channels.
Query	None
Inbound Data	Group
Success Return	ResponseStatus
<p>Notes:</p> <ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <GroupRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <GroupRegionList> is listed, but <GroupRegion> is not, it means the region and sensitivity are empty. <p>Please refer to /ISAPI/Smart/group/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.</p>	

Group XML Block

```
<Group version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <GroupRegionList/> <!--opt -->
  <mutexAbility opt="PDC"/> <!--opt,ro, xs:string, "PDC" -->
  <isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
</Group>
```

8.13.46 /ISAPI/Smart/group/<ID>/regions

/ISAPI/Smart/group/ID/regions		General Resource v2.0
GET		
Description	Access the list of regions for Group detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	GroupRegionList	
PUT		

Description	Access the list of regions for Group detection on a particular video input channel.
Query	None
Inbound Data	GroupRegionList
Success Return	ResponseStatus

Notes:

1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes.

2. If <GroupRegionList> is listed, but <GroupRegion> is not, it means the region and sensitivity are empty.

Please refer to /ISAPI/Smart/group/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.

GroupRegionList XML Block

```
<GroupRegionList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <GroupRegion/>
</GroupRegionList>
```

8.13.47 /ISAPI/Smart/group/<ID>/regions/<ID>

/ISAPI/Smart/group/ID/regions/ID		General Resource v2.0
GET		
Description	Access the list of regions for Group detection.	
Query	None	
Inbound Data	None	
Success Return	GroupRegion	
PUT		
Description	Access the list of regions for Group detection.	
Query	None	
Inbound Data	GroupRegion	
Success Return	ResponseStatus	
Notes:		
1. If <RegionCoordinatesList> doesn't exist, it means that this coordinates for this region remains unchanged.		

2. If <RegionCoordinatesList> is listed, but <RegionCoordinates> is not, it means the region and sensitivity are empty.

GroupRegion XML Block

```
<GroupRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <objectOccupation> <!--opt, xs:integer--> </objectOccupation>
  <RegionCoordinatesList> <!--opt -->
    <RegionCoordinates> <!--opt -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</GroupRegion>
```

8.13.48 /ISAPI/Smart/rapidMove

/ISAPI/Smart/rapidMove		General Resource v2.0
GET		
Description	Rapid Move detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	RapidMoveList	
PUT		
Description	Rapid Move detection configuration for all video input channels.	
Query	None	
Inbound Data	RapidMoveList	
Success Return	ResponseStatus	
Notes: <ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <RapidMoveRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <RapidMoveRegionList> is listed, but <RapidMoveRegion> is not, it means the region and sensitivity are empty. <p>Please refer to /ISAPI/Smart/rapidMove/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.</p>		

RapidMoveList XML Block

```
<RapidMoveList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
```

```
<RapidMove/> <!--opt →
</RapidMoveList>
```

8.13.49 /ISAPI/Smart/rapidMove/<ID>/capabilities

/ISAPI/Smart/rapidMove/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get Rapid Move Detection capability.	
Query	None	
Inbound Data	None	
Success Return	<RapidMove>	
Notes:		
<p><mutexAbility opt="PDC"/><!--opt it means the rapidMove detection function is mutually exclusive to people counting statistics→</p> <p><isSupportMultiScene>: whether or not support multiple scenes, speed dome supports this function</p>		

RapidMove XML Block

```
<RapidMove version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string → </id>
  <enabled> <!--req, xs:boolean → </enabled>
  <normalizedScreenSize><!--req, ro →
    <normalizedScreenWidth> <!--req, ro,xs:integer → </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro,xs:integer → </normalizedScreenHeight>
  </normalizedScreenSize>
  <RapidMoveRegionList size="4"> <!--opt →
    <RapidMoveRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
      <id> <!--req, xs:string → </id>
      <sensitivityLevel min="1" max="100"><!--req, xs:integer, 1..100, 1 is the least
sensitive→</sensitivityLevel>
      <RegionCoordinatesList> <!--opt →
        <RegionCoordinates> <!--opt →
          <positionX> <!--req, xs:integer;coordinate → </positionX>
          <positionY> <!--req, xs:integer;coordinate → </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
      <detectionTarget><!--opt, xs:string,"all,human,vehicle" → </detectionTarget>
    </RapidMoveRegion>
  </RapidMoveRegionList>
  <mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" →
  <isSupportMultiScene> <!--opt, xs:boolen → </isSupportMultiScene>
</RapidMove>
```

8.13.50 /ISAPI/Smart/rapidMove/<ID>

/ISAPI/Smart/rapidMove/ID		General Resource v2.0
GET		
Description	Rapid Move Detection configuration for a video input channels.	
Query	None	
Inbound Data	None	
Success Return	RapidMove	
PUT		
Description	Rapid Move Detection configuration for a video input channels.	
Query	None	
Inbound Data	RapidMove	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <RapidMoveRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <RapidMoveRegionList> is listed, but <RapidMoveRegion> is not, it means the region and sensitivity are empty. <p>Please refer to /ISAPI/Smart/rapidMove/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.</p>		

RapidMove XML Block

```
<RapidMove version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <RapidMoveRegionList/> <!--opt -->
  <mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" -->
  <isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
</RapidMove>
```

8.13.51 /ISAPI/Smart/rapidMove/<ID>/regions

/ISAPI/Smart/rapidMove/ID/regions		General Resource v2.0
GET		

Description	Access the list of regions for Rapid Move Detection on a particular video input channel.
Query	None
Inbound Data	None
Success Return	RapidMoveRegionList
PUT	
Description	Access the list of regions for Rapid Move Detection on a particular video input channel.
Query	None
Inbound Data	RapidMoveRegionList
Success Return	ResponseStatus
Notes: 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <RapidMoveRegionList> is listed, but < RapidMoveRegion> is not, it means the region and sensitivity are empty. Please refer to /ISAPI/Smart/rapidMove/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.	

RapidMoveRegionList XML Block

```
<RapidMoveRegionList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <RapidMoveRegion/>
</RapidMoveRegionList>
```

8.13.52 /ISAPI/Smart/rapidMove/<ID>/regions/<ID>

/ISAPI/Smart/rapidMove/ID/regions/ID		General Resource v2.0
GET		
Description	Access the list of regions for Rapid Move Detection.	
Query	None	
Inbound Data	None	
Success Return	RapidMoveRegion	
PUT		
Description	Access the list of regions for Rapid Move Detection.	
Query	None	
Inbound Data	RapidMoveRegion	
Success Return	ResponseStatus	
Notes:		

1. If <RegionCoordinatesList> doesn't exist, it means that this coordinates for this region remains unchanged.
2. If <RegionCoordinatesList> is listed, but <RegionCoordinates> is not, it means the region and sensitivity are empty.

RapidMoveRegion XML Block

```
<RapidMoveRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id>                <!--req, xs:string -->                </id>
  <sensitivityLevel><!--req, xs:integer, 1..100, 0 is the least sensitive --></sensitivityLevel>
  <RegionCoordinatesList> <!--opt -->
    <RegionCoordinates> <!--opt -->
      <positionX>        <!--req, xs:integer;coordinate -->    </positionX>
      <positionY>        <!--req, xs:integer;coordinate -->    </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList> <!--opt -->
  <detectionTarget><!--opt, xs:string,"all, human, vehicle" --> </detectionTarget>
</RapidMoveRegion>
```

8.13.53 /ISAPI/Smart/parking

/ISAPI/Smart/parking		General Resource v2.0
GET		
Description	Parking Detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	ParkingList	
PUT		
Description	Parking Detection configuration for all video input channels.	
Query	None	
Inbound Data	ParkingList	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <ParkingRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <ParkingRegionList> is listed, but <ParkingRegion> is not, it means the region and sensitivity are empty. 		
Please refer to /ISAPI/Smart/parking/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.		

ParkingList XML Block

```
<ParkingList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <Parking/> <!--opt -->
</ParkingList>
```

8.13.54 /ISAPI/Smart/parking/<ID>/capabilities

/ISAPI/Smart/parking/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get Parking Detection capability.	
Query	None	
Inbound Data	None	
Success Return	<Parking>	
Notes:		
<mutexAbility opt="PDC"/><!--opt it means the parking detection function is mutually exclusive to people counting statistics--> <isSupportMultiScene>: whether or not support multiple scenes, speed dome supports this function		

Parking XML Block

```
<Parking version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize><!--req, ro -->
    <normalizedScreenWidth> <!--req, ro,xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro,xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <ParkingRegionList size="4"> <!--opt -->
    <ParkingRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
      <id> <!--req, xs:string --> </id>
      <sensitivityLevel min="1" max="100"><!--req, xs:integer, 1..100, 1 is the least sensitive--></sensitivityLevel>
      <timeThreshold min="5" max="100"/> <!--req, xs:integer,seconds -->
      <RegionCoordinatesList> <!--opt -->
        <RegionCoordinates> <!--opt -->
          <positionX> <!--req, xs:integer;coordinate --> </positionX>
          <positionY> <!--req, xs:integer;coordinate --> </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </ParkingRegion>
  </ParkingRegionList>
  <mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" -->
```

```
<isSupportMultiScene> <!--opt, xs:boolean → </isSupportMultiScene>
</Parking>
```

8.13.55 /ISAPI/Smart/parking/<ID>

/ISAPI/Smart/parking/ID		General Resource v2.0
GET		
Description	Parking Detection configuration for a video input channels.	
Query	None	
Inbound Data	None	
Success Return	Parking	
PUT		
Description	Parking Detection configuration for a video input channels.	
Query	None	
Inbound Data	Parking	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <ParkingRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <ParkingRegionList> is listed, but <ParkingRegion> is not, it means the region and sensitivity are empty. 		
Please refer to /ISAPI/Smart/parking/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.		

Parking XML Block

```
<Parking version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string → </id>
  <enabled> <!--req, xs:boolean → </enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer → </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer → </normalizedScreenHeight>
  </normalizedScreenSize>
  <ParkingRegionList/> <!--opt →
  <mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" →
  <isSupportMultiScene> <!--opt, xs:boolean → </isSupportMultiScene>
</Parking>
```

8.13.56 /ISAPI/Smart/parking/<ID>/regions

/ISAPI/Smart/parking/ID/regions		General Resource v2.0
GET		
Description	Access the list of regions for Parking Detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	ParkingRegionList	
PUT		
Description	Access the list of regions for Parking Detection on a particular video input channel.	
Query	None	
Inbound Data	ParkingRegionList	
Success Return	ResponseStatus	
<p>Notes:</p> <ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <ParkingRegionList> is listed, but <ParkingRegion> is not, it means the region and sensitivity are empty. <p>Please refer to /ISAPI/Smart/parking/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.</p>		

ParkingRegionList XML Block

```
<ParkingRegionList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <ParkingRegion/>
</ParkingRegionList>
```

8.13.57 /ISAPI/Smart/parking/<ID>/regions/<ID>

/ISAPI/Smart/parking/ID/regions/ID		General Resource v2.0
GET		
Description	Access the list of regions for Parking Detection.	
Query	None	
Inbound Data	None	
Success Return	ParkingRegion	
PUT		

Description	Access the list of regions for Parking Detection.
Query	None
Inbound Data	ParkingRegion
Success Return	ResponseStatus
Notes:	
<ol style="list-style-type: none"> 1. If <RegionCoordinatesList> doesn't exist, it means that this coordinates for this region remains unchanged. 2. If <RegionCoordinatesList> is listed, but <RegionCoordinates> is not, it means the region and sensitivity are empty. 	

ParkingRegion XML Block

```
<ParkingRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id>                <!--req, xs:string -->                </id>
  <sensitivityLevel><!--req, xs:integer, 1..100, 0 is the least sensitive --></sensitivityLevel>
  <timeThreshold><!--opt, xs:integer--> </timeThreshold>
  <RegionCoordinatesList> <!--opt -->
    <RegionCoordinates> <!--opt -->
      <positionX>        <!--req, xs:integer;coordinate -->    </positionX>
      <positionY>        <!--req, xs:integer;coordinate -->    </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</ParkingRegion>
```

8.13.58 /ISAPI/Smart/unattendedBaggage

/ISAPI/Smart/unattendedBaggage		General Resource v2.0
GET		
Description	Unattended Baggage Detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	UnattendedBaggageList	
PUT		
Description	Unattended Baggage Detection configuration for all video input channels.	
Query	None	
Inbound Data	UnattendedBaggageList	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <UnattendedBaggageRegionList> doesn't exist, it means the region and sensitivity remain 		

the same.

3. If <UnattendedBaggageRegionList> is listed, but <UnattendedBaggageRegion> is not, it means the region and sensitivity are empty.

Please refer to /ISAPI/Smart/unattendedBaggage/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.

UnattendedBaggageList XML Block

```
<UnattendedBaggageList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <UnattendedBaggage/> <!--opt -->
</UnattendedBaggageList>
```

8.13.59 /ISAPI/Smart/unattendedBaggage/<ID>/capabilities

/ISAPI/Smart/unattendedBaggage/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get Unattended Baggage Detection capability.	
Query	None	
Inbound Data	None	
Success Return	<UnattendedBaggage>	
Notes:	<mutexAbility opt="PDC"/><!--opt it means the unattended baggage detection function is mutually exclusive to people counting statistics--> <isSupportMultiScene>: whether or not support multiple scenes, speed dome supports this function	

UnattendedBaggage XML Block

```
<UnattendedBaggage version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize><!--req, ro -->
    <normalizedScreenWidth> <!--req, ro,xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro,xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <UnattendedBaggageRegionList size="4"> <!--opt -->
    <UnattendedBaggageRegion version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
      <id> <!--req, xs:string --> </id>
      <sensitivityLevel min="1" max="100"><!--req, xs:integer, 1..100, 1 is the least
sensitive--></sensitivityLevel>
      <timeThreshold min="5" max="100"/> <!--req, xs:integer,seconds -->
      <RegionCoordinatesList> <!--opt -->
```

```

    <RegionCoordinates> <!--opt -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</UnattendedBaggageRegion>
</UnattendedBaggageRegionList>
<mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" -->
<isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
</UnattendedBaggage>

```

8.13.60 /ISAPI/Smart/unattendedBaggage/<ID>

/ISAPI/Smart/unattendedBaggage/ID		General Resource v2.0
GET		
Description	Unattended Baggage Detection configuration for a video input channels.	
Query	None	
Inbound Data	None	
Success Return	UnattendedBaggage	
PUT		
Description	Unattended Baggage Detection configuration for a video input channels.	
Query	None	
Inbound Data	UnattendedBaggage	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <UnattendedBaggageRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <UnattendedBaggageRegionList> is listed, but <UnattendedBaggageRegion> is not, it means the region and sensitivity are empty. 		
Please refer to /ISAPI/Smart/unattendedBaggage/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.		

UnattendedBaggage XML Block

```

<UnattendedBaggage version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>

```

```

    <normalizedScreenHeight> <!--req, xs:integer --> </normalizedScreenHeight>
</normalizedScreenSize>
<UnattendedBaggageRegionList/> <!--opt -->
<mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" -->
<isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
</UnattendedBaggage>

```

8.13.61 /ISAPI/Smart/unattendedBaggage/<ID>/regions

/ISAPI/Smart/unattendedBaggage/ID/regions		General Resource v2.0
GET		
Description	Access the list of regions for Unattended Baggage Detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	UnattendedBaggageRegionList	
PUT		
Description	Access the list of regions for Unattended Baggage Detection on a particular video input channel.	
Query	None	
Inbound Data	UnattendedBaggageRegionList	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <UnattendedBaggageRegionList> is listed, but <UnattendedBaggageRegion> is not, it means the region and sensitivity are empty. 		
Please refer to /ISAPI/Smart/unattendedBaggage/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.		

UnattendedBaggageRegionList XML Block

```

<UnattendedBaggageRegionList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
    <UnattendedBaggageRegion/>
</UnattendedBaggageRegionList>

```

8.13.62 /ISAPI/Smart/unattendedBaggage/<ID>/regions/<ID

>

/ISAPI/Smart/unattendedBaggage/ID/regions/ID		General Resource v2.0
GET		
Description	Access the list of regions for Unattended Baggage Detection.	
Query	None	
Inbound Data	None	
Success Return	UnattendedBaggageRegion	
PUT		
Description	Access the list of regions for Unattended Baggage Detection.	
Query	None	
Inbound Data	UnattendedBaggageRegion	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. If <RegionCoordinatesList> doesn't exist, it means that this coordinates for this region remains unchanged. 2. If <RegionCoordinatesList> is listed, but <RegionCoordinates> is not, it means the region and sensitivity are empty. 		

UnattendedBaggageRegion XML Block

```
<UnattendedBaggageRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id>                <!--req, xs:string -->                </id>
  <sensitivityLevel><!--req, xs:integer, 0..100, 0 is the least sensitive --></sensitivityLevel>
  <timeThreshold><!--opt, xs:integer--> </timeThreshold>
  <RegionCoordinatesList> <!--opt -->
    <RegionCoordinates> <!--opt -->
      <positionX>        <!--req, xs:integer;coordinate -->    </positionX>
      <positionY>        <!--req, xs:integer;coordinate -->    </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</UnattendedBaggageRegion>
```

8.13.63 /ISAPI/Smart/attendedBaggage

/ISAPI/Smart/attendedBaggage		General Resource v2.0
GET		
Description	Attended Baggage Detection configuration for all video input channels.	
Query	None	

Inbound Data	None
Success Return	AttendedBaggageList
PUT	
Description	Attended Baggage Detection configuration for all video input channels.
Query	None
Inbound Data	AttendedBaggageList
Success Return	ResponseStatus
<p>Notes:</p> <ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <AttendedBaggageRegionList> doesn't exist, it means the region and sensitivity remain the same. 3. If <AttendedBaggageRegionList> is listed, but <AttendedBaggageRegion> is not, it means the region and sensitivity are empty. <p>Please refer to /ISAPI/Smart/attendedBaggage/<ID>/region/<ID> for detailed multiple scenes configuration on Speed Dome.</p>	

AttendedBaggageList XML Block

```
<AttendedBaggageList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <AttendedBaggage/> <!--opt -->
</AttendedBaggageList>
```

8.13.64 /ISAPI/Smart/attendedBaggage/<ID>/capabilities

/ISAPI/Smart/attendedBaggage/<ID>/capabilities	General Resource v2.0
GET	
Description	It is used to get Attended Baggage Detection capability.
Query	None
Inbound Data	None
Success Return	<AttendedBaggage>
<p>Notes:</p> <p><mutexAbility opt="PDC"/><!--opt it means the attended baggage detection function is mutually exclusive to people counting statistics--></p> <p><isSupportMultiScene>: whether or not support multiple scenes, speed dome supports this function</p>	

AttendedBaggage XML Block

```
<AttendedBaggage version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
```

```

<normalizedScreenSize><!--req, ro -->
  <normalizedScreenWidth><!--req, ro,xs:integer --> </normalizedScreenWidth>
  <normalizedScreenHeight><!--req, ro,xs:integer --> </normalizedScreenHeight>
</normalizedScreenSize>
<AttendedBaggageRegionList size="4"><!--opt -->
  <AttendedBaggageRegion version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <sensitivityLevel min="1" max="100"><!--req, xs:integer, 1..100, 1 is the least
sensitive--></sensitivityLevel>
  <timeThreshold min="5" max="100"/><!--req, xs:integer,seconds -->
  <RegionCoordinatesList> <!--opt -->
    <RegionCoordinates> <!--opt -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</AttendedBaggageRegion>
</AttendedBaggageRegionList>
<mutexAbility opt="PDC"/><!--opt,ro, xs:string, "PDC" -->
<isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
</AttendedBaggage>

```

8.13.65 /ISAPI/Smart/attendedBaggage/<ID>

/ISAPI/Smart/attendedBaggage/ID		General Resource v2.0
GET		
Description	Attended Baggage Detection configuration for a video input channels.	
Query	None	
Inbound Data	None	
Success Return	AttendedBaggage	
PUT		
Description	Attended Baggage Detection configuration for a video input channels.	
Query	None	
Inbound Data	Attended Baggage	
Success Return	ResponseStatus	
Notes:		
1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes.		
2. If <AttendedBaggageRegionList> doesn't exist, it means the region and sensitivity remain the same.		
3. If <AttendedBaggageRegionList> is listed, but <AttendedBaggageRegion> is not, it means the		

region and sensitivity are empty.

Please refer to `/ISAPI/Smart/attendedBaggage/<ID>/region/<ID>` for detailed multiple scenes configuration on Speed Dome.

AttendedBaggage XML Block

```
<AttendedBaggage version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <AttendedBaggageRegionList/> <!--opt -->
  <mutexAbility opt="PDC"/> <!--opt,ro, xs:string, "PDC" -->
  <isSupportMultiScene> <!--opt, xs:boolean --> </isSupportMultiScene>
</AttendedBaggage>
```

8.13.66 /ISAPI/Smart/attendedBaggage/<ID>/regions

/ISAPI/Smart/attendedBaggage/ID/regions		General Resource v2.0
GET		
Description	Access the list of regions for Attended Baggage Detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	AttendedBaggageRegionList	
PUT		
Description	Access the list of regions for Attended Baggage Detection on a particular video input channel.	
Query	None	
Inbound Data	AttendedBaggageRegionList	
Success Return	ResponseStatus	
Notes:		
<ol style="list-style-type: none"> 1. This resource is not suitable to add/modify multiple scenes, only support to delete the coordinates of multiple scenes. 2. If <code><AttendedBaggageRegionList></code> is listed, but <code><AttendedBaggageRegion></code> is not, it means the region and sensitivity are empty. 		
Please refer to <code>/ISAPI/Smart/attendedBaggage/<ID>/region/<ID></code> for detailed multiple scenes configuration on Speed Dome.		

AttendedBaggageRegionList XML Block

```
<AttendedBaggageRegionList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <AttendedBaggageRegion/>
</AttendedBaggageRegionList>
```

8.13.67 /ISAPI/Smart/attendedBaggage/<ID>/regions/<ID>

/ISAPI/Smart/attendedBaggage/ID/regions/ID		General Resource v2.0
GET		
Description	Access the list of regions for Attended Baggage Detection.	
Query	None	
Inbound Data	None	
Success Return	AttendedBaggageRegion	
PUT		
Description	Access the list of regions for Attended Baggage Detection.	
Query	None	
Inbound Data	AttendedBaggageRegion	
Success Return	ResponseStatus	
Notes:		
1. If <RegionCoordinatesList> doesn't exist, it means that this coordinates for this region remains unchanged.		
2. If <RegionCoordinatesList> is listed, but <RegionCoordinates> is not, it means the region and sensitivity are empty.		

AttendedBaggageRegion XML Block

```
<AttendedBaggageRegion version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <sensitivityLevel><!--req, xs:integer, 0..100, 0 is the least sensitive --></sensitivityLevel>
  <timeThreshold><!--opt, xs:integer--> </timeThreshold>
  <RegionCoordinatesList> <!--opt -->
    <RegionCoordinates> <!--opt -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</AttendedBaggageRegion>
```

8.13.68 /ISAPI/Smart/peopleDetection

/ISAPI/Smart/peopleDetection		General Resource v2.0
GET		
Description	Region People detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	PeopleDetectionList	
PUT		
Description	Region People detection configuration for all video input channels.	
Query	None	
Inbound Data	PeopleDetectionList	
Success Return	ResponseStatus	
Notes: 1、该资源不适用多场景区域的新增和修改，只支持对多场景区域坐标的清空。 2、RegionPeopleDetectionList 节点不存在，表示区域和时间阈值参数保持不变。 3、RegionPeopleDetectionList 节点存在，但子节点（RegionPeopleDetection）不存在，表示区域和时间阈值参数清空。 球机多场景区域的配置，可以根据场景调整后，使用独立协议配置完成，详见 /ISAPI/Smart/RegionPeopleDetection/<ID>/regions/<ID>。 当前司法球只支持一个场景。ID 值为 1		

PeopleDetectionList XML Block

```
<PeopleDetectionList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <PeopleDetection/> <!--opt -->
</PeopleDetectionList>
```

8.13.69 /ISAPI/Smart/peopleDetection/<ID>/capabilities

/ISAPI/Smart/peopleDetection/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get Region People Detection capability.	
Query	None	
Inbound Data	None	
Success Return	<PeopleDetection>	
Notes:		

PeopleDetection XML Block

```
<PeopleDetection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize><!--req, ro -->
    <normalizedScreenWidth><!--req, ro,xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight><!--req, ro,xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <RegionPeopleDetectionList size="4"> <!--opt -->
    <RegionPeopleDetection version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
      <id> <!--req, xs:string --> </id>
      <timeThreshold min="5" max="30" def="5"><!--req, xs:integer,unit:s --></timeThreshold>
      <RegionCoordinatesList size="5"> <!--opt -->
        <RegionCoordinates> <!--opt -->
          <positionX> <!--req, xs:integer;coordinate --> </positionX>
          <positionY> <!--req, xs:integer;coordinate --> </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </RegionPeopleDetection>
  </RegionPeopleDetectionList>
</PeopleDetection>
```

8.13.70 /ISAPI/Smart/peopleDetection/<ID>

/ISAPI/Smart/peopleDetection/ID		General Resource v2.0
GET		
Description	Region People detection configuration for all video input channels.	
Query	None	
Inbound Data	None	
Success Return	PeopleDetection	
PUT		
Description	Region People detection configuration for all video input channels.	
Query	None	
Inbound Data	PeopleDetection	
Success Return	ResponseStatus	
Notes:		

- 1、该资源不适用区域的新增和修改，只支持对多区域坐标的清空。
- 2、RegionPeopleDetectionList 节点不存在，表示区域和时间阈值参数保持不变。
- 3、RegionPeopleDetectionList 节点存在，但子节点（RegionPeopleDetection）不存在，表示区域和时间阈值参数清空。

球机多场景区域的配置，可以根据场景调整后，使用独立协议配置完成，详见 /ISAPI/Smart/peopleDetection/<ID>/regions/<ID>。

当前司法球只支持一个场景。ID 值为 1

PeopleDetection XML Block

```
<PeopleDetection version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <enabled> <!--req, xs:boolean --> </enabled>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <RegionPeopleDetectionList/> <!--opt -->
</PeopleDetection>
```

8.13.71 /ISAPI/Smart/peopleDetection/<ID>/regions

/ISAPI/Smart/peopleDetection/ID/regions		General Resource v2.0
GET		
Description	Access the list of regions for Region People detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	RegionPeopleDetectionList	
PUT		
Description	Access the list of regions for Region People detection on a particular video input channel.	
Query	None	
Inbound Data	RegionPeopleDetectionList	
Success Return	ResponseStatus	
Notes:		
1、该资源不适用多区域的新增和修改，只支持对多区域坐标的清空。		

2、RegionPeopleDetectionList 节点存在，但子节点（RegionPeopleDetection）不存在，表示区域和时间阈值参数清空。

球机多场景区域的配置，可以根据场景调整后，使用独立协议配置完成，详见 /ISAPI/Smart/peopleDetection/<ID>/regions/<ID>。

当前司法球只支持一个场景。ID 值为 1

RegionPeopleDetectionList XML Block

```
<RegionPeopleDetectionList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <RegionPeopleDetection/>
</RegionPeopleDetectionList>
```

8.13.72 /ISAPI/Smart/peopleDetection/<ID>/regions/<ID>

/ISAPI/Smart/peopleDetection/ID/regions/ID		General Resource v2.0
GET		
Description	Access the list of regions for Region People detection.	
Query	None	
Inbound Data	None	
Success Return	RegionPeopleDetection	
PUT		
Description	Access the list of regions for Region People detection.	
Query	None	
Inbound Data	RegionPeopleDetection	
Success Return	ResponseStatus	
Notes:		
1、RegionCoordinatesList 节点不存在，表示区域坐标参数保持不变。		
3、RegionCoordinatesList 节点存在，但子节点（RegionCoordinates）不存在，表示区域坐标参数清空。		

RegionPeopleDetection XML Block

```
<RegionPeopleDetection version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <timeThreshold><!--req, xs:integer, 5..30 --></timeThreshold>
  <RegionCoordinatesList> <!--opt -->
    <RegionCoordinates> <!--opt, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
```

```

</RegionCoordinates>
</RegionCoordinatesList>
</RegionPeopleDetection>

```

8.13.73 /ISAPI/Smart/storageDetection

/ISAPI/Smart/storageDetection		General Resource v2.0
GET		
Description	It is used to get Smart Storage Detection.	
Query	None	
Inbound Data	None	
Success Return	<StorageDetection>	
Notes:		

StorageDetection XML Block

```

<StorageDetection version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <healthState> <!--opt, xs:string,"good,bad,damage,unknown" --> </healthState>
  <badBlocks> <!--opt, xs:integer,"坏块数" --> </badBlocks>
  <SDCardState> <!--opt, xs:string,"onLine,offLine,unknown,locked " --> </SDCardState>
  <abnormalPowerLoss><!--opt, xs:integer,"异常掉电数" --> </abnormalPowerLoss>
  <remainingLife><!--opt, xs:integer,"0~100,SD卡剩余寿命;以百分比形式 " -->
</remainingLife>
</StorageDetection>

```

8.13.74 /ISAPI/Smart/storageDetection/rwlock

/ISAPI/Smart/storageDetection/rwlock		General Resource v2.0
GET		
Description	It is used to get Smart Storage read and write lock.	
Query	None	
Inbound Data	None	
Success Return	<RWLock>	
PUT		
Description	It is used to set Smart Storage read and write lock.	
Query	None	
Inbound Data	<RWLock>	
Success Return	ResponseStatus	
Notes:		

RWLock XML Block

```
<RWLock version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <enabled><!--req,xs:boolean,→</enabled>
  <passwd><!--req,wo, xs:string → </passwd>
  <originalPasswd><!--opt,wo, xs:string → </originalPasswd>
</RWLock>
```

8.13.75 /ISAPI/Smart/storageDetection/rwlock/capabilities

/ISAPI/Smart/storageDetection/rwlock/capabilities		General Resource v2.0
GET		
Description	It is used to get Smart Storage read and write lock capabilities.	
Query	None	
Inbound Data	None	
Success Return	<RWLock>	
Notes:		

RWLock XML Block

```
<RWLock version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <enabled><!--req,xs:boolean,→</enabled>
  <passwd min="" max=""><!--req,wo, xs:string → </passwd>
  <originalPasswd min="" max=""><!--opt,wo, xs:string → </originalPasswd>
  <SDCardType opt="HIK"><!--opt,ro,xs:string,→</SDCardType>
</RWLock>
```

8.13.76 /ISAPI/Smart/storageDetection/unlock

/ISAPI/Smart/storageDetection/unlock		General Resource v2.0
PUT		
Description	It is used to set Smart Storage read and write unlock.	
Query	None	
Inbound Data	<UnLock>	
Success Return	ResponseStatus	
Notes:		

UnLock XML Block

```
<UnLock version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <passwd><!--req,wo, xs:string → </passwd>
</UnLock>
```

8.13.77 /ISAPI/Smart/storageDetection/unlock/capabilities

/ISAPI/Smart/storageDetection/unlock/capabilities		General Resource v2.0
GET		
Description	It is used to get Smart Storage read and write unlock capabilities.	
Query	None	
Inbound Data	None	
Success Return	<UnLock>	
Notes:		
SDCardUnlockTime : SD card unlock time		

UnLock XML Block

```
<UnLock version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <passwd min="" max=""><!--req,wo, xs:string → </passwd>
  <SDCardUnlockTime><!--opt,ro,xs:integer →</SDCardUnlockTime>
</UnLock>
```

8.13.78 /ISAPI/Smart/HiddenInformation/channels/<ID> >/capabilities

/ISAPI/Smart/HiddenInformation/channels/<ID>/capabilities		General Resource v2.0
GET		
Description	It is used to get the Hidden Information settings of an interface.	
Query	None	
Inbound Data	None	
Success Return	HiddenInformation	
Notes:		
Id: Device channel number (it represents POS ID when refer to POS function)		
funcType: POS function		
PosCofig: POS hidden information configuration.		
keyWordOne,keyWordTwo,keyWordThree: Key word1-3 (The maximum length is 32)		

HiddenInformation XML Block

```
<HiddenInformation version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--req, xs:integer --></id>
  <funcType opt="POS"><!--req, xs:string--></funcType>
  <PosCofig><!--dep, depends on <funcType> -->
    <keyWordOne min="0", max="32"><!--req, xs:string--></keyWordOne>
    <keyWordTwo min="0", max="32"><!--req, xs:string--></keyWordTwo>
    <keyWordThree min="0", max="32"><!--req, xs:string--></keyWordThree>
  </PosCofig>
</HiddenInformation>
```

8.13.79 /ISAPI/Smart/HiddenInformation/channels/<ID



/ISAPI/Smart/HiddenInformation/channels/<ID>		General Resource v2.0
GET		
Description	It is used to get the Hidden Information settings of an interface.	
Query	None	
Inbound Data	None	
Success Return	HiddenInformation	
PUT		
Description	It is used to update the Hidden Information settings of an interface.	
Query	None	
Inbound Data	HiddenInformation	
Success Return	ResponseStatus	
Notes:		
Id: Device channel number (it represents POS ID when refer to POS function)		
funcType: POS function		
PosCofig: POS hidden information configuration.		
keyWordOne,keyWordTwo,keyWordThree: Key word1-3 (The maximum length is 32)		

HiddenInformation XML Block

```
<HiddenInformation version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--req, xs:integer --></id>
  <funcType opt="POS"><!--req, xs:string--></funcType>
  <PosCofig><!--dep, depends on <funcType> -->
    <keyWordOne><!--req, xs:string--></keyWordOne>
    <keyWordTwo><!--req, xs:string--></keyWordTwo>
    <keyWordThree><!--req, xs:string--></keyWordThree>
  </PosCofig>
</HiddenInformation>
```

8.13.80 /ISAPI/Smart/channels/<ID>/calibrations/capabilities

S

/ISAPI/Smart/channels/<ID>/calibrations/capabilities		General Resource v2.0
GET		
Description	It is used to get Smart Calibrations capability.	
Query	None	
Inbound Data	None	
Success Return	<SmartCalibrationCap>	
Notes:		

SmartCalibrationCap XML Block

```
<SmartCalibrationCap version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <eventType
    opt="linedetection,fielddetection,regionEntrance,regionExiting,loitering,rapidMove,parking,unatt
    endedBaggage,attendedBaggage"><!--,req,ro-></eventType>
  <FilterSize><!--opt,->
    <MaxTargetSize size=""><!--,opt,"最大目标尺寸"->
      <RegionCoordinatesList size="">
        <RegionCoordinates> <!--req,->
          <positionX> <!--req, xs:integer;coordinate -> </positionX>
          <positionY> <!--req, xs:integer;coordinate -> </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </MaxTargetSize>
    <MinTargetSize size=""><!--,opt,"最小目标尺寸"->
      <RegionCoordinatesList size="">
        <RegionCoordinates> <!--req,->
          <positionX> <!--req, xs:integer;coordinate -> </positionX>
          <positionY> <!--req, xs:integer;coordinate -> </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </MinTargetSize>
  </FilterSize>
```

```
</SmartCalibrationCap>
```

8.13.81 /ISAPI/Smart/channels/<ID>/calibrations/<ID>

/ISAPI/Smart/channels/<ID>/calibrations/<ID>		General Resource v2.0
GET		
Description	It is used to get the configurations of SmartCalibrationList	
Query	None	
Inbound Data	None	
Success Return	SmartCalibrationList	
PUT		
Description	It is used to set the configurations of SmartCalibrationList	
Query	None	
Inbound Data	SmartCalibrationList	
Success Return	ResponseStatus	
Notes: channels/<ID>: 表示视频通道号 calibrations/<ID>: 表示标定类型和规则号 eg: fieldDetection fieldDetection 表示是规则类型		

SmartCalibrationList XML Block

```
<SmartCalibrationList version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <SmartCalibration/>
</SmartCalibrationList>
```

8.13.82 /ISAPI/Smart/channels/<ID>/calibrations/<ID>/rule/ <ID>

/ISAPI/Smart/channels/<ID>/calibrations/<ID>/rule/<ID>		General Resource v2.0
GET		
Description	It is used to get the configurations of SmartCalibration	
Query	None	
Inbound Data	None	
Success Return	SmartCalibration	

PUT	
Description	It is used to set the configurations of SmartCalibration
Query	None
Inbound Data	SmartCalibration
Success Return	ResponseStatus
Notes: channels/<ID> : 表示视频通道号 calibrations/<ID> : 表示标定类型和规则号 eg: fieldDetection rule/<ID> 1 表示的规则号 <ID><!--req, xs:integer--><ID>表示的规则号	

SmartCalibration XML Block

```

<SmartCalibration version="2.0" xmlns="http://www.hikvision.com/ver20/XMLSchema">
  <ID><!--req, xs:integer--><ID>
  <FilterSize><!--opt, -->
    <MaxTargetSize><!--,opt,"最大目标尺寸"-->
      <RegionCoordinatesList size="">
        <RegionCoordinates> <!--req, -->
          <positionX> <!--req, xs:integer;coordinate --> </positionX>
          <positionY> <!--req, xs:integer;coordinate --> </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </MaxTargetSize>
    <MinTargetSize><!--,opt,"最小目标尺寸"-->
      <RegionCoordinatesList size="">
        <RegionCoordinates> <!--req, -->
          <positionX> <!--req, xs:integer;coordinate --> </positionX>
          <positionY> <!--req, xs:integer;coordinate --> </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </MinTargetSize>
  </FilterSize>
</SmartCalibration>

```

8.13.83 /ISAPI/Smart/shipsDetection

/ISAPI/Smart/shipsDetection

General Resource v2.0

GET

Description	Ships detection configuration for all video input channels.
Query	None
Inbound Data	None
Success Return	ShipsDetectionList
PUT	
Description	Ships detection configuration for all video input channels.
Query	None
Inbound Data	ShipsDetectionList
Success Return	ResponseStatus
Notes:	

ShipsDetectionList XML Block

```
<ShipsDetectionList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ShipsDetection/> <!--opt -->
</ShipsDetectionList>
```

8.13.84 /ISAPI/Smart/shipsDetection/<ID>/capabilities

/ISAPI/Smart/shipsDetection/<ID>/capabilities	General Resource v2.0
GET	
Description	It is used to get ships Detection capability.
Query	None
Inbound Data	None
Success Return	ShipsDetectionCap
Notes:	
RegionCoordinatesList: 绘制船只检测水域的区域，所画的框最多10个顶点	
TriggerLineCoordinatesList: 绘制船只触发规则线	

ShipsDetectionCap XML Block

```
<ShipsDetectionCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ShipsDetection>
    <id><!--req, xs:string --></id>
    <enabled><!--req, xs:boolean --></enabled>
    <lookDownUpAngle min="" max=""><!--req, xs:float, --></lookDownUpAngle>
    <horizontalHeight min="" max=""><!--req, xs:float, --></horizontalHeight>
    <normalizedScreenSize>
      <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>
      <normalizedScreenHeight> <!--req, xs:integer -->
    </normalizedScreenHeight>
    </normalizedScreenSize>
    <ShipsDetectionRegionList size="4"/><!--opt -->
  </ShipsDetection>
</ShipsDetectionCap>
```

```

    <ShipsDetectionRegion version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
    <id><!--req, xs:string --></id>
    <enabled><!--req, xs:boolean --></enabled>
    <sensitivityLevel min="1" max="100"><!--req, xs:integer, 1~100, 0 is the
least sensitive --></sensitivityLevel>
    <frameOverlayEnabled><!--req, xs:boolean --></frameOverlayEnabled >
    <RegionCoordinatesList size="10"> <!--opt -->
        <RegionCoordinates> <!--opt, -->
            <positionX> <!--req, xs:integer;coordinate -->
</positionX>
            <positionY> <!--req, xs:integer;coordinate -->
</positionY>
        </RegionCoordinates>
    </RegionCoordinatesList>
    <TriggerLineCoordinatesList size="2"> <!--opt -->
        <TriggerLineCoordinates> <!--opt, -->
            <positionX> <!--req, xs:integer;coordinate -->
</positionX>
            <positionY> <!--req, xs:integer;coordinate -->
</positionY>
        </TriggerLineCoordinates>
    </TriggerLineCoordinatesList>
    </ShipsDetectionRegion>
</ShipsDetectionRegionList>
</ShipsDetection>
    <isSupportShipsDetectionCount> <!--opt, xs:boolean -->
</isSupportShipsDetectionCount>
</ShipsDetectionCap>

```

8.13.85 /ISAPI/Smart/shipsDetection/<ID>

/ISAPI/Smart/shipsDetection/ID		General Resource v2.0
GET		
Description	Ships detection configuration for a video input channels.	
Query	None	
Inbound Data	None	
Success Return	ShipsDetection	
PUT		

Description	Ships detection configuration for a video input channels.
Query	None
Inbound Data	ShipsDetection
Success Return	ResponseStatus
Notes: lookDownUpAngle: 设备俯仰角度 horizontalHeight: 设备水平高度	

ShipsDetection XML Block

```
<ShipsDetection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--req, xs:string --></id>
  <enabled><!--req, xs:boolean --></enabled>
  <lookDownUpAngle><!--req, xs:float, --></lookDownUpAngle>
  <horizontalHeight><!--req, xs:float, --></horizontalHeight>
  <normalizedScreenSize>
    <normalizedScreenWidth> <!--req, xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <ShipsDetectionRegionList/><!--opt -->
</ShipsDetection>
```

8.13.86 /ISAPI/Smart/shipsDetection/<ID>/regions

/ISAPI/Smart/shipsDetection/<ID>/regions		General Resource v2.0
GET		
Description	Access the list of regions for ships detection on a particular video input channel.	
Query	None	
Inbound Data	None	
Success Return	ShipsDetectionRegionList	
PUT		
Description	Access the list of regions for ships detection on a particular video input channel.	
Query	None	
Inbound Data	ShipsDetectionRegionList	
Success Return	ResponseStatus	
POST		
Description	Access the list of regions for ships detection on a particular video input channel.	
Query	None	

Inbound Data	None
Success Return	ShipsDetectionRegionList
DELETE	
Description	Access the list of regions for ships detection on a particular video input channel.
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

ShipsDetectionRegionList XML Block

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

8.13.87 /ISAPI/Smart/shipsDetection/<ID>/regions/<ID>

/ISAPI/Smart/shipsDetection/<ID>/regions/<ID>		General Resource v2.0
GET		
Description	Access the list of regions for ships detection.	
Query	None	
Inbound Data	None	
Success Return	ShipsDetectionRegion	
PUT		
Description	Access the list of regions for ships detection.	
Query	None	
Inbound Data	ShipsDetectionRegion	
Success Return	ResponseStatus	
Notes:		
<p>1、RegionCoordinatesList 节点不存在，表示区域坐标参数保持不变。TriggerLineCoordinatesList 同理。</p> <p>2、RegionCoordinatesList 节点存在，但子节点（RegionCoordinates）不存在，表示区域坐标参数清空。TriggerLineCoordinatesList 同理。</p>		
<p>frameOverlayEnabled: 视频是否叠加检测框</p> <p>RegionCoordinatesList: 绘制船只检测水域的区域，所画的框最多10个顶点</p>		

TriggerLineCoordinatesList: 绘制船只触发规则线

ShipsDetectionRegion XML Block

```
<ShipsDetectionRegion version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--req, xs:string --></id>
  <enabled><!--req, xs:boolean --></enabled>
  <sensitivityLevel><!--req, xs:integer, 1~100, 0 is the least sensitive --></sensitivityLevel>
  <frameOverlayEnabled><!--req, xs:boolean --></frameOverlayEnabled >
  <RegionCoordinatesList> <!--opt -->
    <RegionCoordinates> <!--opt, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
  <TriggerLineCoordinatesList> <!--opt -->
    <TriggerLineCoordinates> <!--opt, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </TriggerLineCoordinates>
  </TriggerLineCoordinatesList>
</ShipsDetectionRegion>
```

8.13.88 /ISAPI/Smart/shipsDetectionCount/<ID>

/ISAPI/Smart/shipsDetectionCount/<ID>/		General Resource v2.0
GET		
Description	Ships detection configuration for a video input channels.	
Query	None	
Inbound Data	None	
Success Return	ShipsDetectionCount	
Notes:		

ShipsDetectionCount XML Block

```
<ShipsDetectionCount version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!--req, xs:string --></id>
  <upShipsCount><!--req, xs:integer, --></upShipsCount>
  <downShipsCount><!--req, xs:integer, --></downShipsCount>
```

```

<leftShipsCount><!--req, xs:integer, --></leftShipsCount>
<rightShipsCount><!--req, xs:integer, --></rightShipsCount>
<totalCount><!--req, xs:integer, --></totalCount>
<beginTime><!--req, xs:time, ISO8601 time --></beginTime>
</ShipsDetectionCount>

```

8.13.89 /ISAPI/Smart/shipsDetectionCount/<ID>/resetCount

t

/ISAPI/Smart/shipsDetectionCount/<ID>/resetCount		General Resource	v2.0
t			
PUT			
Description	Ships detection configuration for a video input channels.		
Query	None		
Inbound Data	None		
Success Return	ResponseStatus		
Notes:			

8.14 /ISAPI/WLAlarm/

/ISAPI/WLAlarm	Service	v2.0
Notes: wireless alarm service		

8.14.1 /ISAPI/WLAlarm/capabilities

/ISAPI/WLAlarm/capabilities		General Resource	v2.0
GET			
Description	It is used to get wireless alarm capability.		
Query	None		
Inbound Data	None		
Success Return	<WLAlarmCap>		
Notes:			

WLAlarmCap XML Block

```

<WLAlarmCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isSupportTeleControl><!--opt, xs:boolean --> <isSupportTeleControl>

```

```

<isSupportPIR> <!--opt, xs:boolean -> </isSupportPIR>
<isSupportWLSensors> <!--opt, xs:boolean -> </isSupportWLSensors>
<isSupportCallHelp> <!--opt, xs:boolean -> </isSupportCallHelp>
</WLAalarmCap>

```

8.14.2 /ISAPI/WLAalarm/telecontrol

/ISAPI/WLAalarm/telecontrol		General Resource v2.0
GET		
Description	It is used to get the properties of snapshot channels for the device.	
Query	None	
Inbound Data	None	
Success Return	telecontrol	
PUT		
Description	It is used to config the properties of snapshot channels for the device.	
Query	None	
Inbound Data	telecontrol	
Success Return	ResponseStatus	
Notes:		

telecontrol XML Block

```

<telecontrol version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean -> </enabled>
  <delay> <!--opt, xs:integer, seconds ->
    <armingdelay><!--opt, xs:integer, seconds -> </armingdelay>
    <disarmingdelay><!--opt, xs:integer, seconds -> </disarmingdelay>
  </delay>
</telecontrol>

```

8.14.3 /ISAPI/WLAalarm/telecontrol/study

/ISAPI/WLAalarm/telecontrol/study		General Resource v2.0
PUT		
Description	It is used to update the properties of a particular snapshot channel.	
Query	None	
Inbound Data		
Success Return	ResponseStatus	
Notes: the device enters arming status		

8.14.4 /ISAPI/WLAlarm/telecontrol/arming

/ISAPI/WLAlarm/telecontrol/arming		General Resource v2.0
PUT		
Description	It is used to update the properties of a particular snapshot channel.	
Query	None	
Inbound Data		
Success Return	ResponseStatus	
Notes:		
The device enters arming status		

8.14.5 /ISAPI/WLAlarm/telecontrol/disarming

/ISAPI/WLAlarm/telecontrol/disarming		General Resource v2.0
PUT		
Description	It is used to update the properties of a particular snapshot channel.	
Query	None	
Inbound Data		
Success Return	ResponseStatus	
Notes:		

8.14.6 /ISAPI/WLAlarm/PIR

/ISAPI/WLAlarm/PIR		General Resource v2.0
GET		
Description	It is used to get the properties of snapshot channels for the device.	
Query	None	
Inbound Data	None	
Success Return	PIRAlarm	
PUT		
Description	It is used to config the properties of snapshot channels for the device.	
Query	None	
Inbound Data	PIRAlarm	
Success Return	ResponseStatus	
Notes:		

PIRALarm XML Block

```
<PIRALarm version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --></enabled>
  <name> <!--opt, xs:string --></name>
</PIRALarm>
```

8.14.7 /ISAPI/WLAlarm/WLSensors

/ISAPI/WLAlarm/WLSensors		General Resource v2.0
GET		
Description	It is used to get the properties of snapshot channels for the device.	
Query	None	
Inbound Data	None	
Success Return	WLSensorlist	
PUT		
Description	It is used to config the properties of snapshot channels for the device.	
Query	None	
Inbound Data	WLSensorlist	
Success Return	ResponseStatus	
Notes:		

WLSensorlist XML Block

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

8.14.8 /ISAPI/WLAlarm/WLSensors/<ID>

/ISAPI/WLAlarm/WLSensors/ID		General Resource v2.0
GET		
Description	It is used to get the properties of snapshot channels for the device.	
Query	None	
Inbound Data	None	
Success Return	WLSensor	
PUT		
Description	It is used to config the properties of snapshot channels for the device.	
Query	None	
Inbound Data	WLSensor	
Success Return	ResponseStatus	

Notes:

WLSensorlist XML Block

```
<WLSensor version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --></enabled>
  <name> <!--opt, xs:string --></name>
</WLSensor>
```

8.14.9 /ISAPI/WLAlarm/callhelp

/ISAPI/WLAlarm/callhelp		General Resource	v2.0
GET			
Description			
Query	None		
Inbound Data	None		
Success Return	Callhelp		
PUT			
Description			
Query	None		
Inbound Data	Callhelp		
Success Return	ResponseStatus		
Notes:			

Callhelp XML Block

```
<Callhelp version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --></enabled>
  <name> <!--opt, xs:string --></name>
</Callhelp>
```

8.15 /ISAPI/GIS

/ISAPI/GIS	Service	v2.0
Notes: GIS configuration.		

8.15.1 /ISAPI/GIS/channels

/ISAPI/GIS/channels	General Resource	v2.0
---------------------	------------------	------

GET	
Description	It is used to get all value that the url of AngleView, MaxViewRadius, PTZValue and CCD parameters.
Query	None
Inbound Data	None
Success Return	GISList
Notes:	

GISList XML Block

```
<GISList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <GIS/> <!--opt -->
</GISList>
```

8.15.2 /ISAPI/GIS/channels/<ID>/centralizedControl/capabilities

/ISAPI/GIS/channels/<ID>/centralizedControl/capabilities	General Resource v2.0
GET	
Description	
Query	None
Inbound Data	None
Success Return	CentralizedControl

CentralizedControl XML Block

```
<CentralizedControl version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--req, xs:boolean "true-开始, false-结束"--></enabled>
  <controlType opt="forcedControl,optionalControl"><!--dep, xs:string;集成控制模式"(强制布控),(非强制布控)"--></controlType>
  <expires min="" max=""><!--dep,xs:integer "60S---6*60*60S" 单位是S--></expires>
  <longitudeType opt="E,W"><!--req,xs:string "经度"--></longitudeType>
  <latitudeType opt="S,N"><!--req,xs:string "纬度"--></latitudeType>
  <Longitude><!--req,"经度"-->
    <degree><!--req,xs:interge--></degree>
    <minute><!--req,xs:interge--></minute>
    <sec><!--req,xs:float,"精确到小数点后3位"--></sec>
  </Longitude>
  <Latitude><!--req,"纬度"-->
```

```

<degree><!--req,xs:interge--></degree>
<minute><!--req,xs:interge--></minute>
<sec><!--req,xs:float,"精确到小数点后3位"--></sec>
</Latitude>
</CentralizedControl>

```

8.15.3 /ISAPI/GIS/channels/<ID>/centralizedControl

/ISAPI/GIS/channels/<ID>/centralizedControl		General Resource v2.0
GET		
Description		
Query	None	
Inbound Data	None	
Success Return	CentralizedControl	
PUT		
Description		
Query	None	
Inbound Data	CentralizedControl	
Success Return	ResponseStatus	
Notes:		

CentralizedControl XML Block

```

<CentralizedControl version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled><!--req, xs:boolean "true-开始, false-结束"--></enabled>
  <controlType opt="forcedControl,optionalControl"><!--dep, xs:string;集成控制模式"(强制布控),(非强制布控)"--></controlType>
  <expires min="" max=""><!--dep,xs:integer "60S---6*60*60S" 单位是S--></expires>
  <longitudeType opt="E,W"><!--req,xs:string "经度"--></longitudeType>
  <latitudeType opt="S,N"><!--req,xs:string "纬度"--></latitudeType>
  <Longitude><!--req,"经度"-->
    <degree><!--req,xs:interge--></degree>
    <minute><!--req,xs:interge--></minute>
    <sec><!--req,xs:float,"精确到小数点后3位"--></sec>
  </Longitude>
  <Latitude><!--req,"纬度"-->
    <degree><!--req,xs:interge--></degree>
    <minute><!--req,xs:interge--></minute>
    <sec><!--req,xs:float,"精确到小数点后3位"--></sec>

```



```
</Latitude>
</CentralizedControl>
```

8.16 /ISAPI/GIS

8.16.1 /ISAPI/GIS/channels/<ID>/reviseGPS/capabilities

/ISAPI/GIS/channels/<ID>/reviseGPS/capabilities		General Resource	v2.0
GET			
Description	Get revise GPS capabilities		
Query	None		
Inbound Data	None		
Success Return	ReviseGPS		
Notes:			

ReviseGPS XML Block

```
<ReviseGPS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <longitudeType opt="E,W"><!-- req,xs:string --></longitudeType>
  <latitudeType opt="S,N"><!-- req,xs:string --></latitudeType>
  <Longitude><!-- req, -->
    <degree><!-- req,xs:interge --></degree>
    <minute><!-- req,xs:interge --></minute>
    <sec><!-- req,xs:float, --></sec>
  </Longitude>
  <Latitude><!-- req, -->
    <degree><!-- req,xs:interge --></degree>
    <minute><!-- req,xs:interge --></minute>
    <sec><!-- req,xs:float, --></sec>
  </Latitude>
</ReviseGPS>
```

8.16.2 /ISAPI/GIS/channels/<ID>/reviseGPS

/ISAPI/GIS/channels/<ID>/reviseGPS		General Resource	v2.0
------------------------------------	--	------------------	------

GET	
Description	Get revise GPS
Query	None
Inbound Data	None
Success Return	ReviseGPS
PUT	
Description	Set revise GPS
Query	None
Inbound Data	ReviseGPS
Success Return	ResponseStatus
Notes:	

ReviseGPS XML Block

```

<ReviseGPS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <longitudeType><!--req,xs:string "E,W" --></longitudeType>
  <latitudeType><!--req,xs:string "S,N" --></latitudeType>
  <Longitude><!--req, -->
    <degree><!--req,xs:interge --></degree>
    <minute><!--req,xs:interge --></minute>
    <sec><!--req,xs:float, --></sec>
  </Longitude>
  <Latitude><!--req, -->
    <degree><!--req,xs:interge --></degree>
    <minute><!--req,xs:interge --></minute>
    <sec><!--req,xs:float, --></sec>
  </Latitude>
</ReviseGPS>

```

8.16.3 /ISAPI/GIS/channels/<ID>

/ISAPI/GIS/channels/ID	General Resource v2.0
GET	
Description	
Query	None
Inbound Data	None
Success Return	GIS
PUT	
Description	

Query	None
Inbound Data	GISList
Success Return	ResponseStatus
Notes:	

GIS XML Block

```

<GIS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
  <AngleView>
    <horizontalValue/> <!--req, xs:float -->
    <verticalValue/> <!--req, xs:float -->
    <visibleRadius/> <!--req, xs:float -->
  </AngleView>
  <MaxViewRadius>
    <mVisibleRadius/> <!--req, xs:integer -->
  </MaxViewRadius>
  <AbsoluteHigh>
    <elevation> <!--opt, xs:integer, -900..2700 --> </elevation>
    <azimuth> <!--opt, xs:integer, 0..3600 --> </azimuth>
    <absoluteZoom> <!--opt, xs:integer,0.. 1000--> </absoluteZoom>
  </AbsoluteHigh>
  <Sensor>
    <SensorType> <!--opt, xs:string, " CCD,CMOS"--> </SensorType>
    <hor/> <!--req, xs:float -->
    <ver/> <!--req, xs:float -->
    <fold/> <!--req, xs:float -->
  </Sensor>
  <longitudeType><!--req,xs:string "经度" "E,W"--></longitudeType>
  <latitudeType><!--req,xs:string "纬度" "S,N"--></latitudeType>
  <Longitude><!--req,"经度"-->
    <degree><!--req,xs:interge--></degree>
    <minute><!--req,xs:interge--></minute>
    <sec><!--req,xs:float,"精确到小数点后6位"--></sec>
  </Longitude>
  <Latitude><!--req,"纬度"-->
    <degree><!--req,xs:interge--></degree>
    <minute><!--req,xs:interge--></minute>
    <sec><!--req,xs:float,"精确到小数点后6位"--></sec>

```

```

</Latitude>
<azimuth><!--req,xs:float "方位角"--></azimuth>
</GIS>

```

8.17 /ISAPI/Traffic

8.17.1 /ISAPI/Traffic/Capabilities

/ISAPI/Traffic/capabilities		General Resource v2.0
GET		
Description	It is used to get device capability.	
Query	None	
Inbound Data	None	
Success Return	<TrafficCap>	
Notes:		

TrafficCap XML Block

```

<TrafficCap version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <plateCap><!--opt --, >
    <supCustomStateOrProvince><!--opt, xs:boolean, --></supCustomStateOrProvince>
    <supCountry><!--opt, xs:integer 1,2,3...-->
    </supCountry>
    <isSupportPlateList><!--opt --, xs:boolean--></isSupportPlateList>
    <plateListNum><!--opt --, integer, --></plateListNum>
    <plateMaskLen><!--opt --, integer, --></plateMaskLen>
    <isNotSupportLicenseImport><!--opt, xs:boolean, --></isNotSupportLicenseImport>
    <isSupportIllegalParkingDetection><!--opt, xs:boolean, -->
    --></isSupportIllegalParkingDetection>
  </plateCap>
</TrafficCap>

```

8.17.2 /ISAPI/Traffic/plateList

/ISAPI/Traffic/plateList		General Resource v2.0
GET		
Description	Export license plate of black and white black list	
Query	None	

Inbound Data	None			
Success Return	Opaque Data(.xls)			
PUT				
Description	Import license plate of black and white black list			
Query	None			
Inbound Data	Opaque Data(.xls)			
Success Return	<ImportplateError >			
Error Code	Status	statusCode	subStatusCode	description
		2	noMemory	noMemory
		2	importFail	importFail
		6	importErrorData	importErrorData
		2	configOperating	device importing or exporting
Notes: Configuration file is device-dependant – it may be binary or any other format.				

ImportplateError XML Block

```
<ImportResult version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">result
  <existError> <!-- req, xs:boolean --> </existError>
  <errorCode> <!-- opt, xs:string, importErrorData, importFail, configOperating, overLimit -->
  </errorCode>
  <PlateErrorList/> <!-- opt -->
</ImportResult>
```

```
<PlateErrorList version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <plateError> <!-- opt -->
    <id> <!-- req, xs:string --> </id>
    <errorRowNo> <!-- req, xs:integer --> </errorRowNo>error number
    <errorType> <!-- req, xs:string, invalidGroup() --> </errorType>
  </plateError>
</PlateErrorList>
```

8.17.3 /ISAPI/ITC/capability

/ISAPI/ITC/capability		General Resource v2.0
GET		
Description	GET ip traffic Capabilities	
Query	None	
Inbound Data	None	

Success Return

ITCCap

ITCCap XML Block

```
<ITCCap version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <isSupportITC> <!--dep, xs: boolean> </isSupportITC>
  <isSupportIllegalDictionary> <!--dep, xs: boolean> <isSupportIllegalDictionary>
  <isSupportVehicleDetection> <!--dep, xs: boolean> <isSupportVehicleDetection>
  <isSupportHVTVehicleDetection> <!--dep, xs: boolean> <isSupportHVTVehicleDetection>
  <isSupportLicencePlateAuditData> <!--opt, xs: boolean> <isSupportLicencePlateAuditData>
  <isSupportSearchLPListAudit><!--opt, xs: boolean></isSupportSearchLPListAudit>
</ITCCap>
```

8.17.4 /ISAPI/Traffic/channels/<ID>/CurVehicleDetectMode

/ISAPI/Traffic/channels/<ID>/CurVehicleDetectMode		General Resource v2.0
GET		
Description	It is used to get the current vehicle detection type.	
Query	None	
Inbound Data	None	
Success Return	CurVehicleDetectMode	
PUT		
Description	It is used to update the current vehicle detection type	
Query	None	
Inbound Data	CurVehicleDetectMode	
Success Return	ResponseStatus	
Notes:		

VehicleDetectCfg XML Block

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

8.17.5 /ISAPI/Traffic/channels/<ID>/vehicleCalibration

/ISAPI/Traffic/channels/<ID>/vehicleCalibration		General Resource v2.0
GET		
Description	It is used to get the Vehicle Calibration.	
Query	None	
Inbound Data	None	

Success Return	Calibration Region
Notes: /ISAPI/Traffic/channels/<ID>/vehicleCalibration/capabilities	

Calibration Region XML Block

```
<Calibration version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <CalibrationRegionList size="1">
    <CalibrationRegion>
      <id> <!--ro, req, xs:string --> </id>
      <RegionCoordinatesList size="4">
        <RegionCoordinates> <!--ro, req, -->
          <positionX> <!--ro, req, xs:integer;coordinate --> </positionX>
          <positionY> <!--ro, req, xs:integer;coordinate --> </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </CalibrationRegion>
  </CalibrationRegionList>
</Calibration>
```

8.17.6 VehicleDetection

8.17.6.1 /ISAPI/Traffic/channels/<ID>/vehicleDetect

/ISAPI/Traffic/channels/<ID>/vehicleDetect		General Resource v2.0
GET		
Description	It is used to get the configuration of vehicle detection .	
Query	None	
Inbound Data	None	
Success Return	VehicleDetectCfg	
PUT		
Description	It is used to update the configuration of vehicle detection.	
Query	None	
Inbound Data	VehicleDetectCfg	
Success Return	ResponseStatus	
Notes: The number of PlateRecogRegion should be same with the number of lane. Type: alarmInput-报警输入		

VehicleDetectCfg XML Block

```
<VehicleDetectCfg version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
```

```

<enabled>          <!--req, xs:boolean ->          </enabled>
<stateOrProvince> <!-- opt, xs:string -> </stateOrProvince>
<bestDetectionSize> <!-- opt, xs:string -> </bestDetectionSize>
<VehicleDetectSceneList>
  <VehicleDetectScene/>
</VehicleDetectSceneList>
<RodeType><!--opt, ->
  <type><!--opt,xs:string,"entrance,city,custom,alarmInput"-> </type>
  <Custom><!--dep, custom ->
    <delayTime><!--opt,xs:integer,[0,15000]-></delayTime>
    <delayTimeUnit><!--opt,xs:string,"ms"-></delayTimeUnit>
  </Custom>
</RodeType>
</VehicleDetectCfg>

```

8.17.6.2 /ISAPI/Traffic/channels/<ID>/vehicleDetects/<SID>

/ISAPI/Traffic/channels/<ID>/vehicleDetects/<SID>		General Resource v2.0
GET		
Description	It is used to get the configuration of vehicle detection.	
Query	None	
Inbound Data	None	
Success Return	VehicleDetectScene	
PUT		
Description	It is used to update the configuration of vehicle detection.	
Query	None	
Inbound Data	VehicleDetectScene	
Success Return	ResponseStatus	
Notes:		
The number of PlateRecogRegion should be same with the number of lane.		
AtRoadsideCalib: 依赖于/ISAPI/System/SetupParam 中 mountingType 节点为 atRoadside 时。视频画面高度的 7/10 的位置显示一条抓拍线，颜色红色，可拉动设置。正装时无抓拍线显示及设置。		

VehicleDetectCfg XML Block

```

<VehicleDetectScene xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id>          <!--req, xs:integer ->          </id>
  <sceneName> <!-- opt, xs:string -> </sceneName>
  <enabled>          <!--req, xs:boolean ->          </enabled>
  <PlateRecogParam>
    <PlateRecogRegionList>

```



```

<PlateRecogRegion>
  <id> <!--req, xs:string--> </id>
  <RegionCoordinatesList>
    <RegionCoordinates> <!--req, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</PlateRecogRegion>
</PlateRecogRegionList>
<PlateRecogParam>
<LaneConfig>
  <LaneList>
    <Lane>
      <laneId> <!--req xs:integer--> </laneId>
      <RegionCoordinatesList> <!--req -->
        <RegionCoordinates> <!--minoccurs=2,maxoccurs=2-->
          <positionX> <!--req, xs:integer--> </positionX>
          <positionY> <!--req, xs:integer--> </positionY>
        </RegionCoordinates>
      </RegionCoordinatesList>
    </Lane>
  </LaneList>
</LaneConfig>
<AtRoadsideCalib><!--opt-->
  <RegionCoordinatesList>
    <RegionCoordinates> <!--req, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  <RegionCoordinatesList>
</AtRoadsideCalib>
</VehicleDetectScene>

```

8.17.6.3 /ISAPI/Traffic/channels/<ID>/vehicleDetect/capabilities

GET	
Description	It is used to get the configuration capabilities of vehicle detection .
Query	None
Inbound Data	None
Success Return	VehicleDetectCfg
Notes: Type: alarmInput-报警输入 AtRoadsideCalib: 依赖于/ISAPI/System/SetupParam 中 mountingType 节点为 atRoadside 时。视频画面高度的 7/10 的位置显示一条抓拍线，颜色红色，可拉动设置。正装时无抓拍线显示及设置。	

VehicleDetectCfg XML Block

```

<VehicleDetectCfg version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean -> </enabled>
  <stateOrProvinceName opt=""> <!-- opt, xs:string -> </stateOrProvinceName>
  <VehicleDetectSceneList size="">
    <VehicleDetectScene>
      <id> <!--req, xs:interger -> </id>
      <sceneName min="" max=""> <!-- opt, xs:string -> </sceneName>
      <enabled> <!--req, xs:boolean -> </enabled>
      <PlateRecogParam>
        <PlateRecogRegionList size="">
          <PlateRecogRegion>
            <id> <!--req, xs:string-> </id>
            <RegionCoordinatesList size="">
              <RegionCoordinates> <!--req, ->
                <positionX> <!--req, xs:integer;coordinate ->
</positionX>
                <positionY> <!--req, xs:integer;coordinate ->
</positionY>
              </RegionCoordinates>
            <RegionCoordinatesList>
          </PlateRecogRegion>
        <PlateRecogRegionList>
      <PlateRecogParam>
      <LaneConfig>
        <LaneList size="">
          <Lane>
            <laneId min="" max=""><!--req xs:integer-> </laneId>
            <RegionCoordinatesList size=""> <!--req ->
              <RegionCoordinates> <!--minoccurs=2,maxoccurs=2->
                <positionX> <!--req, xs:integer> </positionX>

```

```

        <positionY> <!--req, xs:integer> </positionY>
    </RegionCoordinates>
</RegionCoordinatesList>
</Lane>
</LaneList>
</LaneConfig>
</VehicleDetectScene>
</VehicleDetectSceneList>
<RodeType><!--opt, →
    <type opt="entrance,city,custom,alarmInput"><!--opt,xs:string,"" → </type>
    <Custom><!--dep, custom →
        <delayTime min="" max=""><!--opt,xs:interger,[0,15000] → </delayTime>
        <delayTimeUnit opt="ms"><!--opt,xs:string,"ms"></delayTimeUnit>
    </Custom>
</RodeType>
<AtRoadsideCalib><!--opt, →
    <RegionCoordinatesList size="">
        <RegionCoordinates> <!--req, →
            <positionX> <!--req, xs:integer;coordinate → </positionX>
            <positionY> <!--req, xs:integer;coordinate → </positionY>
        </RegionCoordinates>
    <RegionCoordinatesList>
</AtRoadsideCalib>
</VehicleDetectCfg>

```

8.17.6.4 /ISAPI/Traffic/channels/<ID>/licensePlateAuditData

/ISAPI/Traffic/channels/<ID>/licensePlateAuditData		General Resource v2.0
GET		
Description	Get device's licencePlateAudit data.	
Query	None	
Inbound Data	None	
Success Return	Opaque Data	
PUT		
Description	Update device's licencePlateAudit data.	
Query	None	
Inbound Data	Opaque Data	

Success Return	<ResponseStatus>		
Error Status Code	statusCode	subStatusCode	description
	2	upgrading	Device upgrading
	3	badFlash	Flash error
	6	badVersion	Version mismatch
	6	badDevType	Device type mismatch
	6	badLanguage	Language mismatch
Notes:			

8.17.6.5 /ISAPI/Traffic/channels/<ID>/searchLPListAudit

/ISAPI/Traffic/channels/<ID>/searchLPListAudit		General Resource v2.0
POST		
Description	Get Vehicle Audit List Info	
Query	None	
Inbound Data	<LPListAuditSearchDescription>	
Success Return	<LPListAuditSearchResult>	
Notes:		
channels/<ID>: video Channel		
LP:License Plate		

LPListAuditSearchDescription XML Block

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

LPListAuditSearchResult XML Block

```
<LPListAuditSearchResult version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <searchID><!--req,xs:string; --></searchID>
  <responseStatus>true</responseStatus>
  <responseStatusStrg>OK</responseStatusStrg>
  <numOfMatches><!--req, xs: integer --></numOfMatches>
  <totalMatches><!--req, xs: integer --></totalMatches>
  <LicensePlateInfoList>
```

```

<LicensePlateInfo>
  <id><!-- req, xs:string --></id>
  <LicensePlate><!-- opt, xs:string, --></LicensePlate>
  <type><!-- opt, xs:string, "blackList,whitelist,allVehicleList,otherVehicleList" --></type>
  <createTime><!-- opt, xs:time, ISO8601 time --></createTime>
  <direction><!-- opt, xs:string, "forward,reverse,unknown" --></direction>
  <laneNo><!-- opt, xs:integer, "1" --></laneNo>
</LicensePlateInfo>
</LicensePlateInfoList>
</LPListAuditSearchResult>

```

8.17.6.6 /ISAPI/Traffic/channels/<ID>/picParam

/ISAPI/Traffic/channels/<ID>/picParam		General Resource v2.0
GET		
Description	It is used to get the parameters of picture to be capture capabilities	
Query	None	
Inbound Data	None	
Success Return	PicParam	
PUT		
Description	It is used to set the parameters of picture to be capture capabilities	
Query	None	
Inbound Data	PicParam	
Success Return	ResponseStatus	
Notes: <picQuality> is requested when <mode> is set to "quality", on the contrary, <picSize> is requested when <mode> is set to "size". <item> values are: positionNo, positionInfo, cameraNo, captureTime, plateNo, vehicleColor, sceneName, carType, vehicleLogo, sceneNo, direction		

PicParam XML Block

```

<PicParam version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <PictureCfg>
    <mode><!-- req, xs:string, "quality,size" --></mode>
    <pictureQuality><!-- dep, xs:integer, 1-100 --></pictureQuality>
    <pictureSize><!-- dep, xs:integer, unit:kb --></pictureSize>
  </PictureCfg>

```

```

<Overlap>
  <enabled> <!--req, xs: boolean> </enabled>
  <OverlapItemList >
    <OverlapItem>
      <id><!--req, xs:interger -></id>
      <item opt=""><!--req, xs:string,
"positionNo,positionInfo,cameraNo,captureTime,plateNo,vehicleColor,sceneName,
carType,vehicleLogo,sceneNo,direction"-></item>
    </OverlapItem>
  </OverlapItemList >
  <fontColor> <!--opt, xs: hexBinary;color -> </fontColor>
  <backColor> <!--opt, xs: hexBinary;color -> </backColor>
</Overlap>
</PicParam>

```

8.17.6.7 /ISAPI/Traffic/channels/<ID>/picParam/capabilities

/ISAPI/Traffic/channels/<ID>/picParam/capabilities		General Resource v2.0
GET		
Description	It is used to get the parameters of picture to be capture capabilities	
Query	None	
Inbound Data	None	
Success Return	PicParam	
Notes:		
<p><picQuality> is requested when <mode> is set to "quality",on the contrary, <picSize> is requested when <mode> is set to "size".</p> <p><item> values are: positionNo,positionInfo, cameraNo, captureTime, plateNo,vehicleColor,sceneName,carType,vehicleLogo,sceneNo</p>		

PicParam XML Block

```

<PicParam version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <PictureCfg>
    <mode opt="quality,size"> <!--req, xs:string,""-> </mode>
    <pictureQuality min="1" max="100"> <!--dep, xs:integer,1-100 -> </pictureQuality>
    <pictureSize> <!--dep, xs:integer,unit:kb -> </pictureSize>
  </PictureCfg>
  <Overlap>
    <enabled> <!--req, xs: boolean> </enabled>
    <OverlapItem
opt="positionNo,positionInfo,cameraNo,captureTime,plateNo,vehicleColor,sceneName,

```

```

carType,vehicleLogo,sceneNo"><!-- req, xs:string, "
"→</OverlapItem>
    <fontColor><!-- opt, xs: hexBinary;color → </fontColor>
    <backColor><!-- opt, xs: hexBinary;color → </backColor>
</Overlap>
</PicParam>

```

8.17.6.8 /ISAPI/Traffic/channels/<ID>/eventTrigger

/ISAPI/Traffic/channels/<ID>/eventTrigger		General Resource	v2.0
GET			
Description	Get Traffic Event Trigger		
Query	None		
Inbound Data	None		
Success Return	TrafficEventTrigger		

TrafficEventTrigger XML Block

```

<TrafficEventTrigger version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <EventType><!-- req, →
    <allVehicleList><!-- opt,xs:boolean→</allVehicleList>
  </EventType>
</TrafficEventTrigger>

```

8.17.6.9 /ISAPI/System/Network/ftp/uploadInfo

/ISAPI/System/Network/ftp/uploadInfo		General Resource	v2.0
GET			
Description	Get ftp Upload info Param		
Query	None		
Inbound Data	None		
Success Return	FtpUpload		
PUT			
Description	Set ftp Upload info Param		
Query	None		
Inbound Data	FtpUpload		
Success Return	ResponseStatus		
Notes:			
<item> values are: capture_time,plate_No,alarm_type,camera_name			

FtpUpload XML Block

```
<FtpUpload version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <vehiclePicName>
    <mode><!--req, xs:string,"default,custom" --></mode>
    <NameRuleType><!--dep," customType" -->
      <RuleTypeItemList >
        <RuleTypeItem>
          <id><!--req, xs: interger --></id>
          <item><!--req, xs: string --></item>
          <cameraName><!--dep, xs: string "dep camera_name
node"--></cameraName>
        </RuleTypeItem>
      </RuleTypeItemList>
    </NameRuleType>
  </vehiclePicName>
</FtpUpload>
```

8.17.6.10/ISAPI/Event/schedules/vehicledetects

/ISAPI/Event/schedules/vehicledetects		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	VehicleDetectScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	VehicleDetectScheduleList	
Success Return	ResponseStatus	
Notes:		

VehicleDetectScheduleList XML Block

```
<VehicleDetectScheduleList xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <Schedule/> <!--opt -->
</VehicleDetectScheduleList>
```

/ISAPI/Event/schedules/vehicledetects/ID		General Resource v2.0
GET		

Description	It is used to get trigger schedule.
Query	None
Inbound Data	None
Success Return	Schedule
PUT	
Description	It is used to update trigger schedule.
Query	None
Inbound Data	Schedule
Success Return	ResponseStatus
Notes:	

Schedule XML Block

```

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

```

8.17.6.11/ISAPI/System/Network/ftp/capabilities

Pay attention to the key of XML

New XML nodes of URL (/ISAPI/System/Network/ftp/capabilities)

<FtpUpload>

8.17.6.12 /ISAPI/Traffic/channels/<ID>/vehicleDetect/config

/ISAPI/Traffic/channels/<ID>/vehicleDetect/config		General Resource v2.0
GET		
Description	It is used to get the configuration of vehicle detection.	
Query	None	
Inbound Data	None	
Success Return	Configuration	
PUT		
Description	It is used to update the configuration of vehicle detection.	
Query	None	
Inbound Data	VehicleDetectCfg	
Success Return	Configuration	
Notes: countryDisplay: Enable or disable to show country		

Configuration XML Block

```
<Configuration version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <needAuth><!--opt, xs:boolean --></needAuth>
  <picDisplay><!--opt, xs:boolean --></picDisplay>
  <countryDisplay><!--opt, xs:boolean --></countryDisplay>
</Configuration>
```

8.17.7 HVTVehicleDetection

8.17.7.1 /ISAPI/Traffic/channels/<ID>/HVTVehicleDetects

/ISAPI/Traffic/channels/<ID>/HVTVehicleDetects		General Resource v2.0
GET		
Description	It is used to get the configuration of hvt vehicle detection.	
Query	None	
Inbound Data	None	
Success Return	HVTVehicleDetectCfg	
PUT		
Description	It is used to update the configuration of hvt vehicle detection.	
Query	None	
Inbound Data	HVTVehicleDetectCfg	
Success Return	ResponseStatus	
Notes:		

The number of PlateRecogRegion should be same with the number of lane.

VehicleDetectCfg XML Block

```
<HVTVehicleDetectCfg version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --> </enabled>
  <stateOrProvince> <!-- opt, xs:interger --> </stateOrProvince>
  <bestDetectionSize> <!-- opt, xs:interger --> </bestDetectionSize>
  <HVTVehicleDetectSceneList>
    <HVTVehicleDetectScene/>
  </HVTVehicleDetectSceneList>
</HVTVehicleDetectCfg>
```

8.17.7.2 /ISAPI/Traffic/channels/<ID>/HVTVehicleDetects/<SID>

D>

/ISAPI/Traffic/channels/<ID>/HVTVehicleDetects/<SID>		General Resource v2.0
GET		
Description	It is used to get the configuration of hvt vehicle detection.	
Query	None	
Inbound Data	None	
Success Return	HVTVehicleDetectScene	
PUT		
Description	It is used to update the configuration of hvt vehicle detection.	
Query	None	
Inbound Data	HVTVehicleDetectScene	
Success Return	ResponseStatus	
Notes:		
The number of PlateRecogRegion should be same with the number of lane.		

VehicleDetectCfg XML Block

```
<HVTVehicleDetectScene xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:interger --> </id>
  <sceneName> <!-- opt, xs:string --> </sceneName>
  <enabled> <!--req, xs:boolean --> </enabled>
  <PlateRecogParam>
    <PlateRecogRegionList>
      <PlateRecogRegion>
        <id> <!--req, xs:string--> </id>
        <RegionCoordinatesList>
```

```

<RegionCoordinates> <!--req, →
    <positionX> <!--req, xs:integer;coordinate → </positionX>
    <positionY> <!--req, xs:integer;coordinate → </positionY>
</RegionCoordinates>
<RegionCoordinatesList>
</PlateRecogRegion>
<PlateRecogRegionList>
<PlateRecogParam>
<LaneConfig>
    <LaneList>
        <Lane>
            <laneId> <!--req xs:integer→ </laneId>
            <RegionCoordinatesList> <!--req →
                <RegionCoordinates> <!--minoccurs=2,maxoccurs=2→
                    <positionX> <!--req, xs:integer> </positionX>
                    <positionY> <!--req, xs:integer> </positionY>
                </RegionCoordinates>
            </RegionCoordinatesList>
        </Lane>
    </LaneList>
</LaneConfig>
<AtRoadsideCalib><!--opt→
    <RegionCoordinatesList>
        <RegionCoordinates> <!--req, →
            <positionX> <!--req, xs:integer;coordinate → </positionX>
            <positionY> <!--req, xs:integer;coordinate → </positionY>
        </RegionCoordinates>
    <RegionCoordinatesList>
</AtRoadsideCalib>
</HVTVehicleDetectScene>

```

8.17.7.3 /ISAPI/Traffic/channels/<ID>/HVTVehicleDetects/pic

Param

/ISAPI/Traffic/channels/<ID>/HVTVehicleDetects/picParam		General Resource	v2.0
GET			
Description	It is used to get the parameters of picture to be capture		
Query	None		

Inbound Data	None
Success Return	PicParam
PUT	
Description	It is used to set the parameters of picture to be capture
Query	None
Inbound Data	PicParam
Success Return	ResponseStatus
Notes: <picQuality> is requested when <mode> is set to "quality", on the contrary, <picSize> is requested when <mode> is set to "size". <item> values are: positionNo, positionInfo, cameraNo, captureTime, plateNo, carColor, sceneName, carType, vehicleLogo, sceneNo	

PicParam XML Block

```

<PicParam version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <PictureCfg>
    <mode> <!--req, xs:string,"quality,size" --> </mode>
    <pictureQuality> <!--dep, xs:integer,1-100 --> </pictureQuality>
    <pictureSize> <!--dep, xs:integer,unit:kb --> </pictureSize>
  </PictureCfg>
  <Overlap>
    <enabled> <!--req, xs: boolean --> </enabled>
    <OverlapItemList>
      <OverlapItem>
        <id> <!--req, xs: interger --> </id>
        <item> <!--req, xs: string --> </item -->
      </OverlapItem>
    </OverlapItemList>
    <fontColor> <!--opt, xs: hexBinary;color --> </fontColor>
    <backColor> <!--opt, xs: hexBinary;color --> </backColor>
  </Overlap>
</PicParam>

```

8.17.7.4 /ISAPI/Traffic/channels/<ID>/HVTVehicleDetects/pic

Param/capabilities

/ISAPI/Traffic/channels/<ID>/HVTVehicleDetects/picParam/capabilities	
General Resource v2.0	
GET	
Description	It is used to get the parameters of picture to be capture capabilities

Query	None
Inbound Data	None
Success Return	PicParam
Notes: <picQuality> is requested when <mode> is set to "quality", on the contrary, <picSize> is requested when <mode> is set to "size". <item> values are: positionNo, positionInfo, cameraNo, captureTime, plateNo, vehicleColor, sceneName, carType, vehicleLogo, sceneNo	

PicParam XML Block

```

<PicParam version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <PictureCfg>
    <mode> <!--req, xs:string,"quality,size" --> </mode>
    <pictureQuality> <!--dep, xs:integer,1-100 --> </pictureQuality>
    <pictureSize> <!--dep, xs:integer,unit:kb --> </pictureSize>
  </PictureCfg>
  <Overlap>
    <enabled> <!--req, xs: boolean --> </enabled>
    <OverlapItem opt=""> <!--req, xs:string,
    "positionNo,positionInfo,cameraNo,captureTime,plateNo,vehicleColor,sceneName,carType,vehicleLogo,sceneNo" --> </OverlapItem>
    <fontColor> <!--opt, xs: hexBinary;color --> </fontColor>
    <backColor> <!--opt, xs: hexBinary;color --> </backColor>
  </Overlap>
</PicParam>

```

8.17.7.5 /ISAPI/Traffic/channels/<ID>/HVTVehicleDetects/cameraInfo

/ISAPI/Traffic/channels/<ID>/HVTVehicleDectects/camera		General Resource v2.0
Info		
GET		
Description	It is used to get the identify parameters of camera	
Query	None	
Inbound Data	None	
Success Return	CameraInfo	
PUT		
Description	It is used to set the identify parameters of camera	
Query	None	

Inbound Data	CameraInfo
Success Return	ResponseStatus
Notes:	

CameraInfo XML Block

```
<CameraInfo version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <positionNum> <!--opt, xs: string,0-48 -> </positionNum>
  <positionInfo> <!--opt, xs: string,0-48 -> </positionInfo>
  <cameraNum> <!--opt, xs: string,0-48 -> </cameraNum>
</CameraInfo>
```

8.17.8 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections/capabilities

/ISAPI/Traffic/channels/<ID>/illegalParkingDetections/capabilities		General Resource v2.0
GET		
Description	Get the illegal parking detection capabilities	
Query	None	
Inbound Data	None	
Success Return	IllegalParkingDetectionCap	
Notes:		

IllegalParkingDetectionCap XML Block

```
<IllegalParkingDetectionCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID min="" max=""> <!--req, xs:integer -> </scenesID>
  <sceneName max=""> <!--req, xs:string -> </sceneName>
  <CalibrationRegionActualValue>
    <width max=""> <!--req, xs:float ,Unit:m-> </width>
    <length max=""> <!--req, xs:float ,Unit:m-> </length>
  </CalibrationRegionActualValue>
  <CalibrationRegion>
    <RegionCoordinatesList size="">
      <RegionCoordinates> <!--req, ->
        <positionX> <!--req, xs:integer;coordinate -> </positionX>
        <positionY> <!--req, xs:integer;coordinate -> </positionY>
      </RegionCoordinates>
    </RegionCoordinatesList>
  </CalibrationRegion>
</IllegalParkingDetectionCap>
```

```

</CalibrationRegion>
<DetectionLine>
  <StartPoint>
    <positionX> <!--req, xs:integer --> </positionX>
    <positionY> <!--req, xs:integer --> </positionY>
  </StartPoint>
  <EndPoint>
    <positionX> <!--req, xs:integer --> </positionX>
    <positionY> <!--req, xs:integer --> </positionY>
  </EndPoint>
</DetectionLine>
<isSupportDetectionLineWidth
opt="true,false"><!--opt,ro,xs:boolean,Unit:m--></isSupportDetectionLineWidth>
  <RegionCoordinatesList size="">
    <RegionCoordinates>
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
<IllegalParkingDetectionScenePatrol>
  <enabled opt="true,false"> <!--req,xs:boolean --> </enabled>
  <illegalParkingThreshold min="" max=""> <!--req,xs:integer,"illegal parking
threshold" --> </illegalParkingThreshold>
  <duration min="" max=""> <!--req,xs:integer,"duration time" --> </duration>
  <sensitivityLevel min="" max=""> <!--req,xs:integer,0..100 --> </sensitivityLevel>
  <isImgTargetOverlap opt="true,false"> <!--req, xs:boolean "true,false" --> <!--target
information overlays--> </isImgTargetOverlap>
  <isImgRuleOverlap opt="true,false"> <!--req, xs:boolean "true,false" --> <!--rule
overlays--> </isImgRuleOverlap>
  <isVideoTargetOverlap opt="true,false"> <!--req, xs:boolean "true,false" --> <!--
target information overlays--> </isVideoTargetOverlap>
  <isVideoRuleOverlap opt="true,false"> <!--req, xs:boolean "true,false" --> <!--rule
overlays--> </isVideoRuleOverlap>
</IllegalParkingDetectionScenePatrol>
</IllegalParkingDetectionCap>

```


8.17.9 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections

/ISAPI/Traffic/channels/<ID>/illegalParkingDetections		General Resource v2.0
GET		
Description	Get illegal parking detection scene parameters by channel	
Query	None	
Inbound Data	None	
Success Return	IllegalParkingDetectionSceneList	
PUT		
Description	Set illegal parking detection scene parameters by channel	
Query	None	
Inbound Data	IllegalParkingDetectionSceneList	
Success Return	ResponseStatus	
Notes: channels/<ID> :Video channel ID		

IllegalParkingDetectionSceneList XML Block

```
<IllegalParkingDetectionSceneList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <IllegalParkingDetectionScene/> <!--opt -->
</IllegalParkingDetectionSceneList>
```

8.17.10 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections/<SID>

/ISAPI/Traffic/channels/<ID>/illegalParkingDetections/<SID>		General Resource v2.0
GET		
Description	Get illegal parking detection scene parameters by channel	
Query	None	
Inbound Data	None	
Success Return	IllegalParkingDetectionScene	
PUT		
Description	Set illegal parking detection scene parameters by channel	
Query	None	

Inbound Data	IllegalParkingDetectionScene
Success Return	ResponseStatus
Notes: channels/<ID>: Video channel ID IllegalParkingDetections/<SID>:illegal parking detection scene ID <scenesID>:Scene ID <sceneName>:Scene name	

IllegalParkingDetectionScene XML Block

```
<IllegalParkingDetectionScene version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:integer --> </scenesID>
  <sceneName> <!--req, xs:string --> </sceneName>
</IllegalParkingDetectionScene>
```

8.17.11 /ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/<SID>/calibration

/ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/<SID>/calibration	General Resource v2.0
GET	
Description	Get calibration information of illegal parking detection
Query	None
Inbound Data	None
Success Return	<IllegalParkingDetectionCalibration>
POST	
Description	Set calibration information of illegal parking detection
Query	None
Inbound Data	<IllegalParkingDetectionCalibration>
Success Return	<IllegalParkingDetectionCalibrationResult>
Notes:	

IllegalParkingDetectionCalibrationResult XML Block

```
<IllegalParkingDetectionCalibration
version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:integer --> </scenesID>
  <CalibrationRegionActualValue>
    <width> <!--req, xs:float --> </width><!--,actual width: float -->
    <length> <!--req, xs:float --> </length><!--,actual length: float -->
  </CalibrationRegionActualValue>
</IllegalParkingDetectionCalibration>
```

```

</CalibrationRegionActualValue>
<CalibrationRegion><!--req, Calibration coordinates-->
  <RegionCoordinatesList>
    <RegionCoordinates> <!--req, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</CalibrationRegion>
<DetectionLine><!--req, Detection line-->
  <StartPoint><!--req, Start point coordinates-->
    <positionX> <!--req, xs:integer --> </positionX>
    <positionY> <!--req, xs:integer --> </positionY>
  </StartPoint>
  <EndPoint>
    <positionX> <!--req, xs:integer --> </positionX>
    <positionY> <!--req, xs:integer --> </positionY>
  </EndPoint>
</DetectionLine>
<DetectionLineWidth><!--opt,ro,xs:integer,Unit:m--></DetectionLineWidth>
</IllegalParkingDetectionCalibration>

```

IllegalParkingDetectionCalibrationResult XML Block

```

<IllegalParkingDetectionCalibrationResult
version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <DetectionLineWidth><!--opt,xs:integer,Unit:m--></DetectionLineWidth>
</IllegalParkingDetectionCalibrationResult>

```

8.17.12 /ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/<SID>/region

/ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/<SID>/region		General Resource v2.0
GET		
Description	Get illegal parking detection scene region	
Query	None	
Inbound Data	None	
Success Return	IllegalParkingDetectionRegion	
PUT		

Description	Set illegal parking detection scene region
Query	None
Inbound Data	IllegalParkingDetectionRegion
Success Return	ResponseStatus
Notes: channels/<ID>: Channel ID IllegalParkingDetections/<SID>:illegal parking scene ID <scenesID>:Scene ID	

IllegalParkingDetectionRegion XML Block

```
<IllegalParkingDetectionRegion version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:integer --> </scenesID>
  <RegionCoordinatesList><!--req, -->
    <RegionCoordinates> <!--req, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</IllegalParkingDetectionRegion>
```

8.17.13 /ISAPI/Event/schedules/illegalParkingDetections

/ISAPI/Event/schedules/illegalParkingDetections		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	IllegalParkingDetectionScheduleList	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	IllegalParkingDetectionScheduleList	
Success Return	ResponseStatus	
Notes:		

IllegalParkingDetectionScheduleList XML Block

```
<IllegalParkingDetectionScheduleList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <Schedule/> <!--opt -->
</IllegalParkingDetectionScheduleList>
```

8.17.14 /ISAPI/Event/schedules/illegalParkingDetections/<ID>

/ISAPI/Event/schedules/illegalParkingDetections/ID		General Resource v2.0
GET		
Description	It is used to get trigger schedule.	
Query	None	
Inbound Data	None	
Success Return	Schedule	
PUT		
Description	It is used to update trigger schedule.	
Query	None	
Inbound Data	Schedule	
Success Return	ResponseStatus	
Notes: The ID in “/illegalParkingDetections/ID” is defined as following declaration: illegalParkingDetection-1: People Detection of video input channel “video1”.		

Schedule XML Block

```

<Schedule version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string; id --> </id>
  <eventType>
    <!--opt, xs:string, "illegalParkingDetection" -->
  </eventType>
  <inputIOPortID> <!--ro, dep, xs:string; id --> </inputIOPortID>
  <outputIOPortID> <!-- ro, dep, xs:string; id --> </inputIOPortID>
  <videoInputChannelID><!-- ro, dep, xs:string; id --></videoInputChannelID>
  <TimeBlockList> <!--req -->
    <TimeBlock>
      <dayOfWeek>
        <!--opt, xs:integer, ISO8601 weekday number, 1=Monday, ... -->
      </dayOfWeek>
      <TimeRange> <!--req -->
        <beginTime> <!--req, xs:time, ISO8601 time --> </beginTime>
        <endTime> <!--req, xs:time, ISO8601 time --> </endTime>
        <SceneList><!--opt -->
          <Scene><!--opt -->
            <id><!--req,xs:integer--></id>
            <duration><!--req,xs:integer--></duration>
          </Scene>
        </SceneList>
      </TimeRange>
    </TimeBlock>
  </TimeBlockList>
</Schedule>

```

```

    </SceneList>
  </TimeRange>
</TimeBlock>
</TimeBlockList>
</Schedule>

```

8.17.15 /ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/scenePatrol

/ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/scenePatrol		General Resource v2.0
GET		
Description	Get illegal parking detection scene patrol	
Query	None	
Inbound Data	None	
Success Return	IllegalParkingDetectionScenePatrol	
PUT		
Description	Set illegal parking detection scene patrol	
Query	None	
Inbound Data	IllegalParkingDetectionScenePatrol	
Success Return	ResponseStatus	
Notes: channels/<ID> :Video channel ID		

ScenePatrol XML Block

```

<IllegalParkingDetectionScenePatrol version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req,xs:boolean --> </enabled>
  <defaultCHN> <!--req,xs:string --> </defaultCHN>
  <illegalParkingThreshold> <!--req,xs:integer,"illegal parking threshold" -->
</illegalParkingThreshold>
  <duration> <!--req,xs:integer,"duration time" --> </duration>
  <sensitivityLevel> <!--req,xs:integer,0..100 --> </sensitivityLevel>
  <isImgTargetOverlap> <!--req, xs:boolean "true,false" --> <!--Target info overlays-->
</isImgTargetOverlap>
  <isImgRuleOverlap> <!--req, xs:boolean "true,false" --> <!--Rule info overlays-->
</isImgRuleOverlap>
  <isVideoTargetOverlap> <!--req, xs:boolean "true,false" --> <!--Target info overlays -->

```

```

</isVideoTargetOverlap>
  <isVideoRuleOverlap> <!--req, xs:boolean "true,false" --> <!--Rule info overlays -->
</isVideoRuleOverlap>
</IllegalParkingDetectionScenePatrol>

```

8.17.16 /ISAPI/Traffic/channels/<ID>/edfAlg

/ISAPI/Traffic/channels/<ID>/edfAlg		General Resource v2.0
GET		
Description	Get intelligent analysis parameters	
Query	None	
Inbound Data	None	
Success Return	EdfAlgParam	
PUT		
Description		
Query	None	
Inbound Data	EdfAlgParam	
Success Return	ResponseStatus	
Notes: parkActionIvtTime: if the time is 0, it's ineffective.		

EdfAlgParam XML Block

```

<EdfAlgParam version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <defaultCHN> <!--req, xs:string --> </defaultCHN> <!--The province abbreviation-->
  <sceneMode> <!--req, xs:string "urbanroad,highway" --> </sceneMode> <!--Scene
mode: 0-urban road 1-highway, default is 0-->
  <isNightLightOn> <!--req, xs:boolean --> </isNightLightOn> <!--is there streetlights or not:
true,false, default is false-->
  <cameraHeight> <!--req, xs:integer,cm --> </cameraHeight> <!--Camera installation height:
4-20meters), default is 8-->
  <parkingThreshold> <!--req, xs:integer --> </parkingThreshold> <!--违停过滤阈值1到
3600-->
  <pictureAddIntInfo>
    <isAddTargetInfo> <!--opt, xs:boolean --> </isAddTargetInfo> <!--是否叠加报警抓图
目标信息(1:是; 0: 否), 默认0, -->
    <isAddRuleInfo> <!--opt, xs:boolean --> </isAddIntInfo> <!--是否叠加报警抓图规则
信息(1:是; 0: 否), 默认0, -->
  </pictureAddIntInfo>
  <videoAddIntInfo>
    <isAddTargetInfo> <!--opt, xs:boolean --> </isAddIntInfo> <!--视频是否叠目标信息(1:

```

```

是; 0: 否), 默认0, →
    <isAddRuleInfo> <!--opt, xs:boolean → </isAddIntInfo> <!--视频是否叠加规则信息
(1:是; 0: 否), 默认0, →
    </videoAddIntInfo>
    <isInTunnel> <!--req, xs:boolean → </isInTunnel> <!--是否在隧道内 (1:是; 0: 否), 默认0→
    <DetectSensitiveness> <!--检测灵敏度参数→
        <objDetect> <!--req, xs:integer → </objDetect> <!--目标检测阈值[1-50], 默认1→
        <bgUpdateRate> <!--req, xs:integer → </bgUpdateRate> <!--背景更新速度[1-50], 默
        认1→
        <bgChangeRatio> <!--req, xs:integer → </bgChangeRatio> <!--场景变化检测阈值
        [1-100], 默认70→
        <objGenerateRate> <!--req, xs:integer → </objGenerateRate> <!--目标生成速度
        [5-25] , 默认12→
        <timeSwitchThreshold> <!--req, xs:integer → </timeSwitchThreshold> <!--昼夜自动
        转换阈值[1-100], 默认25 →
        <lightBright> <!--req, xs:integer → </lightBright> <!--车灯亮度阈值[150-250], 默认
        210→
        <nightDisDown> <!--req, xs:integer → </nightDisDown> <!--下行车道夜晚检测距离
        [1-500], 默认60→
        <nightDisUp> <!--req, xs:integer → </nightDisUp> <!--上行车道夜晚检测距离
        [1-500], 默认100→
        <vsdDetectSensitiveness> <!--req, xs:integer → </vsdDetectSensitiveness><!--烟雾检
        测阈值[1-5], 默认3→
        <evidencePictureRatio> <!--req, xs:integer → </evidencePictureRatio><!--取证倍率
        洗漱[50-105], 默认100→
    </DetectSensitiveness>
    <isTrackIvtEnable> <!--opt, xs:boolean → </isTrackIvtEnable><!--是否跟踪取证 (1:是; 0:
    否), 默认0→
    <senceCruiseAdaptive> <!--opt, xs:boolean → </senceCruiseAdaptive><!--是否场景巡航
    自适应 (1:是; 0: 否), 默认0→
    <adaptiveTime> <!--opt, xs:integer → </adaptiveTime><!--取证倍率洗漱[15-600], 默认
    60→
    <OSDOverlayEnable> <!--opt, xs:boolean → </OSDOverlayEnable><!--是否字符叠加 (1:
    是; 0: 否), 默认0→
    <parkActionIvtTime><!--opt, xs:integer →</parkActionIvtTime><!--取证守望时间[5-720],
    默认5, uint: S→
</EdfAlgParam>

```


8.17.17 /ISAPI/Traffic/channels/<ID>/baseParam/<SID>

/ISAPI/Traffic/channels/<ID>/baseParam/<SID>		General Resource v2.0
GET		
Description	按通道获取和设置场景基本参数	
Query	None	
Inbound Data	None	
Success Return	BaseParam	
PUT		
Description		
Query	None	
Inbound Data	BaseParam	
Success Return	ResponseStatus	
Notes:		
isLargePlateModEnable: 是否开启大车牌（大车牌图片像素范围：自适应范围 100~180；最佳范围 130~160，小车牌模式：自适应范围 70~150；最佳范围：120~140）		

BaseParam XML Block

```

<BaseParam>
  <scenesID> <!--req, xs:string --> </scenesID> <!--Scene ID[1-16] -->
  <isIvtEnable> <!--req, xs:boolean --> </isIvtEnable><!--是否取证: 0-不取证, 1-取证, 默认1-->
  <isPlateRec> <!--req, xs:boolean --> </isPlateRec><!--是否抓拍无车牌: 0-不抓拍, 1-抓拍, 默认0-->
  <isEventDetEnable> <!--req, xs:boolean --> </isEventDetEnable><!--是否使能事件报警-->
  <platFilterTime> <!--req, xs:integer,seconds --> </platFilterTime><!--车牌过滤时间[10min到24hour]-->
  <nSnapOneTimeOut> <!--req, xs:integer --> </nSnapOneTimeOut><!--单张图片取证超时时间[2-60S], 默认20S-->
  <nTskTimeOut> <!--req, xs:integer --> </nTskTimeOut><!--取证任务超时时间[10-7200S], 默认1800S-->
  <nPlateMatchRatio> <!--req, xs:integer --> </nPlateMatchRatio><!--车牌匹配率[0-100%]-->
  <zoomRectRatio> <!--req, xs:float --> </zoomRectRatio><!--放大倍率[0.1-5.0] -->
  <isLargePlateModEnable> <!--opt, xs:boolean --> </isLargePlateModEnable><!--是否开启大车牌: 0-不开启, 1-开启, 默认0-->
</BaseParam>

```

8.17.18 /ISAPI/Traffic/ftp

/ISAPI/Traffic/ftp		General Resource v2.0
GET		
Description	设置和获取 ftp 上传主机参数	
Query	None	
Inbound Data	None	
Success Return	TrafficFTPNotification	
PUT		
Description		
Query	None	
Inbound Data	TrafficFTPNotification	
Success Return	ResponseStatus	
Notes:		
Delimiter : 分隔符, 单个字符 (扩展: a~z A~Z 0~9 -_~!@#\$\$%^&(){}[];)		
pictureType-图片类型: 主要类型有 (远景、近景、特征、合成)		
province-省份: 参数是从配置-》违章取证-》智能分析, 省份简称中获取。		
SceneNo-场景号: 该取证图片对应的场景号, 手动取证场景号为0。		

TrafficFTPNotification XML Block

```

<TrafficFTPNotification version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <FTPParamList> <!--req -->
    <FTPParam> <!--req -->
      <id> <!--opt, xs:string, "0,1 " --> </id> //目前球机支持一个ftp上传主机
      <enabled> <!--opt, xs:boolean --> </enabled>
      <addressingFormatType> <!--req, xs:string, "ipaddress,hostname"
--></addressingFormatType>
      <hostName> <!--dep, xs:string --> </hostName>
      <ipAddress> <!--dep, xs:string --> </ipAddress>
      <ipv6Address> <!--dep, xs:string --> </ipv6Address>
      <portNo> <!--opt, xs:integer --> </portNo>
      <userName> <!--req, xs:string --> </userName>
      <password> <!--req, xs:string --> </password>
      <UpDataList>
        <UpData>
          <type> <!--opt, xs:string, "parking, wrongDirection, crossLane,
traffic_jam, passengers, objectDroppedDown, smoke,parkingEvidence, crossLaneEvidence,
wrongDirectionEvidence, accessory" --> </type>
        </Updata>
      </UpDataList>
    </FTPParam>
  </FTPParamList>
</TrafficFTPNotification>

```

```

</UpDataList>
<DirList>
  <Dir>
    <type> <!-- req, xs:string, "breakrules,event" --> </type>
    <dirPathDepthList> <!-- req -->
      <pathDepth> <!-- req, xs:integer, 0...16 --> </pathDepth> //使用几
级目录
      <dirPathDepth> <!-- req -->
        <pathId> <!-- opt, xs:integer, "0-15 " --> </pathId> //目录号
        <dirNameRule> <!-- dep, xs:string, "none, devName, devId,
devlp, positionInfo1, time_month, time_date, illegalType, direction, site, chanName, chanId,
laneId, custom,pictureType, province,sceneNo,customDelimiter" --> </dirNameRule> //目录名称
        <customStr> <!-- req, xs:string --> </customStr> //自定义字符
串
        <delimiter> <!-- opt, xs:string --> </delimiter> //分隔符
      </dirPathDepth>
    </dirPathDepthList>
  </Dir>
</DirList>
<PictureList>
  <Picture>
    <type> <!-- req, xs:string, "breakrules,event,plate,passing_vehicle" -->
</type> //违章, 事件, 抓拍车牌, 过车图片
    <pictureName> <!-- req --> //JPEG图片命名
    <delimiter> <!-- req, xs:string --> </delimiter> //分隔符
    <pictureNameRuleList> <!-- req -->
      <pictureNameRule> <!-- req, xs:string -->
        <id> <!-- req, xs:integer, "1-15 " --> </id> //命名项
        <item> <!-- req,
xs:string,"none,deviceName,deviceNo,deviceIP,channelName,channelNo,time,plateNo,plateColor
,laneNo,carSpeed, positionInfo1,pictureNo,CarNo,speedLimit,illegalCode,siteNo,directionNo,
custom,pictureType, province,sceneNo,customDelimiter" -->
        </item> //命名元素
    <delimiter> <!-- opt, xs:string --> </delimiter> //分隔符
    <customStr> <!-- opt, xs:string --> </customStr> //自定义字符
      </pictureNameRule>
    </pictureNameRuleList>
  </Picture>
</PictureList>

```

```

</FTPParam>
</FTPParamList>
</TrafficFTPNotification>

```

8.17.19 /ISAPI/Traffic/channels/<ID>/eventRule/<SID>

/ISAPI/Traffic/channels/<ID>/eventRule/<SID>		General Resource v2.0
GET		
Description	按通道获取和设置交通事件规则	
Query	None	
Inbound Data	None	
Success Return	EventRuleList	
PUT		
Description		
Query	None	
Inbound Data	EventRuleList	
Success Return	ResponseStatus	
Notes:		

EventRuleList XML Block

```

<EventRule version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:string --> </scenesID> <!--场景 ID[1-16] -->
  <EventRuleInfoList><!--规则信息 -->
    <EventRuleInfo>
      <ruleId> <!--req, xs:string --> </ruleId><!--规则 ID: [1-8] -->
      <enabled> <!--req, xs:boolean --> </enabled>
      <ruleType> <!--req, xs:string,opt="line, region"--> </ruleType>
      <RuleRegionParam><!--规则区域-->
        <aidTypeList>
          <aidType>
            <id> <xs:integer --></id>
            <type> <!--req, xs:string
"parking,wrongDirection,crossLane,traffic_jam,passengers,objectDroppedDown,smoke"
-->
          </aidType>
        </aidTypeList>
        <snapShotPara>
          <imgNum> <!--req,xs:integer--><imgNum><!--每个规则对应一组
图片抓拍参数-->
          <ImgGroupInfo><!--图片组信息-->
            <imgInterval> <!--req, xs:integer --> </imgInterval><!--抓
拍时间间隔[1-3600s], 默认 600S -->

```

```

        <imgType> <!--req, xs:integer --> </imgType ><!--图片类
型, 0 全景, 1-近景, 默认 1、4 全景, 2、3 近景-->
    </ImgGroupInfo>
    <snapshotPara>
    <evidenceShotPara>
        <imgNum> <!--req,xs:integer><imgNum > <!-- 取证图片参数
1-6-->
    </evidenceShotPara>
    <parkingDuration> <!--req, xs:integer --> </parkingDuration><!--停车
持续时间, [5-120S], 默认 10S -->
    <trafficJamLength> <!--req, xs:integer --> </trafficJamLength><!--拥
堵长度阈值, [5-200 米], 默认 25 -->
    <trafficJamDuration> <!--req, xs:integer --> </trafficJamDuration><!--
拥堵持续时间, [5-120S], 默认 5S -->
    <wrongDirectionDuration> <!--req, xs:integer -->
</wrongDirectionDuration><!--逆行持续时间, [1-120S], 默认 2S -->
    <wrongDirectionAngleTolerance> <!--req, xs:integer -->
</wrongDirectionAngleTolerance><!--允许角度偏差, [90-180 度], 默认 90 -->
    <trunRoundAngleTolerance> <!--req, xs:integer -->
</trunRoundAngleTolerance><!--调头允许角度偏差, [15-90 度], 默认 30 -->
    <carTakeBicycleDuration> <!--req, xs:integer -->
</carTakeBicycleDuration><!--机占非持续时间, 1-120 -->
    <targetDetectSensitivity> <!--req, xs:integer -->
</targetDetectSensitivity><!--目标检测灵敏度, 1-10 -->
    <RuleRegion ><!--规则区域 -->
        <RegionCoordinatesList>
            <RegionCoordinates> <!--req, -->
                <positionX> <!--req, xs:integer;coordinate -->
</positionX>
                <positionY> <!--req, xs:integer;coordinate -->
</positionY>
            </RegionCoordinates>
        </RegionCoordinatesList>
    </RuleRegion>
    <StartPoint><!--verify two points coordinate-->
        <positionX> <!--req, xs:integer --> </positionX>
        <positionY> <!--req, xs:integer --> </positionY>
    </StartPoint>
    <EndPoint>
        <positionX> <!--req, xs:integer --> </positionX>
        <positionY> <!--req, xs:integer --> </positionY>
    </EndPoint>
</RuleRegionParam>

```

```

<RuleLineParam>
  <aidTypeList>
    <aidType>
      <id> <!--req,xs:integer--></id>
      <type> <!--req, xs:string
“parking,wrongDirection,crossLane,traffic_jam,passengers,objectDroppedDown,smoke”
→
      <aidType>
    </aidTypeList>
    <evidenceShotPara>
      <imgNum> <!--req,xs:integer><imgNum > <!-- 取证图片参数
1-6→
      </evidenceShotPara>
      <crossLaneDuration> <!--req, xs:integer →
</crossLaneDuration><!--压线持续时间, [1-10S], 默认 2S→
      <crossLaneSensitiveLevel> <!--req, xs:integer →
</crossLaneSensitiveLevel><!--压线灵敏度, [0-10], 默认 5 →
      <laneChangeSensitiveLevel> <!--req, xs:integer →
</laneChangeSensitiveLevel><!--变道灵敏度, [0-10], 默认 5 →
      <laneChgeCongestionDuration> <!--req, xs:integer →
</laneChgeCongestionDuration><!--变道拥堵程度[0-5],默认: 0→
      <targetDetectSensitivity> <!--req, xs:integer →
</targetDetectSensitivity><!--目标检测灵敏度, 1-10→
      <LineRegion><!--折线 →
      <RegionCoordinatesList>
        <RegionCoordinates> <!--req, →
          <positionX> <!--req, xs:integer;coordinate →
</positionX>
          <positionY> <!--req, xs:integer;coordinate →
</positionY>
        </RegionCoordinates>
      <RegionCoordinatesList>
    </LineRegion>
    <DrirectionLine><!--opt →
      <StartPoint><!--verify two points coordinate→
        <positionX> <!--req, xs:integer → </positionX>
        <positionY> <!--req, xs:integer → </positionY>
      </StartPoint>
      <EndPoint>
        <positionX> <!--req, xs:integer → </positionX>
        <positionY> <!--req, xs:integer → </positionY>
      </EndPoint>
    </DrirectionLine>

```

```

        </RuleLineParam>
        <voiceTrigger>
            <enabled> <!--req, xs:boolean --></enabled>
        </voiceTrigger>
    </EventRuleInfo>
</EventRuleInfoList>
</EventRule>st>
</EventRule>
    
```

8.17.20 /ISAPI/Traffic/vehicleInfoCond/capabilities

/ISAPI/ Traffic/vehicleInfoCond/capabilities		General Resource v2.0
GET		
Description	Get Vehicle Information data capabilities	
Query	None	
Inbound Data	None	
Success Return	VehicleInfoCond	
Notes: <startTime>: 导出车辆信息 开始时间 格式: 2016-07-04T16:00:00Z <stopTime>: 导出车辆信息 结束时间 格式: 2016-07-04T16:00:00Z <region>: 国家区域: ER-CIS Region EU-Europe Region All-All Region <plateLicense>: 车牌, 节点可选, 设置时没有该节点, 表示没有指定的车牌号 <searchID>: 搜索 ID 标示, 表示是否为同一次搜索		

VehicleInfoCond XML Block

```

<VehicleInfoCond version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
    <TimeSpan><!--req-->
        <startTime><!--opt, xs:time, ISO8601 time --></startTime>
        <stopTime><!--opt, xs:time, ISO8601 time --></stopTime>
    </TimeSpan>
    <region opt="ER,EU,All"><!--req,xs:string--></region>
    <plateLicense max=""><!--opt,xs:string--></plateLicense>
    <searchID><!--opt,xs:string; 搜索 ID 标示, 表示是否为同一次搜索--></searchID>
</VehicleInfoCond>
    
```

8.17.21 /ISAPI/Traffic/vehicleInfoCond

/ISAPI/Traffic/vehicleInfoCond	General Resource v2.0
--------------------------------	-----------------------

POST			
Description	Get Vehicle Information data.		
Query	None		
Inbound Data	VehicleInfoCond		
Success Return	VehicleInfoResult		
Fail Return	<ResponseStatus>		
Error Status Code	statusCode	subStatusCode	description
	2	upgrading	Device upgrading
	3	badFlash	Flash error
	6	badVersion	Version mismatch
	6	badDevType	Device type mismatch
6	badLanguage	Language mismatch	
Notes: <startTime>: 导出车辆信息 开始时间 格式: 2016-07-04T16:00:00Z <stopTime>: 导出车辆信息 结束时间 格式: 2016-07-04T16:00:00Z <region>: 国家区域: ER-CIS Region EU-Europe Region All-All Region <plateLicense>: 车牌号标识, 节点可选, 设置时没有该节点, 表示没有指定的车牌号 <indexID>: 序号 <deviceID>: 设备编号 <MonitoringSiteID>:检测点编号 <plateNo>: 车牌号 <timeSpan>: 抓拍时间 <country>: 国家 <laneID>: 车道号 <direction>: 方向: <Believe>: 置信度 numOfMatches:本次返回的匹配信息条数 totalMatches: 总共的匹配信息条数 <downloadResultPosition>表示查询结果在结果列表中的起始位置 <searchID>:搜索 ID 标示, 表示是否为同一次搜索			

VehicleInfoCond XML Block

```

<VehicleInfoCond version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <TimeSpan><!--req-->
    <startTime><!--opt, xs:time, ISO8601 time --></startTime>
    <stopTime><!--opt, xs:time, ISO8601 time --></stopTime>
  </TimeSpan>
  <region><!--req,xs:string,opt="ER,EU,All"--></region>
  <plateLicense><!--opt,xs:string--></plateLicense>
  <downloadResultPosition><!--req, xs: integer--></downloadResultPosition>
  <searchID><!--req,xs:string; 搜索 ID 标示, 表示是否为同一次搜索 --></searchID>

```



```
</VehicleInfoCond>
```

VehicleInfoResult XML Block

```
<VehicleInfoResult version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <downloadID><!--req,xs:string; 下载记录唯一标识, 用来确认上层客户端是否为同一个
(倘若是同一个, 则设备记录内存, 下次下载加快速度) --></downloadID>
  <responseStatus><!--opt, xs: string--></responseStatus>
  <responseStatusStrg><!--req, xs:string,"MORE,OK,NO MATCHES" --></responseStatusStrg>
  <numOfMatches><!--req, xs: integer --></numOfMatches>
  <totalMatches><!--req, xs: integer --></totalMatches>
  <deviceId><!--req,xs: string --></deviceId>
  <MonitoringSiteID><!--opt,xs:string--></MonitoringSiteID>
  <VehicleInfoList><!--opt-->
    <VehicleInfo>
      <indexID><!--opt,xs:string--></indexID>
      <plateNo><!--opt,xs:string--></plateNo>
      <timeSpan><!--opt, xs:time, ISO8601 time --></timeSpan>
      <country><!--opt,xs:string--></country>
      <laneID><!--opt,xs:integer--></laneID>
      <direction><!--opt,xs:string,opt="forward,reverse,unknown" --></direction>
      <believe><!--opt,xs:string--></believe>
    </VehicleInfo>
  </VehicleInfoList>
</VehicleInfoResult>
```

8.17.22 /ISAPI/Traffic/VehicleInfoResult/capabilities

/ISAPI/ Traffic/VehicleInfoResult/capabilities		General Resource v2.0
GET		
Description	Get Vehicle Result data capabilities	
Query	None	
Inbound Data	None	
Success Return	VehicleInfoResultCap	
Notes:		
<isSupportIndexID>: 是否支持 序号		
<isSupportDeviceID>: 是否支持 设备编号		
<isSupportMonitoringSiteID>:是否支持 检测点编号		
<isSupportPlateNo>: 是否支持 车牌号		

<isSupportTimeSpan>: 是否支持 抓拍时间
 <isSupportCountry>: 是否支持 国家
 <isSupportLaneID>: 是否支持 车道号
 <isSupportDirection>: 是否支持 方向
 <isSupportBelieve>: 是否支持 置信度
 <id>: 通道号

VehicleInfoResultCap XML Block

```

<VehicleInfoResultCap version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <VehicleInfoResultList>
    <VehicleInfoResult>
      <id><!--req,xs: integer--></id>
      <isSupportDeviceID><!--opt,xs: boolean--></isSupportDeviceID>
      <isSupportMonitoringSiteID><!--opt,xs: boolean--></isSupportMonitoringSiteID>
      <isSupportIndexID><!--opt,xs: boolean--></isSupportIndexID>
      <isSupportPlateNo><!--opt,xs: boolean--></isSupportPlateNo>
      <isSupportTimeSpan><!--opt,xs: boolean--></isSupportTimeSpan>
      <isSupportCountry><!--opt,xs: boolean--></isSupportCountry>
      <isSupportLaneID><!--opt,xs: boolean--></isSupportLaneID>
      <isSupportDirection><!--opt,xs: boolean--></isSupportDirection>
      <isSupportBelieve><!--opt,xs: boolean--></isSupportBelieve>
    </VehicleInfoResult>
  </VehicleInfoResultList>
</VehicleInfoResultCap>
  
```

8.17.23 /ISAPI/Traffic/violationTypeStd

/ISAPI/Traffic/violationTypeStd		General Resource v2.0
GET		
Description	It is used to get the identify parameters of camera	
Query	None	
Inbound Data	None	
Success Return	CameraInfo	
PUT		
Description	It is used to set the identify parameters of camera	
Query	None	
Inbound Data	CameraInfo	
Success Return	ResponseStatus	
Notes:		

CameraInfo XML Block

```
<ViolationTypeStd version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <type> <!--req, xs:string --> </type>
</ViolationTypeStd>
```

8.17.24 /ISAPI/Traffic/algVersionInfo

/ISAPI/Traffic/algVersionInfo		General Resource v2.0
GET		
Description	It is used to get the identify parameters of camera	
Query	None	
Inbound Data	None	
Success Return	CameraInfo	

CameraInfo XML Block

```
<AlgVersionInfo version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <AlgItemList>
    <AlgItem>
      <id> <!--req, xs:string;id --> </id>
      <algName><!--req, xs:string "DSP,VI,VP,C674,ITS,MPR,LPR" --></algName>
      <buildDate><!--req, xs:string --></buildDate>
    </AlgItem>
  </AlgItemList>
</AlgVersionInfo>
```

8.17.25 /ISAPI/Traffic /remoteHost

/ISAPI/Traffic /remoteHost		General Resource v2.0
GET		
Description	设置和获取监测点参数	
Query	None	
Inbound Data	None	
Success Return	RemoteHostList	
PUT		
Description		
Query	None	
Inbound Data	RemoteHostList	
Success Return	ResponseStatus	
Notes: <type><!--req, xs:string," monitor, fortify"--></type> monitor 监听主机, 需要ip端口号; fortify布防主机		

RemoteHostList XML Block

```

<EDFRemoteHost>
  <RemoteHostList>
    <RemoteHost>
      <id><!--req, xs:string --></id> //远程主机ID
      <type><!--req, xs:string," monitor, fortify"--></type>
      <uploadProtocol><!--opt, xs:string,"SDK,gaodewei" --></uploadProtocol>

      <addressingFormatType> <!--req, xs:string, "ipaddress,hostname"
--></addressingFormatType>

      <hostName> <!--dep, xs:string --> </hostName>

      <ipAddress> <!--dep, xs:string --> </ipAddress>

      <ipv6Address> <!--dep, xs:string --> </ipv6Address>

      <port><!--dep xs:integer --></port>
    </RemoteHost>
  </RemoteHostList>
  <UploadDataList>
    <UploadData> <!--opt -->
      <type><!--rep, xs:string, "parking, wrongDirection, crossLane, traffic jam,
passengers, objectDroppedDown, smoke" --></type>
    </UploadData>
  </UploadDataList>
</EDFRemoteHost>

```

8.17.26 /ISAPI/Traffic/ANR

/ISAPI/Traffic /ANR		General Resource v2.0
GET		
Description	获取断网续传参数	
Query	None	
Inbound Data	None	
Success Return	ANRControl	
PUT		
Description	设置断网续传参数	
Query	None	
Inbound Data	ANRControl	
Success Return	ResponseStatus	
Notes:		

ANRControl XML Block

```

<ANRControl>
  <uploadInterval><!--req xs:integer;ms --></uploadInterval>
  <uploadTimeout><!--opt xs:integer;ms --></uploadTimeout>
</ANRControl>

```

8.17.27 /ISAPI/Traffic/channels/<ID>/capability

/ISAPI/Traffic/channels/<ID>/capability		General Resource v2.0
GET		
Description	按通道获取和设置场景基本参数	
Query	None	
Inbound Data	None	
Success Return	EdfAlgParam	
PUT		
Description		
Query	None	
Inbound Data	EdfAlgParam	
Success Return	ResponseStatus	
Notes:		

EdfAlgParam XML Block

```

<TrafficChannelCap>
  <isEvidenceGettingSupport> <!--opt, xs:boolean → </isEvidenceGettingSupport><!--是否支持
  违章取证、预制场景、场景巡航→
  <isBasicSupport> <!--opt, xs:boolean → </isBasicSupport><!--是否支持监测点参数→
  <isImageMergeSupport> <!--opt, xs:boolean → </isImageMergeSupport><!--是否支持图片叠加→
  <isOverlapSupport> <!--opt, xs:boolean → </isOverlapSupport><!--是否支持字符叠加→
  <isEdfAlgSupport> <!--opt, xs:boolean → </isEdfAlgSupport><!--是否支持分析参数→
  <isAutoTraceSupport> <!--req, xs:boolean → </isAutoTraceSupport><!--是否支持智能跟踪→
  <isEdfManualItsCapSupport> <!--opt, xs:boolean → </isEdfManualItsCapSupport><!--是否支持
  手动取证参数→
  <isViolationTypeStdSupport> <!--opt, xs:boolean → </isViolationTypeStdSupport><!--是否支
  持违法代码→
  <isEDFRemoteHostSupport> <!--opt, xs:boolean → </isEDFRemoteHostSupport><!--是否支持远程
  主机→
  <isANRSupport> <!--opt, xs:boolean → </isANRSupport><!--是否支持断网续传→
  <isvoiceTriggerSupport> <!--opt, xs:boolean → </isvoiceTriggerSupport><!--是否支持声音联动
  →
  <uploadDataTypesSupport> <!--opt, xs:string, "parking, wrongDirection, crossLane,
  parkingEvidence, crossLaneEvidence, wrongDirectionEvidence, traffic_jam, passengers,
  objectDroppedDown, smoke"→</uploadDataTypesSupport> //远程主机和FTP主机上传数据类型
  <aidTypeSupport> <!--opt, xs:string, "parking, wrongDirection, crossLane, traffic_jam,
  passengers, objectDroppedDown, smoke"→</aidTypeSupport> //交通事件规则类型
  
```

```
</TrafficChannelCap>
```

8.17.28 /ISAPI/Traffic/channels/<ID>/sceneinfo/<SID>

/ISAPI/Traffic/channels/<ID>/sceneinfo/<SID>		General Resource v2.0
GET		
Description	按通道获取和设置场景基本参数	
Query	None	
Inbound Data	None	
Success Return	EdfAlgParam	
PUT		
Description		
Query	None	
Inbound Data	EdfAlgParam	
Success Return	ResponseStatus	
Notes:		

EdfAlgParam XML Block

```
<SceneInfo>
  <scenesID> <!--req, xs:string --> </scenesID> <!--场景 ID[1-16] -->
  <enabled> <!--req, xs:boolean --> </enabled> <!--场景使能开关: 0-关闭, 1-开启默认 0 -->
  <sceneName> <!--req, xs:string --> </sceneName><!--场景名称, 最多 32 个字符 -->
  <sceneNo> <!--req, xs:string --> </sceneNo><!--场景编号, 9 位数字-->
  <directionNo> <!--req, xs:string --> </directionNo><!--场景方向编号: [1-255]-->
</SceneInfo>
```

8.17.29 /ISAPI/Traffic/channels/<ID>/scenePtz/<SID>/got

0

/ISAPI/Traffic/channels/<ID>/scenePtz/<SID>/goto		General Resource v2.0
PUT		
Description	调用某个通道的某个场景的预置位	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

8.17.30 /ISAPI/Traffic/channels/<ID>/calibration/<SID>

/ISAPI/Traffic/channels/<ID>/calibration/<SID>		General Resource v2.0
GET		
Description	按通道获取和设置标定校验	
Query	None	
Inbound Data	None	
Success Return	Calibration	
PUT		
Description		
Query	None	
Inbound Data	CalibrationResult	
Success Return	ResponseStatus	
Notes:		

Calibration XML Block

```
<Calibration version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:string --> </scenesID> <!--场景 ID[1-16] -->
  <StartPoint><!--校验两点坐标-->
    <positionX> <!--req, xs:integer --> </positionX>
    <positionY> <!--req, xs:integer --> </positionY>
  </StartPoint>
  <EndPoint>
    <positionX> <!--req, xs:integer --> </positionX>
    <positionY> <!--req, xs:integer --> </positionY>
  </EndPoint>
  <worldWidth> <!--req, xs:float --> </worldWidth><!--实际宽度: float -->
  <worldLength> <!--req, xs:float --> </worldLength><!--实际长度: float -->
  <DemarcationPosition><!--标定框坐标-->
    <RegionCoordinatesList>
      <RegionCoordinates> <!--req, -->
        <positionX> <!--req, xs:integer;coordinate --> </positionX>
        <positionY> <!--req, xs:integer;coordinate --> </positionY>
      </RegionCoordinates>
    </RegionCoordinatesList>
  </DemarcationPosition>
</Calibration>
```

```
<CalibrationResult>
  <length><!--req, xs:integer --></length>
  <statusCode>1</statusCode>
  <statusString>OK</statusString>
</CalibrationResult>
```

8.17.31 /ISAPI/Traffic/channels/<ID>/eventRule/<SID>

/ISAPI/Traffic/channels/<ID>/eventRule/<SID>		General Resource v2.0
GET		
Description	按通道获取和设置交通事件规则	
Query	None	
Inbound Data	None	
Success Return	EventRuleList	
PUT		
Description		
Query	None	
Inbound Data	EventRuleList	
Success Return	ResponseStatus	
Notes:		

EventRuleList XML Block

```

<EventRule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:string --> </scenesID> <!--场景 ID[1-16] -->
  <EventRuleInfoList><!--规则信息-->
    <EventRuleInfo>
      <ruleId> <!--req, xs:string --> </ruleId><!--规则 ID: [1-8] -->
      <enabled> <!--req, xs:boolean --> </enabled>
      <aidTypeList>
        <aidType>
          <id> <!--req, xs:string --></id>
          <type> <!--req, xs:string "parking, wrongDirection, crossLane, traffic_jam, passengers,
objectDroppedDown, smoke"-->
        </aidType>
      </aidTypeList>
      <aidType>
      </aidType>
    </aidTypeList>
    <imgNum> <!--req, xs:integer --> </imgNum><!--抓拍图片数量[1-6] , 默认 4-->
    <ImgGroupInfo><!--图片组信息-->
      <imgInterval> <!--req, xs:integer --> </imgInterval><!--抓拍时间间隔[1-3600s],
默认 600S -->
      <imgType> <!--req, xs:integer --> </imgType --><!--图片类型, 0 全景, 1-近景, 默
认 1、4 全景, 2、3 近景-->
    </ImgGroupInfo>
    <RuleParame><!--规则参数 -->
      <parkingDuration> <!--req, xs:integer --> </parkingDuration><!--停车持续时
间, [5-120S], 默认 10S -->
      <pedestrianDuration> <!--req, xs:integer --> </pedestrianDuration><!--行人
持续时间, [1-120S], 默认 2S -->
      <debrisDuration> <!--req, xs:integer --> </debrisDuration><!--抛撒物持续时

```



```

间, [10-120S], 默认 10S →
    <congestionLength> <!--req, xs:integer → </congestionLength><!--拥堵长度
阈值, [5-200 米], 默认 25 →
    <congestionDuration> <!--req, xs:integer → </congestionDuration><!--拥堵
持续时间, [5-120S], 默认 10S →
    <inverseDuration> <!--req, xs:integer → </inverseDuration><!--逆行持续时
间, [1-120S], 默认 2S →
    <inverseAngleTolerance> <!--req, xs:integer → </inverseAngleTolerance><!--
允许角度偏差, [90-180 度], 默认 90 →
    <inverseDistance> <!--req, xs:integer → </inverseDistance><!--逆行距离阈
值, [2-100 米], 默认 10 米→
    <voiceTrigger>
        <ebabled> <!--req, xs:boolean →</ebabled>
    <voiceTrigger>
</RuleParame>
<RuleRegion ><!--规则区域 →
    <RegionCoordinatesList>
        <RegionCoordinates> <!--req, →
            <positionX> <!--req, xs:integer;coordinate → </positionX>
            <positionY> <!--req, xs:integer;coordinate → </positionY>
        </RegionCoordinates>
    <RegionCoordinatesList>
</RuleRegion>
</EventRuleInfo>
</EventRuleInfoList>
</EventRule>

```

8.17.32 /ISAPI/Traffic/channels/<ID>/sceneCruiseSchedule

e

/ISAPI/Traffic/channels/<ID>/sceneCruiseSchedule		General Resource v2.0
GET		
Description	按通道获取场景的巡航计划, 该参数动态生效	
Query	None	
Inbound Data	None	
Success Return	CruiseList	
PUT		
Description	设置通道场景巡航计划	
Query	None	

Inbound Data	CruiseList
Success Return	ResponseStatus
DELETE	
Description	删除通道场景巡航计划
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

CruiseList XML Block

```
<CruiseList version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean -> </enabled> <!--巡航使能->
  <cruiseScheduleType> <!--req, xs:string -> </cruiseScheduleType><!--ARMING -按布防时间段巡航, 目前只支持这种类型->
  <CruiseScheduleBlock/><!--opt->
</CruiseList>
```

8.17.33 /ISAPI/Traffic/channels/<ID>/sceneCruiseSchedule/<ID>

/ISAPI/Traffic/channels/<ID>/sceneCruiseSchedule/<ID>	General Resource v2.0
GET	
Description	按通道获取场景的巡航计划, 该参数动态生效
Query	None
Inbound Data	None
Success Return	CruiseScheduleBlock
PUT	
Description	设置场景的巡航计划, 该参数动态生效
Query	None
Inbound Data	CruiseScheduleBlock
Success Return	ResponseStatus
Notes:	

CruiseScheduleBlock XML Block

```
<CruiseScheduleBlock version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <dayOfWeek>
  <!--req, xs:integer, ISO8601 weekday number, 1=Monday, ... ->
  </dayOfWeek>
  <CruiseScheduleRange>
    <timeID> <!--req, xs:string:id -> </timeID><!--布防时间段[1-16]: 1-表示时间段
```

1, 最大支持 16, 默认 0→

```

    <beginTime> <!--req, xs:time, ISO8601 time → </beginTime>
    <endTime> <!--req, xs:time, ISO8601 time → </endTime>
    <SceneList>
      <Scene>
        <id> <!--req, xs:string;id → </id> <!--关联场景 ID[1-16], 默认 1→
        <duration> <!--req, xs:integer → </duration>
      </Scene>
    </SceneList>
  </CruiseScheduleRange>
</CruiseScheduleBlock>

```

8.17.34 /ISAPI/Traffic/channels/<ID>/edfAlg

/ISAPI/Traffic/channels/<ID>/edfAlg		General Resource v2.0
GET		
Description	按通道获取和设置算法基本智能分析参数	
Query	None	
Inbound Data	None	
Success Return	EdfAlgParam	
PUT		
Description		
Query	None	
Inbound Data	EdfAlgParam	
Success Return	ResponseStatus	
Notes:		

EdfAlgParam XML Block

```

<EdfAlgParam version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <defaultCHN> <!--req, xs:string → </defaultCHN> <!--所在省份缩写, 默认沪→
  <sceneMode> <!--req, xs:string "urbanroad,highway" → </sceneMode> <!--场景模式: 0-城市道路 1-高速公路, 默认 0→
  <isNightLightOn> <!--req, xs:boolean → </isNightLightOn> <!--夜间是否有路灯照明: true-是, false-否, 默认 false→
  <cameraHeight> <!--req, xs:integer,cm → </cameraHeight> <!--摄像机高度 4-20 米), 默认 8>
  <parkingThreshold> <!--req, xs:integer → </parkingThreshold> <!--违停过滤阈值 1 到 3600>
  <pictureAddIntInfo>
    <isAddTargetInfo> <!--opt, xs:boolean → </isAddTargetInfo> <!--是否叠加报警抓图目标信息(1:是; 0:否), 默认 0, →
    <isAddRuleInfo> <!--opt, xs:boolean → </isAddIntInfo> <!--是否叠加报警抓图规则信息(1:是; 0:否), 默认 0, →
  </pictureAddIntInfo>

```

```

<videoAddIntInfo>
  <isAddTargetInfo> <!--opt, xs:boolean -> </isAddIntInfo> <!--视频是否叠目标信息(1:是; 0: 否), 默认
0, ->
  <isAddRuleInfo> <!--opt, xs:boolean -> </isAddIntInfo> <!--视频是否叠加规则信息(1:是; 0: 否), 默
认 0, ->
</videoAddIntInfo>
<isInTunnel> <!--req, xs:boolean -> </isInTunnel> <!--是否在隧道内 (1:是; 0: 否), 默认 0->
<DetectSensitiveness> <!--检测灵敏度参数->
  <objDetect> <!--req, xs:integer -> </objDetect> <!--目标检测阈值[1-50], 默认 1->
  <bgUpdateRate> <!--req, xs:integer -> </bgUpdateRate> <!--背景更新速度[1-50], 默认 1->
  <bgChangeRatio> <!--req, xs:integer -> </bgChangeRatio> <!--场景变化检测阈值[1-100], 默认 70->
  <objGenerateRate> <!--req, xs:integer -> </objGenerateRate> <!--目标生成速度[5-25] , 默认 12->
  <timeSwitchThreshold> <!--req, xs:integer -> </timeSwitchThreshold> <!--昼夜自动转换阈值[1-100],
默认 25 ->
  <lightBright> <!--req, xs:integer -> </lightBright> <!--车灯亮度阈值[150-250], 默认 210->
  <nightDisDown> <!--req, xs:integer -> </nightDisDown> <!--下行车道夜晚检测距离[1-500], 默认 60->
  <nightDisUp> <!--req, xs:integer -> </nightDisUp> <!--上行车道夜晚检测距离[1-500], 默认 100->
  <vsdDetectSensitiveness> <!--req, xs:integer -> </vsdDetectSensitiveness> <!--烟雾检测阈值[1-5], 默认
3->
  <evidencePictureRatio> <!--req, xs:integer -> </evidencePictureRatio> <!--取证倍率洗涤[50-105], 默认
100->
  </DetectSensitiveness>
</EdfAlgParam>

```

8.17.35 /ISAPI/Traffic/channels/<ID>/baseParam/<SID>

/ISAPI/Traffic/channels/<ID>/baseParam/<SID>		General Resource v2.0
GET		
Description	按通道获取和设置场景基本参数	
Query	None	
Inbound Data	None	
Success Return	BaseParam	
PUT		
Description		
Query	None	
Inbound Data	BaseParam	
Success Return	ResponseStatus	
Notes:		

BaseParam XML Block

```

<BaseParam>
  <scenesID> <!--req, xs:string --> </scenesID> <!--场景ID[1-16] -->
  <isIvtEnable> <!--req, xs:boolean --> </isIvtEnable><!--是否取证: 0-不取证, 1-取证, 默认1-->
  <isPlateRec> <!--req, xs:boolean --> </isPlateRec><!--是否抓拍无车牌: 0-不抓拍, 1-抓拍, 默认0-->
  <isEventDetEnable> <!--req, xs:boolean --> </isEventDetEnable><!--是否使能事件报警-->
  <platFilterTime> <!--req, xs:integer, seconds --> </paltFilterTime><!--车牌过滤时间[10min 到 24hour]-->

  <nSnapOneTimeOut> <!--req, xs:integer --> </nSnapOneTimeOut><!--单张图片取证超时时间 [2-60S], 默认20S-->
  <nTskTimeOut> <!--req, xs:integer --> </nTskTimeOut><!--取证任务超时时间[10-7200S] , 默认 1800S-->
  <nPlateMatchRatio> <!--req, xs:integer --> </nPlateMatchRatio> //车牌匹配率(%)
  <zoomRectRatio><!--req, xs:float --></zoomRectRatio><!--放大倍率[0.1-5.0] -->
</BaseParam>

```

8.17.36

/ISAPI/Traffic/channels/<ID>/referenceRegions/<SID>

/ISAPI/Traffic/channels/<ID>/referenceRegions/<SID>		General Resource v2.0
D>		
GET		
Description	按通道获取和设置参考区域	
Query	None	
Inbound Data	None	
Success Return	Reference	
PUT		
Description		
Query	None	
Inbound Data	Reference	
Success Return	ResponseStatus	
Notes:		

Reference XML Block

```

<Reference version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:string --> </scenesID> <!--场景ID[1-16] -->
  <ReferenceRegionList><!--参考区域多边形坐标, 最多支持10个point-->
    <ReferenceRegion>
      <id> <!--req, xs:string--> </id>

```

```

<enabled> <!--req, xs:boolean → </enabled>

<RegionCoordinatesList>

  <RegionCoordinates> <!--req, →

    <positionX> <!--req, xs:integer;coordinate → </positionX>

    <positionY> <!--req, xs:integer;coordinate → </positionY>

  </RegionCoordinates>

</RegionCoordinatesList>

</ReferenceRegion>

</ReferenceRegionList>

</Reference>

```

8.17.37 /ISAPI/Traffic/channels/<ID>/shieldRegions/<SID>

/ISAPI/Traffic/channels/<ID>/shieldRegions/<SID>		General Resource v2.0
GET		
Description	按通道获取和设置参考区域	
Query	None	
Inbound Data	None	
Success Return	Shield	
PUT		
Description		
Query	None	
Inbound Data	Shield	
Success Return	ResponseStatus	
Notes:		

Shield XML Block

```

<Shield version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:string → </scenesID> <!--场景ID[1-16] →
  <ShieldRegionList><!--参考区域多边形坐标, 最多支持10个点→
    <ShieldRegion>
      <id> <!--req, xs:string→ </id>
      <enabled> <!--req, xs:boolean → </enabled>
      <RegionCoordinatesList>
        <RegionCoordinates> <!--req, →
          <positionX> <!--req, xs:integer;coordinate → </positionX>
          <positionY> <!--req, xs:integer;coordinate → </positionY>

```

```

</RegionCoordinates>

</RegionCoordinatesList>

</ShieldRegion>

</ShieldRegionList>

</Shield>

```

8.17.38 /ISAPI/Traffic/channels/<ID>/lane/<SID>

/ISAPI/Traffic/channels/<ID>/lane/<SID>		General Resource v2.0
GET		
Description	按通道获取和设置车道	
Query	None	
Inbound Data	None	
Success Return	LaneList	
PUT		
Description		
Query	None	
Inbound Data	LaneList	
Success Return	ResponseStatus	
Notes:		

Lane XML Block

```

<Lane version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:string → </scenesID> <!--场景ID[1-16] →
  <LaneRuleList>
  <LaneRegion>
    <id> <!--req, xs:string→ </id>
    <RegionCoordinatesList>
      <RegionCoordinates> <!--req, →
        <positionX> <!--req, xs:integer;coordinate → </positionX>
        <positionY> <!--req, xs:integer;coordinate → </positionY>
      </RegionCoordinates>
    <RegionCoordinatesList>
  </LaneRegion>
  <DirStartPoint><!--车流方向起点坐标 →
    <positionX> <!--req, xs:integer → </positionX>
    <positionY> <!--req, xs:integer → </positionY>
  </DirStartPoint>
  <DirEndPoint><!--车流方向终点坐标→

```

```

<positionX> <!--req, xs:integer → </positionX>
<positionY> <!--req, xs:integer → </positionY>
</DirEndPoint>
</LaneRuleList>
</Lane>

```

8.17.39 /ISAPI/Traffic/channels/<ID>/eventRule/<SID>

/ISAPI/Traffic/channels/<ID>/eventRule/<SID>		General Resource v2.0
GET		
Description	按通道获取和设置交通事件规则	
Query	None	
Inbound Data	None	
Success Return	EventRuleList	
PUT		
Description		
Query	None	
Inbound Data	EventRuleList	
Success Return	ResponseStatus	
Notes:		

EventRuleList XML Block

```

<EventRule version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:string → </scenesID> <!--场景ID[1-16] →
  <EventRuleInfoList><!--规则信息 ->
    <EventRuleInfo>
      <ruleId> <!--req, xs:string → </ruleId><!--规则ID: [1-8] →
      <enabled> <!--req, xs:boolean → </enabled>
      <aidTypeList>
        <aidType>
          <id> <!--req, xs:string →</id>
          <type> <!--req, xs:string "parking, wrongDirection, crossLane, traffic_jam,
passengers, objectDroppedDown, smoke">
        </aidType>
        <aidType>
      </aidTypeList>
      <imgNum> <!--req, xs:integer → </imgNum><!--抓拍图片数量[1-6] , 默认4→
      <ImgGroupInfo><!--图片组信息→
        <imgInterval> <!--req, xs:integer → </imgInterval><!--抓拍时间间隔 [1-3600s], 默认
600S →
        <imgType> <!--req, xs:integer → </imgType ><!--图片类型, 0全景, 1-近景, 默认1、4全

```



```

景, 2、3近景→
</ImgGroupInfo>

<RuleParame><!--规则参数 →
    <parkingDuration><!--req, xs:integer → </parkingDuration><!--停车持续时间, [5-120S],
默认10S →
    <pedestrianDuration> <!--req, xs:integer → </pedestrianDuration><!--行人持续时间,
[1-120S], 默认2S →
    <debrisDuration><!--req, xs:integer → </debrisDuration><!--抛撒物持续时间, [10-120S],
默认10S →
    <congestionLength> <!--req, xs:integer → </congestionLength><!--拥堵长度阈值, [5-200
米], 默认25 →
    <congestionDuration> <!--req, xs:integer → </congestionDuration><!--拥堵持续时间,
[5-120S], 默认10S →
    <inverseDuration><!--req, xs:integer → </inverseDuration><!--逆行持续时间, [1-120S],
默认2S →
    <inverseAngleTolerance> <!--req, xs:integer → </inverseAngleTolerance><!--允许角度
偏差, [90-180度], 默认90 →
    <inverseDistance> <!--req, xs:integer → </inverseDistance><!--逆行距离阈值, [2-100
米], 默认10米→
    <voiceTrigger>
        <enabled> <!--req, xs:boolean →</enabled>
    </voiceTrigger>
</RuleParame>
<RuleRegion ><!--规则区域 →
    <RegionCoordinatesList>
        <RegionCoordinates> <!--req, →
            <positionX> <!--req, xs:integer;coordinate → </positionX>
            <positionY> <!--req, xs:integer;coordinate → </positionY>
        </RegionCoordinates>
    </RegionCoordinatesList>
</RuleRegion>
</EventRuleInfo>
</EventRuleInfoList>
</EventRule>

```

8.17.40 /ISAPI/Traffic/channels/<ID>/edfManualltsCap

/ISAPI/Traffic/channels/<ID>/edfManualltsCap		General Resource v2.0
GET		
Description	手动取证参数设置和获取	
Query	None	

Inbound Data	None
Success Return	EdfManualltsCap
PUT	
Description	
Query	None
Inbound Data	EdfManualltsCap
Success Return	ResponseStatus
Notes: <isPlateRec>不做	

EdfManualltsCap XML Block

```
<EdfManualItsCap version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isPlateRec> <!--opt, xs:boolean → </isPlateRec><!--是否抓拍无车牌: 0-不抓拍, 1-抓拍, 默认
0→
  <imgNum> <!--req, xs:integer → </imgNum><!--抓拍图片数量[1-6], 默认4→
  <ImgGroupInfo><!--图片组信息→
    <imgInterval> <!--req, xs:integer → </imgInterval><!--抓拍时间间隔[1-3600s], 默认600S
→
    <imgType> <!--req, xs:string "panorama,foreground" → </imgType><!--图片类型, 0全景,
1-近景, 默认1、4全景, 2、3近景→
  </ImgGroupInfo>
  <nSnapOneTimeOut> <!--req, xs:integer → </nSnapOneTimeOut><!--单张图片取证超时时间
[2-60S], 默认20S→
  <nTskTimeOut> <!--req, xs:integer → </nTskTimeOut><!--取证任务超时时间[10-7200S], 默认
1800S→
  <nPlateMatchRatio> <!--req, xs:integer → </nPlateMatchRatio><!--车牌匹配度[0-100%], 默
认100%-->
</EdfManualItsCap>
```

8.17.41 /ISAPI/Traffic/channels/<ID>/scenePtz/<SID>

/ISAPI/Traffic/channels/<ID>/scenePtz/<SID>		General Resource v2.0
PUT		
Description	设置某个通道的某个场景的预置位	
Query	None	
Inbound Data	ScenePtz	
Success Return	ResponseStatus	
Notes:		

ScenePTZ XML Block

```
<ScenePTZ version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <sceneID> <!--req, xs:integer → </sceneID> <!--预置场景编号 1~16, 与SID一致 →
</ScenePTZ>
```

8.17.42 /ISAPI/Traffic/channels/<ID>/lockPtz

/ISAPI/Traffic/channels/<ID>/lockPtz		General Resource v2.0
GET		
Description	获取某个通道云台锁定剩余时间	
Query	None	
Inbound Data	None	
Success Return	LockPtz	
PUT		
Description	对某个通道进行云台锁定	
Query	None	
Inbound Data	LockPtz	
Success Return	ResponseStatus	
Notes: lockTime 设置为 0 表示云台解锁		

LockPtz XML Block

```
<LockPtz version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <lockTime> <!--req, xs:integer → </lockTime> <!--锁定时间按秒计 →
</LockPtz>
```

8.17.43 /ISAPI/Traffic/channels/<ID>/manualltsCap

/ISAPI/Traffic/channels/<ID>/manualltsCap		General Resource v2.0
PUT		
Description	手动取证	
Query	None	
Inbound Data	ManualltsCap	
Success Return	ManualltsCap	
Notes: 手动取证是否还需要手动取证抓拍流水号		

ManualltsCap XML Block

```
<ManualItsCap version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <StartPoint>
    <PositionX> <!--req, xs:integer → </PositionX> <!--矩形框起始坐标x→
    <PositionY> <!--req, xs:integer → </PositionY> <!--矩形框起始坐标y→
  </StartPoint>
  <EndPoint>
    <PositionX> <!--req, xs:integer → </PositionX> <!--矩形框结束点坐标x→
    <PositionY> <!--req, xs:integer → </PositionY> <!--矩形框结束点坐标y→
  </EndPoint>
</ManualItsCap>
```

返回信息???

```
<ManualItsCap>
  <errorCode></errorCode> <!--0 为正常，其他为错误码 -->
  <errorStr></errorStr> <!--错误字符串 -->
  <ManualItsCapID>11</ManualItsCapID> <!--手动取证抓拍流水号-->
</ManualItsCap>
```

8.17.44 /ISAPI/Traffic/channels/<ID>/manualltsCapStatu

S

/ISAPI/Traffic/channels/<ID>/manualltsCapStatus		General Resource v2.0
PUT		
Description	手动取证状态获取	
Query	None	
Inbound Data	ManualltsCapStatus	
Success Return	ManualltsCapStatus	
Notes: 代码不实现，协议先保留		

ManualltsCapStatus XML Block

```
<ManualItsCapStatus version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <manualItsCapID> <!--req, xs:integer --> </manualItsCapID> <!--手动取证抓拍流水号-->
</ManualItsCapStatus>

<ManualItsCapStatusResult>
  <errorCode></errorCode> <!--0 为正常，其他为错误码 -->
  <errorStr></errorStr> <!--错误字符串 -->
  <manualItsCapID>11</manualItsCapID> <!--手动取证抓拍流水号-->
</ManualItsCapStatusResult>
```

8.17.45 /ISAPI/Traffic/channels/<ID>/edfRestoreParam

/ISAPI/Traffic/channels/<ID>/edfRestoreParam		General Resource v2.0
PUT		
Description	根据参数类型，恢复相应参数至默认	
Query	None	
Inbound Data	edfRestoreParam	
Success Return	ResponseStatus	
Notes:		

edfRestoreParam XML Block

```
<edfRestoreParam version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <paramType><!--req, xs:string --></paramType>//事件检测库灵敏度参数: detectSensitiveParam
</edfRestoreParam>
```

8.17.46 /ISAPI/Traffic/channels/<ID>/imageMerge

/ISAPI/Traffic/channels/<ID>/imageMerge		General Resource v2.0
GET		
Description	设置和获取图片合成参数	
Query	None	
Inbound Data	None	
Success Return	ImageMerge	
PUT		
Description		
Query	None	
Inbound Data	ImageMerge	
Success Return	ResponseStatus	
Notes:		
<p><twoMergeType>: 两张合成类型, 201-两张图片上下排列合成、202-两张图片左右排列合成</p> <p><threeMergeType>: 三张合成类型, 301-三张图片上下排列合成、302-三张图片左右排列合成</p> <p><fourMergeType>: 四张合成类型, 401-四张图片上下排列合成、402-四张图片左右排列合成、403-四张图片“田”字型合成</p> <p><fiveMergeType>: 五张合成类型, 501-五张图片上下排列合成、502-五张图片左右排列合成</p> <p><sixMergeType>: 六张合成类型, 601-六张图片上下排列合成、602-六张图片左右排列合成、六张图片 2×3 方式合成、六张图片 3×2 方式合成</p> <p>jpegParmaType 图像质量类型: quality 图像质量, 需要出现 jpegParmaType 标签; maxSize 图片最大尺寸: 需要出现 mergeMaxSize</p>		

ImageMerge XML Block

```
<ImageMerge version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isMerge> <!--req, xs:integer --> </isMerge> //是否合成
  <twoMergeType> <!--req, xs:integer --> </twoMergeType> //2张图合成方式
  <threeMergeType> <!--req, xs:integer --> </threeMergeType> //3张图合成方式
  <fourMergeType> <!--req, xs:integer --> </fourMergeType> //4张图合成方式
  <fiveMergeType> <!--req, xs:integer --> </fiveMergeType> //5张图合成方式
  <sixMergeType> <!--req, xs:integer --> </sixMergeType> //6张图合成方式
  <jpegEffectType> <!--req, xs:string "quality,maxSize" --> </jpegEffectType> //图片质量类型
  <jpegQuality> <!--dep, xs:integer --> </jpegQuality> //图片质量
  <mergeMaxSize> <!--dep, xs:integer --> </mergeMaxSize> //不知道作用且用不到, 先保留
  <featureIndex> <!--opt, xs:integer --> </featureIndex> //不知道作用且用不到, 先保留
</ImageMerge>
```

8.17.47 /ISAPI/Traffic/channels/<ID>/overlap

/ISAPI/Traffic/channels/<ID>/overlap		General Resource v2.0
GET		
Description	设置和获取图片字符叠加	
Query	None	
Inbound Data	None	
Success Return	Overlap	
PUT		
Description		
Query	None	
Inbound Data	Overlap	
Success Return	ResponseStatus	
Notes:		

Overlap XML Block

```
<Overlap version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isOverlap> <!--req, xs:integer → </isOverlap> //是否合成
  <overlapMergeType> <!--req, xs:string "inside,outside" → </overlapMergeType> //叠加方式
  <linePercent> <!--req, xs:integer → </linePercent> //换行符位置百分比(%)
  <startPosTop> <!--req, xs:integer → </startPosTop> //叠加起始上边距(%)
  <startPosLeft> <!--req, xs:integer → </startPosLeft> //叠加起始左边距(%)
  <spaceNum> <!--opt, xs:integer → </spaceNum> //空格数
  <charSize> <!--req, xs:integer → </charSize> //字符大小16,32, 48, 64,selfAddaption自适应
  <charInterval> <!--req, xs:integer → </charInterval> //元素间距
  <frontColor> <!--req, xs:integer → </frontColor> //字体颜色
  <backColor> <!--req, xs:integer → </backColor> //背景颜色
  <OverlapItemList> //叠加内容
    <OverlapItem>
      <id> <!--req, xs:string → </id>
      <item> <!--req, xs:string "CrossNo, DeviceNo, DirectionNo, DirectionDescription, CaptureTime, CaptureTimeMilliseconds, Plate, CarType, ViolationCode, CameraInformation IllegalAction, SecurityCode, CaptureNo, SceneDescription, SceneNo, SceneDirectionNo SceneDirectionDescription, TrafficEventType, LaneNo, Speed, CarColor " → </item>
    <OverlapItemList>
  </OverlapItem>
</Overlap>
```

8.17.48 /ISAPI/Traffic/channels/<ID>/transparentData

ISAPI 协议接口定义

/ISAPI/Traffic/channels/<ID>/transparentData		General Resource v2.0
GET		

Description	设置和获取定制参数
Query	None
Inbound Data	None
Success Return	TransparentData
PUT	
Description	
Query	None
Inbound Data	TransparentData
Success Return	ResponseStatus
Notes:	

TransparentData XML Block

```
<TransparentData version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <intTransDataNum> <!--req xs:integer → </intTransDataNum>
  <stringTransDataNum><!--req xs:integer → </stringTransDataNum>
  <optionTransDataNum><!--req xs:integer → </optionTransDataNum>
  <IntTransDataList> <!--req →
    <IntTransData> <!--req →
      <intTransDataName> <!--opt, xs:string → </intTransDataName>
      <intTransDataVal> <!--req xs:integer,"0-65535" → </intTransDataVal>
    </IntTransData>
  </IntTransDataList>
  <StringTransDataList> <!--req →
    <StringTransData> <!--req →
      <stringTransDataName><!--opt, xs:string → </stringTransDataName>
      <stringTransDataVal> <!--req, xs:string → </stringTransDataVal>
    </StringTransData>
  </StringTransDataList>
  <OptionTransDataList> <!--opt →
    <OptionTransData> <!--opt →
      <optionTransDataName><!--opt, xs:string → </optionTransDataName>
      <optionTransDataVal> <!--req, xs:string → </optionTransDataVal>
    </OptionTransData>
  </OptionTransDataList>
</TransparentData>
```

8.17.49 /ISAPI/Traffic/channels/<ID>/basic

/ISAPI/Traffic/channels/<ID>/basic		General Resource v2.0
GET		
Description	设置和获取监测点参数	
Query	None	
Inbound Data	None	

Success Return	BasicInfo
PUT	
Description	
Query	None
Inbound Data	BasicInfo
Success Return	ResponseStatus
Notes:	

BasicInfo XML Block

```

<BasicInfo>
  <channelID><!--req, xs:string --></channelID>
  <directionNo><!--req,
xs:string, "Upward, downward, bidirectional, westward, northward, eastward, southward"
--></directionNo>
  <monitoringSiteID><!--req, xs:string --></monitoringSiteID>
  <deviceID><!--req, xs:string --></deviceID>
  <monitorDescription><!--req, xs:string --></monitorDescription>
  <MonitorInfoList>
    <MonitorInfo>
      <information><!--req, xs:string --></information>
    </MonitorInfo>
  </MonitorInfoList>
</BasicInfo>

```

8.17.50 /ISAPI/Traffic/channels/<ID>/voiceTrigger

/ISAPI/Traffic/channels/<ID>/voiceTrigger		General Resource v2.0
GET		
Description	按通道获取和设置交通事件语音联动	
Query	None	
Inbound Data	None	
Success Return	VoiceTrigger	
PUT		
Description		
Query	None	
Inbound Data	VoiceTrigger	
Success Return	ResponseStatus	
Notes:		

VoiceTrigger XML Block

```

<VoiceTrigger>
  <triggerList>
    <trigger>
      <type> <!--req, xs:string "parking, wrongDirection, crossLane, traffic_jam,

```



```

passengers, objectDroppedDown, smoke" → </type>

    <voiceid> <!--req, xs:interger → </sceneName><!--语音联动1到8→
</trigger>
</triggerList>
</VoiceTrigger>

```

8.17.51 /ISAPI/Traffic/channels/<ID>/voice/<ID>

/ISAPI/Traffic/channels/<ID>/voice/<ID>		General Resource v2.0
GET		
Description	获取语音文件名称	
Query	None	
Inbound Data	None	
Success Return	Voice	
PUT		
Description	设置语音文件名称	
Query	None	
Inbound Data	Voice	
Success Return	ResponseStatus	
Notes:		

Voice XML Block

```

<Voice version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:string;id → </id>
  <fileName> <!--req, xs:string;id → </fileName>
</Voice>

```

8.17.52 /ISAPI/Traffic/channels/<ID>/VCS

/ISAPI/Traffic/channels/<ID>/VCS		General Resource v2.0
GET		
Description	获取语音文件名称	
Query	None	
Inbound Data	None	
Success Return	Voice	
PUT		
Description	设置语音文件名称	
Query	None	

Inbound Data	Voice
Success Return	ResponseStatus
Notes:	

Voice XML Block

```
<VCSParam version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:bool:true,false → </enabled>
  <interval> <!--req, xs:string:id → </interval>
</VCSParam >
```

8.17.53 /ISAPI/Traffic/channels/<ID>/ MprParam/<SID>

/ISAPI/Traffic/channels/<ID>/MprParam/<SID>		General Resource v2.0
GET		
Description	获取语音文件名称	
Query	None	
Inbound Data	None	
Success Return	Voice	
PUT		
Description	设置语音文件名称	
Query	None	
Inbound Data	Voice	
Success Return	ResponseStatus	
Notes:		

Voice XML Block

```
<MprParamversion="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:interger→ </enabled>
  <RelatedLaneCount> <!--req,xs:interger→ </RelatedLaneCount>
  <fillLightList>//虚拟线圈
  <fillLight> <!--req →
    <nearLight> <!--req, xs:integer→ </nearLight>
    <farLight> <!--req, xs:integer→ </farLight>
  </fillLight>
</fillLightList>
  <VirtualLaneList>//虚拟线圈
  <VirtualLane> <!--req →
    <RegionCoordinatesList><!--req →
      <RegionCoordinates> <!--req →
```

```

    <positionX> <!--req, xs:integer→ </positionX>
    <positionY> <!--req, xs:integer→ </positionY>
  </RegionCoordinates>
</RegionCoordinatesList>
</VirtualLane>
</VirtualLaneList>
</MprParam>

```

8.17.54 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections/capabilities

/ISAPI/Traffic/channels/<ID>/illegalParkingDetections/capabilities		General Resource v2.0
GET		
Description	按通道获取违停场景能力	
Query	None	
Inbound Data	None	
Success Return	IllegalParkingDetectionCap	
Notes:		

IllegalParkingDetectionCap XML Block

```

<IllegalParkingDetectionCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID min="" max=""> <!--req, xs:integer → </scenesID>
  <sceneName max=""> <!--req, xs:string → </sceneName>
  <CalibrationRegionActualValue>
    <width max=""> <!--req, xs:float ,Unit:m→ </width>
    <length max=""> <!--req, xs:float ,Unit:m→ </length>
  </CalibrationRegionActualValue>
  <CalibrationRegion>
    <RegionCoordinatesList size="">
      <RegionCoordinates> <!--req, →
        <positionX> <!--req, xs:integer;coordinate → </positionX>
        <positionY> <!--req, xs:integer;coordinate → </positionY>
      </RegionCoordinates>
    </RegionCoordinatesList>
  </CalibrationRegion>
  <DetectionLine>
    <StartPoint>
      <positionX> <!--req, xs:integer → </positionX>
      <positionY> <!--req, xs:integer → </positionY>
    </StartPoint>
    <EndPoint>
      <positionX> <!--req, xs:integer → </positionX>
      <positionY> <!--req, xs:integer → </positionY>
    </EndPoint>
  </DetectionLine>

```

```

    <isSupportDetectionLineWidth
opt="true,false"><!--opt,ro,xs:boolean,Unit:m></isSupportDetectionLineWidth>
    <RegionCoordinatesList size="">
        <RegionCoordinates>
            <positionX> <!--req, xs:integer;coordinate → </positionX>
            <positionY> <!--req, xs:integer;coordinate → </positionY>
        </RegionCoordinates>
    </RegionCoordinatesList>
    <IllegalParkingDetectionScenePatrol>
        <enabled opt="true,false"> <!--req,xs:boolean → </enabled>
        <illegalParkingThreshold min="" max=""> <!--req,xs:integer,"违停检测阈值" →
</illegalParkingThreshold>
        <duration min="" max=""> <!--req,xs:integer,"持续时间" → </duration>
        <sensitivityLevel min="" max=""> <!--req,xs:integer,0..100 → </sensitivityLevel>
        <isImgTargetOverlap opt="true,false"> <!--req, xs:boolean "true,false" → <!--报
警抓图叠加目标信息→ </isImgTargetOverlap>
        <isImgRuleOverlap opt="true,false"> <!--req, xs:boolean "true,false" → <!--报
警抓图叠加规则信息→ </isImgRuleOverlap>
        <isVideoTargetOverlap opt="true,false"> <!--req, xs:boolean "true,false" → <!--
报警抓图叠加目标信息→ </isVideoTargetOverlap>
        <isVideoRuleOverlap opt="true,false"> <!--req, xs:boolean "true,false" → <!--报
警抓图叠加规则信息→ </isVideoRuleOverlap>
    </IllegalParkingDetectionScenePatrol>
</IllegalParkingDetectionCap>

```

8.17.55 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections

/ISAPI/Traffic/channels/<ID>/illegalParkingDetections		General Resource v2.0
GET		
Description	按通道获取违停检测场景基本参数	
Query	None	
Inbound Data	None	
Success Return	IllegalParkingDetectionSceneList	
PUT		
Description	按通道设置违停检测场景基本参数	
Query	None	
Inbound Data	IllegalParkingDetectionSceneList	
Success Return	ResponseStatus	
Notes: channels/<ID> :视频通道 ID		

IllegalParkingDetectionSceneList XML Block

```

<IllegalParkingDetectionSceneList version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <IllegalParkingDetectionScene/> <!--opt -->
</IllegalParkingDetectionSceneList>

```

8.17.56 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections/<SID>

/ISAPI/Traffic/channels/<ID>/illegalParkingDetections/<SID>		General Resource v2.0
GET		
Description	按通道获取违停检测场景基本参数	
Query	None	
Inbound Data	None	
Success Return	IllegalParkingDetectionScene	
PUT		
Description	按通道设置违停检测场景基本参数	
Query	None	
Inbound Data	IllegalParkingDetectionScene	
Success Return	ResponseStatus	
Notes: channels/<ID> :视频通道 ID IllegalParkingDetections/<SID>:违停检测场景 ID <scenesID>:场景编号 <sceneName>:场景名称 Remart: 点“查看当前场景位置”，球机调用到对应场景的 PTZ 位置； 通过 Get URL 指定球机 PTZ 转动； 通过 Set URL 指定球机 PTZ 的保持信息；		

IllegalParkingDetectionScene XML Block

```

<IllegalParkingDetectionScene version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:integer --> </scenesID>
  <sceneName> <!--req, xs:string --> </sceneName>
</IllegalParkingDetectionScene>

```

8.17.57 /ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/<SID>/calibration

/ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/<SID>/calibration		General Resource v2.0
GET		
Description	违停检测场景标定信息获取	
Query	None	
Inbound Data	None	
Success Return	<IllegalParkingDetectionCalibration>	
POST		
Description	违停检测场景标定设置	
Query	None	
Inbound Data	<IllegalParkingDetectionCalibration>	
Success Return	<IllegalParkingDetectionCalibrationResult>	
Notes:		

IllegalParkingDetectionCalibrationResult XML Block

```
<IllegalParkingDetectionCalibration
version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <scenesID> <!--req, xs:integer --> </scenesID>
  <CalibrationRegionActualValue>
    <width> <!--req, xs:float --> </width><!--,实际宽度: float -->
    <length> <!--req, xs:float --> </length><!--,实际长度: float -->
  </CalibrationRegionActualValue>
  <CalibrationRegion><!--req,标定框坐标-->
    <RegionCoordinatesList>
      <RegionCoordinates> <!--req, -->
        <positionX> <!--req, xs:integer;coordinate --> </positionX>
        <positionY> <!--req, xs:integer;coordinate --> </positionY>
      </RegionCoordinates>
    </RegionCoordinatesList>
  </CalibrationRegion>
  <DetectionLine><!--req,检测线-->
    <StartPoint><!--,req,校验两点坐标-->
      <positionX> <!--req, xs:integer --> </positionX>
      <positionY> <!--req, xs:integer --> </positionY>
    </StartPoint>
    <EndPoint>
```

```

        <positionX> <!--req, xs:integer --> </positionX>
        <positionY> <!--req, xs:integer --> </positionY>
    </EndPoint>
</DetectionLine>
    <detectionLineWidth><!--opt,ro,xs:integer,Unit:m--></detectionLineWidth>
</IllegalParkingDetectionCalibration>

```

IllegalParkingDetectionCalibrationResult XML Block

```

<IllegalParkingDetectionCalibrationResult
version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <detectionLineWidth><!--opt,xs:integer,Unit:m--></detectionLineWidth>
</IllegalParkingDetectionCalibrationResult>

```

8.17.58 /ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/<SID>/region

/ISAPI/Traffic/channels/<ID>/IllegalParkingDetections /<SID>/region	
General Resource v2.0	
GET	
Description	按通道获取违停检测场景检测区域
Query	None
Inbound Data	None
Success Return	IllegalParkingDetectionRegion
PUT	
Description	按通道设置违停检测场景检测区域
Query	None
Inbound Data	IllegalParkingDetectionRegion
Success Return	ResponseStatus
Notes:	
channels/<ID> :视频通道 ID	
IllegalParkingDetections/<SID>:违停检测场景 ID	
<scenesID>:场景编号	

IllegalParkingDetectionRegion XML Block

```

<IllegalParkingDetectionRegion version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <scenesID> <!--req, xs:integer --> </scenesID>
    <RegionCoordinatesList><!--req, -->
        <RegionCoordinates> <!--req, -->

```

```

        <positionX>      <!--req, xs:integer;coordinate --> </positionX>
        <positionY>      <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
    <RegionCoordinatesList>
</IllegalParkingDetectionRegion>

```

8.17.59 /ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/scenePatrol

/ISAPI/Traffic/channels/<ID>/IllegalParkingDetections/scenePatrol		General Resource v2.0
GET		
Description	按通道获取违停检测场景巡航	
Query	None	
Inbound Data	None	
Success Return	IllegalParkingDetectionScenePatrol	
PUT		
Description	按通道设置违停检测场景巡航	
Query	None	
Inbound Data	IllegalParkingDetectionScenePatrol	
Success Return	ResponseStatus	
Notes: channels/<ID> :视频通道 ID		

ScenePatrol XML Block

```

<IllegalParkingDetectionScenePatrol                                version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
    <enabled> <!--req, xs:boolean --> </enabled>
    <defaultCHN> <!--req, xs:string --> </defaultCHN>
    <illegalParkingThreshold> <!--req, xs:integer, "违停检测阈值" --> </illegalParkingThreshold>
    <duration> <!--req, xs:integer, "持续时间" --> </duration>
    <sensitivityLevel> <!--req, xs:integer, 0..100 --> </sensitivityLevel>
    <isImgTargetOverlap> <!--req, xs:boolean "true,false" --> <!--报警抓图叠加目标信息-->
</isImgTargetOverlap>
    <isImgRuleOverlap> <!--req, xs:boolean "true,false" --> <!--报警抓图叠加规则信息-->

```



```

</isImgRuleOverlap>
  <isVideoTargetOverlap> <!--req, xs:boolean "true,false" --> <!--报警抓图叠加目标信息
-> </isVideoTargetOverlap>
  <isVideoRuleOverlap> <!--req, xs:boolean "true,false" --> <!--报警抓图叠加规则信息->
</isVideoRuleOverlap>
</IllegalParkingDetectionScenePatrol>

```

8.18 /ISAPI/Intelligent

8.18.1 /ISAPI/Intelligent/channels/ID/capabilities

/ISAPI/Intelligent/channels/ID/capabilities		General Resource v2.0
GET		
Description	Get supported intelligent types by device channel	
Query	None	
Inbound Data	None	
Success Return	IntelliCap	

IntelliCap XML Block

```

<IntelliCap version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isFaceSupport> <!--req, xs:string "true,false" --> </isFaceSupport>
  <isBehaviorSupport> <!--req, xs:string "true,false" --> </isBehaviorSupport>
  <isLineDetectionSupport> <!--req, xs:string "true,false" --> </isLineDetectionSupport>
  <isFieldDetectionSupport> <!--req, xs:string "true,false" --> </isFieldDetectionSupport>
  <isRegionEntranceSupport> <!--req, xs:string "true,false" --> </isRegionEntranceSupport>
  <isRegionExitingSupport> <!--req, xs:string "true,false" --> </isRegionExitingSupport>
  <isLoiteringSupport> <!--req, xs:string "true,false" --> </isLoiteringSupport>
  <isGroupSupport> <!--req, xs:string "true,false" --> </isGroupSupport>
  <isRapidMoveSupport> <!--req, xs:string "true,false" --> </isRapidMoveSupport>
  <isParkingSupport> <!--req, xs:string "true,false" --> </isParkingSupport>
  <isUnattendedBaggageSupport> <!--req, xs:string "true,false" -->
</isUnattendedBaggageSupport>
  <isAttendedBaggageSupport> <!--req, xs:string "true,false" --> </isAttendedBaggageSupport>
  <isTeacherSupport> <!--req, xs:string "true,false" --> </isTeacherSupport>

```

```

<isStudentSupport> <!--req, xs:string "true,false" --> </isStudentSupport>
<isFaceCaptureStatisticsSupport> <!--req, xs:string "true,false" -->
</isFaceCaptureStatisticsSupport>
</IntelliCap>

```

8.18.2 /ISAPI/Intelligent/channels/ID/intelliResource

/ISAPI/Intelligent/channels/ID/intelliResource		General Resource v2.0
GET		
Description	Get basic configurations of intelligent resources by channel	
Query	None	
Inbound Data	None	
Success Return	IntelliResource	
PUT		
Description	Set basic configurations of intelligent resources by channel	
Query	None	
Inbound Data	IntelliResource	
Success Return	ResponseStatus	
Notes:		

IntelliResource XML Block

```

<IntelliResource>
  <BehaviorInfo> <!--dep-->
    <IntelliImage>
      <isUpload> <!--req, xs:string "true,false" --> <!--whether to upload pictures
--></isUpload>
      <imgQuality> <!--req, xs:string "best,good,general" --> <!--image
quality--></imgQuality>
      <imgResolutionWidth> <!--req, xs:integer --> <!--image resolution-->
</imgResolutionWidth>
      <imgResolutionHeight> <!--req, xs:integer --> <!--image resolution --> </imgResolutionHeight>
      <isImgTargetOverlap> <!--req, xs:string "true,false" --> <!--Alarm capture overlay object
information--> </isImgTargetOverlap>
      <isImgRuleOverlap> <!--req, xs:string "true,false" --> <!--Alarm capture overlay rules
information--> </isImgRuleOverlap>
    </IntelliImage>
  <VideoOverlapInfo>
    <isOverlapIntelli> <!--req, xs:string "true,false" -->
  </isOverlapIntelli>

```

```

    <isOverlapTarget> <!--req, xs:string "true,false" --> </isOverlapTarget>
<isOverlapRule> <!--req, xs:string "true,false" --> </isOverlapRule>
</VideoOverlapInfo>
<IntelliAnalysisEnable> <!--req, xs:string "true,false" --> </IntelliAnalysisEnable> <!-- Enable
intelligent analysis -->
  </BehaviorInfo>
  <FaceCaptureInfo> <!--dep -->
    <imgQuality> <!--req, xs:string "best,good,general" --> <!-- Image quality --></imgQuality>
<Professional face parameters>
  <isImgTargetOverlap> <!--req, xs:string "true,false" --> <!-- ipc Alarm capture overlay
object information --> </isImgTargetOverlap>
<VideoOverlapInfo>
  <isOverlapIntelli><!--req, xs:string "true,false" --> </isOverlapIntelli>
    <isOverlapTarget> <!--opt xs:string "true,false" --> </isOverlapTarget>
  <isOverlapRule> <!--opt, xs:string "true,false" --> </isOverlapRule>
</VideoOverlapInfo>
<backgroundUpload> <!--opt, xs: boolean --> </backgroundUpload>

  </FaceCaptureInfo>
<AlgVersionInfo>
  <AlgItem>
    <id> <!--ro, xs:string --> </id>
    <algName> <!--ro, xs:string --> </algName>
  </AlgItem>
</AlgVersionInfo>
</IntelliResource>

```

8.18.3 /ISAPI/Intelligent/channels/ID/AlgParam

/ISAPI/Intelligent/channels/ID/AlgParam		General Resource v2.0
GET		
Description	Get algorithm lib parameters by channel	
Query	None	
Inbound Data	None	
Success Return	AlgParam	
PUT		
Description	Set algorithm lib parameters by channel	
Query	None	
Inbound Data	AlgParam	

Success Return	ResponseStatus
Notes: faceFilteringTime: 人脸过滤时间 (默认 5 秒, 范围 0-100 秒。0 秒表示不过滤。后面加注释: “配置过滤时间会增加实际抓拍次数小于配置的次数的可能性”。)	

AlgParam XML Block

```

<AlgParam version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <BehaviorParam>
    <detectionSensitiveLevel> <!--req, xs: integer --> </detectionSensitiveLevel> <!--object
detection sensitivity: the values of ipc and speed dome are different, and can be got by
abilities-->
    <bgChangeSpeed> <!--req, xs: integer --> </bgChangeSpeed> <!--background changing
speed: the values of ipc and speed dome are different, and can be got by abilities -->
    <minTargetSize> <!--opt, xs: integer --> </minTargetSize> <!--Target minimum size: only
for speed dome, 0-4(slow--fast), default value is 1 -->
    <suppressionLevel> <!--opt, xs: integer --> </suppressionLevel> <!--suppression: only for
speed dome, 0-4(slow--fast), default value is 1-->
    <lightSuppressionEnable> <!--req, xs: string "true, false" --> </lightSuppressionEnable>
<!--only for speed dome, whether to enablelight variation suppression-->
    <antiSheildEnable> <!--req, xs: string "true,false" --> </antiSheildEnable> <!--only for
speed dome, whether to enable antisheild function-->
    <traceTime> <!--req, xs: integer --> </traceTime> <!--only for speed dome, the time when
tracking object stop: 2S--600S, default value is 8S -->
    <outputMode> <!--opt - xs:integer --></outputMode> <!--ipc 0-Target center(by
default),1-bottom center, 2-top center-->
    <singleAlarmEnable> <!--opt xs:string"true,false"--></singleAlarmEnable> <!--ipc whether to
enable single alarm-->
    <leavesSuppressionEnable> <!--opt xs:string"true,false"--> </leavesSuppressionEnable> <!--ipc
-->
    <SizeFilter><!-- Global size filter ipc-->
    <enabled> <!--req, xs:string "true,false" --> </enabled>
    <mode> <!--req, xs:string,"pixels" --> </mode><!--Filter type: pixel size-->
    <MaxObjectSize><!--Max object size:float -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
      <width> <!--req, xs:integer --> </width>
      <height> <!--req, xs:integer --> </height>
    </MaxObjectSize>
    <MinObjectSize><!--Min object size:float -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>

```

```

    <positionY>      <!--req, xs:integer;coordinate  ->  </positionY>
    <width> <!--req, xs: integer -> </width>
    <height> <!--req, xs: integer -> </height>
    </MinObjectSize>
</SizeFilter>
    <isStop> <!--dep, xs: string"true,false"-> </isStop> <!--Stop tracking after detecting face,
    default value is false(behavior analysis+face detection, it's effective when the two exist
    simultaneously) -- >
    <gradeThreshold> <!--dep, xs: integer -> </gradeThreshold> <!--Threshold of end tracking:1-15,
    default value is 6(behavior analysis+face detection, it's effective when the two exist
    simultaneously)-- >
    <physiologyIdentifiTrigger> <!--opt, xs:boolean -> </physiologyIdentifiTrigger>
    <horizontalTrackLimit> <!--opt, xs: integer -> </horizontalTrackLimit>
</BehaviorParam>
<FaceParam>
    <enabled> <!--req, xs:string "true, false"-> </enabled> <!--enable face capture, not enabled by
    default-- >
    <imgInterval> <!--req, xs:integer -> </imgInterval> <!--Capture interval: (1-255frame), default
    value is 1 ->
    <imgNum> <!--req, xs:integer -> </imgNum> <!-- Capture number of single object:1-10, default
    value is 1-- >
    <sensitiveLevel> <!--req, xs:integer -> </sensitiveLevel> <!--Object detection sensitivity:1-5,
    default value is 3 -- >
    <threshold> <!--req, xs:integer 0-20 -> </threshold> <!--Capture threshold: 0-20, default value
    is 4 -- >
    <targetSpeed> <!--req, xs:integer 0-3 -> </targetSpeed> <!--, 1-5, default value is 3->
    <brightRef> <!--opt, xs:integer 0-100 -> </brightRef> <!--ipc bright reference,1-100, default is
    50->
    <exposureEnabled> <!--opt, xs:string "true,false"-> </exposureEnabled> <!--ipc enable face
    exposure->
    <expDurationTime> <!--opt, xs:integer 1-3600 -> </expDurationTime> <!--ipc the shortest
    duration time of face exposure,1-3600s, 60s by default>
    <ROIEnable> <!--opt, xs:string "true,false"-> </ROIEnable> <!--ipc whether to enable face ROI>
    <faceFilteringTime><!--opt, xs: integer -></faceFilteringTime>
</FaceParam>
</AlgParam>

```

8.18.4 /ISAPI/Intelligent/channels/ID/AlgParam/capabilities

S

ISAPI protocol interface definition

/ISAPI/Intelligent/channels/ID/AlgParam/ capabilities		General Resource	v2.0
GET			
Description	Get algorithm lib parameters by channel		
Query	None		
Inbound Data	None		
Success Return	AlgParamCap		
Notes:			
faceFilteringTime: 人脸过滤时间 (默认 5 秒, 范围 0-100 秒。0 秒表示不过滤。后面加注释: “配置过滤时间会增加实际抓拍次数小于配置的次数的可能性”。)			

AlgParamCap XML Block

```
<AlgParamCap version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <detectionSensitiveLevel> <!--req, xs: string --> </detectionSensitiveLevel>
  <bgChangeSpeed> <!--req, xs: string --> </bgChangeSpeed>
  <physiologyIdentifiTrigger> <!--opt, xs:boolean --> </physiologyIdentifiTrigger>
  <horizontalTrackLimit min="1" max="5"> <!--opt, xs: integer --> </horizontalTrackLimit>
  <faceFilteringTime min="0" max="100" default="5"> <!--opt, xs: integer --> </faceFilteringTime>
</AlgParamCap>
```

8.18.5 /ISAPI/Intelligent/channels/ID/faceCaptureStatistics

/search

/ISAPI/Intelligent/channels/ID/faceCaptureStatistics/search		General Resource	v2.0
GET			
Description	人脸抓拍人员统计查询		
Query	None		
Inbound Data	FaceCaptureStatisticsDescription		
Success Return	FaceCaptureStatisticsResult		

POST	
Description	人脸抓拍人员统计查询
Query	None
Inbound Data	FaceCaptureStatisticsDescription
Success Return	FaceCaptureStatisticsResult
Notes: Capabilities URL /ISAPI/Intelligent/channels/ID/faceCaptureStatistics/search/capabilities	

FaceCaptureStatisticsDescription XML Block

```
<FaceCaptureStatisticsDescription
version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <reportType>
    <!--req, xs:string, "daily,weekly,monthly,yearly"-->
  </reportType>
  <timeSpanList>
    <timeSpan>
      <startTime><!--req, xs:datetime --></startTime>
      <endTime><!--req, xs:datetime --></endTime>
    </timeSpan>
  </timeSpanList>
  <statType><!--req, xs:string, „age,gender,numberOfPeople,all“--></statType>
</FaceCaptureStatisticsDescription>
```

FaceCaptureStatisticsResult XML Block

```
<FaceCaptureStatisticsResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <responseStatus><!--req, xs:boolean--></responseStatus>
  <responseStatusStrg><!--req, xs:string--></responseStatusStrg>
  <numOfMatches><!--req, xs:integer --></numOfMatches>
  <matchList> <!--opt -->
    <matchElement> <!--opt -->
      <id> <!--req, xs:integer; id --> </id>
      <timeSpan> <!--req -->
        <startTime><!--req, xs:datetime --></startTime>
        <endTime><!--req, xs:datetime --></endTime>
      </timeSpan>
      <Age><!--opt, -->
        <teenage> <!--req, xs:integer --> </teenage>
        <youth> <!--req, xs:integer --> </youth>
        <midlife> <!--req, xs:integer --> </midlife>
        <elderly> <!--req, xs:integer --> </elderly>
      </Age>
      <Gender><!--opt, -->
```

```

        <male> <!--req, xs:integer --> </male>
        <female> <!--req, xs:integer --> </female>
    </Gender>
    <NumberOfPeople><!--opt, xs:integer --></NumberOfPeople>
</matchElement>
</matchList>
</FaceCaptureStatisticsResult>

```

FaceCaptureStatisticsDescription Capabilities XML Block

```

<FaceCaptureStatisticsDescription
version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <reportType opt="daily,weekly,monthly,yearly">
    <!--req, xs:string, -->
    </reportType>
    <timeSpanList>
        <timeSpan>
            <startTime><!--req, xs:datetime --></startTime>
            <endTime><!--req, xs:datetime --></endTime>
        </timeSpan>
    </timeSpanList>
    <statType opt="age,gender,numberOfPeople,all"><!--req, xs:string, --></statType>
</FaceCaptureStatisticsDescription>

```

8.18.6 /ISAPI/Intelligent/channels/ID/behaviorRule/<SID>/rule/ID

/ISAPI/Intelligent/channels/ID/behaviorRule/<SID>/rule/ID		General Resource	v2.0
D			
GET			
Description	Get scene rules by channel		
Query	None		
Inbound Data	None		
Success Return	RuleInfo		
PUT			
Description	Set scene rules by channel		
Query	None		
Inbound Data	RuleInfo		
Success Return	ResponseStatus		
DELETE			

Description	Delete scene rules
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

RuleInfo XML Block

```

<RuleInfo>
  <ruleId> <!--req, xs:string --> </ruleId>
  <ruleName> <!--req, xs:string --> </ruleName>
  <enabled> <!--req, xs:string "true,false" --> </enabled>
  <eventType><!--req,xs:string
"none,lineDetection,fieldDetection,regionEntrance,regionExiting,
loitering,group,rapidMove,parking,unattendedBaggage, attendedBaggage, teacher,student"-->
  </eventType>
  <ruleType> <!--req, xs:string "region, line"--> </ruleType>
  <LineDetectionParam/> <dep>
  <FieldDetectionParam/> <dep>
  <RegionEntranceParam/> <dep>
  <RegionExitingParam/> <dep>
  <LoiteringParam/> <dep>
  <GroupParam/> <dep>
  <RapidMoveParam/> <dep>
  <ParkingParam/> <dep>
  <UnattendedBaggageParam/> <!--dep-->
  <AttendedBaggageParam/> <!--dep-->
  <TeacherParam/> <!--dep-->
  <StudentParam/> <!--dep-->
  <SizeFilter><!--Dimension filter -->
    <enabled> <!--req, xs:string "true,false" --> </enabled>
    <mode> <!--req, xs:string,"pixels, actualSize" --> </mode><!--filter type: pixels-->
    <MaxObjectSize><!--Max size:float -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
      <width> <!--req, xs:integer --> </width>
      <height> <!--req, xs:integer --> </height>
    </MaxObjectSize>
    <MinObjectSize><!--Min size:float -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>

```

```

    <positionY>      <!--req, xs:integer;coordinate  ->  </positionY>
    <width> <!--req, xs: integer -> </width>
    <height> <!--req, xs: integer -> </height>
  </MinObjectSize>
</SizeFilter>
<RuleRegion><!--Region->
  <RegionCoordinatesList>
    <RegionCoordinates> <!--req, ->
      <positionX>      <!--req, xs:integer;coordinate  ->  </positionX>
      <positionY>      <!--req, xs:integer;coordinate  ->  </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</RuleRegion>
</RuleInfo>

<LineDetectionParam> <dep>
  <directionSensitivity> <!--req, xs:string "left-right,
right-left,any" -> </directionSensitivity>
</LineDetectionParam>

<FieldDetectionParam> <!--dep->
  <durationTime> <!--req, xs: integer -> </durationTime>
</FieldDetectionParam>

<RegionEntranceParam> <dep>
</RegionEntranceParam>

<RegionExitingParam> <dep>
</RegionExitingParam>

<LoiteringParam> <dep>
  <durationTime> <!--req, xs: integer -> </durationTime> <!--Duration time 1-100seconds,
1s by default->
</LoiteringParam>

<GroupParam> <dep>
  <populDensity> <!--dep, xs:integer -> </populDensity>  <!--population density 1-10->
</GroupParam>

```

```

<RapidMoveParam> <dep>
  <rapidMoveMode> <!--dep, xs:string "pixels,actualSize" --> </rapidMoveMode> <!--mode
pixel,actual size -->
  <distanceThreshold> <!--dep, xs:integer --> </distanceThreshold> <!--distance 1.pixels 1-10
2.actual size 1-20>
</RapidMoveParam>

<ParkingParam> <dep>
  <durationTime> <!--req, xs:integer --> </durationTime> <!--Duration time 5-100 second, 5
seconds by default -->
</ParkingParam>

<UnattendedBaggageParam> <dep>
  <durationTime> <!--req, xs:integer --> </durationTime> <!--Duration time 5-100 second, 5
seconds by default -->
</UnattendedBaggageParam>

<AttendedBaggageParam> <!--dep -->
  <durationTime> <!--req, xs:integer --> </durationTime> <!--Duration time 5-100 second, 5
seconds by default -->
</AttendedBaggageParam>

<TeacherParam> <!--dep -->
  <durationTime> <!--req, xs:integer --> </durationTime>
</TeacherParam>

<StudentParam> <!--dep -->
</StudentParam>

```

8.18.7 /ISAPI/Intelligent/channels/ID/behaviorRule/<SID>/ notifications

/ISAPI/Intelligent/channels/ID/behaviorRule/<SID>/notifi cations		General Resource v2.0
GET		
Description	Get tracking scene rules by channel	
Query	None	

Inbound Data	None
Success Return	RuleNotification
PUT	
Description	Set tracking scene rules by channel
Query	None
Inbound Data	RuleNotification
Success Return	ResponseStatus
Notes:	

RuleNotification XML Block

```

<RuleNotification version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <sid> <!--req, xs:string --> </sid>
  <RuleList>
    <RuleInfo>
      <ruleId> <!--req, xs:string --> </ruleId>
      <EventTriggerNotificationList>
        <EventTriggerNotification> <!--opt -->
          <id> <!--req, xs:string;id --> </id>
          <notificationMethod> <!--req, xs:string"IO,email,record,center,cloud"-->
          </notificationMethod>
          <notificationRecurrence><!--opt, xs:string, "beginning,beginningandend,recurring"
          >
          </notificationRecurrence>
          <notificationInterval> <!--dep, xs:integer, milliseconds --> </notificationInterval>
          <outputIOPortID> <!--dep, xs:string;id --> </outputIOPortID>
          <dynOutputIOPortID> <!--dep, xs:string;id --> </dynOutputIOPortID>
        </EventTriggerNotification>
      </EventTriggerNotificationList>
    </RuleInfo>
  </RuleList>
</RuleNotification>

```

8.18.8 /ISAPI/Intelligent/channels/ID/behaviorRule/<SID>/schedules

/ISAPI/Intelligent/channels/ID/behaviorRule/<SID>/sched

General Resource v2.0

ules	
GET	
Description	Get arming time of scene rules by channel
Query	None
Inbound Data	None
Success Return	RuleSchedule
PUT	
Description	Set arming time of scene rules by channel
Query	None
Inbound Data	RuleSchedule
Success Return	ResponseStatus
Notes:	

RuleSchedule XML Block

```

<RuleSchedule version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <sid> <!--req, xs:string -> </sid>
  <RuleList><!--规则信息 ->
    <RuleInfo>
      <ruleId> <!--req, xs:string -> </ruleId>
      <Schedule>
        <TimeBlockList> <!--req ->
          <TimeBlock>
            <dayOfWeek>
              <!--opt, xs:integer, ISO8601 weekday number, 1=Monday, ... ->
            </dayOfWeek>
            <TimeRange> <!--req ->
              <beginTime> <!--req, xs:time, ISO8601 time -> </beginTime>
              <endTime> <!--req, xs:time, ISO8601 time -> </endTime>
            </TimeRange>
          </TimeBlock>
        </TimeBlockList>
      </Schedule>
    </RuleInfo>
  </RuleList>
</RuleSchedule>

```

8.18.9 /ISAPI/Intelligent/channels/ID/capabilities

GET	
Description	Get supported intelligent types by device channel
Query	None
Inbound Data	None
Success Return	IntelliCap

IntelliCap XML Block

```

<IntelliCap version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isFaceSupport> <!--req, xs:string "true,false" --> </isFaceSupport>
  <isBehaviorSupport> <!--req, xs:string "true,false" --> </isBehaviorSupport>
  <isLineDetectionSupport> <!--req, xs:string "true,false" --> </isLineDetectionSupport>
  <isFieldDetectionSupport> <!--req, xs:string "true,false" --> </isFieldDetectionSupport>
  <isRegionEntranceSupport> <!--req, xs:string "true,false" --> </isRegionEntranceSupport>
  <isRegionExitingSupport> <!--req, xs:string "true,false" --> </isRegionExitingSupport>
  <isLoiteringSupport> <!--req, xs:string "true,false" --> </isLoiteringSupport>
  <isGroupSupport> <!--req, xs:string "true,false" --> </isGroupSupport>
  <isRapidMoveSupport> <!--req, xs:string "true,false" --> </isRapidMoveSupport>
  <isParkingSupport> <!--req, xs:string "true,false" --> </isParkingSupport>
  <isUnattendedBaggageSupport> <!--req, xs:string "true,false" -->
  </isUnattendedBaggageSupport>
  <isAttendedBaggageSupport> <!--req, xs:string "true,false" --> </isAttendedBaggageSupport>
  <isTeacherSupport> <!--req, xs:string "true,false" --> </isTeacherSupport>
  <isStudentSupport> <!--req, xs:string "true,false" --> </isStudentSupport>
  <isFaceCaptureStatisticsSupport> <!--req, xs:string "true,false" -->
</isFaceCaptureStatisticsSupport>
</IntelliCap>

```

8.19 /ISAPI/Compass

8.19.1 /ISAPI/Compass/channels/<ID>/capabilities

/ISAPI/Compass/channels/<ID>/capabilities		General Resource v2.0
GET		
Description		
Query	None	
Inbound Data	None	
Success Return	CompassCap	

CompassCap XML Block

```
<CompassCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <VandalProofAlarm> <!--req, →
    <isSupportUpload><!--req, xs:boolean "" →</isSupportUpload>
    <isSupportVoiceWarning><!--req, xs:boolean "" →</isSupportVoiceWarning>
  </VandalProofAlarm>
  <isSupportCalibrate> <!--opt, xs:boolean → </isSupportCalibrate>
  <isSupportPointToNorth> <!--opt, xs:boolean → </isSupportPointToNorth>
</CompassCap>
```

8.19.2 /ISAPI/Compass/channels/<ID>/vandalProofAlarm

/ISAPI/Compass/channels/<ID>/vandalProofAlarm		General Resource v2.0
GET		
Description		
Query	None	
Inbound Data	None	
Success Return	VandalProofAlarm	
PUT		
Description		
Query	None	
Inbound Data	VandalProofAlarm	
Success Return	ResponseStatus	
Notes:		

VandalProofAlarm XML Block

```
<VandalProofAlarm version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <sensitivityLevel><!--req, xs:integer, 1..100, 1 is the least sensitive →</sensitivityLevel>
  <upload><!--req, xs:boolean "" →</upload>
  <voiceWarning><!--req, xs:boolean "" →</voiceWarning>
</VandalProofAlarm>
```

8.19.3 /ISAPI/Compass/channels/<ID>/calibrate

/ISAPI/Compass/channels/<ID>/calibrate		General Resource v2.0
PUT		
Description		

Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

8.19.4 /ISAPI/Compass/channels/<ID>/pointToNorth

/ISAPI/Compass/channels/<ID>/pointToNorth	General Resource v2.0
PUT	
Description	
Query	None
Inbound Data	None
Success Return	ResponseStatus
Notes:	

Description	Update the device time information.
Query	None
Inbound Data	Time
Success Return	ResponseStatus
Notes:	
<p>If <timeMode> is present and set to "local", the <localTime> and <timeZone> fields are required. The <localTime> block sets the device time.</p> <p>If <timeMode> is present and set to "NTP", only the <timeZone> field is required. The device time is set by synchronizing with NTP.</p> <p>If <timeMode> is present and set to "satellite", the <localTime> and <timeZone> fields are not required.</p>	

Time XML Block

```
<Time version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <timeMode> <!--req, xs:string, "NTP, manual,satellite" → </timeMode>
  <localTime> <!--dep, xs:datetime → </localTime>
  <timeZone> <!--dep, xs:string, POSIX time zone string → </timeZone>
</Time>
```


8.20 /ISAPI/ITC

8.20.1 /ISAPI/ITC/capability

/ISAPI/ITC/capability		General Resource v2.0
GET		
Description	Base on supported ability(Capture camera, vehicle detection)	
Query	None	
Inbound Data	None	
Success Return	ITCCap	

ITCCap XML Block

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

8.20.2 /ISAPI/ITC/VideoEpolice

/ISAPI/ITC/VideoEpolice		General Resource v2.0
GET		
Description	Get index by channel	
Query	None	
Inbound Data	NONE	
Success Return	VideoEpolice	
PUT		
Description	Set index by channel	
Query	None	
Inbound Data	VideoEpolice	
Success Return	ResponseStatus	
Notes:		

VideoEpolice XML Block

```
<VideoEpolice version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <LaneCount> <!--req xs:integer,"1-2" -> </LaneCount>
  <LaneList>
```

```

<Lane>
  <laneId> <!--req xs:integer--> </laneId>
  <RegionCoordinatesList> <!--req -->
    <RegionCoordinates> <!--Note: only two coordinates are required -->
      <positionX> <!--req, xs:integer--> </positionX>
      <positionY> <!--req, xs:integer--> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</Lane>
</LaneList>
</VideoEpolice>

```

8.20.3 /ISAPI/ITC/illegalDictionary/capabilities

/ISAPI/ITC/illegalDictionary/capabilities		General Resource v2.0
GET		
Description	This function is used to get illegal dictionary capabilities	
Query	None	
Inbound Data	None	
Success Return	IllegalDictionary	
Notes:		
illegalCode: 违法代码（之前协议已经定义为 integer 类型）		
illegalName: 违法行为名称		
illegalStringCode: String 类型违法代码(新设备使用该节点上传违法代码,但是 illegalStringCode 中数字部分在中 illegalCode 上传,兼容新设备接入老 SDK,上层根据能力来判断,节点来判断设备支持的是 illegalStringCode,还是 illegalCode)		
illegalCodeLetterNum: 违法代码中支持的英文字母的个数		

IllegalDictionary XML Block

```

<IllegalDictionary version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <IllegalCodeList size=""> <!--req -->
    <IllegalCodeItem> <!--req -->
      <id min="" max=""> <!--req,xs:integer --> </id>
      <illegalCode min="" max=""> <!--req,xs:integer--> </illegalCode>
      <illegalName min="" max=""> <!--req,xs:string--> </illegalName>
      <illegalStringCode min="" max=""> <!--opt, xs:string--> </illegalStringCode>
      <illegalCodeLetterNum max=""> <!--opt,xs:integer--> </illegalCodeLetterNum>
    </IllegalCodeItem>
  </IllegalCodeList>

```

```
</IllegalDictionary>
```

Remark: 由于之前已将 illegalCode 协议定义为 integer 类型，现在的需求 illegalCode 中有字母上传，所样扩展 illegalCodeStr

8.20.4 /ISAPI/ITC/illegalDictionary

/ISAPI/ITC/illegalDictionary		General Resource v2.0
GET		
Description	This function is used to get illegal dictionary	
Query	None	
Inbound Data	None	
Success Return	IllegalDictionary	
PUT		
Description		
Query	None	
Inbound Data	IllegalDictionary	
Success Return	ResponseStatus	
Notes:		
illegalCode: 违法代码（之前协议已经定义为 integer 类型）		
illegalName: 违法行为名称		
illegalStringCode: String 类型违法代码(新设备使用该节点上传违法代码,但是 illegalStringCode 中数字部分在中 illegalCode 上传, 兼容新设备接入老 SDK, 如果有 illegalStringCode 节点上层只解析 illegalStringCode 节点, 否则解析 illegalCode 节点)		

IllegalDictionary XML Block

```
<IllegalDictionary version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <IllegalCodeList <!--req -->
    <IllegalCodeItem <!--req -->
      <id <!--req,xs:integer --> </id>
      <illegalCode <!--req,xs:string--> </illegalCode>
      <illegalName <!--req,xs:string--> </illegalName>
      <illegalStringCode <!--opt,xs:string--> </illegalStringCode>
    </IllegalCodeItem>
  </IllegalCodeList>
</IllegalDictionary>
```

8.20.5 /ISAPI/ITC/TriggerMode/TPS/capabilities

/ISAPI/ITC/TriggerMode/TPS/capabilities		Standard Resource v2.0
GET		
Description	交通参数采集模式能力	
Query	无	
Inbound Data	无	
Success Return	TPS	
Notes:		
<relatedLaneCount> 关联车道总数		
<relatedDriveWay> 关联车道号		
<enRealtimeDataUpload> 实时数据上传		
<enStatisticalDataUpload> 统计数据上传		
<statisticsTime> 统计间隔		
<laneVolumeEnable> 车道流量		
<laneAverageSpeedEnable> 车道平均速度		
<timeHeadwayEnable> 车头时距		
<spaceHeadwayEnable> 车头间距		
<timeOccupyRationEnable> 车道时间占有率		
<spaceOccupyRatioEnable> 车道空间占有率		
<queueLengthEnable> 车道排队长度		
<vehicleTypeEnable> 车辆类型		
<trafficStatusEnable > 通行状态		

TPS XML Block

```
<TPS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
<relatedLaneCount min="" max=""> <!--req xs:integer--> </relatedLaneCount>
<relatedDriveWay min="" max=""> <!--req xs:integer--> </relatedDriveWay>
<enRealtimeDataUpload > <!--req xs:boolean --> </enRealtimeDataUpload>
<enStatisticalDataUpload > <!--req xs:boolean --> </enStatisticalDataUpload>
<statisticsTime min="" max=""> <!--req xs:integer --> </statisticsTime>
<laneVolumeEnable > <!--req xs:boolean --> </laneVolumeEnable>
<laneAverageSpeedEnable> <!--req xs:boolean --> </ laneAverageSpeedEnable >
<timeHeadwayEnable > <!--req xs:boolean --> </timeHeadwayEnable>
<spaceHeadwayEnable > <!--req xs:boolean --> </spaceHeadwayEnable>
<timeOccupyRationEnable > <!--req xs:boolean --> </timeOccupyRationEnable>
<spaceOccupyRatioEnable > <!--req xs:boolean --> </spaceOccupyRatioEnable>
<queueLengthEnable > <!--req xs:boolean --> </queueLengthEnable>
<vehicleTypeEnable > <!--req xs:boolean --> </vehicleTypeEnable>
<trafficStatusEnable> <!--req xs:boolean --> </ trafficStatusEnable >
```

```

<sceneID min="" max=""><!--opt,xs:integer -><sceneID>
<enable opt="true,false"><!--opt,xs:string-><enable>
<sceneName max=""><!--opt,xs:string-><sceneName>
<isSupportSceneSave opt="true,false"><!--opt,xs:string-><isSupportSceneSave>
<LineEnable opt="true,false"><!--opt,xs:string-><LineEnable>
</TPS>

```

8.20.6 /ISAPI/ITC/TriggerMode/TPS/scence/<ID>

/ISAPI/ITC/TriggerMode/TPS/scence/<ID>		General Resource v2.0	
GET			
Description	用来获取交通参数采集应用模式参数。		
Query	无		
Inbound Data	无		
Success Return	TPS		
PUT			
Description	用来设置交通参数采集应用模式参数。		
Query	无		
Inbound Data	TPS		
Success Return	ResponseStatus		
Error Status Code	statusCode	subStatusCode	description
	3	badFlash	操作 flash 错误
	6	badXmlContent	错误的 xml 内容
	7	rebootRequired	请求重启之前操作生效
注: /ISAPI /ITC/TPS/recommendation获取推荐值 <relatedLaneCount>车道总数 <enRealtiemDataUpload>启用实时数据上传 <enStatisticalDataUpload>启用统计数据上传 <statisticsTime>统计间隔, 单位分钟 <RegionCoordinates>标定区域点坐标值 (4边形) <RegionWidth>标定区域宽度 <RegionLength>标定区域长度 <laneId>车道号 <laneVolumeEnable> 该车道车道流量检测是否开启 <laneVelocityEnable> 该车道车道平均速度检测是否开启 <timeHeadwayEnable> 该车道车头时距检测是否开启 <spaceHeadwayEnable> 该车道车头间距检测是否开启			

<timeOccupyRationEnable> 该车道车道时间占有率检测是否开启
 <SpaceOccupyRatioEnable> 该车道车道空间占有率检测是否开启
 <queueLengthEnable> 该车道排队长度检测是否开启
 <vehicleTypeEnable> 该车道车辆类型检测是否开启
 <trafficStatusEnable> 该车道通行状态检测是否开启
 <DirectionLine> 车道方向
 <AreaRegion> 车道区域点坐标
 <VirtualRegion> 虚拟线圈的点坐标
 URL: 增加场景的概念, 上层根据 /ISAPI/ITC/TriggerMode/TPS/capabilities 中是否返回 SceneID 来判断
 1. 如果返回 sceneID 节点 URL 使用 /ISAPI/ITC/TriggerMode/TPS/scence/<ID>
 2. 如果没有返回 sceneID 节点, 使用 /ISAPI/ITC/TriggerMode/TPS
 enable 使能节点: 只是对于 relatedLaneCount、enRealtiemDataUpload、enStatisticalDataUpload、statisticsTime、sceneName 这些节点的使能
 LineEnable: 车道功能使能
 sceneName: 场景名称

TPS XML Block

```

<TPS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <relatedLaneCount><!--reqxs:integer,"1-8"--></relatedLaneCount>
  <enRealtiemDataUpload><!--req, xs:boolean --></enRealtiemDataUpload> //实时数据上传
  <enStatisticalDataUpload><!--req, xs:boolean --></enStatisticalDataUpload> //统计数据上传
  <statisticsTime><!--reqxs:integer --></statisticsTime> //统计间隔 单位: 分钟
  <CalibrationRegion>
    <RegionCoordinatesList> <!--req -->
      <RegionCoordinates> <!--req -->
        <positionX> <!--req, xs:integer--> </positionX>
        <positionY> <!--req, xs:integer--> </positionY>
      </RegionCoordinates>
    </RegionCoordinatesList>
    <RegionWidth> <!--req, xs:integer--> </RegionWidth>
    <RegionLength> <!--req, xs:integer--> </RegionLength>
  </CalibrationRegion>
  <LaneParamList> <!--req -->
    <LaneParam>
      <laneld> <!--req xs:integer --></laneld>
  
```

	<pre> <relatedDriveWay> <!--req xs:integer--> </relatedDriveWay> <DataAcqType> <laneVolumeEnable><!--req, xs:boolean --></laneVolumeEnable> //车 道流量 <laneVelocityEnable><!--req, xs:boolean --></laneVelocityEnable> // 车 道平均速度 <timeHeadwayEnable><!--req, xs:boolean --></timeHeadwayEnable> // 车头时距 <spaceHeadwayEnable><!--req, xs:boolean --></spaceHeadwayEnable> //车头间距 <timeOccupyRationEnable><!--req, xs:boolean --></timeOccupyRationEnable> //车道时间占有率 <spaceOccupyRatioEnable><!--req, xs:boolean --></SpaceOccupyRatioEnable> //车道空间占有率 <queueLengthEnable><!--req, xs:boolean --></queueLengthEnable> // 排队长度 <vehicleTypeEnable><!--req, xs:boolean --></vehicleTypeEnable> //车辆 类型 <trafficStatusEnable><!--req, xs:boolean --></trafficStatusEnable> //通行 状态 </DataAcqType> <DirectionLine> <!--req --> <lineName> <!--req xs:string,"DirectionLine" --></lineName> <RegionCoordinatesList> <RegionCoordinates> <!--Note: only two coordinates are required --> <positionX> <!--req, xs:integer--> </positionX> <positionY> <!--req, xs:integer--> </positionY> </RegionCoordinates> </RegionCoordinatesList> </DirectionLine> <AreaRegion> //车道区域 <RegionCoordinatesList> <!--req --> <RegionCoordinates> <!--req --> <positionX> <!--req, xs:integer--> </positionX> <positionY> <!--req, xs:integer--> </positionY> </RegionCoordinates> </RegionCoordinatesList> </AreaRegion> </pre>
--	--

```

<VirtualRegion>//虚拟线圈
  <RegionCoordinatesList> <!--req -->
    <RegionCoordinates> <!--req -->
      <positionX> <!--req, xs:integer --> </positionX>
      <positionY> <!--req, xs:integer --> </positionY>
    </RegionCoordinates>
  </RegionCoordinatesList>
</VirtualRegion >
  <LineEnable><!--opt,xs:string--><LineEnable>
</LaneParam>
</LaneParamList>
<enable><!--opt,xs:string--><enable>
<sceneName><!--opt,xs:string--><sceneName>
<CheckoutLine><!--opt -->
  <StartPoint><!--verify two points coordinate-->
    <positionX> <!--req, xs:integer --> </positionX>
    <positionY> <!--req, xs:integer --> </positionY>
  </StartPoint>
  <EndPoint>
    <positionX> <!--req, xs:integer --> </positionX>
    <positionY> <!--req, xs:integer --> </positionY>
  </EndPoint>
</CheckoutLine>
</TPS>

```

8.21 /ISAPI/System/time/

8.21.1 /ISAPI/System/time/capabilities

GET	
Description	Get the device time information capabilities.
Query	None
Inbound Data	None
Success Return	Time

Time XML Block

```
<Time version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <timeMode opt="NTP,manual,satellite,timecorrect" def="satellite"> <!--req, xs:string -->
</timeMode>
  <localTime> <!--dep, xs:datetime --> </localTime>
  <timeZone> <!--dep, xs:string, POSIX time zone string --> </timeZone>
</Time>
```

8.21.2 /ISAPI/System/time

/ISAPI/System/time		General Resource v2.0
GET		
Description	Get the device time information.	
Query	None	
Inbound Data	None	
Success Return	Time	
PUT		
Description	Update the device time information.	
Query	None	
Inbound Data	Time	
Success Return	ResponseStatus	
Notes: If <timeMode> is present and set to "local", the <localTime> and <timeZone> fields are required. The <localTime> block sets the device time. If <timeMode> is present and set to "NTP", only the <timeZone> field is required. The device time is set by synchronizing with NTP. If <timeMode> is present and set to "satellite", the <localTime> and <timeZone> fields are not required.		

Time XML Block

```
<Time version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <timeMode> <!--req, xs:string, "NTP, manual,satellite,timecorrect" --> </timeMode>
  <localTime> <!--dep, xs:datetime --> </localTime>
  <timeZone> <!--dep, xs:string, POSIX time zone string --> </timeZone>
</Time>
```

8.22 /ISAPI/System/fisheye/

8.22.1 /ISAPI/System/fisheye/

/ISAPI/System/fisheye/		General Resource v2.0
GET		
Description	Get fisheye param	
Query	None	
Inbound Data	None	
Success Return	FishEye	
PUT		
Description	Set fisheye param	
Query	None	
Inbound Data	FishEye	
Success Return	ResponseStatus	
Notes: streamingMode: mode1: fisheye+panorama+3PTZ; mode2: fisheye +4PTZ; mode3: fisheye (primary)+ fisheye (secondary)+3PTZ; mode4: panorama (main stream + sub stream); mode5: 4PTZ mode6: fisheye		

FishEye XML Block

```
<FishEye version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
<type><!--req, xs:string, "ceiling,wall,desktop" --></type>
<streamingMode> <!--opt, xs:string,
"mode1,mode2,mode3,mode4,mode5,mode6" --></streamingMode>
</FishEye>
```

8.22.2 /ISAPI/System/fisheye/capabilities

/ISAPI/System/fisheye/capabilities		General Resource v2.0
GET		
Description	Set fisheye capabilities	
Query	None	
Inbound Data	None	
Success Return	FishEye	

Notes:

FishEye XML Block

```
<FishEye version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
<type opt="ceiling,wall,desktop"><!--req, xs:string--></type>
<streamingMode opt="mode1,mode2,mode3,mode4,mode5,mode6"><!--opt,
xs:string--></streamingMode>
<isSupportEPTZParam><!--opt, xs:boolean --></isSupportEPTZParam>
</FishEye>
```

8.22.3 /ISAPI/System/fisheye/EPTZParam

ISAPI/System/fisheye/EPTZParam		General Resource v2.0
GET		
Description	Get EPTZ param	
Query	None	
Inbound Data	None	
Success Return	EPTZParam	
PUT		
Description	Set EPTZ param	
Query	None	
Inbound Data	EPTZParam	
Success Return	ResponseStatus	
Notes:		

EPTZParam XML Block

```
<EPTZParam version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enableEPTZ><!--req, xs:boolean --></enableEPTZ>
</EPTZParam>
```

8.22.4 /ISAPI/System/fisheye/EPTZParam/capabilities

/ISAPI/System/fisheye/EPTZParam/capabilities		General Resource v2.0
GET		
Description	Get EPTZ capabilities	
Query	None	
Inbound Data	None	

Success Return	EPTZParam
----------------	-----------

EPTZParam XML Block

```
<EPTZParam version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enableEPTZ><!-- req, xs:boolean --></enableEPTZ>
</EPTZParam>
```

8.23 /ISAPI/Thermal

8.23.1 /ISAPI/Thermal/capabilities

/ISAPI/Thermal/capabilities	General Resource v2.0
GET	
Description	Get Fire thermal event capabilities.
Query	None
Inbound Data	None
Success Return	ThermalCap
Notes:	

ThermalCap XML Block

```
<ThermalCap version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <isSupportFireDetection> <!--opt ,xs:boolean --> </isSupportFireDetection>
  <isFireFocusZoomSupport> <!--opt ,xs:boolean --> </isFireFocusZoomSupport>
  <isSupportThermometry> <!--opt ,xs:boolean --> </isSupportThermometry>
  <isSupportRealtimeThermometry> <!--opt ,xs:boolean -->
</isSupportRealtimeThermometry>
  <isSupportThermIntell> <!--opt ,xs:boolean --> </isSupportThermIntell>
</ThermalCap>
```

8.23.2 /ISAPI/Thermal/channels/<ID>/fireDetection/capabilities

/ISAPI/Thermal/channels/<ID>/fireDetection/capabilities	General Resource v2.0
GET	

Description	It is used to get Fire Detection capability. The interface is distinguished by channel ID
Query	None
Inbound Data	None
Success Return	FireDetection
Notes:	
<fireFrameDis>: Display fire source frame around the fire source	
<fireMaxTemp>: The maximum temperature	
<fireMaxTempPosition>: Display the position of maximum temperature	
<fireDistance>: The distance from maximum temperature	

FireDetection XML Block

```
<FireDetection version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <enabled> <!--req ,xs:boolean → </enabled>
  <sensitivity min="1" max="100"> <!--req ,xs:integer 1..10 → </sensitivity>
  <fireComfirmTime min="0" max="120"> <!--req ,xs:integer 0..120 →
</fireComfirmTime>
  <fireRegionOverlay> <!--opt ,xs:boolean → </fireRegionOverlay>
  <fireFrameDis> <!--opt ,xs:boolean, ro → </fireFrameDis>
  <fireMaxTemp> <!--opt ,xs:boolean, ro → </fireMaxTemp>
  <fireMaxTempPosition> <!--opt ,xs:boolean, ro → </fireMaxTempPosition>
  <fireDistance> <!--opt ,xs:boolean, ro → </fireDistance>
</FireDetection>
```

8.23.3 /ISAPI/Thermal/channels/<ID>/fireDetection

/ISAPI/Thermal/channels/<ID>/fireDetection		General Resource v2.0
GET		
Description	Get Fire Detection Param Info. The interface is distinguished by channel ID	
Query	None	
Inbound Data	None	
Success Return	FireDetection	
PUT		
Description	Set Fire Detection Param Info.	
Query	None	
Inbound Data	FireDetection	
Success Return	ResponseStatus	
Notes:		
Enabled: To enable fire detection or not.		
Sensitivity: Adjust the sensitivity degree of dynamic fire source detection. The bigger the		

number is, the more sensitive the detecting would be.

fireComfirmTime: If suspicious fire source is found during speed dome moving, the time that speed dome keeps staying in this position can be set, then speed dome continuous to previous movement.

fireRegionOverlay: Choose to display a red frame around the fire source on stream or not when fire occurs

FireDetection XML Block

```
<FireDetection version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <enabled> <!--req ,xs:boolean → </enabled>
  <sensitivity> <!--req ,xs:integer 1..100 → </sensitivity>
  <fireComfirmTime> <!--req ,xs:integer 0..120 → </fireComfirmTime>
  <fireRegionOverlay> <!--opt ,xs:boolean → </fireRegionOverlay>
</FireDetection>
```

8.23.4 /ISAPI/Thermal/channels/<ID>/fireFocusZoom

/ISAPI/Thermal/channels/<ID>/fireFocusZoom		General Resource v2.0
PUT		
Description	Set Fire focus zoom.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		
Set focus and zoom when fire is detected.		

8.23.5 /ISAPI/Thermal/channels/<ID>/thermometry/<SID>/capabilities

/ISAPI/Thermal/channels/<ID>/thermometry/<SID>/capabilities		General Resource v2.0
GET		
Description	It is used to get Temperature Measurement Relate Preset Info capability.	
Query	None	
Inbound Data	None	
Success Return	ThermometryScene	

Notes:

channels/<ID> : ID represents the preview channel number;
 thermometry/<SID> :SID represents the scene ID. If the ID is 0, it means preset number isn't supported.
 Emissivity
 Distance: unit is meter
 reflectiveTemperature: The unit of relective temperature and basicParam stay the same.

ThermometryScene XML Block

```
<ThermometryScene version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <normalizedScreenSize><!--req, ro ->
    <normalizedScreenWidth><!--req, ro,xs:integer -> </normalizedScreenWidth>
    <normalizedScreenHeight><!--req, ro,xs:integer -> </normalizedScreenHeight>
  </normalizedScreenSize>
  <ThermometryRegionList size="">
    <ThermometryRegion version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
      <id min="1" max="40"><!--req ,xs:integer -> </id>
      <enabled opt="true,false"><!--req ,xs:boolean -> </enabled>
      <name min="0" max="32"><!--req, xs:string -> </name>
      <emissivity min="0.01" max="1.00"><!--req ,xs:float-> </emissivity>
      <distance min="0" max="10000"><!--req ,xs:integer; unit:m-> </distance>
      <reflectiveEnable><!--req ,xs:boolean -> </reflectiveEnable>
      <reflectiveTemperature min="" max=""><!--opt ,xs:float ->
</reflectiveTemperature>
      <type opt="point,region,line"><!--req, xs:string"point,region,line" -></type>
      <Point>
        <TempValue min="-40.0" max="1000.0"><!--dep, xs:float "-40.0 ..
1000.0" ro-> </TempValue>
        <CalibratingCoordinates > <!--dep ->
          <positionX> <!--req, xs:integer;coordinate ->
</positionX>
          <positionY> <!--req, xs:integer;coordinate ->
</positionY>
        </CalibratingCoordinates >
      </Point>
      <Region>
        <highestTempValue min="-40.0" max="1000.0"><!--dep, xs: float ro->
</highestTempValue>
        <lowestTempValue min="-40.0" max="1000.0"><!--dep, xs: float ro->
</lowestTempValue>
        <averageTempValue min="-40.0" max="1000.0"><!--dep, xs: float ro->
</averageTempValue>
```

```

        <diffTempValue min="-40.0" max="1000.0"> <!--dep, xs: float ro-->
</diffTempValue>
        <RegionCoordinatesList size=""> <!--dep -->
            <RegionCoordinates> <!--opt -->
                <positionX> <!--req, xs:integer;coordinate -->
</positionX>
                <positionY> <!--req, xs:integer;coordinate -->
</positionY>
            </RegionCoordinates>
        </RegionCoordinatesList>
    </Region>
    <Line>
        <highestTempValue min="-40.0" max="1000.0"> <!--dep, xs: float ro-->
</highestTempValue>
        <lowestTempValue min="-40.0" max="1000.0"> <!--dep, xs: float ro-->
</lowestTempValue>
        <RegionCoordinatesList size=""> <!--dep -->
            <RegionCoordinates> <!--opt -->
                <positionX> <!--req, xs:integer;coordinate -->
</positionX>
                <positionY> <!--req, xs:integer;coordinate -->
</positionY>
            </RegionCoordinates>
        </RegionCoordinatesList>
    </Line>
</ThermometryRegion>
</ThermometryRegionList>
</ThermometryScene>

```

8.23.6 /ISAPI/Thermal/channels/<ID>/thermometry/<SID>

/ISAPI/Thermal/channels/<ID>/thermometry/<SID>		General Resource v2.0
GET		
Description	It is used to get Temperature Measurement Relate Preset Info capability.	
Query	None	
Inbound Data	None	
Success Return	ThermometryScene	
Notes:		
SID: Scene ID, equivalent to preset ID. If the ID is 0, it means preset number isn't		

supported.
Id: Scene ID

ThermometryScene **XML Block**

```
<ThermometryScene version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req ,xs:integer -> </id>
  <normalizedScreenSize><!--req, ro ->
    <normalizedScreenWidth> <!--req, ro,xs:integer -> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro,xs:integer -> </normalizedScreenHeight>
  </normalizedScreenSize>
  <ThermometryRegionList/>
</ThermometryScene>
```

8.23.7 /ISAPI/Thermal/channels/<ID>/thermometry/<SID>/regions

/ISAPI/Thermal/channels/<ID>/thermometry/<SID>/region		General Resource v2.0
s		
GET		
Description	Get Temperature Measurement Region Info.	
Query	None	
Inbound Data	None	
Success Return	ThermometryRegionList	
PUT		
Description	Set Temperature Measurement Region Info.	
Query	None	
Inbound Data	ThermometryRegionList	
Success Return	ResponseStatus	
Notes:		

ThermometryRegionInfoList **XML Block**

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

8.23.8 /ISAPI/Thermal/channels/<ID>/thermometry/<SID> /regions/<ID>

/ISAPI/Thermal/channels/<ID>/thermometry/<SID>/regions/<ID>		General Resource v2.0
GET		
Description	Get Temperature Measurement Preset Info.	
Query	None	
Inbound Data	None	
Success Return	ThermometryRegion	
PUT		
Description	Set Temperature Measurement Preset Info.	
Query	None	
Inbound Data	ThermometryRegion	
Success Return	ResponseStatus	
Notes:		
emissivity(correct to two decimal places)		
reflectiveTemperature(correct to one decimal place)		

ThermometryRegion XML Block

```
<ThermometryRegion version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req ,xs:integer -> </id>
  <enabled> <!--req ,xs:boolean -> </enabled>
  <name> <!--req, xs:string -> </name>
  <emissivity> <!--req ,xs:float-> </emissivity>
  <distance> <!--req ,xs:integer-> </distance>
  <reflectiveEnable><!--req ,xs:boolean -> </reflectiveEnable>
  <reflectiveTemperature> <!--opt ,xs:float -> </reflectiveTemperature>
  <type opt="point,region,line"> <!--req, xs:string"point,region,line" -></type>
  <Point>
    <TempValue> <!--dep, xs:float "-40.0 .. 1000.0" ro-> </TempValue>
    <CalibratingCoordinates> <!--dep ->
      <positionX> <!--req, xs:integer;coordinate -> </positionX>
      <positionY> <!--req, xs:integer;coordinate -> </positionY>
    </CalibratingCoordinates>
  </Point>
  <Region>
    <highestTempValue> <!--dep, xs: float "-40.0 .. 1000.0" ro->
```

```

</highestTempValue>
    <lowestTempValue> <!--dep, xs: float "-40.0 .. 1000.0" ro-->
</lowestTempValue>
    <averageTempValue> <!--dep, xs: float "-40.0 .. 1000.0" ro-->
</averageTempValue>
    <diffTempValue> <!--dep, xs: float "-40.0 .. 1000.0" ro--> </diffTempValue>
    <RegionCoordinatesList> <!--dep -->
        <RegionCoordinates> <!--opt -->
            <positionX> <!--req, xs:integer;coordinate --> </positionX>
            <positionY> <!--req, xs:integer;coordinate --> </positionY>
        </RegionCoordinates>
    </RegionCoordinatesList>
</Region>
</ThermometryRegion>

```

8.23.9 /ISAPI/Thermal/channels/<ID>/thermometry/basicParam/capabilities

/ISAPI/Thermal/channels/<ID>/thermometry/basicParam/capabilities		General Resource v2.0
GET		
Description	It is used to get Temperature Measurement capability.	
Query	None	
Inbound Data	None	
Success Return	ThermometryBasicParam	
Notes:		
channels/<ID> : ID represents the preview channel number(the 1 st channel by default)		
streamOverlay :		
pictureOverlay :		
temperatureRange :		
temperatureUnit :		

ThermometryBasicParam XML Block

```

<ThermometryBasicParam version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
    <id> <!--req, xs:integer --> </id>
    <enabled opt="true,false"> <!--req ,xs:boolean --> </enabled>
    <streamOverlay opt="true,false"> <!--req ,xs:boolean --> </streamOverlay>
    <pictureOverlay opt="true,false"> <!--req ,xs:boolean --> </pictureOverlay>

```

```

    <temperatureRange opt="-20~150,0~550"> <!--req ,xs:string ->
</temperatureRange>
    <temperatureUnit opt="degreeCentigrade,degreeFahrenheit,degreeKelvin">
<!--req ,xs:string -> </temperatureUnit>
</ThermometryBasicParam>

```

8.23.10 /ISAPI/Thermal/channels/<ID>/thermometry/basicParam

/ISAPI/Thermal/channels/<ID>/thermometry/basicParam		General Resource v2.0
GET		
Description	Get Temperature Measurement Basic Param Info.	
Query	None	
Inbound Data	None	
Success Return	ThermometryBasicParam	
PUT		
Description	Set Temperature Measurement Basic Param Info.	
Query	None	
Inbound Data	ThermometryBasicParam	
Success Return	ResponseStatus	
Notes:		
channels/<ID> : ID represents the preview channel number		

ThermometryBasicParam XML Block

```

<ThermometryBasicParam version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
    <id> <!--req, xs:integer -> </id>
    <enabled> <!--req ,xs:boolean -> </enabled>
    <streamOverlay> <!--req ,xs:boolean -> </streamOverlay>
    <pictureOverlay> <!--req ,xs:boolean -> </pictureOverlay>
    <temperatureRange opt="-20~150,0~550"> <!--req ,xs:string ->
</temperatureRange>
    <temperatureUnit opt="degreeCentigrade,degreeFahrenheit,degreeKelvin">
<!--req ,xs:string -> </temperatureUnit>
</ThermometryBasicParam>

```

8.23.11 /ISAPI/Thermal/channels/<ID>/thermometry/<SID> /alarmRules/capabilities

/ISAPI/Thermal/channels/<ID>/thermometry/<SID>/alarm Rule/capabilities		General Resource v2.0
GET		
Description	It is used to get Temperature Measurement AlarmRule capability.	
Query	None	
Inbound Data	None	
Success Return	ThermometryAlarmRule	
Notes:		

ThermometryAlarmRule XML Block

```

<ThermometryAlarmRule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ThermometryAlarmModeList size="">
    <ThermometryAlarmMode>
      <id min="" max=""> <!--req, xs:inter -> </id>
      <enabled opt="true,false"> <!--req ,xs:boolean -> </enabled>
      <name min="0" max="32"> <!--req, xs:string ro -> </name>
      <pointRule opt="averageGreater,averageLess" def="averageGreater">
<!--req, xs:string, -> </pointRule>
      <lineRule
opt="highestGreater,highestLess,lowestGreater,lowestLess,averageGreater,averageLess
" def="averageGreater"> <!--req, xs:string, -> </lineRule>
      <regionRule
opt="highestGreater,highestLess,lowestGreater,lowestLess,averageGreater,averageLess,
diffTempGreater,diffTempLess" def="averageGreater"> <!--req, xs:string, ->
</regionRule>
      <alert min="0" max="32"> <!--req ,xs: float -> </alert>
      <alarm min="0" max="32"> <!--req ,xs: float -> </alarm>
      <threshold min="0" max="32"> <!--req ,xs: float -> </threshold>
    </ThermometryAlarmMode>
  </ThermometryAlarmModeList>
  <TemperatureDifferenceComparisonList size="">
    <TemperatureDifferenceComparison>
      <id min="" max=""> <!--req, xs:inter -> </id>
      <enabled opt="true,false"> <!--req ,xs:boolean -> </enabled>
      <ruleID1 min="" max=""> <!--req, xs:string -> </ruleID1>

```

```

<ruleID2 min="" max=""> <!--req, xs:string -> </ruleID2>
  <pointRule opt="averageGreater,averageLess" def="averageGreater">
<!--req, xs:string, -> </pointRule>
    <lineRule
opt="highestGreater,highestLess,lowestGreater,lowestLess,averageGreater,averageLess
" def="averageGreater"> <!--req, xs:string, -> </lineRule>
      <regionRule
opt="highestGreater,highestLess,lowestGreater,lowestLess,averageGreater,averageLess,
diffTempGreater,diffTempLess" def="averageGreater"> <!--req, xs:string, ->
</regionRule>
        <temperatureDifference min="0" max="32"> <!--req, xs: float ->
</temperatureDifference>
          </TemperatureDifferenceComparison>
        </TemperatureDifferenceComparisonList>
      </ThermometryAlarmRule>

```

8.23.12 /ISAPI/Thermal/channels/<ID>/thermometry/<SID> /alarmRules

/ISAPI/Thermal/channels/<ID>/thermometry/<SID>/alarm		General Resource	v2.0
Rules			
GET			
Description	Get Temperature Measurement Alarm Rule Info.		
Query	None		
Inbound Data	None		
Success Return	ThermometryAlarmRule		
PUT			
Description	Set Temperature Measurement Alarm Rule Info.		
Query	None		
Inbound Data	ThermometryAlarmRule		
Success Return	ResponseStatus		
Notes:			
AlarmRule/<ID>	:ID ruleID		

ThermometryAlarmRule XML Block

```

<ThermometryAlarmRule version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ThermometryAlarmModeList size="">
    <ThermometryAlarmMode>
      <id min="" max=""> <!--req, xs:inter -> </id>

```

```

<enabled> <!--req ,xs:boolean -> </enabled>
<name> <!--req, xs:string -ro -> </name>
<rule
opt="highestGreater,highestLess,lowestGreater,lowestLess,averageGreater,averageLess,
diffTempGreater,diffTempLess"> <!--req, xs:string, -> </rule>
<alert> <!--req ,xs: float -> </alert>
<alarm> <!--req ,xs: float -> </alarm>
<threshold> <!--req ,xs: float -> </threshold>
</ThermometryAlarmMode>
</ThermometryAlarmModeList>
<TemperatureDifferenceComparisonList size="">
<TemperatureDifferenceComparison>
<id min="" max=""> <!--req, xs:inter -> </id>
<enabled> <!--req ,xs:boolean -> </enabled>
<ruleID1 min="" max=""> <!--req, xs:string -> </ruleID1>
<ruleID2 min="" max=""> <!--req, xs:string -> </ruleID2>
<rule
opt="highestGreater,highestLess,lowestGreater,lowestLess,averageGreater,averageLess,
diffTempGreater,diffTempLess"> <!--req, xs:string, -> </rule>
<temperatureDifference> <!--req, xs: float -> </temperatureDifference>
</TemperatureDifferenceComparison>
</TemperatureDifferenceComparisonList>
</ThermometryAlarmRule>

```

8.23.13 /ISAPI/Thermal/channels/<ID>/thermIntell/capabilities

/ISAPI/Thermal/channels/<ID>/thermIntell/capabilities		General Resource v2.0
GET		
Description	Get the mutex capabilities of thermal camera.	
Query	None	
Inbound Data	None	
Success Return	ThermIntell	
Notes:		
channels/<ID>: ID represents preview channel number (the 1 st channel by default)		
<intellType> Intelligent functions type:		
thermometryAndSmart: thermometry+ VCA(default)		
shipsDetection: ships detection		
fireDetection: fire detection		

ThermIntell XML Block

```
<ThermIntell version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:integer --> </id>
  <intellType opt="thermometryAndSmart,shipsDetection,fireDetection"
def="thermometryAndSmart"> <!--req ,xs:string --> </intellType>
</ThermIntell>
```

8.23.14 /ISAPI/Thermal/channels/<ID>/thermIntell

/ISAPI/Thermal/channels/<ID>/thermIntell		General Resource v2.0
GET		
Description	Get the mutex configuration parameters of thermal camera	
Query	None	
Inbound Data	None	
Success Return	thermIntell	
PUT		
Description	Set the mutex configuration parameters of thermal camera	
Query	None	
Inbound Data	thermIntell	
Success Return	ResponseStatus	
Notes:		
channels/<ID> : ID represents the preview channel number		
<intellType> Intelligent functions type:		
thermometryAndSmart: thermometry+ VCA(default)		
shipsDetection: ships detection		
fireDetection: fire detection		

ThermIntell XML Block

```
<ThermIntell version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!--req, xs:integer --> </id>
  <intellType> <!--req ,xs:string,opt="thermometryAndSmart,shipsDetection,fireDetection"
def="thermometryAndSmart" --> </intellType>
</ThermIntell>
```


8.24 /ISAPI/System/lowPower

8.24.1 /ISAPI/System/lowPower

/ISAPI/System/lowPower		General Resource v2.0
GET		
Description	It is used to get the LowPower configuration	
Query	None	
Inbound Data	None	
Success Return	LowPower	
PUT		
Description	It is used to configure LowPower.	
Query	None	
Inbound Data	LowPower	
Success Return	hik:ResponseStaus ResponseStatus	
Notes:		

LowPower XML Block

```

<LowPower version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <mode><!--opt,xs:string,"manual,schedule"--></mode>
  <enabled><!--dep, xs:boolean, "true,false" depending on the 'manual' in mode
-></enabled>
  <Schedule> <!--dep, depending on the 'schedule' in mode ->
    <TimeRange> <!--req ->
      <beginTime> <!--req, xs:time, ISO8601 time hh:mm:ss-> </beginTime>
      <endTime> <!--req, xs:time, ISO8601 time hh:mm:ss-> </endTime>
    </TimeRange>
  </Schedule>
</LowPower>

```

8.24.2 /ISAPI/System/lowPower/capabilities

/ISAPI/System/lowPower/capabilities		General Resource v2.0
GET		
Description	It is used to get the LowPower configuration	
Query	None	
Inbound Data	None	
Success Return	LowPower	
Notes:		

LowPower XML Block

```

<LowPower version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <mode opt="manual,schedule"><!--opt,xs:string,→</mode>
  <enabled><!--dep, xs:boolean, "true,false" depending on the 'manual' in mode
  →</enabled>
  <Schedule> <!--dep, depending on the 'schedule' in mode →
    <TimeRange> <!--req →
      <beginTime> <!--req, xs:time, ISO8601 time hh:mm:ss→ </beginTime>
      <endTime> <!--req, xs:time, ISO8601 time hh:mm:ss→ </endTime>
    </TimeRange>
  </Schedule>
</LowPower>

```

8.25 /ISAPI/System/USBUpgrade

8.25.1 /ISAPI/System/USBUpgrade/Search

/ISAPI/System/USBUpdate/Search		General Resource v2.0
POST		
Description	Search the files for upgrading in USB, such as digicap.dav/digicap.mav, ectc.	
Query	None	
Inbound Data	<USBSearchDescription>	
Success Return	<USBSearchResult>	
Notes:		

USBSearchDescription XML Block

```

<USBSearchDescription version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <searchResultPosition><!--req, xs: integer, the start searching position, start from
  1→</searchResultPosition>
  <maxResults><!--req, xs: integer, the maximum returned number→</maxResults>
</USBSearchDescription>

```

USBSearchResult XML Block

```

<USBSearchResult version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <responseStatus>true</responseStatus>

```

```

<responseStatusStrg>OK/MORE<!--OK represents end searching, MORE
represents under to be continued--></responseStatusStrg>
<numOfMatches><!--req, xs: integer, the returned number --></numOfMatches>
<FilePathList><!--opt upgrading files -->
  <FilePath>
    <id><!--req,xs:integer; start from 1--></id>
    <path><!--req,xs:string;--></path>
  </FilePath>
</FilePathList>
</USBSearchResult>

```

8.25.2 /ISAPI/System/USBUpgrade/UpgradeDevice

/ISAPI/System/USBUpgrade/UpgradeDevice		General Resource v2.0
PUT		
Description	Upgrade firmware basing on the path in USB	
Query	None	
Inbound Data	<FilePath>	
Success Return	ResponseStatus	

UpdateFilePath XML Block

```

<FilePath>
  <id><!--req,xs:integer; start from 1--></id>
  <path><!--opt,xs:string;--></path>
</FilePath>

```

8.25.3 /ISAPI/System/USBUpgrade/UpgradeDeviceStatus

/ISAPI/System/USBUpgrade/upgradeDeviceStatus		General Resource v2.0
GET		
Description	Get the USB upgrading status	
Query	None	
Inbound Data	None	
Success Return	<UpgradeStatus>	
Notes:		

upgradeStatus XML Block

```

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

```

```
<upgrading> <!--ro, req, xs:boolean -> </upgrading>
<percent> <!--ro, req, xs:integer "0-100" -> </percent>
</UpgradeStatus>
```

8.25.4 /ISAPI/System/USBUpgrade/channels/id/UpgradeIP

C

/ISAPI/System/USBUpgrade/channels/id/UpgradeIP		General Resource v2.0
C		
PUT		
Description	Upgrade the firmware of IP camera in digital channel through USB	
Query	None	
Inbound Data	<FilePath>	
Success Return	ResponseStatus	

UpdateFilePath XML Block

```
<FilePath>
  <id><!--req,xs:integer;-></id>
  <path><!--opt,xs:string;-></path>
</FilePath>
```

8.25.5 /ISAPI/System/USBUpgrade/channels/id/UpgradeIP

CStatus

/ISAPI/System/USBUpgrade		General Resource v2.0
/channels/id/UpgradeIPCStatus		
GET		
Description	Get the USB upgrading status	
Query	None	
Inbound Data	None	
Success Return	<UpgradeStatus>	
Notes:		

upgradeStatus XML Block

```
<UpgradeStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <upgrading> <!--ro, req, xs:boolean -> </upgrading>
```

```
<percent> <!--ro, req, xs:integer "0-100" → </percent>
</UpgradeStatus>
```

8.25.6 /ISAPI/System/USBUpgrade/capabilities

/ISAPI/System/USBUpgrade/capabilities		General Resource v2.0
GET		
Description	USB upgrading capabilities	
Query	None	
Inbound Data	None	
Success Return	<UsbUpgradeCap>	
Notes:		

UsbUpgradeCap XML Block

```
<UsbUpgradeCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isSupportSearch> <!--opt, xs:boolean→ </ isSupportUsbSearch >
  <isSupportUpgradeDevice> <!--opt, xs:boolean→ </ isSupportUsbUpdateDevice >
  <isSupportUpgradeIPC> <!--opt, xs:boolean→ </isSupportUsbUpdateIPC >
  <isSupportUpgradeDevStatus><!--opt, xs:boolean→
  </isSupportUpgradeDevStatus >
  <isSupportUpgradeIPCStatus><!--opt,xs:boolean→
  </isSupportUpgradeIPCStatus>
</UsbUpgradeCap >
```

8.26 /ISAPI/MasterSlaveTracking

8.26.1 /ISAPI/MasterSlaveTracking/capabilities

/ISAPI/MasterSlaveTracking/capabilities		General Resource v2.0
GET		
Description	It is used to get Master Slave Tracking capability.	
Query	None	
Inbound Data	None	
Success Return	<MasterSlaveTrackingCap>	
Notes:		

MasterSlaveTrackingCap XML Block

```
<MasterSlaveTrackingCap version="2.0"
xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isSupportSlaveCameraCfg> <!--opt, xs:boolen → </isSupportSlaveCameraCfg>
```

```

    <isSupportSlaveCameraStatus> <!--opt, xs:boolean ->
</isSupportSlaveCameraStatus>
    <isSupportSlaveCameraTrackingRatio> <!--opt, xs:boolean ->
</isSupportSlaveCameraTrackingRatio>
    <isSupportSlaveCameraTracking> <!--opt, xs:boolean ->
</isSupportSlaveCameraTracking>
</MasterSlaveTrackingCap>

```

8.26.2 /ISAPI/MasterSlaveTracking/channels/<ID>/slave Camera/capabilities

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/capabilities		General Resource	v2.0
GET			
Description	It is used to get slave Camera capability.		
Query	None		
Inbound Data	None		
Success Return	<SlaveCamera>		
Notes:			

SlaveCamera XML Block

```

<SlaveCamera version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <SlaveCameraInfoList>
    <SlaveCameraInfo>
      <id min="1" max="4"> <!--req, xs:integer -> </id>
      <serverAddress>
        <addressingFormatType opt="ipaddress,hostname">
          <!--req, xs:string, "ipaddress,hostname"->
          </addressingFormatType>
          <hostName max=""> <!--dep, xs:string -> </hostName> //不能是
中文
          <ipAddress> <!--dep, xs:string -> </ipAddress>
          <ipv6Address> <!--dep, xs:string -> </ipv6Address>
        </serverAddress>
        <userName max=""> <!--req, xs:string -> </userName>
        <passWord max=""> <!--req, xs:string -> </passWord>
        <portNo min="" max=""> <!--req, xs:integer -> </portNo>
        <loginStatus opt="login,logout"> <!--req,xs:string -> </loginStatus>
      </SlaveCameraInfo>
    </SlaveCameraInfoList>

```

</SlaveCamera>

8.26.3 /ISAPI/MasterSlaveTracking/channels/<ID>/slave Camera/<ID>

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>		General Resource	v2.0
GET			
Description	Get SlaveCamera Info		
Query	None		
Inbound Data	None		
Success Return	SlaveCamera		
PUT			
Description	Set SlaveCamera Info		
Query	None		
Inbound Data	SlaveCamera		
Success Return	ResponseStatus		
Notes:			

SlaveCamera XML Block

```
<SlaveCameraInfo version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id><!--req, xs:string --> </id>
  <serverAddress>
    <addressingFormatType>
      <!--req, xs:string, "ipaddress,hostname"-->
    </addressingFormatType>
    <hostName> <!--dep, xs:string --> </hostName> //不能是中文
    <ipAddress> <!--dep, xs:string --> </ipAddress>
    <ipv6Address> <!--dep, xs:string --> </ipv6Address>
  </serverAddress>
  <userName> <!--req, xs:string --> </userName>
  <passWord> <!--wo, xs:string --> </passWord>
  <portNo> <!--req, xs:integer --> </portNo>
  <loginStatus> <!--req, xs:string, "login,logout"--> </loginStatus>
</SlaveCameraInfo>
```

8.26.4 /ISAPI/MasterSlaveTracking/channels/<ID>/slave

CameraStatus

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCameraStatus		General Resource	v2.0
GET			
Description	Get Slave Camera Link Status		
Query	None		
Inbound Data	None		
Success Return	SlaveCameraStatus		
Notes:			

SlaveCameraStatus XML Block

```
<SlaveCameraStatus version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <SlaveCameraLinkStatusList><!--req -->
    <SlaveCameraLinkStatus>
      <id><!--req, xs:string --> </id>
      <linkStatus/> <!--ro xs:string "online,offline"-->
    </SlaveCameraLinkStatus>
  </SlaveCameraLinkStatusList>
</SlaveCameraStatus>
```

8.26.5 /ISAPI/MasterSlaveTracking/channels/<ID>/slave

Camera/<ID>/trackingRatio

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/trackingRatio		General Resource	v2.0
PUT			
Description	Set SlaveCamera tracking Ratio		
Query	None		
Inbound Data	None		
Success Return	ResponseStatus		
Notes:			

8.26.6 /ISAPI/MasterSlaveTracking/channels/<ID>/slave CameraCalibrating/capabilities

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCameraCalibrating/capabilities		General Resource v2.0
GET		
Description	Get Slave Camera Calibrating info capabilities	
Query	None	
Inbound Data	None	
Success Return	SlaveCameraCalibrating	
Notes:		

SlaveCameraCalibrating XML Block

```

<SlaveCameraCalibrating version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <CalibratingMode opt="auto,manual"><!--req, xs:string "auto,manual"
-></CalibratingMode>
  <trackingRatio opt="support"><!--opt, xs:string -></trackingRatio>
  <normalizedScreenSize><!--req, ro ->
    <normalizedScreenWidth> <!--req, ro,xs:integer -> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro,xs:integer -> </normalizedScreenHeight>
  </normalizedScreenSize>
  <CalibratingList min="4" max="6"> <!--dep ->
    <Calibrating version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
      <id min="" max=""> <!--req, xs:string -> </id>
      <CalibratingCoordinates> <!--opt, manual-wr auto-ro ->
        <positionX> <!--req, xs:integer;coordinate -> </positionX>
        <positionY> <!--req, xs:integer;coordinate -> </positionY>
      </CalibratingCoordinates>
      <AbsoluteHigh> <!--opt, ro ->
        <elevation> <!--opt, xs:integer, -900..2700 -> </elevation>
        <azimuth> <!--opt, xs:integer, 0..3600 -> </azimuth>
        <absoluteZoom> <!--opt, xs:integer,1.. 1000-> </absoluteZoom>
      </AbsoluteHigh>
    </Calibrating>
  </CalibratingList>
  <sceneID min="" max=""><!--opt, xs:integer,-></sceneID>
  <CalibPanoramicPic><!--opt, xs:boolean,->
    <channel opt="2,3"><!--req,xs:string,-></channel>
  </CalibPanoramicPic>

```

</SlaveCameraCalibrating>

8.26.7 /ISAPI/MasterSlaveTracking/channels/<ID>/slave Camera/<ID>/calibrating

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/calibrating		General Resource	v2.0
GET			
Description	Get Slave Camera Calibrating info		
Query	None		
Inbound Data	None		
Success Return	SlaveCameraCalibrating		
PUT			
Description	Set Slave Camera Calibrating info		
Query	None		
Inbound Data	SlaveCameraCalibrating		
Success Return	ResponseStatus		
Notes:			

SlaveCameraCalibrating XML Block

```
<SlaveCameraCalibrating version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <calibratingMode><!--req, xs:string "auto,manual" --></calibratingMode>
  <ManualCalibratingList/> <!--dep -->
  <AutoCalibratingList/> <!--dep -->
  <sceneID min="" max=""><!--opt, xs:integer, --></sceneID>
</SlaveCameraCalibrating>
```

8.26.8 /ISAPI/MasterSlaveTracking/channels/<ID>/slave Camera/<ID>/manualCalibrating

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/manualCalibrating		General Resource	v2.0
GET			
Description	Get Slave Camera Calibrating info configuration		
Query	None		
Inbound Data	None		
Success Return	ManualCalibratingList		
PUT			

Description	Set Slave Camera Calibrating info configuration
Query	None
Inbound Data	ManualCalibratingList
Success Return	ResponseStatus
Notes:	

ManualCalibratingList XML Block

```
<ManualCalibratingList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <ManualCalibrating/>
</ManualCalibratingList>
```

ManualCalibrating XML Block

```
<ManualCalibrating version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
<id> <!--req, xs:string --> </id>
<normalizedScreenSize><!--req, ro -->
  <normalizedScreenWidth> <!--req, ro,xs:integer --> </normalizedScreenWidth>
  <normalizedScreenHeight> <!--req, ro,xs:integer --> </normalizedScreenHeight>
</normalizedScreenSize>
<CalibratingCoordinates> <!--opt, -->
  <positionX> <!--req, xs:integer;coordinate --> </positionX>
  <positionY> <!--req, xs:integer;coordinate --> </positionY>
</CalibratingCoordinates>
<AbsoluteHigh> <!--opt, -->
  <elevation> <!--opt, xs:integer, T -900..2700 --> </elevation>
  <azimuth> <!--opt, xs:integer, P 0..3600 --> </azimuth>
  <absoluteZoom> <!--opt, xs:integer, Z 1.. 1000- --> </absoluteZoom>
</AbsoluteHigh>
</ManualCalibrating>
```

8.26.9 /ISAPI/MasterSlaveTracking/channels/<ID>/slave Camera/<ID>/autoCalibrating

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/autoCalibrating		General Resource v2.0
GET		
Description	Get Slave Camera Calibrating info configuration	
Query	None	
Inbound Data	None	

Success Return	AutoCalibratingList
Notes:	

AutoCalibratingList XML Block

```
<AutoCalibratingList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <AutoCalibrating/>
</AutoCalibratingList>
```

AutoCalibrating XML Block

```
<AutoCalibrating version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
<id> <!--req, xs:string -> </id>
<normalizedScreenSize><!--req, ro ->
  <normalizedScreenWidth> <!--req, ro,xs:integer -> </normalizedScreenWidth>
  <normalizedScreenHeight> <!--req, ro,xs:integer -> </normalizedScreenHeight>
</normalizedScreenSize>
<CalibratingCoordinates> <!--opt, ro->
  <positionX> <!--req, xs:integer;coordinate -> </positionX>
  <positionY> <!--req, xs:integer;coordinate -> </positionY>
</CalibratingCoordinates>
<AbsoluteHigh> <!--opt, ro ->
  <elevation> <!--opt, xs:integer, T -900..2700 -> </elevation>
  <azimuth> <!--opt, xs:integer, P 0..3600 -> </azimuth>
  <absoluteZoom> <!--opt, xs:integer, Z 1.. 1000-> </absoluteZoom>
</AbsoluteHigh>
</AutoCalibrating>
```

8.26.10 /ISAPI/MasterSlaveTracking/channels/<ID>/tracking/capabilities

/ISAPI/MasterSlaveTracking/channels/<ID>/tracking/capabilities		General Resource v2.0
GET		
Description	Get Tracking info capabilities	
Query	None	
Inbound Data	None	
Success Return	Tracking	
Notes:		

Tracking XML Block

```

<Tracking version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --></enabled>
  <mode opt="auto,manual"> <!--dep, xs:string "auto,manual" --> </mode>
  <trackingTime min="0" max="60" def="5"><!--dep, xs:integer --></trackingTime>
  <normalizedScreenSize><!--req, ro -->
    <normalizedScreenWidth> <!--req, ro,xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro,xs:integer --> </normalizedScreenHeight>
  </normalizedScreenSize>
  <ManualRegionCoordinatesList min="4" size="4"> <!--dep -->
    <RegionCoordinates> <!--opt, -->
      <positionX> <!--req, xs:integer;coordinate --> </positionX>
      <positionY> <!--req, xs:integer;coordinate --> </positionY>
    </RegionCoordinates>
  </ManualRegionCoordinatesList>
</Tracking>

```

8.26.11 /ISAPI/MasterSlaveTracking/channels/<ID>/slave Camera/<ID>/tracking

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/tracking		General Resource v2.0
GET		
Description	Get Tracking info	
Query	None	
Inbound Data	None	
Success Return	Tracking	
PUT		
Description	Set Tracking info	
Query		
Inbound Data	Tracking	
Success Return	ResponseStatus	
Notes:		

Tracking XML Block

```

<Tracking version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <enabled> <!--req, xs:boolean --></enabled>
  <mode> <!--dep, xs:string "auto,manual" --> </mode>
  <trackingTime><!--dep, xs:integer --></trackingTime>
  <normalizedScreenSize><!--req, ro -->
    <normalizedScreenWidth> <!--req, ro,xs:integer --> </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro,xs:integer --> </normalizedScreenHeight>

```

```

</normalizedScreenSize>
<ManualRegionCoordinatesList min="" max=""> <!--dep -->
  <RegionCoordinates> <!--opt, -->
    <positionX> <!--req, xs:integer;coordinate --> </positionX>
    <positionY> <!--req, xs:integer;coordinate --> </positionY>
  </RegionCoordinates>
</ManualRegionCoordinatesList>
</Tracking>

```

8.26.12 /ISAPI/MasterSlaveTracking/channels/<ID>/scene/ <ID>/calibratingStatus

/ISAPI/MasterSlaveTracking/channels/<ID>/scene/<ID>/calibratingStatus		General Resource v2.0
GET		
Description	It is used to get the calibratingStatus	
Query	None	
Inbound Data	None	
Success Return	CalibratingStatus	
Notes:		

CalibratingStatus XML Block

```

<CalibratingStatus version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <calibrating> <!--ro, req, xs:boolean --> </calibrating>
  <percent> <!--ro, req, xs:integer "0-100" --> </percent>
</CalibratingStatus>

```

8.26.13 /ISAPI/MasterSlaveTracking/channels/<ID>/slave Camera/<ID>/calibrating/<ID>/scene

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/calibrating /<ID>/scene		General Resource v2.0
GET		
Description	Get Slave Camera Calibrating info	
Query	None	
Inbound Data	None	
Success Return	SlaveCameraCalibrating	
PUT		

Description	Set Slave Camera Calibrating info
Query	None
Inbound Data	SlaveCameraCalibrating
Success Return	ResponseStatus
Notes:	

SlaveCameraCalibrating XML Block

```
<SlaveCameraCalibrating version="2.0"
xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <calibratingMode><!--req, xs:string "auto,manual" --></calibratingMode>
  <ManualCalibratingList/> <!--dep -->
  <AutoCalibratingList/> <!--dep -->
</SlaveCameraCalibrating>
```

8.26.14 /ISAPI/MasterSlaveTracking/channels/<ID>/slave Camera/<ID>/manualCalibrating/<ID>/scene

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/manualCalibrating/<ID>/scene	General Resource v2.0
GET	
Description	Get Slave Camera Calibrating info configuration
Query	None
Inbound Data	None
Success Return	ManualCalibratingList
PUT	
Description	Set Slave Camera Calibrating info configuration
Query	None
Inbound Data	ManualCalibratingList
Success Return	ResponseStatus
Notes:	

ManualCalibratingList XML Block

```
<ManualCalibratingList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <ManualCalibrating/>
</ManualCalibratingList>
```

ManualCalibrating XML Block

```
<ManualCalibrating version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string --> </id>
```

```

<normalizedScreenSize><!--req, ro →
  <normalizedScreenWidth> <!--req, ro,xs:integer → </normalizedScreenWidth>
  <normalizedScreenHeight> <!--req, ro,xs:integer → </normalizedScreenHeight>
</normalizedScreenSize>
<CalibratingCoordinates> <!--opt, →
  <positionX> <!--req, xs:integer;coordinate → </positionX>
  <positionY> <!--req, xs:integer;coordinate → </positionY>
</CalibratingCoordinates>
<AbsoluteHigh> <!--opt, →
  <elevation> <!--opt, xs:integer, T -900..2700 → </elevation>
  <azimuth> <!--opt, xs:integer, P 0..3600 → </azimuth>
  <absoluteZoom> <!--opt, xs:integer, Z 1.. 1000-> </absoluteZoom>
</AbsoluteHigh>
</ManualCalibrating>

```

8.26.15 /ISAPI/MasterSlaveTracking/channels/<ID>/slave Camera/<ID>/autoCalibrating/<ID>/scene

/ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/autoCalibrating/<ID>/scene		General Resource v2.0
GET		
Description	Get Slave Camera Calibrating info configuration	
Query	None	
Inbound Data	None	
Success Return	AutoCalibratingList	
Notes:		

AutoCalibratingList XML Block

```

<AutoCalibratingList version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <AutoCalibrating/>
</AutoCalibratingList>

```

AutoCalibrating XML Block

```

<AutoCalibrating version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
  <id> <!--req, xs:string → </id>
  <normalizedScreenSize><!--req, ro →
    <normalizedScreenWidth> <!--req, ro,xs:integer → </normalizedScreenWidth>
    <normalizedScreenHeight> <!--req, ro,xs:integer → </normalizedScreenHeight>
  </normalizedScreenSize>

```



```

<CalibratingCoordinates> <!--opt, ro-->
  <positionX> <!--req, xs:integer;coordinate --> </positionX>
  <positionY> <!--req, xs:integer;coordinate --> </positionY>
</CalibratingCoordinates>
<AbsoluteHigh> <!--opt, ro -->
  <elevation> <!--opt, xs:integer, T -900..2700 --> </elevation>
  <azimuth> <!--opt, xs:integer, P 0..3600 --> </azimuth>
  <absoluteZoom> <!--opt, xs:integer, Z 1.. 1000--> </absoluteZoom>
</AbsoluteHigh>
</AutoCalibrating>

```

8.26.16 /ISAPI/MasterSlaveTracking/channels/<ID>/scene/<ID>/gotoScene

/ISAPI/MasterSlaveTracking/channels/<ID>/scene/<ID>/gotoScene		General Resource v2.0
Put		
Description	It is used to get a scene ID of the current image.	
Query	None	
Inbound Data	None	
Success Return	ResponseStatus	
Notes:		

8.27 /ISAPI/Panorama

8.27.1 /ISAPI/Panorama/sensor/capabilities

/ISAPI/Panorama/sensor/capabilities		General Resource v2.0
GET		
Description	Get panorama sensor capabilities	
Query	None	
Inbound Data	None	
Success Return	SensorCap	
Notes:		
maxSensorNum: supported max sensor number		
isSupportMosaicPattern: support panoramic mosaic or not		

isSupportReset: support all sensor reset or not
 isSupportSingleReset: support single sensor reset or not
 RGB: R(red), G(green) B(blue) range: 0-255

SensorCap XML Block

```
<SensorCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <maxSensorNum> <!--opt, xs:integer, → </maxSensorNum>
  <isSupportMosaicPattern> <!--opt, xs:boolean → </isSupportMosaicPattern>
  <isSupportReset> <!--opt, xs:boolean → </isSupportReset>
  <isSupportSingleReset> <!--opt, xs:boolean → </isSupportSingleReset>
  <R min="" max=""><!--opt,xs:integer, 0-255→</R>
  <G min="" max=""><!--opt,xs:integer, 0-255→</G>
  <B min="" max=""><!--opt,xs:integer, 0-255→</B>
</SensorCap>
```

8.27.2 /ISAPI/Panorama/sensor/<ID>/continuous

/ISAPI/Panorama/sensor/<ID>/continuous		General Resource v2.0
PUT		
Description	It is used to control Sensor Adjustment for the device.	
Query		
Inbound Data	SensorAdjustment	
Success Return	ResponseStatus	
GET		
Description	It is used to Get Sensor Adjustment of the device.	
Query	NULL	
Inbound Data	NULL	
Success Return	SensorMosaicPattern	
Notes: <pan> <tilt> <fieldAngle>: image filed angle <rotation>: negative number represents reverse rotation, positive number represents forward rotation. RGB: R(red), G(green) B(blue) range: 0-255		

SensorAdjustment XML Block

```
<SensorAdjustment version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <pan> <!--opt, xs:integer, -100..100 → </pan>
  <tilt> <!--opt, xs:integer, -100..100 → </tilt>
  <rotation><!--opt,xs:integer, -30..30→</rotation>
```

```

<fieldAngle><!--opt,xs:integer, -10..10--></fieldAngle>
<R><!--opt,xs:integer, 0-255--></R>
<G><!--opt,xs:integer, 0-255--></G>
<B><!--opt,xs:integer, 0-255--></B>
</SensorAdjustment>

```

8.27.3 /ISAPI/Panorama/sensorReset

/ISAPI/Panorama/sensorReset		General Resource v2.0
PUT		
Description	It is used to control Sensor Adjustment Reset. (sensor 调整复位)	
Query	NULL	
Inbound Data	NULL	
Success Return	ResponseStatus	
Notes: All sensors reset		

8.27.4 /ISAPI/Panorama/sensorReset/<ID>

/ISAPI/Panorama/sensorReset/<ID>		General Resource v2.0
PUT		
Description	It is used to control Sensor No Adjustment Reset.	
Query	NULL	
Inbound Data	NULL	
Success Return	ResponseStatus	
Notes: <ID>:Sensor ID Single Sensor reset		

8.27.5 /ISAPI/Panorama/mosaicPattern

/ISAPI/Panorama/mosaicPattern		General Resource v2.0
PUT		
Description	It is used to put Panorama Mosaic Pattern.	
Query	NULL	
Inbound Data	SensorMosaicPattern	
Success Return	ResponseStatus	

GET	
Description	It is used to get Panorama Mosaic Pattern.
Query	NULL
Inbound Data	NULL
Success Return	SensorMosaicPattern
Notes: <fusion>: Whether to enable panoramic mosaic or not	

SensorMosaicPattern XML Block

```
<SensorMosaicPattern version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <fusion> <!--req, xs:boolean, → </fusion>
</SensorMosaicPattern>
```

8.28 /ISAPI/VideoIntercom

/ISAPI/VideoIntercom	Service v2.0
Notes:	

8.28.1 /ISAPI/VideoIntercom/capabilities

/ISAPI/VideoIntercom/capabilities		General Resource v2.0
GET		
Description	Get the video intercom capabilities	
Query	None	
Inbound Data	None	
Success Return	<VideoIntercomCap>	
Notes:		

VideoIntercomCap XML Block

```
<VideoIntercomCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isSupportRingManage><!-- opt, xs:Boolean, ring
manage--></isSupportRingManage>
  <isSupportPasswordAuthentication> <!-- req, xs:boolean,video intercom password
check --></isSupportPasswordAuthentication>
  <isSupportCardSectorCheck> <!-- req, xs:boolean,Card sector check
--></isSupportCardSectorCheck>
  <isSupportAlarmControlByPhone> <!-- req, xs:Boolean, phone arming
control--></isSupportAlarmControlByPhone>
  <SmartHomeManage><!--Smart home management-->
  <isSupportRoomManage> <!-- opt, xs:Boolean, smart home room
```

```

management--></isSupportRoomManage>
  <isSupportSmartDeviceManage> <!-- opt, xs:Boolean, smart home device
management--></isSupportSmartDeviceManage>
  </SmartHomeManage>
  <isSupportSceneManage> <!-- opt, xs:Boolean, Scene
management--></isSupportSceneManage>
  <isSupportZoneCfgByScene> <!-- opt, xs:Boolean, configure arming zone by
scene--></isSupportZoneCfgByScene>
  <isSupportCallElevator> <!-- req, xs:boolean, call elevator
--></isSupportCallElevator>
  <isSupportGetSmartLockParam> <!-- req, xs:boolean, get smart lock parameters
--></isSupportGetSmartLockParam>
  <isSupportGetAnnouncementMessage> <!-- req, xs:boolean, get announcement
message--></isSupportGetAnnouncementMessage>
  <isSupportAppKeyConfiguration> <!-- req, xs:boolean,APPKey configuration
--></isSupportAppKeyConfiguration>
  <isSupportDeviceld> <!-- opt, xs:boolean, support device id or not -->
</isSupportDeviceld>
  <isSupportOperationTime> <!-- opt, xs:boolean, support operation time or not -->
</isSupportOperationTime>
  <isSupportRelatedDeviceAdress> <!-- opt, xs:boolean, support associate network or not
--> </isSupportRelatedDeviceAdress>
  <isSupportRemoteOpenDoor> <!-- opt, xs:boolean, support remotely open door or not;
Doorphone doesn't support --> </isSupportRemoteOpenDoor>
  <isSupportKeyCfg> <!-- opt, xs:boolean, support keypad configuration or not;
Doorphone doesn't support --> </isSupportKeyCfg>
  <isSupportAlarmUploadCfg> <!-- opt, xs:boolean, support alarm upload or not -->
</isSupportAlarmUploadCfg>
  <isSupportWorkModeCfg> <!-- opt, xs:boolean, support work mode configuration or not
--> </isSupportWorkModeCfg>
</VideoIntercomCap>

```

8.28.2 /ISAPI/VideoIntercom/deviceId/capabilities?devTy

pe=

/ISAPI/VideoIntercom/deviceId/capabilities		General Resource v2.0
GET		
Description	Get video intercom device id capabilities	
Query	devType	

Inbound Data	None
Success Return	<Deviceld>
Notes: 1.<unitType>: device type, villa-villa out door unit, confirm-Doorphone, doorphone doesn't need any number field; 2.<periodNumber>: period number; 3.<buildingNumber>:building number; 4.<unitNumber>:unit number; 5.<floorNumber>: floor number; 6.<devicelIndex>: 0-Main Door Station, other value-Sub Door Station; 7. switch device type, device will reboot automatically; 8.<devicelIndex> value from 0 to non-0 or from non-0 to 0, device will reboot automatically. devType: device type, villa and confirm can be chose.	

Deviceld XML Block

```
<Deviceld version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <unitType opt="villa,confirm" <!-- req, xs:string--></unitType>
  <periodNumber min="" max=""> <!-- opt, xs:integer --> </periodNumber>
  <buildingNumber min="" max=""> <!-- opt, xs:integer --> </buildingNumber>
  <unitNumber min="" max=""> <!-- opt, xs:integer --> </unitNumber>
  <floorNumber range="-10~-1,1~10"> <!-- opt, xs:integer --> </floorNumber>
  <devicelIndex min="" max=""> <!-- opt, xs:integer --> </devicelIndex>
</Deviceld>
```

8.28.3 /ISAPI/VideoIntercom/deviceId

/ISAPI/VideoIntercom/deviceId		General Resource v2.0
GET		
Description	Get the device id of video intercom	
Query	None	
Inbound Data	None	
Success Return	<Deviceld>	
PUT		
Description	Set the device id of video intercom	
Query	None	
Inbound Data	<Deviceld>	
Success Return	<ResponseStatus>	
Notes: 1 <unitType>: device type, villa-Villa Door Station, confirm-Doorphone, doorphone doesn't need any number field;		

2 <periodNumber>: period number;
 3 <buildingNumber>: building number;
 4 <unitNumber>: unit number;
 5 <floorNumber>: floor number;
 6 <deviceIndex>: 0-Main Door Station, other value-Sub Door Station;
 7 switch device type, device will reboot automatically;
 8 <deviceIndex> value from 0 to non-0 or from non-0 to 0, device will reboot automatically.
 devType: device type, villa and confirm can be chose.

DeviceId XML Block

```
<DeviceId version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <unitType> <!-- req, xs:string, "villa,confirm"--> </unitType>
  <periodNumber> <!-- opt, xs:integer --> </periodNumber>
  <buildingNumber > <!-- opt, xs:integer --> </buildingNumber>
  <unitNumber> <!--opt, xs:integer --> </unitNumber>
  <floorNumber> <!-- opt, xs:integer --> </floorNumber>
  <deviceIndex> <!-- opt, xs:integer --> </deviceIndex>
</DeviceId>
```

8.28.4 /ISAPI/VideoIntercom/operationTime/capabilities

/ISAPI/VideoIntercom/operationTime/capabilities		General Resource v2.0
GET		
Description	Get the operating time capabilities of video intercom	
Query	None	
Inbound Data	None	
Success Return	<OperationTime>	
Notes:		
1 <messageTime>: the max message time;		
2 <talkTime>: the max talk time;		

OperationTime XML Block

```
<OperationTime version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <messageTime min="" max=""> <!-- opt, xs:integer, seconds --> </messageTime>
  <talkTime min="" max=""> <!-- opt, xs:integer, seconds --> </talkTime>
</OperationTime>
```

8.28.5 /ISAPI/VideoIntercom/operationTime

/ISAPI/VideoIntercom/operationTime		General Resource v2.0
GET		
Description	Get the operating time of video intercom	
Query	None	
Inbound Data	None	
Success Return	<OperationTime>	
PUT		
Description	Set the operating time of video intercom	
Query	None	
Inbound Data	<OperationTime>	
Success Return	<ResponseStatus>	
Notes:		
1、 <messageTime>: the max message time;		
2、 <talkTime>: the max message time;		

OperationTime XML Block

```
<OperationTime version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <messageTime> <!-- opt, xs:integer, seconds --> </messageTime>
  <talkTime> <!-- opt, xs:integer, seconds --> </talkTime>
</OperationTime>
```

8.28.6 /ISAPI/VideoIntercom/relatedDeviceAddress/capabilities

/ISAPI/VideoIntercom/relatedDeviceAddress/capabilities		General Resource v2.0
GET		
Description	Get related device address capabilities	
Query	None	
Inbound Data	None	
Success Return	<RelatedDeviceAddress>	
Notes:		
1 <MainOutdoorAddress>: Main Door Station address		
Note:		
If the device is sub Villa Door Station, then <MainOutdoorAddress> represents main Villa Door Station;		

If the device is sub Door Station, then <MainOutdoorAddress> represents main Door Station.

- 2 <SIPServerAddress>: SIP server address;
- 3 <centerPort>: Center platform port;
- 4 <CenterAddress>: Center platform address;
- 5 <MainRoomAddress>: indoor station ip;

RelatedDeviceAddress XML Block

```
<RelatedDeviceAddress version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <MainOutdoorAddress <!-- opt-->
    <addressingFormatType opt="ipaddress,hostname"><!-- req, xs:string-->
    </addressingFormatType>
    <hostName <!-- dep, xs:string --> </hostName>
    <ipAddress <!-- dep, xs:string --> </ipAddress>
    <ipv6Address <!-- dep, xs:string --> </ipv6Address>
  </MainOutdoorAddress>
  <SIPServerAddress <!-- opt-->
    <addressingFormatType opt="ipaddress,hostname"><!-- req, xs:string-->
    </addressingFormatType>
    <hostName <!-- dep, xs:string --> </hostName>
    <ipAddress <!-- dep, xs:string --> </ipAddress>
    <ipv6Address <!-- dep, xs:string --> </ipv6Address>
  </SIPServerAddress>
  <centerPort <!-- opt, xs:integer --> </centerUnitPort>
  <CenterAddress <!-- opt-->
    <addressingFormatType opt="ipaddress,hostname"><!-- req, xs:string-->
    </addressingFormatType>
    <hostName <!-- dep, xs:string --> </hostName>
    <ipAddress <!-- dep, xs:string --> </ipAddress>
    <ipv6Address <!-- dep, xs:string --> </ipv6Address>
  </CenterAddress>
  <MainRoomAddress <!-- opt-->
    <addressingFormatType opt="ipaddress,hostname"><!-- req, xs:string-->
    </addressingFormatType>
    <hostName <!-- dep, xs:string --> </hostName>
    <ipAddress <!-- dep, xs:string --> </ipAddress>
    <ipv6Address <!-- dep, xs:string --> </ipv6Address>
  </MainRoomAddress>
</RelatedDeviceAddress>
```

</RelatedDeviceAddress>

8.28.7 /ISAPI/VideoIntercom/relatedDeviceAddress

/ISAPI/VideoIntercom/relatedDeviceAddress		General Resource v2.0
GET		
Description	Get related device address information	
Query	None	
Inbound Data	None	
Success Return	<RelatedDeviceAddress>	
PUT		
Description	Set related device address information	
Query	None	
Inbound Data	<RelatedDeviceAddress>	
Success Return	<ResponseStatus>	
Notes:		
1 <MainOutdoorAddress>: Main Door Station address		
Note:		
If the device is sub Villa Door Station, then <MainOutdoorAddress> represents main Villa Door Station;		
If the device is sub Door Station, then <MainOutdoorAddress> represents main Door Station.		
2 <SIPServerAddress>: SIP server address;		
3 <centerPort>: Center platform port;		
4 <CenterAddress>: Center platform address;		
5 <MainRoomAddress>: indoor station ip;		
6 Doorphone only associates indoor ip address.		

RelatedDeviceAddress XML Block

```
<RelatedDeviceAddress version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <MainOutdoorAddress <!-- opt-->
    <addressingFormatType><!-- req, xs:string, "ipaddress,hostname"-->
  </addressingFormatType>
    <hostName <!-- dep, xs:string --> </hostName>
    <ipAddress <!-- dep, xs:string --> </ipAddress>
    <ipv6Address <!-- dep, xs:string --> </ipv6Address>
  </MainOutdoorAddress>
  <SIPServerAddress <!-- opt-->
    <addressingFormatType><!-- req, xs:string, "ipaddress,hostname"-->
```

```

</addressingFormatType>
  <hostName>      <!-- dep, xs:string -->  </hostName>
  <ipAddress>     <!-- dep, xs:string -->  </ipAddress>
  <ipv6Address>  <!-- dep, xs:string -->  </ipv6Address>
</SIPServerAddress>
<centerPort>    <!-- opt, xs:integer --> </centerPort>
  <CenterAddress> <!-- opt-->
    <addressingFormatType><!-- req, xs:string, "ipaddress,hostname"-->
</addressingFormatType>
  <hostName>      <!-- dep, xs:string -->  </hostName>
  <ipAddress>     <!-- dep, xs:string -->  </ipAddress>
  <ipv6Address>  <!-- dep, xs:string -->  </ipv6Address>
</CenterAddress>
<MainRoomAddress> <!-- opt-->
  <addressingFormatType opt="ipaddress,hostname"><!-- req, xs:string-->
    </addressingFormatType>
    <hostName>    <!-- dep, xs:string -->  </hostName>
    <ipAddress>   <!-- dep, xs:string -->  </ipAddress>
    <ipv6Address> <!-- dep, xs:string --> </ipv6Address>
  </MainRoomAddress>
</RelatedDeviceAddress>

```

8.28.8 /ISAPI/VideoIntercom/remoteOpenDoor/capabilities

/ISAPI/VideoIntercom/remoteOpenDoor/capabilities		General Resource v2.0		
GET				
Description	Get remote open door capabilities			
Query	None			
Inbound Data	None			
Success Return	<RemoteOpenDoor>			
Error Code	Status	Status code	Sub status code	Description
Note: 1 <gatewayIndex>: access control index, currently the only value is 1; 2 <command>: unlock command, currently only unlock is supported, lock isn't supported. 3 <controlSrc>: "WEB+IP"				

RemoteOpenDoor XML Block

```
<RemoteOpenDoor version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <gateWayIndex min="1" max="1"> <!-- req, xs:integer --> </gateWayIndex>
  <command opt="unlock"> <!-- req, xs:string--> </command>
  <controlSrc min="" max=""> <!-- req, xs:string --> </controlSrc>
</RemoteOpenDoor>
```

8.28.9 /ISAPI/VideoIntercom/remoteOpenDoor

/ISAPI/VideoIntercom/remoteOpenDoor		General Resource v2.0		
PUT				
Description	Remotely open door			
Query	None			
Inbound Data	<RemoteOpenDoor>			
Success Return	<ResponseStatus>			
Error Code	Status	Status code	Sub status code	Description
Note: 1 <gateWayIndex>: access control index, currently the only value is 1; 2 <command>: unlock command, currently only unlock is supported, lock isn't supported. 3 <controlSrc>: "WEB+IP"				

RemoteOpenDoor XML Block

```
<RemoteOpenDoor version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <gateWayIndex> <!-- req, xs:integer --> </gateWayIndex>
  <command> <!-- req, xs:string,"unlock" --> </command>
  <controlSrc> <!-- req, xs:string --> </controlSrc>
</RemoteOpenDoor>
```

8.28.10 /ISAPI/VideoIntercom/keyCfg

/ISAPI/VideoIntercom/keyCfg		General Resource v2.0	
GET			
Description	Get multiple keypad configuration information		
Query	None		
Inbound Data	None		

Success Return	<KeyCfgList>
Notes:	

KeyCfgList XML Block

```
<KeyCfgList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <KeyCfg/> <!--opt -->
</KeyCfgList>
```

8.28.11 /ISAPI/VideoIntercom/keyCfg/<ID>

/ISAPI/VideoIntercom/keyCfg/<ID>		General Resource v2.0
GET		
Description	Get one specific keypad configuration information	
Query	None	
Inbound Data	None	
Success Return	<KeyCfg>	
PUT		
Description	Set one specific keypad configuration information	
Query	None	
Inbound Data	<KeyCfg>	
Success Return	<ResponseStatus>	
Notes:		
1 <isShortPressCallManage>: Whether to call management center by short press		

KeyCfg XML Block

```
<KeyCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:integer--> </id>
  <isShortPressCallManage> <!-- opt, xs:boolean --> </isShortPressCallManage>
</KeyCfg>
```

8.28.12 /ISAPI/VideoIntercom/keyCfg/<ID>/capabilities

/ISAPI/VideoIntercom/keyCfg/<ID>/capabilities		General Resource v2.0
GET		
Description	Get one specific keypad configuration capabilities	
Query	None	
Inbound Data	None	

Success Return	<KeyCfg>
Notes:	
1 <isShortPressCallManage>: Whether to call management center by short press	

KeyCfg XML Block

```
<KeyCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id min="" max=""> <!-- req, xs:integer--> </id>
  <isShortPressCallManage opt="true,false"> <!-- opt, xs:boolean -->
</isShortPressCallManage>
</KeyCfg>
```

8.28.13 /ISAPI/VideoIntercom/alarmUploadCfg/capabilitie

S

/ISAPI/VideoIntercom/alarmUploadCfg/capabilities		General Resource v2.0		
GET				
Description	Get alarm configuration uploading capabilities			
Query	None			
Inbound Data	None			
Success Return	<AlarmUploadCfg>			
Error Code	Status	Status code	Sub status code	description
注: 1、 <isUploadDoorNotClose> whether to upload door not closed alarm;				

AlarmUploadCfg XML Block

```
<AlarmUploadCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isUploadDoorNotClose opt="true,false"> <!-- opt, xs:string-->
</isUploadDoorNotClose>
</AlarmUploadCfg>
```

8.28.14 /ISAPI/VideoIntercom/alarmUploadCfg

/ISAPI/VideoIntercom/alarmUploadCfg	General Resource v2.0
GET	

Description	Get alarm uploading configuration information
Query	None
Inbound Data	None
Success Return	<AlarmUploadCfg>
PUT	
Description	Set alarm uploading configuration information
Query	None
Inbound Data	<AlarmUploadCfg>
Success Return	<ResponseStatus>
Notes: <isUploadDoorNotClose>: whether to upload door not closed alarm;	

AlarmUploadCfg XML Block

```
<AlarmUploadCfg version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <isUploadDoorNotClose> <!-- req, xs:string,"true,false"-->
</isUploadDoorNotClose>
</AlarmUploadCfg>
```

8.28.15 /ISAPI/VideoIntercom/workMode

/ISAPI/VideoIntercom/workMode		General Resource v2.0
GET		
Description	Get video intercom work mode	
Query	None	
Inbound Data	None	
Success Return	<WorkMode>	
PUT		
Description	Set video intercom work mode	
Query	None	
Inbound Data	<WorkMode>	
Success Return	<ResponseStatus>	
Notes: <deviceWorkMode>: work mode, ipcMode- IPC mode , intercomMode- intercom mode(by default)		

WorkMode XML Block

```
<WorkMode version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <deviceWorkMode><!-- req, xs:string , "ipcMode, intercomMode"
--></deviceWorkMode>
```

</WorkMode>

8.28.16 /ISAPI/VideoIntercom/workMode/capabilities

/ISAPI/VideoIntercom/workMode/capabilities		General Resource v2.0		
GET				
Description	Get video intercom work mode capabilities			
Query	None			
Inbound Data	None			
Success Return	<WorkMode>			
Error Code	Status	Status code	Sub status code	description
Note: <deviceWorkMode>: work mode, ipcMode- IPC mode , intercomMode- intercom mode (by default)				

WorkMode XML Block

```
<WorkMode version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <deviceWorkMode opt="ipcMode,intercomMode"><!-- req,
  xs:string--></deviceWorkMode>
</WorkMode>
```

8.29 /ISAPI/AccessControl

/ISAPI/AccessControl	Service v2.0
Notes:	

8.29.1 /ISAPI/AccessControl/Device/HardWare/capabiliti

es

/ISAPI/AccessControl/Device/HardWare/capabilities		General Resource v2.0	
GET			
Description	Get access control hardware capabilities		
Query	None		

Inbound Data	None
Success Return	<HardWareCap>
Notes:	

HardWareCap XML Block

```
<HardWareCap version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <doorNo min="" max=""><!-- req, xs:integer--></door>
  <readerNo min="" max=""><!-- req, xs:integer--></reader>
  <caseSensorNo min="" max=""><!-- req, xs:integer--></caseSensorNo>
  <alarmInNo min="" max=""><!-- req, xs:integer--></alarmInNo>
  <alarmOutNo min="" max=""><!-- req, xs:integer--></alarmOut>
  <rs485No min="" max=""><!-- req, xs:integer--></rs485No>
  <maxCardNum><!-- req, xs:integer--></maxCardNum>
</HardWareCap>
```

8.29.2 /ISAPI/AccessControl/Door/param/<ID>

/ISAPI/AccessControl/Door/param/<ID>		General Resource v2.0
GET		
Description	Get door parameters	
Query	None	
Inbound Data	None	
Success Return	<DoorParam>	
PUT		
Description	Set door parameters	
Query	None	
Inbound Data	<DoorParam>	
Success Return	<ResponseStatus>	
Notes:		
<magneticType>: magnetic type, 0-normal closed, 1-normal open; <openButtonType>: open button type, 0-normal closed, 1-normal open- <openDuration>: open door duration time,1-255s- <disabledOpenDuration>: The handicapped card open door duration time,1-255s- <magneticAlarmTimeout>: magnetic detection timeout alarm time:0-255s,0 represents no alarm <leaderCardOpenDuration>: leader card normal open duration time, 1-1440min- <stressPassword>: duress code, 8 bytes at most, adopt Base64 to encode and then transmit <superPassword>: super password, 8 bytes at most, adopt Base64 to encode and then		

transmit -

<unlockPassword>unlock password: 8 bytes at most, adopt Base64 to encode and then transmit

DoorParam XML Block

```
<DoorParam version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id> <!-- req, xs:integer--> </id>
  <doorName><!-- req, xs:string --></doorName>
  <magneticType><!--req,xs:integer, "0,1" --></magneticType>
  <openButtonType><!--req,xs:integer, "0,1" --></openButtonType>
  <openDuration ><!--req,xs:integer --></openDuration>
  <disabledOpenDuration><!--req,xs:integer --></disabledOpenDuration>
  <magneticAlarmTimeout><!--req,xs:integer --></magneticAlarmTimeout>
  <doorLockEnabled><!-- req, xs:boolean --></doorLockEnabled>
  <leaderCardEnabled><!-- req, xs:boolean --></leaderCardEnabled>
  <leaderCardOpenDuration><!--req,xs:integer --></leaderCardOpenDuration>
  <stressPassword><!--wo,req, xs:string --></stressPassword>
  <superPassword><!-- wo,req, xs:string --></superPassword>
  <unlockPassword><!-- wo,req, xs:string --></unlockPassword>
</DoorParam>
```

8.29.3 /ISAPI/AccessControl/Door/param/<ID>/capabilities

/ISAPI/AccessControl/Door/param/<ID>/capabilities		General Resource v2.0
GET		
Description	Get door parameters' capabilities	
Query	None	
Inbound Data	None	
Success Return	<DoorParam>	
Notes:		
<magneticType>: magnetic type, 0-normal closed, 1-normal open; <openButtonType>: open button type, 0-normal closed, 1-normal open- <openDuration>: open door duration time,1-255s- <disabledOpenDuration>: The handicapped card open door duration time,1-255s- <magneticAlarmTimeout>: magnetic detection timeout alarm time:0-255s,0 represents no alarm		

<leaderCardOpenDuration>: leader card normal open duration time, 1-1440min-
 <stressPassword>: duress code, 8 bytes at most, adopt Base64 to encode and then transmit
 <superPassword>: super password, 8 bytes at most, adopt Base64 to encode and then transmit -
 <unlockPassword>unlock password: 8 bytes at most, adopt Base64 to encode and then transmit

DoorParam XML Block

```
<DoorParam version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id <!-- req, xs:integer--> </id>
  <doorName min="" max=""><!--req, xs:string --></doorName>
  <magneticType opt="0,1"><!--req,xs:integer --></magneticType>
  <openButtonType opt="0,1"><!--req,xs:integer --></openButtonType>
  <openDuration min="" max=""><!--req,xs:integer --></openDuration>
  <disabledOpenDuration min="" max=""><!--req,xs:integer --></disabledOpenDuration>
  <magneticAlarmTimeout min="" max=""><!--req,xs:integer --></magneticAlarmTimeout>
  <doorLockEnabled opt="true,false"><!-- req, xs:boolean --></doorLockEnabled>
  <leaderCardEnabled opt=" true,false"><!-- req, xs:boolean --></leaderCardEnabled>
  <leaderCardOpenDuration min="" max=""><!--req,xs:integer
--></leaderCardOpenDuration>
  <stressPassword min="" max=""><!-- wo,req, xs:string --></stressPassword>
  <superPassword min="" max=""><!-- wo,req, xs:string --></superPassword>
  <unlockPassword min="" max=""><!-- wo,req, xs:string --></unlockPassword>
</DoorParam>
```

Revision History

Revision History	Description	Reviser	Date
Version 2.0 Revision 1	Initial version	Hong Meng	2012-04
Version 2.0 Revision 2	merge qi's document	Hong Meng	2012-06
Version 2.0 Revision 3	add bond and holiday service	Minglei Yu	2012-10
Version 2.0 Revision 4	Combine front-end devices and back-end devices together	Minglei Yu Linming He Guangmu Ma	2013-12
Version 2.0 Revision 5	New resource /ISAPI/System/Hardware/ABF	Minglei Yu Linming He	2014-01

	<p>is defined.</p> <p>The new <isSupportSpareException> and <isSupportPoePowerException> tag in service /ISAPI/Event/capabilities is optional.</p> <p>The new <intelliBackSearch> tag in service /ISAPI/Smart/FieldDetection/ID is optional.</p>		
Version 2.0 Revision 6	<p>The new <VideoInputList> tag in service /ISAPI/System/Network/SIP/<ID>/SIPInfo is optional.</p>	Minglei Yu Linming He	2014-02
Version 2.0 Revision 7	<p>Add email、ip、ftp、ntp test server.</p> <p>The new <frontColorMode> and <frontColor> tag in service /ISAPI/System/Video/inputs/channels/ID/overlays is optional.</p> <p>Add face detection trigger and schedule.</p> <p>New resource /ISAPI/System/Hardware/LED/ISAPI/System/Network/EZVIZ is defined.</p>	Minglei Yu Linming He	2014-04
Version 2.1 Revision 1	<p>Add /ISAPI/System/Video/inputs/channels/ID/heatMap server.</p> <p>Add /ISAPI/System/Video/inputs/channels/ID/counting server.</p> <p>Add /ISAPI/Security/serverCertificate server.</p> <p>New resource /ISAPI/Security/webCertificate is defined.</p>	Minglei Yu Linming He	2014-05
Version 2.2 Revision 1	<p>Update the /ISAPI/Security/previewLinkNum resources</p> <p>Update the</p>	Minglei Yu Linming He	2014-07

	<p>/ISAPI/Streaming/channels/ID/dual VCA resources</p> <p>Update the /ISAPI/Event/triggersCap resources</p> <p>The new <audioSamplingRate> tag in service /ISAPI/System/TwoWayAudio/channels/ID is optional.</p> <p>Add /ISAPI/GIS server.</p>		
Version 2.3 Revision 1	<p>Add the</p> <p>/ISAPI/Smart/regionEntrance...</p> <p>/ISAPI/Smart/regionExiting...</p> <p>/ISAPI/Smart/loitering...</p> <p>/ISAPI/Smart/group...</p> <p>/ISAPI/Smart/rapidMove...</p> <p>/ISAPI/Smart/parking...</p> <p>/ISAPI/Smart/unattendedBaggage...</p> <p>/ISAPI/Smart/attendedBaggage...</p> <p>/ISAPI/Streaming/channels/<ID>/regionClip...</p> <p>/ISAPI/System/Network/WirelessDial</p> <p>...</p> <p>Update the <NetworkCap> <EventTriggersCap></p> <p>/ISAPI/Event/triggers</p> <p>/ISAPI/Smart/capabilities</p>	Jun Ying	2014-10
Version 2.4 Revision 1	<p>[add]</p> <p>/ISAPI/Streaming/channels/<ID>/httppreview</p> <p>/ISAPI/System/Video/inputs/channels/ID/VCAResource</p> <p>/ISAPI/System/Audio/channels/<ID>/dynamicCap</p> <p>/ISAPI/Image/channels/<ID>/lensDistortionCorrection (HIKVISION ISAPI_2.0-Image Service)</p> <p>[mod]</p> <p>/ISAPI/System/Video/capabilities</p> <p>/ISAPI/Smart/RegionEntrance/<ID>/capabilities</p> <p>/ISAPI/Smart/regionEntrance/ID/regions/ID</p>	Xiaomin wang	2015-2

	<p>/ISAPI/Smart/rapidMove/<ID>/capabilities</p> <p>/ISAPI/Smart/rapidMove/ID/regions/ID</p> <p>/ISAPI/Smart/regionExiting/ID/regions/ID</p> <p>/ISAPI/Smart/regionExiting/<ID>/capabilities</p> <p>/ISAPI/Smart/FieldDetection/ID/regions/ID</p> <p>/ISAPI/Smart/LineDetection/ID/lineItem/ID</p> <p>/ISAPI/Streaming/channels/<ID></p> <p>/ISAPI/Security/capabilities</p>		
Version 2.5 Revision 1	<p>[add]</p> <p>/ISAPI/System/Network/DDNS/CountryID/capabilities</p> <p>[mod]</p> <p>/ISAPI/System/Network/DDNS/ID</p> <p>/ISAPI/System/Network/EZVIZ</p>	Zhenlei Zhu	2015-3

Version 2.5 Revision 2	<p>[add] /ISAPI/System/Video/inputs/channels/<ID>/counting/capabilities</p> <p>[mod] /ISAPI/System/Video/inputs/channels/<ID>/counting</p> <p>[add] ISAPI/System/Video/inputs/channels/<ID>/counting/RecommendValue</p> <p>[add] /ISAPI/System/Video/inputs/channels/ID/heatMap/pictureInfo</p> <p>[mod] /ISAPI/System/Video/inputs/channels/<ID>/heatMap/capabilities</p>	Xiaomin wang	2015-9
Version 2.5 Revision 3	<p>[mod]/ISAPI/System/capabilities</p> <p>[mod]/ISAPI/System/Network/interfaces/<ID></p> <p>[mod]/ISAPI/System/Video/inputs/channels/ID/overlays</p> <p>[add] /ISAPI/Streaming/channels/<ID>/capabilities</p> <p>/ISAPI/Streaming/channels/<ID>/dynamicCapWithCondition</p> <p>/ISAPI/GIS/channels/<ID>/reviseGPS/capabilities</p> <p>/ISAPI/GIS/channels/<ID>/reviseGPS</p>	Xiaomin wang	2015-9
Version 2.5 Revision4	<p>[add] /ISAPI/System/onlineUpgrade/server</p> <p>/ISAPI/System/onlineUpgrade/version</p> <p>/ISAPI/System/onlineUpgrade/upgrade</p> <p>/ISAPI/System/onlineUpgrade/status</p> <p>/ISAPI/System/firmwareCode</p> <p>/ISAPI/System/onlineUpgrade/judgeVersion</p> <p>/ISAPI/System/onlineUpgrade/capabilities</p>	Zhenlei Zhu	2015-10

<p>Version 2.5 Revision5</p>	<p>[add] /ISAPI/Image/channels/<ID>/supplementLight /ISAPI/Image/channels/<ID>/capabilities /ISAPI/Image/channels/<ID>/shutter /ISAPI/Image/channels/<ID>/exposure /ISAPI/System/Video/inputs/channels/<ID>/roadInfo/<ID>/overlays/capabilities /ISAPI/Streaming/channels/<ID>/refreshFrame /ISAPI/Streaming/channels/<ID>/refreshFrame/capabilities /ISAPI/System/time/capabilities /ISAPI/System/time/ /ISAPI/Image/channels/<ID>/lensDistortionCorrection /ISAPI/Event/schedules/HVTVehicleDetects /ISAPI/Event/schedules/HVTVehicleDetects/ID</p>	<p>ZhenbangShao</p>	<p>2015-10</p>
	<p>/ISAPI/Security/onlineUser /ISAPI/Event/schedules/storageDetection /ISAPI/Smart/storageDetection /ISAPI/Smart/storageDetection/lock /ISAPI/Smart/storageDetection/lock/capabilities /ISAPI/Smart/storageDetection/unlock /ISAPI/Smart/storageDetection/unlock/capabilities /ISAPI/System/Network/ftp/<ID> /ISAPI/System/externalDevice/supplementLight /ISAPI/System/Network/interfaces/<ID>/capabilities /ISAPI/System/Network/interfaces/ID/wireless/accessPointList/ID</p>	<p>ZhenbangShao</p>	<p>2015-12</p>

	/ISAPI/Streaming/channels/<ID>/dynamicCapWithCondition		
	[mod]/ISAPI/Event/triggers/<ID>/notifications,add notificationMethod "cloud"	Hongshuai Wang	2016-02
Version 2.5 Revision 6	[mod] /ISAPI/Streaming/channels/<ID>/capabilities [add] /ISAPI/Streaming/channels/ID/ISAPI/Streaming/channels/ID/dynamicCap /ISAPI/Streaming/channels/<ID>/dynamicCapWithCondition /ISAPI/Streaming/channels/<ID>/capabilities /ISAPI/Streaming/channels/ID/refreshFrame /ISAPI/Streaming/channels/ID/refreshFrame/capabilities /ISAPI/System/Network/ANRArmingHost /ISAPI/Snapshot/channels/<ID>/capabilities Add a new error code: UnSupportCapture	Carrie Feng	2016.4
Version 2.5 Revision 7	[del] /ISAPI/ContentMgmt/search	Xiaomin Wang	2016.5

<p>Version 2.5 Revision 8</p>	<p>[del] /ISAPI/ContentMgmt/RecordingHost/hostParam /ISAPI/ContentMgmt/RecordingHost/recordExport /ISAPI/ContentMgmt/RecordingHost/courses /ISAPI/ContentMgmt/RecordingHost/weeklySchedules /ISAPI/ContentMgmt/RecordingHost/eventSources /ISAPI/ContentMgmt/RecordingHost/courses/search /ISAPI/ContentMgmt/RecordingHost/courses/search/capabilities /ISAPI/ContentMgmt/RecordingHost/BackPic/uploadCfg?index= /ISAPI/RecordHost/BackPicCfg/picID/ID /ISAPI/ContentMgmt/RecordingHost/BackPic/capabilities /ISAPI/RecordHost/BackPicInfo /ISAPI/RecordHost/BackPicInfo/capabilities /ISAPI/RecordHost/BackPic/ID /ISAPI/ContentMgmt/RecordingHost/imageDiffDetection/channels/ID /ISAPI/ContentMgmt/RecordingHost/imageDiffDetection/channels/ID/capabilities /ISAPI/ContentMgmt/InputProxy/channels/status /ISAPI/ContentMgmt/InputProxy/channels/<ID>/status /ISAPI/RecordHost/PublishFile/batch/channels/ID /ISAPI/RecordHost/PublishFile/channels/ID /ISAPI/RecordHost/PublishFile/channels/ID/capabilities /ISAPI/RecordHost/PublishProgress/channels/ID?FileID= /ISAPI/RecordHost/PublishProgress</p>	<p>Yu Liu</p>	<p>2015.5</p>
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	<p>/channels/ID?year=&week=</p> <p>ISAPI/ContentMgmt/RecordingHost</p> <p>/publishFileCfg/channels/ID?fileID=</p> <p>/ISAPI/ContentMgmt/RecordingHost/publishFileCfg/channels/ID/capabilities</p> <p>/ISAPI/RecordHost/FilmModeCfg</p> <p>/ISAPI/RecordHost/FilmModeCfg/capabilities</p> <p>/ISAPI/RecordHost/capabilities</p>		
<p>Version</p> <p>2.5</p> <p>Revision 9</p>	<p>[add]</p> <p>8.5.78</p> <p>/ISAPI/Smart/HiddenInformation/channels/<ID>/capabilities</p> <p>[add]</p> <p>8.5.79</p> <p>/ISAPI/Smart/HiddenInformation/channels/<ID></p>	KunZhang	2016.5.19
<p>Version</p> <p>2.5</p> <p>Revision 10</p>	<p>[add]</p> <p>8.1.32</p> <p>/ISAPI/System/accessoryCardInfo/capabilities</p> <p>8.1.33</p> <p>/ISAPI/System/accessoryCardInfo</p> <p>[mod]</p> <p>8.4.46</p> <p>/ISAPI/System/Video/outputs/channels/<ID></p>	KunZhang	2016.5.25
<p>Version</p> <p>2.5</p> <p>Revision 11</p>	<p>[add]</p> <p>8.1.1</p> <p>/ISAPI/System/capabilities</p> <p>8.7.1</p> <p>/ISAPI/System/Hardware</p> <p>8.7.6</p> <p>/ISAPI/System/Hardware/deicing</p> <p>8.7.7</p> <p>/ISAPI/System/Hardware/deicing/capabilities</p> <p>8.21</p> <p>ISAPI/Thermal</p> <p>8.22</p>	ZhenbangShao	2016.6.12

	/ISAPI/System/lowPower		
Version 2.5 Revision 12	<p>[mod] 8.4.13 /ISAPI/System/Video/inputs /channels/<ID>/motionDetection</p> <p>8.4.14 /ISAPI/System/Video/inputs/c hannels/<ID>/motionDetection/lay out</p> <p>8.4.15 /ISAPI/System/Video/inputs/c hannels/<ID>/motionDetection/lay out/gridLayout</p>	Zhangkun8	2016.6.27
	<p>[mod]8.9.10 ISAPI/Security/UserPermission/<ID> /localPermission Add sub node <preview> in <localPermission> and <videoChannelPermissionList></p> <p>[add]8.25 Add usb upgrade function /ISAPI/System/USBUpgrade</p>	Luo Yuhua	2016.6.28
	<p>[mod] 8.12.2 /ISAPI/Event/triggersCap add node:TemperatureCap</p>	zhangkun	2016.6.30
	<p>[mod] 8.1.8 /ISAPI/System/status, Add CameraList and DomeInfoList to show camera running status</p> <p>8.4.43 /ISAPI/System/Video/inputs/chann els/ID/VCAResource, Add annotation of smartIntelligentMonitor,smartTraffi cDataCollection.</p>	zhangkun	2016.7.11

	<p>8.6.1 /ISAPI/Traffic/Capabilities, Add isSupportIllegalParkingDetection to show illegal parking detection.</p> <p>8.13.77 /ISAPI/Smart/storageDetection/unlock/capabilities, Add SDCardUnlockTime to show SD card unlock time</p> <p>8.2.1 /ISAPI/System/Network/capabilities, add isSupportMACFilter to show MAC address filter</p> <p>4.5.5 Error Handling : add unableCalibrate, pleaseCalibrate, SNMPv3PasswordNone, SNMPv3NameDifferent [add]</p> <p>8.17.8 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections/capabilities</p> <p>8.17.9 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections</p> <p>8.17.10 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections/<SID> 违</p> <p>8.17.11 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections/<SID>/calibration</p> <p>8.17.12 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections/<SID>/region</p> <p>8.17.13 /ISAPI/Event/schedules/illegalParkingDetections</p> <p>8.17.14 /ISAPI/Event/schedules/illegalParkingDetections/<ID></p> <p>8.17.15 /ISAPI/Traffic/channels/<ID>/illegalParkingDetections/scenePatrol</p>		
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	<p>8.2.91 /ISAPI/System/Network/MACFilter/capabilities</p> <p>8.2.92 /ISAPI/System/Network/MACFilter</p>		
<p>Version 2.5 Revision 12</p>	<p>[mod] 8.4.37 /ISAPI/System/Video/inputs/channels/<ID>/counting/capabilities OSDType,InterferenceSuppression,EmailReport</p> <p>8.4.36 /ISAPI/System/Video/inputs/channels/<ID>/counting OSDType,InterferenceSuppression,EmailReport</p>	<p>zhangkun</p>	
	<p>8.2.1 /ISAPI/System/Network/capabilities verificationCode</p> <p>8.2.67 /ISAPI/System/Network/EZVIZ verificationCode</p> <p>8.13.1 /ISAPI/Smart/capabilities isSupportSmartCalibration [add]</p> <p>8.13.80 /ISAPI/Smart/channels/<ID>/calibrations/capabilities Smart</p> <p>8.13.81 /ISAPI/Smart/channels/<ID>/calibrations/<ID> Smart</p> <p>8.13.82 /ISAPI/Smart/channels/<ID>/calibrations/<ID>/rule/<ID> Smart</p>		<p>2016.7.12</p>

<p>Version 2.5 Revision 12</p>	<p>[mod] 8.7.1 /ISAPI/System/Hardware <ManualDeicing> 8.23.1 /ISAPI/Thermal/capabilities <isSupportThermometry> [add] 8.7.8 /ISAPI/System/Hardware/man ualDeicing 8.7.9 /ISAPI/System/Hardware/man ualDeicing/capabilities 8.23.5 /ISAPI/Thermal/channels/<ID> /thermometry/<SID>/capabilities 8.23.6 /ISAPI/Thermal/channels/<ID> /thermometry/<SID> 8.23.7 /ISAPI/Thermal/channels/<ID> /thermometry/<SID>/regions 8.23.8 /ISAPI/Thermal/channels/<ID> /thermometry/<SID>/regions/<ID></p>	<p>ZhenbangShao</p>	<p>2016.7.21</p>
<p>Version 2.6</p>	<p>[add] 8.9.1 /ISAPI/Security/capabilities <securityVersion><keyIterateNum>< isSupportUserCheck> 8.9.4 /ISAPI/Security/users/ID <loginPassword></p>	<p>Zhenlei zhu</p>	<p>2016.7.22</p>

	<p>8.26.1 /ISAPI/MasterSlaveTracking/capabilities</p> <p>8.26.2 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/capabilities</p> <p>8.26.3 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID></p> <p>8.26.4 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCameraStatus</p> <p>8.26.5 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/trackingRatio</p> <p>8.26.6 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCameraCalibrating/capabilities</p> <p>8.26.7 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/calibrating</p> <p>8.26.8 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/manualCalibrating</p> <p>8.26.9 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/autoCalibrating</p> <p>8.26.10 /ISAPI/MasterSlaveTracking/channels/<ID>/tracking/capabilities</p> <p>8.26.11 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/tracking</p> <p>8.26.12 /ISAPI/MasterSlaveTracking/channels/<ID>/scene/<ID>/calibrating</p>	<p>Zhangkun8</p>	<p>2016-07-27</p>
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	<p>Status</p> <p>8.26.13 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/calibrating/<ID>/scene</p> <p>8.26.14 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/manualCalibrating/<ID>/scene</p> <p>8.26.15 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/autoCalibrating/<ID>/scene</p> <p>8.26.16 /ISAPI/MasterSlaveTracking/channels/<ID>/scene/<ID>/gotoScene</p> <p>8.26.17 /ISAPI/MasterSlaveTracking/channels/<ID>/slaveCamera/<ID>/manualTrackRatio</p> <p>8.1.35 /ISAPI/System/eagleEye/capabilities</p> <p>8.10.17 /ISAPI/Streaming/channels/<ID>/calibPanoramicFlashPic</p> <p>8.10.16 /ISAPI/Streaming/channels/<ID>/calibPanoramicPic</p> <p>8.10.18 /ISAPI/Streaming/channels/<ID>/resolutionSwitch/capabilities</p> <p>8.10.19 /ISAPI/Streaming/channels/<ID>/resolutionSwitch</p> <p>8.27.1 /ISAPI/Panorama/sensor/capabilities</p> <p>8.27.2 /ISAPI/Panorama/sensor/<ID>/continuous</p> <p>8.27.3 /ISAPI/Panorama/sensorReset</p>		
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	<p>8.27.4 /ISAPI/Panorama/sensorReset/ <ID></p> <p>8.27.5 /ISAPI/Panorama/mosaicPatter n [mod]</p> <p>1.1.1 /ISAPI/System/capabilities</p>		
	<p>[mod]</p> <p>8.23.1 /ISAPI/Thermal/capabilities <isSupportRealtimeThermometry>\ <isSupportThermIntell></p> <p>8.13.1 /ISAPI/Smart/capabilities<isSu pportShipsDetection></p> <p>8.12.2 /ISAPI/Event/triggersCap <ShipsDetectionTriggerCap></p> <p>8.12.4 /ISAPI/Event/triggers/<ID> <eventType> shipsDetection</p> <p>8.10.15 /ISAPI/Streaming/channels/<ID >/capabilities <isSupportBareDataOverlay></p> <p>[add]</p> <p>8.23.9 /ISAPI/Thermal/channels/<ID> /thermometry/basicParam/capabilit ies</p> <p>8.23.10 /ISAPI/Thermal/channels/<ID> /thermometry/basicParam</p> <p>8.23.11 /ISAPI/Thermal/channels/<ID> /thermometry/<SID>/alarmRules/c apabilities</p> <p>8.23.12 /ISAPI/Thermal/channels/<ID> /thermometry/<SID>/alarmRules</p> <p>8.23.13 /ISAPI/Thermal/channels/<ID></p>	<p>zhenbangshao</p>	<p>2016-07-2 8</p>

	<p>/thermIntell/capabilities</p> <p>8.23.14</p> <p> /ISAPI/Thermal/channels/<ID></p> <p>/thermIntell</p> <p>8.12.62</p> <p> /ISAPI/Event/triggers/<ID>/pre set/<ID></p> <p>8.12.63</p> <p> /ISAPI/Event/triggers/<ID>/not ifications/preset/<ID></p> <p>8.12.64</p> <p> /ISAPI/Event/schedules/shipsD etections</p> <p>8.12.65</p> <p> /ISAPI/Event/schedules/shipsD etections/<ID></p> <p>8.13.83</p> <p> /ISAPI/Smart/shipsDetection</p> <p>8.13.84</p> <p> /ISAPI/Smart/shipsDetection/< ID>/capabilities</p> <p>8.13.85</p> <p> /ISAPI/Smart/shipsDetection/< ID></p> <p>8.13.86</p> <p> /ISAPI/Smart/shipsDetection/< ID>/regions</p> <p>8.13.87</p> <p> /ISAPI/Smart/shipsDetection/< ID>/regions/<ID></p> <p>8.13.88</p> <p> /ISAPI/Smart/shipsDetectionCo unt/<ID></p> <p>8.13.89</p> <p> /ISAPI/Smart/shipsDetectionCo unt/<ID>/resetCount</p> <p>8.10.21</p> <p> /ISAPI/Streaming/channels/<ID >/bareDataOverlay</p> <p>8.10.22</p> <p> /ISAPI/Streaming/channels/<ID >/bareDataOverlay/capabilities</p>		
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	<p>[add] 8.17.17 /ISAPI/Traffic/channels/<ID>/e dfAlg 8.17.18 /ISAPI/Traffic/channels/<ID>/b aseParam/<SID> 8.17.19 /ISAPI/Traffic/ftp FTP 8.17.20 /ISAPI/Traffic/channels/<ID>/e ventRule/<SID> 8.20.3 /ISAPI/ITC/illegalDictionary/ca pabilities 8.20.4 /ISAPI/ITC/illegalDictionary 8.20.5 /ISAPI/ITC/TriggerMode/TPS/c apabilities 8.20.6 /ISAPI/ITC/TriggerMode/TPS/sc ence/<ID></p>	<p>Zhangkun8</p>	<p>2016-07-28</p>
	<p>[mod] 8.2.31 /ISAPI/System/Network/DDNS /<ID> 8.2.70 /ISAPI/System/Network/Ehome</p>	<p>Liuyu6</p>	<p>2016-8-10</p>
	<p>IPMD文档 [mod] 4.5.5 Error Handling 8.17.6.1 /ISAPI/Traffic/channels/<ID>/v ehicleDetect type 8.17.6.3 /ISAPI/Traffic/channels/<ID>/v ehicleDetect/capabilities type 8.17.6.6</p>	<p>Zhangkun8</p>	<p>2016-08-10</p>

	<p>/ISAPI/Traffic/channels/<ID>/picParam item</p> <p>8.17.6.12</p> <p>/ISAPI/Traffic/channels/<ID>/vehicleDetect/config Configuration [add]</p> <p>8.17.21</p> <p>/ISAPI/Traffic/vehicleInfoCond/capabilities</p> <p>8.17.22</p> <p>/ISAPI/Traffic/vehicleInfoCond</p> <p>8.17.23</p> <p>/ISAPI/Traffic/VehicleInfoResult/capabilities</p>		
	<p>[mod]</p> <p>8.1.2 /ISAPI/System/capabilities isSupportFirmwareVersionInfo</p> <p>8.1.7 /ISAPI/System/deviceInfo</p> <p>8.17.6.2</p> <p>/ISAPI/Traffic/channels/<ID>/vehicleDetects/<SID></p> <p>8.17.6.3</p> <p>/ISAPI/Traffic/channels/<ID>/vehicleDetect/capabilities</p> <p>8.17.7.2</p> <p>/ISAPI/Traffic/channels/<ID>/HVTVehicleDetects/<SID></p> <p>8.18.3</p> <p>/ISAPI/Intelligent/channels/ID/AlgParam</p> <p>8.18.4</p> <p>/ISAPI/Intelligent/channels/ID/AlgParam/capabilities faceFilteringTime</p> <p>8.2.15</p> <p>/ISAPI/System/Network/ANRArmingHost confirmMechanismEnabled [add]</p> <p>8.1.35</p> <p>/ISAPI/System/SetupParam/capabilities</p> <p>8.1.36</p>	<p>Kun zhang</p>	<p>2016-08-13</p>

	<p>/ISAPI/System/SetupParam</p>		
	<p>[add] 8.1.2 /ISAPI/System/capabilities 8.2.1 /ISAPI/System/Network/capabilities 8.2.93 /ISAPI/System/Network/WPS 8.2.94 /ISAPI/System/Network/WPS/capabilities 8.2.95 /ISAPI/System/Network/WPS/Auto Connect 8.2.96 /ISAPI/System/Network/wirelessServer 8.2.97 /ISAPI/System/Network/wirelessServer/capabilities</p>	<p>Liuyu</p>	<p>2016-08-27</p>

<p>Version 2.6 Revision 1</p>	<p>[add] 8.12.1 /ISAPI/Event/capabilities 8.12.2 /ISAPI/Event/triggersCap 8.12.8 /ISAPI/Event/schedules/inputs/ID 8.12.10 /ISAPI/Event/schedules/outputs/ID 8.12.54 /ISAPI/Event/notification/httpHosts /ID 8.17.3 /ISAPI/ITC/capability <isSupportHVTVehicleDetection> 8.17.6.1 /ISAPI/Traffic/channels/<ID>/vehicl eDetect中 8.17.6.6 /ISAPI/Traffic/channels/<ID>/picPar am中, <OverlapItemList> replace OverlapItem 8.17.7.1 /ISAPI/Traffic/channels/<ID>/HVTVe hicleDetects中, add <stateOrProvince> 8.17.24~8.17.59 updated</p>	<p>zhuzhenlei</p>	<p>2016-08-29</p>
	<p>2016-09-02 [mod]8.4.37 /ISAPI/System/Video/inputs/c hannels/<ID>/counting/capabilities calibrateType,tiltAngle,heelAngle,he ightFilter,isSupportCalibrate [mod]8.4.36 /ISAPI/System/Video/inputs/c hannels/<ID>/counting calibrateType ,tiltAngle,heelAngle,h eightFilter,isSupportCalibrate [mod]8.4.41 /ISAPI/System/Video/inputs/c hannels/<ID>/counting/search [mod]8.1.2 /ISAPI/System/capabilities [add]8.4.57 /ISAPI/System/Video/inputs/c hannels/ID/counting/posInfoOverla</p>	<p>Kun zhang</p>	<p>2016-09-02</p>

	<p>y/capabilities [add]8.4.58 /ISAPI/System/Video/inputs/c hannels/ID/counting/posInfoOverla y [add]8.4.59 /ISAPI/System/Video/inputs/c hannels/<ID>/counting/search/capa bilities [add]8.1.37 /ISAPI/System/setupCalibratio n/capabilities [add]8.1.38 /ISAPI/System/setupCalibratio n</p>		
<p>Version 2.6 Revision 2</p>	<p>2016-09-14 8.9.1 /ISAPI/Security/capabilities <isSupportGUIDFileDataExport> <isSupportSecurityQuestionConfig> <isSupportGetOnlineUserListSC> <SecurityLimits> <LoginPasswordLenLimit> <SecurityAnswerLenLimit> 8.9.24 /ISAPI/Security/extern/capabili ties 8.9.25 /ISAPI/Security/GUIDFileData 8.9.26 /ISAPI/Security/questionConfig uration/<ID> 8.9.27 /ISAPI/Security/questionConfig uration 8.9.28 /ISAPI/Security/questionCertifi cation</p>	<p>guojiaqi</p>	<p>2016-09-14</p>

	<p>2016-09-19</p> <p>8.1.2 /ISAPI/System/capabilities <isSupportGetmutexFuncErrMsg/></p> <p>8.1.39 /ISAPI/System/mutexFunctionE rrorMsg</p>	guojiaqi	2016-09-19
<p>Version 2.6 Revision 4</p>	<p>[mod]</p> <p>8.1.2 /ISAPI/System/capabilities add <VideoIntercomCap> <SecurityCPCapabilities/> node</p> <p>8.2.53 /ISAPI/System/Network/ftp/<l D> Add <ftpPicNameRuleType>, <FTPPicNameRule> node, <FTPPicNameRule>:<ItemList>,<deli miter>, <topDirNameRule>: time, buildUnitNo, <subDirNameRule>:time, buildUnitNo, outDoorDevNo</p> <p>8.3.4 /ISAPI/System/IO/inputs/<ID> add <IOUseType></p> <p>8.3.7 /ISAPI/System/IO/outputs/<ID > add <IOUseType></p> <p>[add]</p> <p>8.28 /ISAPI/VideoIntercom 8.29 /ISAPI/AccessControl</p>	Hongshuai Wang	2016-10-27



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