

# ACS API

## AXIS Camera Station 5 API



Please note that

- the aim is to maintain stability for the AXIS Camera Station API over long periods, but
- we do regular improvements, replacements, and expansions and
- on occasion we are forced to do breaking changes.

# Contents

1.	<b>Versions</b>	6
2.	<b>URI</b>	8
3.	<b>Default Ports</b>	8
4.	<b>Authentication</b>	8
	Future authentication support	8
5.	<b>HTTP POST/GET</b>	9
6.	<b>HTTP Status Codes</b>	9
7.	<b>Format</b>	9
7.1.	<b>Encoding</b>	9
7.2.	<b>Parameter letter case</b>	9
7.3.	<b>ID format</b>	9
8.	<b>Error Handling</b>	10
	ApiException	10
	UnauthorizedException	10
	CommunicationException	10
	ConcurrencyException	11
9.	<b>Recordings</b>	11
9.1.	<b>Triggers</b>	11
9.2.	<b>Sequences and Recordings</b>	11
10.	<b>Streaming</b>	12
	Introduction	12
	Export of recording	12
	Limitations	12
	Reference Documents	12

10.1. Live streaming	13
10.2. Playback	13
10.3. Export	14
10.4. Audio transmission	15
11. Facades and operations	15
11.1. VersionFacade	15
GetApiVersion	15
11.2. SystemFacade	16
GetSystem	16
11.3. ServerConfigurationFacade	17
GetServerConfiguration	17
11.4. CameraListFacade	19
GetCameraList	19
GetNumberOfCameras	22
11.5. CameraFacade	22
GetCameraCapabilities	22
AddCamera	24
11.6. DeviceListFacade	25
GetDeviceList	26
11.7. SnapshotFacade	27
GetSnapshot	28
11.8. RecordingSnapshotFacade	29
GetSnapshots	29
11.9. RecordingFacade	31
GetRecordedMedia	31
GetRecordings	33
11.10. RecordedEventFacade	35
GetRecordedEvents	35
GetRecordedEventTypes	37
11.11. RecordingControlFacade	38
StartRecording	38
StopRecording	38

GetRecordingStatus	39
<b>11.12. PtzFacade</b>	<b>39</b>
Exceptions	40
GetPtzCapabilities	40
GetCameraPtzCapabilities	41
Move	41
Zoom	42
Center	43
ContinuousPanAndTilt	43
ContinuousZoom	44
GotoPresetToken	45
GotoPresetId	45
GetPtzPresets	46
<b>11.13. TriggerFacade</b>	<b>46</b>
ActivateTrigger	47
DeactivateTrigger	47
ActivateDeactivateTrigger	47
PulseTrigger	48
<b>11.14. Send HTTP Notification action</b>	<b>48</b>
Content type	49
Trigger data	49
Authentication methods	49
<b>11.15. ActionButtonFacade</b>	<b>50</b>
GetActionButtons	50
SetActionButton	51
<b>11.16. EventLogFacade</b>	<b>52</b>
GetEventLogList	52
<b>11.17. BookmarkFacade</b>	<b>55</b>
AddBookmark	55
GetBookmark	56
UpdateBookmark	57
RemoveBookmark	57
GetBookmarks	58

<b>11.18. OnScreenControlsFacade</b>	<b>59</b>
GetOnScreenControls	59
TriggerOnScreenControl	65
<b>11.19. Deep Links for launching the AXIS Camera Station client</b>	<b>66</b>
Deep Link Actions	67
Basic	67
Live	67
Recording	67
Export	68
Configuration	69
<b>11.20. ClientCommandsFacade</b>	<b>70</b>
GoToCameras	70
StartPlayback	70
PausePlayback	71
GoToLiveView	71
SetPlaybackSpeed	72
SetPlaybackPositionUtc	72

## 1. Versions

The versions of this API were released with the following AXIS Camera Station versions:

API Version	AXIS Camera Station Version	Changes
1.3	5.16	
1.4	5.19	
1.5	5.20	<ul style="list-style-type: none"> <li>Added GetCameraCapabilities</li> </ul>
1.6	5.21	<ul style="list-style-type: none"> <li>Added support for Action Buttons and On-Screen Controls.</li> </ul>
1.7	5.23	<ul style="list-style-type: none"> <li>Added RecordingSnapshotFacade with endpoint GetSnapshots</li> <li>Added hardware and vendor information to GetSystem</li> <li>Added GetRecordedMedia endpoint to RecordingFacade</li> <li>Added EventFacade with endpoint GetEventList.</li> </ul>
1.8	5.25	<ul style="list-style-type: none"> <li>Added audio transmission API and capabilities for it.</li> </ul>
2.0	5.26	<ul style="list-style-type: none"> <li>Changed ID-numbers to be format "3615_0566a4da-7ff4-4a72-bc4c-5fe609a46030".</li> <li>Methods in RecordingFacade now returns seconds with 7 decimals.</li> <li>GetCameraList now includes user camera privileges for AudioInAccess and AudioOutAccess.</li> <li>Removed undocumented methods LiveViewFacade.GetLiveViewStream and PlaybackFacade.GetPlaybackStream.</li> </ul>
2.1	5.27	<ul style="list-style-type: none"> <li>Added GetOnScreenControls and TriggerOnScreenControl.</li> </ul>
2.2	5.28	<ul style="list-style-type: none"> <li>Added H.265 support for live and playback streaming.</li> </ul>
2.3	5.29	<ul style="list-style-type: none"> <li>Internal release.</li> </ul>
2.4	5.30	<ul style="list-style-type: none"> <li>Added Client Commands feature.</li> </ul>
2.5	5.31	<ul style="list-style-type: none"> <li>Added mechanical PTZ priority feature.</li> <li>Added MPEG-4.</li> <li>Changed validation of IDs in all calls. Incorrect IDs will now throw an ApiException.</li> </ul>
2.6	5.32	<ul style="list-style-type: none"> <li>Added DeviceListFacade endpoint for retrieving the Devices.</li> </ul>
2.7	5.33	<ul style="list-style-type: none"> <li>Internal release.</li> </ul>
2.8	5.34	<ul style="list-style-type: none"> <li>Deprecated GetDeviceList endpoint.</li> <li>Included TriggerFacade documentation on activation and deactivation of triggers.</li> </ul>
2.9	5.35	<ul style="list-style-type: none"> <li>Added section with supported http methods for endpoints.</li> <li>Improved input data validation and error messaging for API calls.</li> </ul>
2.10	5.35.271	<ul style="list-style-type: none"> <li>Changed the format of the parameter section in OnScreenControlsFacade.</li> </ul>
2.11	5.36	<ul style="list-style-type: none"> <li>GetServerConfiguration now returns only existing media profiles. Field type corrected to String for VideoViewToken in documentation.</li> <li>ActionButtonFacade checks if user has access to cameras and throws UnauthorizedException otherwise.</li> <li>ActionButtonFacade.SetActionButtons validates buttons state and throws CommunicationException otherwise.</li> <li>The returned Name in GetPtzPresets is now UTF8 encoded instead of HTML encoded.</li> <li>Removed deprecated endpoint PtzFacade/GetPresets.</li> </ul>

		<ul style="list-style-type: none"> <li>Removed deprecated endpoint PtzFacade/GotoPreset.</li> <li>Removed deprecated option to start playback using Sequence ID.</li> </ul>
2.12	5.37	<ul style="list-style-type: none"> <li>Added TimeZone parameter to GetSystem response.</li> <li>Prerecorded videos will now include a streaming profile, this will result in them correctly returning MediaProfiles when calling GetCameraList.</li> </ul>
2.13	5.38	<ul style="list-style-type: none"> <li>Internal release.</li> </ul>
2.14	5.39	<ul style="list-style-type: none"> <li>Top level input parameters can now start with an upper-case letter.</li> <li>Introduced Deep Links for launching the AXIS Camera Station client with certain parameters set.</li> </ul>
2.16	5.41	<ul style="list-style-type: none"> <li>Added lowestavailable as a quality level.</li> <li>Introduced new RecordingControlFacade for setting and getting recording status for cameras.</li> <li>Introduced new Export streaming endpoint for exporting recording to a seek-able file.</li> <li>Introduced new DeviceId and VideoViewToken fields for GetCameraList response.</li> </ul>
2.17	5.42	<ul style="list-style-type: none"> <li>Introduced new BookmarkFacade for managing bookmarks.</li> <li>Added new optional parameters for controlling quality when requesting recording snapshots.</li> <li>Extended deep link support for recording tab, export tab, and configuration pages.</li> <li>Added AddCamera endpoint to CameraFacade.</li> </ul>
2.18	5.43	<ul style="list-style-type: none"> <li>Internal release.</li> </ul>
2.19	5.44	<ul style="list-style-type: none"> <li>Time can now be omitted in AddBookmark in BookmarkFacade. If omitted, the bookmark time will be set to the current server time.</li> </ul>
2.20	5.45	<ul style="list-style-type: none"> <li>Internal release.</li> </ul>
2.21	5.46	<ul style="list-style-type: none"> <li>Introduced camera ID field to relevant event log types in GetEventLogList response.</li> </ul>
2.22	5.47	<ul style="list-style-type: none"> <li>Internal release.</li> </ul>
2.23	5.49	<ul style="list-style-type: none"> <li>Internal release.</li> </ul>
2.24	5.50	<ul style="list-style-type: none"> <li>Internal release.</li> </ul>
2.25	5.51	<ul style="list-style-type: none"> <li>Internal release.</li> <li>Corrected BookmarkFacade documentation.</li> </ul>
2.26	5.52	<ul style="list-style-type: none"> <li>Solved an issue in AddCamera that prevented adding of cameras if the provided address contained capital characters.</li> </ul>
2.27	5.53	<ul style="list-style-type: none"> <li>Internal release</li> </ul>
2.28	5.54 (and 5.55)	<ul style="list-style-type: none"> <li>Internal release</li> </ul>
2.29	5.56	<ul style="list-style-type: none"> <li>Introduced new RecordedEventFacade for retrieving recorded events and event types.</li> </ul>
2.30	5.57	<ul style="list-style-type: none"> <li>GetDeviceList endpoint deprecation revoked.</li> <li>Added new optional parameter for preferred resolution when requesting recording snapshots.</li> <li>GetCameraList response includes additional camera privileges for recording export and snapshot.</li> <li>Introduced the ability to include dynamic trigger data in HTTP notification action, to send event information from an action rule to a web server.</li> </ul>

**Table:** ACS API versions and AXIS Camera Station versions.

## 2. URI

To access the ACS API the URI is constructed in the following way:

<https://<Server-address>:<port>/Acs/Api/<Facade>/<Operation>>

- <Server-address> - The IP address or hostname to the AXIS Camera Station server.
- <Port> - The port for the AXIS Camera Station API on the server (default 55756).
- <Facade> - The facade name, e.g., "CameraListFacade".
- <Operation> - The name of the operation to perform, e.g., "GetCameraList"

An example URI could thus be:

<https://localhost:55756/Acs/Api/CameraListFacade/GetCameraList>

With exception for Playback and Streaming where the URIs are on the form of

[https://<Server-address>:55756/Acs/Streaming/Video/<StreamingType>/<Format>/?  
<UriParameter1>=<UriParameter1Value>&<UriParameter2>=<UriParameterValue2>](https://<Server-address>:55756/Acs/Streaming/Video/<StreamingType>/<Format>/?<UriParameter1>=<UriParameter1Value>&<UriParameter2>=<UriParameterValue2>)

- <StreamingType> - The type of streaming, live or playback.
- <Format> - The video format, Matroska or MP4
- <UriParameter> - The URI parameters of the request
- <UriParameterValue> - The value of that URI parameter.

## 3. Default Ports

API: 55756 (HTTPS)

The TCP port for HTTPS on the ACS server (default 55756). This port is also known as the mobile API port. What port to use can be modified in the AXIS Camera Station Service Control.

## 4. Authentication

Supported authentication methods are HTTPS basic, Kerberos or NTLM. Username and password is required when authenticating. The server certificate is self-signed.

### ***Future authentication support***

Support for authentication against the AXIS Camera Station server using client certificates is planned but not yet implemented. A client certificate would mean that the client uses Windows account credentials for first login on the AXIS Camera Station server. The client would then submit its public certificate key to the server, which adds the key to a list of trusted client certificates. Subsequent requests would use mutual certificate authentication with HTTPS, without the need to involve Windows account credentials.



## 5. HTTP POST/GET

HTTP **POST** should be used by clients when making requests and sending parameters JSON-formatted in the request body. An example body for a HTTP **POST** request for <https://localhost:55756/Acs/Api/CameraListFacade/GetCameraList> could look like:

```
{
  "Range": {
    "StartIndex": 0,
    "NumberOfElements": 5
  }
}
```

Where not stated otherwise it is also possible to use HTTP **GET** and sending the JSON parameters without newlines as parameters in the URI when e.g., using a web browser. An example HTTP **GET** request could look like:

[https://localhost:55756/Acs/Api/CameraListFacade/GetCameraList?{"Range":{"StartIndex":0,"NumberOfElements":5}}](https://localhost:55756/Acs/Api/CameraListFacade/GetCameraList?{)

## 6. HTTP Status Codes

The following HTTP status codes are possible responses from the ACS API:

- **200 OK** – The operation was performed successfully.
- **400 Bad Request** – There was some error with the request. The “Bad Request” reason phrase is replaced with the error type. These errors are described in detail in Section 8 **Error Handling**.
- **401 Unauthorized** – The user has provided invalid credentials and can therefore not access the API.
- **404 Not Found** – The requested operation could not be found.
- **500 Internal Server Error** – An internal server error has occurred.

## 7. Format

### 7.1. Encoding

All requests and responses are encoded using UTF-8.

### 7.2. Parameter letter case

Input parameter names can start with an upper- or lower-case letter. They are parsed case insensitively. Output parameters are in Pascal case: each word starts with an upper-case letter.

### 7.3. ID format

Input data validation and error messaging for API calls is improved from version 2.9. The IDs consists of a string containing numbers, letters, underscore, and dashes. For backwards compatibility some of the older formats containing numbers and # are still accepted on some

APIs. *Note:* The old format could potentially impose duplicates or non-unique IDs if used in a multi-server environment or in future versions.

## 8. Error Handling

For HTTP status code 400 the ACS API response body is on the form:

```
{
  "Type" : "ExceptionType"
  "Message" : "Exception message"
}
```

For each operation in the ACS API a set of generic errors can occur. These generic errors are described here. Besides these generic errors, there may be more specific errors for each operation. Such specific errors are documented in section Facades and operations below for each operation.

### ApiException

The most generic exception thrown by the API when an operation has failed.

#### Response example:

HTTP Response: 400 ApiException

```
{
  "Type" : "ApiException",
  "Message" : "Some error"
}
```

### UnauthorizedException

Error due to that the user is authenticated, but unauthorized to perform the operation. This exception is due to authorization problems with the server, i.e., an operation that fails due to authorization problems between server and camera will not generate this exception.

#### Response example:

HTTP Response: 400 UnauthorizedException

```
{
  "Type" : "UnauthorizedException",
  "Message" : "Some error"
}
```

### CommunicationException

Error for communication-related issues like JSON format error or wrong parameters. Also, if e.g., a camera ID is in the wrong format, or if it is not corresponding to the current server or a camera installed on the server. This exception is due to communication problems with the server, i.e., an operation that fails due to communication problems between server and camera will not generate this exception.

#### Response example: HTTP Response: 400 CommunicationException

```
{
  "Type" : "CommunicationException",
  "Message" : "Some error"
}
```

## ConcurrencyException

Error due to some concurrency problem, for example when trying to access a camera that does not exist anymore (most likely since some other client has removed it).

Response example: HTTP Response: 400 ConcurrencyException

```
{
  "Type" : "ConcurrencyException",
  "Message" : "Some error"
}
```

## 9. Recordings

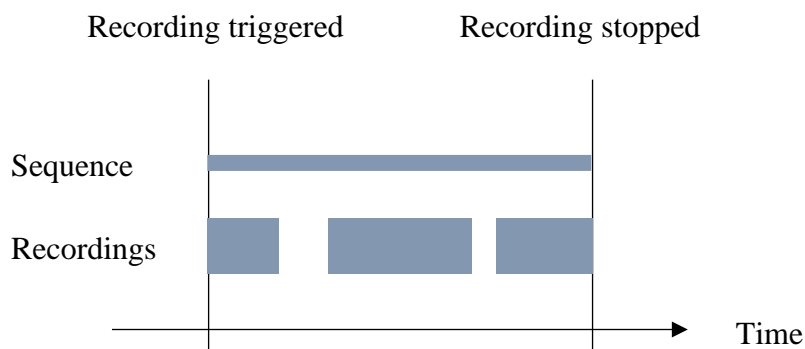
### 9.1. Triggers

In AXIS Camera Station a recording is started by a trigger. There may be several simultaneous recordings started by different triggers. A trigger can be one of the following:

- **Motion detection** – The video is only recorded when motion has been detected.
- **Manual** – A user has manually started a recording from a client. The API endpoint StartRecording is also considered a manually started recording.
- **Continuous or scheduled** – The video from the camera is recorded continuously or according to a schedule.
- **Failover** – If the connection between the server and the camera has been lost, video can be saved to the camera SD card. When the connection is restored, the video is imported to the server.
- **Rule** – A custom rule that has been set up by a user to start recording when a certain trigger has occurred.

### 9.2. Sequences and Recordings

When recording a video in AXIS Camera Station a *sequence* is created. The sequence describes a time interval during which recording was made for a specific trigger. During a sequence there may be interrupts in the recording due to e.g., network errors. Therefore, a sequence can consist of several parts, called *recordings*. The figure below shows the relation between a sequence and recordings:



**Figure:** The relation between a sequence and recordings.

## 10. Streaming

### **Introduction**

The AXIS Camera Station server can deliver media streams in an MP4 or Matroska container through HTTPS. For authentication, Basic HTTP authentication, Kerberos and NTLM is supported. To request live and playback streams, the ACS API can be used to retrieve available cameras and recordings.

For live streams fragmented MP4 is used. Each fragment contains a single frame to minimize latency. For playback, each fragment contains one or more complete GOPs. MP4 streaming is available on AXIS Camera Station servers with API version 1.3 or higher.

For Matroska, segments of unknown size are used (see Matroska Live Streaming). Matroska streaming is available with API version 1.4 or higher.

### **Export of recording**

Since API version 2.16, there are two streaming endpoints which can be used to export recorded video.

The playback endpoint supports both the MP4 and Matroska container format but has the downside of not being seek-able in media players.

The export endpoint adds support for downloading a file that is seek-able. This endpoint cannot stream recording that can be viewed progressively but must be fully downloaded first before playing back.

### **Limitations**

- The MP4 container format does not support the G.711 and G.726 audio encodings and will filter out the audio if those encodings are encountered.
- The export endpoint only supports the MP4 container format.
- Currently, the server certificate for HTTPS communication is self-signed. This means that web browsers will complain about unsafe source if an MP4 or Matroska stream is requested from the server to the browser.

### **Reference Documents**

- ISO/IEC 14496-12:2015 - Information technology — Coding of audio-visual objects — Part 12: ISO base media file format
- ISO/IEC 14496-14:2003 - Information technology — Coding of audio-visual objects — Part 14: MP4 file container
- ISO/IEC 14496-15:2017 - Information technology — Coding of audio-visual objects — Part 15: Carriage of network abstraction layer (NAL) unit structured video in the ISO base media file format
- <https://www.matroska.org/technical/specs/index.html> – Matroska Documentation

## 10.1. Live streaming

A stream is requested using the following URI syntax:

URI: /Acs/Streaming/Video/Live/<Container>/?camera=<cameraId>&quality=<qualityLevel>&audio=<isRequestingAudio>&prerolling=<isPrerolling>

Request:

Field	Description
<Container>	The video container. Could be either MP4 (API version 1.3) or Matroska (API version 1.4).
<cameraId>	The ID of the camera in AXIS Camera Station to receive the live stream from.
<qualityLevel>	The requested quality level of the stream. Available values are the ones supported by the camera, normally <b>high</b> , <b>medium</b> , and <b>low</b> .
<isRequestingAudio>	Boolean – Optional. (Default value 1). Value 1 means that the stream contains audio if audio is enabled for the camera. Value 0 means that no audio is delivered in the stream. For MP4, the value must be 0.
<isPrerolling>	Boolean – Optional. (Default value 0). Value 1 means that the first frames of the stream may be old frames from a cache. This may lower the delay until from sending the streaming request to receiving the first frame in the response. Value 0 means that no frames will be pre-rolled, that is, all frames delivered in the response stream are fetched from the source camera after the server receives the streaming request.

Example:

[https://172.25.127.28:55756/Acs/Streaming/Video/Live/Mp4/?camera=284\\_54dd4102-96c7-4cdb-a8d2-85c2187a5d47&quality=medium&audio=0](https://172.25.127.28:55756/Acs/Streaming/Video/Live/Mp4/?camera=284_54dd4102-96c7-4cdb-a8d2-85c2187a5d47&quality=medium&audio=0)

If no camera or quality is available according to the requested parameters, the HTTP response will be 404 Not Found.

This operation is available from API version 1.3 with MP4 and 1.4 with Matroska.

## 10.2. Playback

A stream is requested using the following URI syntax:

URI: /Acs/Streaming/Video/Playback/<Container>/?camera=<cameraId>&quality=<qualityLevel>&start=<startTime>&end=<endTime>&audio=<isRequestingAudio>

Request:

Field	Description
<Container>	The video container. Could be either MP4 (API version 1.3) or Matroska (API version 1.4).
<cameraId>	The ID of the camera to receive the live stream from.

<b>&lt;qualityLevel&gt;</b>	The requested quality level of the stream. Available values are the ones supported by the camera, normally <b>high</b> , <b>medium</b> , <b>low</b> , <b>highestavailable</b> , <b>lowestavailable</b>
<b>&lt;startTime&gt;</b>	The requested start time of the stream in UTC on the format “YYYY-MM-DD-hhmmss-ffffffZ”. The actual time of the first frame in the stream may be lower depending on GOP structure in the recording.
<b>&lt;endTime&gt;</b>	Optional. The requested end time of the stream in UTC on the format “YYYY-MM-DD-hhmmss-ffffffZ”.
<b>&lt;isRequestingAudio&gt;</b>	Boolean – Optional. (Default value 1). Value 1 means that the stream contains audio if audio is enabled for the camera. Value 0 means that no audio is delivered in the stream. For MP4, the value must be 0.

Example:

```
https://172.25.127.28:55756/Acs/Streaming/Video/Playback/Mp4/?camera=284_54dd4102-96c7-4cdb-a8d2-85c2187a5d47&quality=medium&start=2017-11-29-175333-9529723Z&end=2017-11-29-175455-9934500Z&audio=0
```

If no camera or quality is available according to the requested parameters, the HTTP response will be 404 Not Found.

This operation is available from API version 1.3 with MP4 and 1.4 with Matroska.

### 10.3. Export

Provides a MP4 file that is seek-able in media players. A stream is requested using the following URI syntax:

URI: /Acs/Streaming/Video/Export/<Container>/?camera=<cameraId>&quality=<qualityLevel>&start=<startTime>&end=<endTime>&audio=<isRequestingAudio>

Request:

Field	Description
<b>&lt;Container&gt;</b>	The video container. Must be Mp4.
<b>&lt;cameraId&gt;</b>	The ID of the camera to receive the live stream from.
<b>&lt;qualityLevel&gt;</b>	The requested quality level of the stream. Available values are the ones supported by the camera, normally <b>high</b> , <b>medium</b> , <b>low</b> , <b>highestavailable</b> , <b>lowestavailable</b>
<b>&lt;startTime&gt;</b>	The requested start time of the stream in UTC on the format “YYYY-MM-DD-hhmmss-ffffffZ”. The actual time of the first frame in the stream may be lower depending on GOP structure in the recording.
<b>&lt;endTime&gt;</b>	Optional. The requested end time of the stream in UTC on the format “YYYY-MM-DD-hhmmss-ffffffZ”.
<b>&lt;isRequestingAudio&gt;</b>	Boolean – Optional. (Default value 1). Value 1 means that the stream contains audio if audio is enabled for the camera. Value 0 means that no audio is delivered in the stream. For MP4, the value must be 0.

**Example:**

```
https://172.25.127.28:55756/Acs/Streaming/Video/Export/Mp4/?camera=284_54dd4102-96c7-4cdb-a8d2-85c2187a5d47&quality=medium&start=2017-11-29-175333-9529723Z&end=2017-11-29-175455-9934500Z&audio=0
```

If no camera or quality is available according to the requested parameters, the HTTP response will be 404 Not Found.

This operation is available from API version 2.16.

## 10.4. Audio transmission

An audio transmission is sent using the following URI syntax:

URI: /Acs/Streaming/TransmitAudio/<Container>/?camera=<cameraId>

**Request:**

Field	Description
<Container>	The audio container. Only Raw is supported at this time, which is a continuous stream of bytes being sent by the client.
<cameraId>	The AXIS Camera Station ID of the camera to transmit the audio to.

**Example:**

```
https://172.25.127.28:55756/Acs/Streaming/TransmitAudio/Raw/?camera=2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47
```

If no camera with the specified ID is available or the camera has no speaker attached to it, the HTTP response will be 404 Not Found.

The encoding of the audio must be Axis  $\mu$ -law 128 kbps. (G.711  $\mu$ -law PCM 16 kHz 128 kbps)

This operation is available from API version 1.8.

## 11. Facades and operations

Facades (same as an interface) contains operations for a specific area, e.g., snapshot, or live view handling. The following facades and operations are available in the ACS API. For each operation there is an example URI, request, and response.

### 11.1. VersionFacade

Handles version information about the API.

**GetApiVersion**

Gets the version of the API. The major version is increased when backward compatibility cannot be assumed. The minor version is increased at changes which are backward compatible.

URI: /Acs/Api/VersionFacade/GetApiVersion

Request: No parameters are used in the request body.

Example request: https://172.25.127.28:55756/Acs/Api/VersionFacade/GetApiVersion

Response:

Field	Description
<b>Major</b>	Integer - The major version of the API
<b>Minor</b>	Integer - The minor version of the API

**Table:** GetApiVersion response

Example response:

HTTP Response: 200 OK

```
{
  "Major": 1,
  "Minor": 7
}
```

Available from API version 1.3 and later.

## 11.2. SystemFacade

Handles information about the system.

### **GetSystem**

Gets basic system information.

URI: /Acs/Api/SystemFacade/GetSystem

Request: No parameters are used in the request body.

Example request: https://172.25.127.28:55756/Acs/Api/SystemFacade/GetSystem

Response:

Field	Description
<b>Id</b>	String – The global unique identifier of the server.
<b>Name</b>	String – The name of the server. This should be considered as a friendly name and cannot be used to distinguish different systems.
<b>ServerDisplayVersion</b>	String – The server version. (API version 1.5)
<b>Hardware</b>	The system hardware (API version 1.7)
<b>ModelName</b>	String – The name of the hardware model. (API version 1.7)
<b>Vendor</b>	String – The name of the hardware vendor. (API version 1.7)
<b>TimeZone</b>	String – The time zone of the server in IANA format. (API version 2.12)

**Table:** GetSystem response



Example response:

HTTP Response: 200 OK

```
{
  "Id": "018b7214-cd17-4eab-bc0a-83ed4753feee",
  "Name": "Test and Demo system",
  "ServerDisplayVersion": "5.46.400",
  "Hardware": {
    "ModelName": "HP ZBook 15 G6",
    "Vendor": "HP"
  },
  "TimeZone": "Europe/Berlin"
}
```

The operation is available from API version 1.3 and later.

ServerDisplayVersion is available in API version 1.5 and later.

Hardware, ModelName, and Vendor are available in API version 1.7 and later.

TimeZone is available in API version 2.12 and later.

### 11.3. ServerConfigurationFacade

Provides system configuration information.

#### **GetServerConfiguration**

Gets the complete server configuration.

URI: /Acs/Api/ServerConfigurationFacade/GetServerConfiguration

Request: The request lacks body.

Example request:

<https://172.25.127.28:55756/Acs/Api/ServerConfigurationFacade/GetServerConfiguration>

Response:

Field	Description
<b>CameraSettings</b>	The list of camera settings
<b>CameraName</b>	String – The user chosen camera name.
<b>Manufacturer</b>	String – The Manufacturer of the camera.
<b>Model</b>	String – The camera Model
<b>FirmwareVersion</b>	String – The firmware version
<b>Address</b>	String – The IP Address of the camera.
<b>HttpPort</b>	Integer – The HTTP port to use for communication.
<b>HostName</b>	Integer – The desired framerate for the quality level.
<b>MacAddress</b>	String – The MAC address of the camera.
<b>VideoViewToken</b>	String – The video view token of the camera.
<b>CameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>IsEnabled</b>	Boolean – If the camera is enabled.
<b>DisconnectSinceServerStart</b>	Integer – Number of disconnects since server start.

<b>HasPtz</b>	Boolean – If the camera has PTZ.
<b>VideoAudioSettings</b>	The list of video audio settings.
<b>Id</b>	String – The unique identifier of the camera.
<b>HasAudio</b>	Boolean – If the camera has audio.
<b>LiveViewAudio</b>	Boolean – If the camera uses audio for live view.
<b>RecordingAudio</b>	Boolean – If the camera uses audio for recordings.
<b>High</b>	The media profile high. <i>See table: Media profiles.</i> In version 2.10 and later this field will be missing on some cameras depending on the number of media profiles they have.
<b>Medium</b>	The media profile medium. <i>See table: Media profiles.</i> In version 2.10 and later this field will be missing on some cameras depending on the number of media profiles they have.
<b>Low</b>	The media profile low. <i>See table: Media profiles.</i> In version 2.10 and later this field will be missing on some cameras depending on the number of media profiles they have.

**Table:** GetServerConfiguration response

Field	Description
<b>QualityLevel</b>	Integer –The quality level of the media profile. <i>See table QualityLevels.</i>
<b>Framerate</b>	Integer –The desired framerate for the quality level.
<b>Resolution</b>	String – The Media profile resolution. Can be either numeric (e.g., “1280x720”) or textual (e.g., “4CIF”).
<b>VideoEncoding</b>	Integer – The Media profile video encoding. <i>See table VideoEncodings.</i>

**Table:** Media profiles

QualityLevel	QualityLevel corresponding value
<b>1</b>	High
<b>2</b>	Medium
<b>3</b>	Low

**Table:** QualityLevels

VideoEncoding	VideoEncoding corresponding value
<b>1</b>	H.264
<b>2</b>	Mjpeg
<b>3</b>	H.265
<b>4</b>	MPEG-4

**Table:** VideoEncodings

Example response:

HTTP Response: 200 OK

```
{
  "CameraSettings": [
    {
      "CameraName": "AXIS M3005 (2)",
      "Manufacturer": "Axis",
      "Model": "AXIS M3005",
      "FirmwareVersion": "5.50.5.13",
      "Address": "m3005.axis.example.com",
      "HttpPort": 80,
      "HostName": " m3005.axis.example.com",
```

```

    "MacAddress": "00408CDC09C3",
    "VideoViewToken": "1",
    "CameraId": {
      "Id": "2438_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    "IsEnabled": true,
    "DisconnectSinceServerStart": 0,
    "HasPtz": false
  },
],
"VideoAudioSettings": [
  {
    "Id": {
      "Id": "2438_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    "HasAudio": false,
    "LiveViewAudio": false,
    "RecordingAudio": false,
    "High": {
      "QualityLevel": 1,
      "Framerate": 25,
      "Resolution": "1920x1080",
      "VideoEncoding": 1
    },
    "Medium": {
      "QualityLevel": 2,
      "Framerate": 15,
      "Resolution": "1280x720",
      "VideoEncoding": 1
    },
    "Low": {
      "QualityLevel": 3,
      "Framerate": 5,
      "Resolution": "640x360",
      "VideoEncoding": 1
    }
  }
]
}

```

The operation is available from API version 1.6 and later.

#### 11.4. CameraListFacade

Handles listing of cameras.

##### ***GetCameraList***

Gets cameras sorted by name, limited to the specified range.

URI: /Acs/Api/CameraListFacade/GetCameraList

Request:

Field	Description
<b>Range</b>	The range of elements to be collected from the server
<b>StartIndex</b>	Integer - The starting index of the first camera in the reply.
<b>NumberOfElements</b>	Integer - The number of cameras to be in the reply.

**Table:** GetCameraList request

Example request:

```
https://172.25.127.28:55756/Acs/Api/CameraListFacade/GetCameraList
{
  "range" : {
    "StartIndex": 0,
    "NumberOfElements": 20
  }
}
```

Response:

Field	Description
<b>Cameras</b>	The list of cameras.
<b>CameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>DeviceId</b>	The device Id for the device associated with the camera.
<b>Id</b>	String – The unique identifier of the device.
<b>Name</b>	String – The name of the camera. This should be considered as a friendly name and cannot be used to distinguish different systems.
<b>Model</b>	String – The camera model. (API version 1.5)
<b>VideoViewToken</b>	String – The camera view token. Image index for VAPIX devices and VideoSourceConfiguration token for ONVIF cameras.
<b>MediaProfiles</b>	The list of media profiles for the camera.
<b>QualityLevel</b>	Integer –The media profile quality level. <i>See table QualityLevels.</i>
<b>Framerate</b>	Integer –The desired framerate for the quality level.
<b>Resolution</b>	String – The media profile resolution. Can be either numeric (e.g., “1280x720”) or textual (e.g., “4CIF”).
<b>VideoEncoding</b>	Integer – Media profile video encoding. <i>See table VideoEncodings.</i>
<b>Status</b>	Integer – The status of the camera. <i>See table CameraStatus.</i>
<b>CameraPrivileges</b>	List of Integers – The user privileges granted for this camera. Empty if the user has no privileges. <i>See table CameraPrivileges.</i>
<b>DeviceSerialNumber</b>	String – The serial number of the camera.
<b>Manufacturer</b>	String – The Manufacturer of the camera. (API version 1.3)
<b>ContainsLastCamera</b>	Boolean – If the last camera is in this reply.

**Table:** GetCameraList response

QualityLevel	QualityLevel corresponding value
<b>1</b>	High
<b>2</b>	Medium
<b>3</b>	Low

**Table:** QualityLevels

VideoEncoding	VideoEncoding corresponding value
<b>1</b>	H.264
<b>2</b>	Mjpeg

3	H.265
4	MPEG-4

**Table: VideoEncodings**

Status	Status corresponding value
1	OK
2	Unauthenticated
3	Not Accessible

**Table: CameraStatus**

CameraPrivileges	CameraPrivileges corresponding value
1	Live view Access
2	Playback Access
3	Ptz Access
4	AudioInAccess
5	AudioOutAccess
6	ExportAccess
7	SnapshotAccess

**Table: CameraPrivileges**

Example response:

HTTP Response: 200 OK

```
{
  "Cameras": [
    {
      "CameraId": {
        "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
      },
      "DeviceId": {
        "Id": "1240_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
      },
      "Name": "Reception",
      "Model": "AXIS Q1765-LE",
      "VideoViewToken": "0",
      "MediaProfiles": [
        {
          "QualityLevel": 1,
          "Framerate": 25,
          "Resolution": "1920x1080",
          "VideoEncoding": 1
        },
        {
          "QualityLevel": 2,
          "Framerate": 15,
          "Resolution": "1280x720",
          "VideoEncoding": 1
        },
        {
          "QualityLevel": 3,
          "Framerate": 5,
          "Resolution": "640x360",
          "VideoEncoding": 1
        }
      ]
    }
  ],
}
```

```

        "Status": 1,
        "CameraPrivileges": [
            1,
            2,
            3,
            4,
            5,
            7
        ],
        "DeviceSerialNumber": "ACCC8E05DD5D",
        "Manufacturer": "Axis"
    },
    "ContainsLastCamera": true
}

```

The operation is available from API version 1.3 and later. The Manufacturer field is available in API version 1.3 and later. The Model field is available in API version 1.5 and later. The CameraPrivileges, HasAudioIn and HasAudioOut fields are available from version 2.0 and later. The DeviceId and VideoViewToken fields are available from version 2.16 and later. CameraPrivileges, ExportAccess, and SnapshotAccess are available from version 2.30.

### ***GetNumberOfCameras***

Gets the total number of cameras.

URI: /Acs/Api/CameraListFacade/GetNumberOfCameras

Request: No parameters are used in the request body.

Example request:

<https://172.25.127.28:55756/Acs/Api/CameraListFacade/GetNumberOfCameras>

Response:

Field	Description
<b>NumberOfCameras</b>	Integer – The number of cameras.

**Table:** GetNumberOfCameras response

Example response: HTTP Response: 200 OK

```

{
    "NumberOfCameras": 7
}

```

The operation is available from API version 1.3 and later.

## **11.5. CameraFacade**

Handles general camera functionality.

### ***GetCameraCapabilities***

Gets capabilities for cameras sorted by name, limited to the specified range.

URI: /Acs/Api/CameraFacade/GetCameraCapabilities

#### Request:

Field	Description
<b>range</b>	The range of elements to be collected from the server
<b>StartIndex</b>	Integer - The starting index of the first camera in the reply.
<b>NumberOfElements</b>	Integer - The number of cameras to be in the reply.

**Table:** GetCameraCapabilities request

#### Example request:

```
https://172.25.127.28:55756/Acs/Api/CameraFacade/GetCameraCapabilities
{
  "range" : {
    "StartIndex": 0,
    "NumberOfElements": 5
  }
}
```

#### Response:

Field	Description
<b>Capabilities</b>	The list of capabilities.
<b>Camera</b>	The camera.
<b>Id</b>	String – The unique identifier of the camera.
<b>HasPtz</b>	Boolean – If the camera has PTZ capabilities.
<b>HasSpeaker</b>	Boolean – If the camera has a speaker for audio transmission. Can either be camera internal or connected externally through Axis Camera Station.
<b>DewarpCapability</b>	Present in response only if the camera has dewarping capabilities. Tilt orientation and lens parameters are provided.
<b>LensParameters</b>	The lens parameter used for dewarping.
<b>RadialDistortionX</b>	Double – The radial distortion coefficient X value.
<b>RadialDistortionY</b>	Double – The radial distortion coefficient Y value.
<b>RadialDistortionZ</b>	Double – The radial distortion coefficient Z value.
<b>OpticalCenterX</b>	Double – The X coordinate of the optical center.
<b>OpticalCenterY</b>	Double – The Y coordinate of the optical center.
<b>TiltOrientation</b>	Integer – The tilt orientation. <i>See TiltOrientations table.</i>
<b>ContainsLastCapability</b>	Boolean – If the last camera is in this reply.

**Table:** GetCameraCapabilities response

TiltOrientations	TiltOrientations corresponding value
<b>0</b>	Not Applicable, e.g., regular camera.
<b>1</b>	Ceiling
<b>2</b>	Desk
<b>3</b>	Wall

**Table:** TiltOrientations

Example response: HTTP Response: 200 OK

```
{
  "Capabilities": [
    {
      "Camera": {
        "Id": "1821_6d83ad9b-1d27-409b-85f8-2656485bdb40"
      },
      "HasPtz": false,
      "HasSpeaker": true
    },
    {
      "Camera": {
        "Id": "3896_6d83ad9b-1d27-409b-85f8-2656485bdb40"
      },
      "HasPtz": false,
      "DewarpCapability": {
        "LensParameters": {
          "RadialDistortionX": -43.970703,
          "RadialDistortionY": 29.148499,
          "RadialDistortionZ": 715.732193,
          "OpticalCenterX": 1296.0,
          "OpticalCenterY": 972.0
        },
        "TiltOrientation": 1
      },
      "HasSpeaker": false
    }
  ],
  "ContainsLastCapability": true
}
```

The operation is available from API version 1.5 and later. HasSpeaker is included from API version 1.8 and later.

## AddCamera

Adds a camera where a camera is a device with video source(s).

URI: /Acs/Api/CameraFacade/AddCamera

### Supported Http Methods

- POST

### Request:

Field	Subfield	Description
<b>ConnectionInfo</b>	<b>Address</b>	String - The IP address or hostname of the camera.
	<b>Port</b>	Integer - The port to use when communicating with the camera.
<b>AuthenticationInfo</b>	<b>Username</b>	String - The username to use for authentication. Default name is the same name as when using the discovery function in the AXIS Camera Station client.
	<b>Password</b>	String - The password to use for authentication.



	<b>SecurityMode</b>	String - Optional. The scheme to use during communication with the camera. Default is HttpDigest. Valid values are: HttpBasic, HttpsBasic, HttpDigest, HttpsDigest.
<b>Options</b> - Optional	<b>Name</b>	String – Optional. The name used for the camera. A default name based on the camera model will be used if not provided.
	<b>Description</b>	String – Optional. A description to add to the camera.
	<b>RetentionTime</b>	Integer – Optional. The retention time of the recording in days. Value between 0-9999. A value of 0 will prevent deletion of any recordings. Default retention time is 90 days.
	<b>ViewToken</b>	The token used to identify a view (camera) on a device with multiple views. E.g., "0", "1" on a camera implementing VAPIX. First available view will be used if not provided.

**Table:** AddCamera request**Example request:**

https://172.25.127.28:55756/Acs/Api/CameraFacade/AddCamera

```
{
  "connectionInfo": {
    "address": "m3005.axis.example.com",
    "port": "443"
  },
  "AuthenticationInfo": {
    "username": "testuser",
    "password": "testpassword",
    "securityMode": "HttpsDigest"
  },
  "Options": {
    "name": "MyCamera",
    "description": "My Description",
    "retentionTime": 0,
    "ViewToken": "0"
  }
}
```

**Response:** The response includes camera ID for the added camera. An exception may be thrown.

Example response: HTTP Response: 200 OK

```
{
  "CameraId": {
    "Id": "17820_98b5f40a-1d27-4e86-b72e-33def46e74eb"
  }
}
```

The operation is available from API version 2.17 and later.

## 11.6. DeviceListFacade

## GetDeviceList

Gets devices sorted by device id, limited to the specified range.

URI: /Acs/Api/DeviceListFacade/GetDeviceList

### Request:

Field	Description
<b>range</b>	The range of elements to be collected from the server
<b>StartIndex</b>	Integer - The starting index of the first device in the reply.
<b>NumberOfElements</b>	Integer - The number of devices to be in the reply.

**Table: GetDeviceList request**

Example request:

```
https://172.25.127.28:55756/Acs/Api/DeviceListFacade/GetDeviceList
{
  "range" : {
    "StartIndex": 0,
    "NumberOfElements": 10
  }
}
```

### Response:

Field	Description
<b>Devices</b>	The list of devices.
<b>DeviceId</b>	The device Id.
<b>Id</b>	String – The unique identifier of the device.
<b>Name</b>	String – The name of the device. This should be considered as a friendly name and cannot be used to distinguish different systems.
<b>MacAddress</b>	String – The mac address of the device.
<b>ProductType</b>	String – The type of the device.
<b>Model</b>	String – The device model.
<b>FirmwareVersion</b>	The version of the device firmware.
<b>Address</b>	String –The IP address or the hostname of the device.
<b>Port</b>	Integer –The device port.
<b>AuthenticationMethod</b>	String – The method used for authentication: basic or digest.
<b>Protocol</b>	String – Protocol used for device communication: HTTP or HTTPS.

**Table: GetDeviceList response**

ProductType
3D People Counter
Media Uri Device
Network Camera
Network Dome Camera
Network Door Controller
Network IO Audio Module
Network IO Module
Network PACS prototype
Network Radar Detector
Network Speaker
Network Switch
Network Video Decoder
Network Video Door Station
Network Video Encoder
Network Video Recorder
Networked Door Controller
Onvif Network Camera
PTZ Dome Network Camera
PTZ Network Camera
Security Radar
Temperature Alarm Camera
Thermal Network Camera
Video Server
Virtual Camera

Table: ProductType values

Example response:

HTTP Response: 200 OK

```
{
  "Devices": [
    {
      "DeviceId": {
        "Id": "10583_7743fe02-c360-4de7-8420-929190d15712"
      },
      "Name": "AXIS P5635-E",
      "MacAddress": "00408CCD3333",
      "ProductType": "PTZ Dome Network Camera",
      "Model": "AXIS P5635-E",
      "FirmwareVersion": "6.50.4.1",
      "Address": "172.25.126.212",
      "Port": 80,
      "AuthenticationMethod": "digest",
      "Protocol": "http"
    }
  ],
  "ContainsLastDevice": true
}
```

## 11.7. SnapshotFacade

Handles camera live stream snapshot.

## GetSnapshot

Get snapshots for specified cameras. Cameras where the user has no access to live view will be excluded. A client should check permissions before requesting snapshots (e.g., by the info provided by the camera list) and avoid requesting snapshots for such cameras. Cameras where status != OK will also be excluded as well as cameras with no snapshot available.

URI: /Acs/Api/SnapshotFacade/GetSnapshot

### Request:

Field	Description
<b>cameraIds</b>	List of the IDs of the cameras to get snapshots from.
<b>Id</b>	String – The unique identifier of the camera.
<b>PreferredResolution</b>	The preferred resolutions of the snapshot, there are no guarantees that this is the actual resolution of the snapshot in the reply.
<b>Width</b>	Integer – Width of the snapshot
<b>Height</b>	Integer – Height of the snapshot

**Table:** GetSnapshot request

### Example request:

```
https://172.25.127.28:55756/Acs/Api/SnapshotFacade/GetSnapshot
{
  "cameraIds" : [
    {
      "Id" : "2502_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    {
      "Id" : "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    }
  ],
  "preferredResolution" : {
    "Width" : 640,
    "Height" : 480
  }
}
```

### Response:

Field	Description
<b>Snapshots</b>	The list of snapshots.
<b>CameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>ImageData</b>	String – The JPEG image data.

**Table:** GetSnapshot response

Example response. All image data is not shown below:

HTTP Response: 200 OK

```
{
  "Snapshots": [
    {
```

```

    "CameraId": {
      "Id": "2502_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    "ImageData": "/9j/4AAQSkZJRgABAgAAAQABAAD//gAPCgF"
  },
  {
    "CameraId": {
      "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    "ImageData": "/9j/4AAQSkZJRgABAgAAAQABAAD//gAPCgF"
  }
]
}

```

The operation is available from API version 1.3 and later.

## 11.8. RecordingSnapshotFacade

Handles snapshots from recordings.

### GetSnapshots

Gets snapshots for specified cameras and time. An `ApiException` will be thrown if requesting snapshots from cameras without access privilege. If no recording is available, no snapshot will be returned.

The time returned in the response is the time specified in the request. This requested time can differ from the actual time the snapshot was taken (especially when `useDeltaFrames` is false).

URI: `/Acs/Api/RecordingSnapshotFacade/GetSnapshots`

#### Request:

Field	Description
<b>snapshotRequests</b>	List of snapshot requests.
<b>camerald</b>	The camera identification information.
<b>Id</b>	String – The unique identifier of the camera
<b>Time</b>	String – The requested time in UTC and “YYYY-MM-DD hh:mm:ss.ffffff” format. The second fraction digits can be omitted.
<b>useDeltaFrames</b>	String – Optional. Boolean value, true if delta frames should be used. False otherwise.
<b>requestedQualityLevel</b>	String – Optional. Requested quality level for the snapshots. Should be one of high, medium, low, lowestavailable, or highestavailable. (Default value is lowestavailable.)
<b>jpegEncodingQualityPercent</b>	Integer – Optional. Quality level in percent to be used by the JPEG encoder. (Default value is 75 percent.)
<b>preferredResolution</b>	Optional. The preferred resolutions of the snapshot. There is no guarantee that this is the actual resolution of the snapshot in the reply.
<b>Width</b>	Integer – Width of the snapshot
<b>Height</b>	Integer – Height of the snapshot

**Table: GetSnapshots request****Example request:**

```
https://172.25.127.28:55756/Acs/Api/RecordingSnapshotFacade/GetSnapshots
{
  "snapshotRequests": [
    {
      "cameraId": {
        "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
      },
      "time": "2019-04-02 11:59:30"
    },
    {
      "cameraId": {
        "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
      },
      "time": "2019-04-02 12:00:00"
    }
  ],
  "useDeltaFrames": "true",
  "requestedQualityLevel": "highestavailable",
  "jpegEncodingQualityPercent": 90,
  "preferredResolution": {
    "Width": 640,
    "Height": 480
  }
}
```

**Response:**

Field	Description
<b>CameraId</b>	The camera identification information.
<b>Id</b>	String – The unique identifier of the camera
<b>Time</b>	String – Requested time in UTC and in “YYYY-MM-DD hh:mm:ss.ffffff” format.
<b>ImageData</b>	String – The Base64 encoded JPEG image data

**Table: GetSnapshots response**

Example response. HTTP Response: 200 OK. All image data is not shown below:

```
[
  {
    "CameraId": {
      "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    "Time": "2019-04-02 11:59:30.0000000",
    "ImageData": "/9j/4AAQSkZJRgABAQEAYABgAAD/2wBDA"
  },
  {
    "CameraId": {
      "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    "Time": "2019-04-02 12:00:00.0000000",
    "ImageData": "/9j/4AAQSkZJRgABAQEAYABgAAD/2wBDA"
  }
]
```

Available from API version 1.7 and later. Optional quality parameters available from API version 2.17. Optional preferredResolution parameter available from API version 2.30.

## 11.9. RecordingFacade

Handles the recordings.

### ***GetRecordedMedia***

Gets recordings limited to the specified cameras, interval, and range. All recordings that have some data in the interval will be included, even if they start or end outside the interval. The start time and end time will be excluded in the response if they are outside the search interval.

URI: /Acs/Api/RecordingFacade/GetRecordedMedia

#### Request:

Field	Description
<b>cameraIds</b>	List of the IDs of the cameras to get recordings from.
<b>Id</b>	String – The unique identifier of the camera.
<b>interval</b>	The time interval to get recordings from.
<b>StartTime</b>	String – The start time in UTC and “YYYY-MM-DD hh:mm:ss” format.
<b>StopTime</b>	String – The stop time in UTC and “YYYY-MM-DD hh:mm:ss” format.
<b>Range</b>	The range of element to be collected from the server
<b>StartIndex</b>	Integer - The starting index of the first camera in the reply.
<b>NumberOfElements</b>	Integer - The number of cameras to be in the reply.

**Table: GetRecordedMedia request**

Example request:

```
https://172.25.127.28:55756/Acs/Api/RecordingFacade/GetRecordedMedia
{
  "cameraIds": [
    {
      "Id": "2250_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
    }
  ],
  "interval": {
    "StartTime": "2018-10-25 12:00:00",
    "StopTime": "2018-10-25 13:00:00"
  },
  "range": {
    "StartIndex": 0,
    "NumberOfElements": 5
  }
}
```

#### Response:

Field	Description
<b>RecordedMedia</b>	The list of Recordings.
<b>CameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.

<b>StartTime</b>	String – Recording start time in UTC, in “YYYY-MM-DD hh:mm:ss.ffffff” format. Excluded if it is outside the search interval.
<b>EndTime</b>	String – Recording end time in UTC, in “YYYY-MM-DD hh:mm:ss.ffffff” format. Excluded if it is outside the search interval.
<b>QualityLevel</b>	Integer –The quality level of the recording. <i>See table QualityLevels.</i>
<b>VideoTrack</b>	Contains information about video in a recording.
<b>Encoding</b>	Integer –The video encoding. <i>See table VideoEncodings.</i>
<b>AudioTrack</b>	Contains information about audio in a recording.
<b>AudioFormat</b>	Integer –The audio format. <i>See table AudioFormats.</i>
<b>ContainsLastResult</b>	Boolean – If the last recording in the interval is in this response.

**Table:** GetRecordedMedia response

QualityLevels	QualityLevels corresponding value
1	High
2	Medium
3	Low

**Table:** QualityLevels

VideoEncodings	VideoEncodings corresponding value
1	H.264
2	Mjpeg
3	H.265
4	MPEG-4

**Table:** VideoEncodings

AudioFormats	AudioFormats corresponding value
1	None, recording lacks audio
2	G.711
3	G.726
4	AAC

**Table:** AudioFormats

Example response.

HTTP Response: 200 OK

```
{
  "RecordedMedia": [
    {
      "CameraId": {
        "Id": "2250_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
      },
      "StartTime": "2018-10-25 12:15:49.3228688",
      "EndTime": "2018-10-25 12:32:44.3218022",
      "QualityLevel": 2,
      "VideoTrack": {
        "Encoding": 1
      },
      "AudioTrack": {
        "AudioFormat": 4
      }
    },
    {

```



```

    "CameraId": {
      "Id": "2250_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
    },
    "StartTime": "2018-10-25 12:47:46.6418022",
    "QualityLevel": 2,
    "VideoTrack": {
      "Encoding": 1
    },
    "AudioTrack": {
      "AudioFormat": 4
    }
  },
  "ContainsLastResult": true
}

```

The operation is available from API version 1.7 and later.

### GetRecordings



The recommended way of retrieving recordings is using **GetRecordedMedia**. **GetRecordings** will be removed in a future version of AXIS Camera Station API.

Gets recordings limited to the specified cameras, interval, and range. All recordings that have some data in the interval will be included, even if they start or end outside the interval. A recording belongs to a sequence, and a sequence can contain one or several recordings. If a sequence consists of several recordings, only the recordings contained in the specified interval will be included in the result. The start and end time of the recordings will be that of the recordings, i.e., they will not be altered according to the search interval or sequence times. Recordings starting at the interval stop time or ending at the interval start time will not be included. When limiting the result to a specific range this will be done according to recording start time in ascending order.

URI: /Acs/Api/RecordingFacade/GetRecordings

#### Request:

Field	Description
<b>cameralds</b>	List of the IDs of the cameras to get recordings from.
<b>Id</b>	String – The unique identifier of the camera.
<b>interval</b>	The time interval to get recordings from.
<b>StartTime</b>	String – The start time in UTC, in “YYYY-MM-DD hh:mm:ss” format.
<b>StopTime</b>	String – The stop time in UTC, in “YYYY-MM-DD hh:mm:ss” format.
<b>range</b>	The range of elements to be collected from the server
<b>StartIndex</b>	Integer - The starting index of the first camera in the response.
<b>NumberOfElements</b>	Integer - The number of cameras to be in the response.

**Table:** GetRecordings request

Example request: <https://172.25.127.28:55756/Acs/Api/RecordingFacade/GetRecordings>

```

{
  "cameraIds": [
    {
      "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    {
      "Id": "2438_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    }
  ],
  "interval": {
    "StartTime": "2019-04-02 12:00:00",
    "StopTime": "2019-05-02 13:00:00"
  },
  "range" : {
    "StartIndex": 0,
    "NumberOfElements": 20
  }
}

```

**Response:**

Field	Description
<b>Recordings</b>	The list of Recordings.
<b>Sequenceld</b>	This id is for internal use only.
<b>Camerald</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>IsOngoing</b>	Boolean – If the recording is still ongoing
<b>SequenceStartTime</b>	String – Sequence start time in UTC, in “YYYY-MM-DD hh:mm:ss” format.
<b>TriggerTime</b>	String – Trigger time of the recording in UTC, in “YYYY-MM-DD hh:mm:ss” format.
<b>StartTime</b>	String – Recording start time in UTC, in “YYYY-MM-DD hh:mm:ss” format.
<b>EndTime</b>	String – Recording end time in UTC, in “YYYY-MM-DD hh:mm:ss” format. EndTime is set even if the recording is ongoing, i.e., there is a playback limit even for ongoing recordings.
<b>RecordingTrigger</b>	Integer –What triggered the recording. <i>See table RecordingTriggers.</i>
<b>VideoEncoding</b>	Integer –The video encoding. <i>See table VideoEncodings.</i>
<b>Resolution</b>	String – The recording resolution can either be numeric (e.g., “1280x720”) or textual (e.g., “4CIF”).
<b>FrameRate</b>	Integer – The number of frames per second.
<b>AudioFormat</b>	Integer –The audio format. <i>See table AudioFormats.</i>
<b>ContainsLastRecording</b>	Boolean – If the last recording in the interval is in this reply.

**Table:** GetRecordings response

RecordingTriggers	RecordingTriggers corresponding value
1	Motion detection
2	Manual
3	Continuous
4	Failover
5	Rule

**Table:** RecordingTriggers

VideoEncodings	VideoEncodings corresponding value
1	H.264
2	Mjpeg
3	H.265
4	MPEG-4

**Table:** VideoEncodings

AudioFormats	AudioFormats corresponding value
1	None, recording lacks audio
2	G.711
3	G.726
4	AAC

**Table:** AudioFormats

Example response. HTTP Response: 200 OK

```
{
  "Recordings": [
    {
      "SequenceId": {
        "Id": "11_7490bc51-7990-460d-b14e-4e5bcd668b6e"
      },
      "CameraId": {
        "Id": "2288_7490bc51-7990-460d-b14e-4e5bcd668b6e"
      },
      "IsOngoing": true,
      "SequenceStartTime": "2019-05-02 09:01:13.9179539",
      "TriggerTime": "2019-05-02 09:01:13.9179539",
      "StartTime": "2019-05-02 09:01:14.9116500",
      "EndTime": "2019-05-02 09:05:06.6184820",
      "RecordingTrigger": 3,
      "VideoEncoding": 1,
      "Resolution": "1280x720",
      "FrameRate": 15,
      "AudioFormat": 1
    }
  ],
  "ContainsLastRecording": true
}
```

The operation is available from API version 1.3 and later.

The operation returns seconds decimal precision from API version 2.0 and later.

## 11.10. RecordedEventFacade

Handles the recorded events. These events can be mapped with the recordings and, for example, used for presenting what triggered a recording.

### **GetRecordedEvents**

Retrieves a list of all events recorded during a specified time interval.

URI: /Acs/Api/RecordedEventFacade/GetRecordedEvents

Request:

Field	Description
<b>CameraIds</b>	List of the IDs of the cameras to get recorded events from.
<b>Id</b>	String – The unique identifier of the camera.
<b>Interval</b>	The time interval to get recorded events from.
<b>StartTime</b>	String – The start time in UTC and “YYYY-MM-DD hh:mm:ss” format.
<b>StopTime</b>	String – The stop time in UTC and “YYYY-MM-DD hh:mm:ss” format.
<b>Range</b>	The range of elements to be collected from the server.
<b>StartIndex</b>	Integer - The starting index of the first recorded event in the reply.
<b>NumberOfElements</b>	Integer - The number of recorded events to be in the reply.

**Table:** GetRecordedEvents requestExample request:

https://172.25.127.28:55756/Acs/Api/RecordedEventFacade/GetRecordedEvent

```
{
  "CameraIds": [
    {
      "Id": "2250_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
    }
  ],
  "Interval": {
    "StartTime": "2018-10-25 12:00:00",
    "StopTime": "2018-10-25 13:00:00"
  },
  "Range": {
    "StartIndex": 0,
    "NumberOfElements": 5
  }
}
```

Response:

Field	Description
<b>RecordedEvents</b>	The list of recorded events.
<b>CameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>StartTime</b>	String – Event start time in UTC, in “YYYY-MM-DD hh:mm:ss.ffffff” format. Excluded if it is outside the search interval.
<b>EndTime</b>	String – Event end time in UTC, in “YYYY-MM-DD hh:mm:ss.ffffff” format. Excluded if it is outside the search interval.
<b>Type</b>	The Type can be matched with an ID of a RecordedEventType from GetRecordedEventTypes,
<b>ContainsLastResult</b>	Boolean – If the last event in the interval is in this response.

**Table:** GetRecordedEvents responseExample response: HTTP Response: 200 OK

```
{
  "RecordedEvents": [
    {
      "CameraId": {
        "Id": "2250_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
      },

```

```

    "StartTime": "2018-10-25 12:15:49.3228688",
    "EndTime": "2018-10-25 12:32:44.3218022",
    "Type": "Motion"
  },
  {
    "CameraId": {
      "Id": "2250_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
    },
    "StartTime": "2018-10-25 12:47:46.6418022",
    "Type": "Manual"
  }
],
"ContainsLastResult": true
}

```

### ***GetRecordedEventTypes***

Used to retrieve a list of all event types.

URI: /Acs/Api/RecordedEventFacade/GetRecordedEventTypes

#### Response:

Field	Description
<b>RecordedEventTypes</b>	The list of event types
<b>Name</b>	The name of the event type. Used as Id.
<b>Title</b>	Name in server language.
<b>Description</b>	Description of the event type in the server language.
<b>Color</b>	Dictionary with the different color themes.

**Table:** GetRecordedEventTypes response

Example response: HTTP Response: 200 OK

```

{
  "RecordedEventTypes": [
    {
      "Name": "Motion",
      "Title": "Motion",
      "Description": "",
      "Color": {
        lightTheme: "#FF0000",
        darkTheme: "#FF0000"
      }
    },
    {
      "Name": "Manual",
      "Title": "Manual",
      "Description": "",
      "Color": {
        lightTheme: "#FFFF00",
        darkTheme: "#FFFF00"
      }
    },
    ....
  ]
}

```

```
    ]
}
```

### 11.11. RecordingControlFacade

Handles the recording status for cameras.

#### **StartRecording**

Sets the manual recording status for the specified camera.

Note that a successful response does not mean that recording for the camera is ongoing, only that it will attempt to record. Cases such as a full disk or network issues would prevent recording, but not the setting of the camera's recording state.

URI: /Acs/Api/RecordingControlFacade/StartRecording

#### Request:

Field	Description
<b>cameraId</b>	The camera identification information.
<b>Id</b>	String – The unique identifier of the camera

**Table:** StartRecording request

#### Example request:

```
https://172.25.127.28:55756/Acs/Api/RecordingControlFacade/StartRecording
{
    "cameraId": {
        "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    }
}
```

Response: The operation lacks response body. An exception may be thrown.

Example response:

HTTP Response: 200 OK

The operation is available from API version 2.16 and later.

#### **StopRecording**

Sets the manual recording status for the specified camera as stopped.

URI: /Acs/Api/RecordingControlFacade/StopRecording

#### Request:

Field	Description
<b>cameraId</b>	The camera identification information.
<b>Id</b>	String – The unique identifier of the camera

**Table: StopRecording request**

**Example request:**

```
https://172.25.127.28:55756/Acs/Api/RecordingControlFacade/StopRecording
{
  "cameraId": {
    "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  }
}
```

**Response:** The operation lacks response body. An exception may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 2.16 and later.

**GetRecordingStatus**

Gets the recording status of the specified camera's manual recording.

URI: /Acs/Api/RecordingControlFacade/GetRecordingStatus

**Request:**

Field	Description
<b>cameraId</b>	The camera identification information.
<b>Id</b>	String – The unique identifier of the camera

**Table: GetRecordingStatus request**

**Example request:**

```
https://172.25.127.28:55756/Acs/Api/RecordingControlFacade/GetRecordingStatus
{
  "cameraId": {
    "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  }
}
```

**Response:**

Field	Description
<b>IsRecording</b>	Whether the camera's manual recording profile is currently recording.

**Table: GetRecordingStatus response**

Example response: HTTP Response: 200 OK

```
{
  "IsRecording": true
}
```

The operation is available from API version 2.16 and later.

## 11.12. PtzFacade

Handles PTZ functionality.

## Exceptions

### ApiException

The operations in this facade will throw ApiException if a camera id to a camera without PTZ capabilities is provided for a PTZ operation.

### UnauthorizedException

The operations in this façade will throw UnauthorizedException if the user doesn't have access to the camera being operated on.

### PtzPriorityException

This exception can only be thrown from an AXIS Camera Station server where PTZ priority is configured in the user permissions. It is thrown when the operation is blocked because of an ongoing PTZ operation on the same camera by a user who has a higher priority. The block will be lifted after a predefined time from the latest PTZ movement. This time defaults to 10 seconds. This exception is available from API version 2.5 and later.

## GetPtzCapabilities

Lists the PTZ capabilities for a range of cameras.

URI: /Acs/Api/PtzFacade/GetPtzCapabilities

### Request:

Field	Description
<b>Range</b>	The range of elements to be collected from the server
<b>StartIndex</b>	Integer - The starting index of the first camera in the response.
<b>NumberOfElements</b>	Integer - The number of cameras to be in the response.

**Table:** GetPtzCapabilities request

Example request:

```
https://172.25.127.28:55756/Acs/Api/PtzFacade/GetPtzCapabilities
{
  "range" : {
    "StartIndex": 0,
    "NumberOfElements": 20
  }
}
```

### Response:

Field	Description
<b>Capabilities</b>	The list of capabilities.
<b>Camera</b>	The camera.
<b>Id</b>	String – The unique identifier of the camera.
<b>HasPtz</b>	Boolean – If the camera has PTZ capabilities.
<b>ContainsLastCapability</b>	Boolean – If the response contains the last capability

**Table:** GetPtzCapabilities response

Example response: HTTP Response: 200 OK

```
{
  "Capabilities": [
    {
```



```

    "Camera": {
      "Id": "2465_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    "HasPtz": false
  },
  {
    "Camera": {
      "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    "HasPtz": true
  }
],
"ContainsLastCapability": true
}

```

The operation is available from API version 1.1 and later.

### ***GetCameraPtzCapabilities***

Gets PTZ capabilities for the specified camera.

URI: /Acs/Api/PtzFacade/GetCameraPtzCapabilities

#### Request:

Field	Description
<b>cameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.

**Table:** GetCameraPtzCapabilities request

#### Example request:

```

https://127.0.0.1:55756/Acs/Api/PtzFacade/GetCameraPtzCapabilities
{
  "cameraId" : {
    "Id" : "2502_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  }
}

```

#### Response:

Field	Description
<b>Camera</b>	The camera.
<b>Id</b>	String – The unique identifier of the camera.
<b>HasPtz</b>	Boolean – If the camera has PTZ capabilities.

**Table:** GetCameraPtzCapabilities response

#### Example response: HTTP Response: 200 OK

```

{
  "Camera": {
    "Id": "2502_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  },
  "HasPtz": false
}

```

The operation is available from API version 1.1 and later.

### ***Move***

Moves a PTZ camera in a specified direction

URI: /Acs/Api/PtzFacade/Move

Request:

Field	Description
<b>cameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>direction</b>	Integer – The direction to move the camera in. <i>See table Directions.</i>

**Table:** Move request

Direction	Direction corresponding value
<b>0</b>	Left
<b>1</b>	Right
<b>2</b>	Up
<b>3</b>	Down

**Table:** Directions

Example request:

```
https://127.0.0.1:55756/Acs/Api/PtzFacade/Move
{
  "cameraId" : {
    "Id" : "2502_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  },
  "direction" : 1
}
```

Response: The operation lacks response body. A PtzPriorityException may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.1 and later.

## Zoom

Zooms a PTZ camera a specified number of steps.

URI: /Acs/Api/PtzFacade/Zoom

Request:

Field	Description
<b>cameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>Steps</b>	Integer – The number of steps to zoom.

**Table:** Zoom request

Example request:

```
https://127.0.0.1:55756/Acs/Api/PtzFacade/Zoom
{
  "cameraId" : {
    "Id" : "2448_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  },
  "steps" : 100
}
```

}

**Response:** The operation lacks response body. A PtzPriorityException may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.1 and later.

### **Center**

Centers a PTZ camera on the provided coordinates.

URI: /Acs/Api/PtzFacade/Center

**Request:**

Field	Description
<b>cameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>Coordinates</b>	The coordinates to center the camera around.
<b>X</b>	The X component of the coordinates. Must be between 0 and ImageWidth.
<b>Y</b>	The Y component of the coordinates. Must be between 0 and ImageHeight.
<b>ImageWidth</b>	The image width.
<b>ImageHeight</b>	The image height.

**Table: Center request**

**Example request:**

https://172.25.127.28:55756/Acs/Api/PtzFacade/Center

```
{
  "cameraId" : {
    "Id" : "2448_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  },
  "coordinates" : {
    "X" : 50,
    "Y" : 50,
    "ImageWidth" : 640,
    "ImageHeight" : 480
  }
}
```

**Response:** The operation lacks response body. A PtzPriorityException may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.1 and later.

### **ContinuousPanAndTilt**

Moves a PTZ camera with the specified speed.

URI: /Acs/Api/PtzFacade/ContinuousPanAndTilt

**Request:**

Field	Description
<b>cameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>panSpeed</b>	Integer – The Pan Speed
<b>tiltSpeed</b>	Integer – The tilt speed

**Table:** ContinuousPanAndTilt request

Example request:

```
https://172.25.127.28:55756/Acs/Api/PtzFacade/ContinuousPanAndTilt
{
  "cameraId" : {
    "Id" : "2448_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  },
  "panSpeed" : 0,
  "tiltSpeed" : 0
}
```

Response: The operation lacks response body. A PtzPriorityException may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.1 and later.

### **ContinuousZoom**

Zooms a PTZ capable camera at the specified speed.

URI: /Acs/Api/PtzFacade/ContinuousZoom

Request:

Field	Description
<b>cameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>Speed</b>	Integer – The zoom speed.

**Table:** ContinuousZoom request

Example request:

```
https://172.25.127.28:55756/Acs/Api/PtzFacade/ContinuousZoom
{
  "cameraId" : {
    "Id" : "2448_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  },
  "speed" : 0
}
```

Response: The operation lacks response body.

A PtzPriorityException may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.1 and later.

## ***GotoPresetToken***

Moves a PTZ camera to the specified preset.

URI: /Acs/Api/PtzFacade/GotoPresetToken

### Request:

Field	Description
<b>cameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>presetToken</b>	String – The token of the preset to go to.

**Table:** GotoPresetToken request

### Example request:

```
https://172.25.127.28:55756/Acs/Api/PtzFacade/GotoPresetToken
{
  "cameraId" : {
    "Id" : "2448_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  },
  "presetToken" : "Home"
}
```

Response: The operation lacks response body. A PtzPriorityException may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.6 and later.

## ***GotoPresetId***

Moves a PTZ camera to the specified preset.

URI: /Acs/Api/PtzFacade/GotoPresetId

### Request:

Field	Description
<b>cameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>presetId</b>	Integer – The ID of the preset to go to.

**Table:** GotoPresetId request

### Example request:

```
https://172.25.127.28:55756/Acs/Api/PtzFacade/GotoPresetId
{
  "cameraId" : {
    "Id" : "2448_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  },
  "presetId" : 1
}
```

Response: The operation lacks response body. A PtzPriorityException may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.6 and later.

### **GetPtzPresets**

Gets all defined presets for a PTZ camera.

URI: /Acs/Api/PtzFacade/GetPtzPresets

#### **Request:**

Field	Description
<b>cameraId</b>	The camera Id.
<b>Id</b>	String – The unique identifier of the camera.

**Table: GetPtzPresets request**

#### **Example request:**

```
https://172.25.127.28:55756/Acs/Api/PtzFacade/GetPtzPresets
{
  "cameraId" : {
    "Id" : "2448_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  }
}
```

#### **Response:**

Field	Description
<b>Id</b>	Integer – The ID of the PTZ preset.
<b>Name</b>	String – The name of the PTZ preset.
<b>Token</b>	String – The token of the PTZ preset.

**Table: GetPtzPresets response**

Example response: HTTP Response: 200 OK

```
[
  {
    "Id": 1,
    "Name": "Home",
    "Token": "Home"
  },
  {
    "Id": 2,
    "Name": "Entrance",
    "Token": "Entrance"
  },
  {
    "Id": 3,
    "Name": "Parking",
    "Token": "Parking"
  }
]
```

The operation is available from API version 1.6 and later.

## **11.13. TriggerFacade**

Handles activation and deactivation of triggers configured in the AXIS Camera Station Action rules. Requires rule configuration via AXIS Camera Station client UI.

## ***ActivateTrigger***

Triggers the associated rule to perform configured action(s).

URI: /Acs/Api/TriggerFacade/ActivateTrigger

### Request:

Field	Description
<b>triggerName</b>	String – the name of the trigger to activate. This trigger is configured in the Action rule in AXIS Camera Station client.

**Table:** ActivateTrigger request

### Example request:

```
https://172.25.127.28:55756/Acs/Api/TriggerFacade/ActivateTrigger
{
    "triggerName" : "ConfiguredTriggerName"
}
```

Response: The operation lacks response body. An exception may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.1 and later.

## ***DeactivateTrigger***

Deactivates the trigger to stop action(s) configured in the associated common rule.

URI: /Acs/Api/TriggerFacade/DeactivateTrigger

### Request:

Field	Description
<b>triggerName</b>	String – the name of the trigger to deactivate. This trigger is configured in the Action rule in AXIS Camera Station client

**Table:** DeactivateTrigger request

### Example request:

```
https://172.25.127.28:55756/Acs/Api/TriggerFacade/DeactivateTrigger
{
    "triggerName" : "ConfiguredTriggerName"
}
```

Response: The operation lacks response body. An exception may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.1 and later.

## ***ActivateDeactivateTrigger***

Triggers the associated rule to perform configured action(s) for the specified time.

URI: /Acs/Api/TriggerFacade/ActivateDeactivateTrigger

Request:

Field	Description
<b>triggerName</b>	String – the name of the trigger to activate. This trigger is configured in the Action rule in AXIS Camera Station client.
<b>deactivateAfterSeconds</b>	String – integer value > -1. Number of seconds to keep trigger active.

**Table:** ActivateDeactivateTrigger request

**Example request:**

```
https://172.25.127.28:55756/Acs/Api/TriggerFacade/ActivateDeactivateTrigger
{
  "triggerName" : "ConfiguredTriggerName",
  "deactivateAfterSeconds" : "30"
}
```

Response: The operation lacks response body. An exception may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.1 and later.

***PulseTrigger***

Triggers the associated rule to perform configured action(s) and then stop them immediately, i.e., trigger activation followed by an immediate deactivation.

URI: /Acs/Api/TriggerFacade/PulseTrigger

Request:

Field	Description
<b>triggerName</b>	String – the name of the trigger to activate. This trigger is configured in the Action rule in AXIS Camera Station client

**Table:** PulseTrigger request

**Example request:**

```
https://172.25.127.28:55756/Acs/Api/TriggerFacade/PulseTrigger
{
  "triggerName" : "ConfiguredTriggerName"
}
```

Response: The operation lacks response body. An exception may be thrown.

Example response: HTTP Response: 200 OK

The operation is available from API version 1.1 and later.

## 11.14. Send HTTP Notification action

This is not a façade within ACS API, but as the action can be used to get event information sent from AXIS Camera Station to third party system, information on the trigger data sent is included in this documentation.



Can be used similar to the SMTP option (Send e-mail action) to retrieve event information from AXIS Camera Station. Manages notification configured in the AXIS Camera Station Action rules. To receive event information to a web server requires rule configuration via AXIS Camera Station client UI.

Default HTTP method is GET, without a request body. To provide data in some form to the target host instead use POST or PUT, both enabling the request body field allowing specifying selected data for upload.

For guidance on how to set this up in AXIS Camera Station refer to the [Online User Manual](#).

### **Content type**

You can select one of the default content types: Plain text, JSON, XML, or SOAP. If needed, you can specify a different content type by typing free text.

### **Trigger data**

You can choose what trigger data parameters, to include within the request body, and where. It is inserted on the parameter form: `$(TriggerData.<DATA>)`. The following data types are supported:

Data	Parameter	Description
<b>Type</b>	<code>\$(TriggerData.Type)</code>	The type of trigger that activated this action rule. E.g. motion detection, device event, etc.
<b>Source ID</b>	<code>\$(TriggerData.SourceId)</code>	The ID of the source origin for what triggered the action rule, if applicable. E.g. a camera ID, a device ID, an action button ID, etc.
<b>Source Name</b>	<code>\$(TriggerData.SourceName)</code>	The name of the source that triggered the action rule, if applicable. E.g. a camera name, device name, action button name, etc.
<b>Time (UTC)</b>	<code>\$(TriggerData.TimeUtc)</code>	The UTC date and time when the action rule was triggered.
<b>Time (local)</b>	<code>\$(TriggerData.TimeLocal)</code>	The date and time of the server when the action rule was triggered.

### **Authentication methods**

Digest is the default and recommended authentication method. Basic can be used but be aware that credentials are sent base 64 encoded in the HTTP header.

Authentication flow:

1. When receiving a response without authentication information you must respond with 401.
2. Add WWW header with information on authentication, such as **Authorization: Digest username=, realm=, nonce=, etc.**

Expected WWW header format:

```
WWW-Authenticate: Basic realm="User Visible Realm", charset="UTF-8"
```

**WWW-Authenticate: Digest** (or **Basic**) is sufficient, but the web server can specify 'realm' and 'charset'. The server must respond with information on how it expects the response to be composed.

Response format:

**Authorization: Basic dGVzdDoxMjPCow==**

The response text is in requested charset if specified.

The operation is available from API version 2.30 and later.

### 11.15. ActionButtonFacade

Handles camera action button functionality. *Limitation:* These endpoints only work on camera action buttons. Other action buttons, such as buttons in map views, are not supported.

#### GetActionButtons

Gets the action buttons for a list of cameras.

URI: /Acs/Api/ActionButtonFacade/GetActionButtons

Request:

Field	Description
<b>cameraIds</b>	List of the IDs of the cameras to get action buttons for.
<b>Id</b>	String – the unique identifier for the camera.

**Table:** GetActionButtons request

Example request:

```
https://172.25.127.28:55756/Acs/Api/ActionButtonFacade/GetActionButtons
{
  "cameraIds": [
    {
      "Id": "2143_0566a4da-7ff4-4a72-bc4c-5fe609a46030"
    },
    {
      "Id": "2288_7490bc51-7990-460d-b14e-4e5bcd668b6e"
    },
    {
      "Id": "4625_7490bc51-7990-460d-b14e-4e5bcd668b6e"
    }
  ]
}
```

Response:

Field	Description
-------	-------------

<b>ActionButtons</b>	A dictionary with camera Ids as keys and list of action buttons as values.
<b>Id</b>	The Id of the action button.
<b>IsToggleButton</b>	Boolean – If the button is a toggle button
<b>Label</b>	String – The label of the button, should be used as a friendly name not an identifier.
<b>Tooltip</b>	String – The tooltip of the button.
<b>UntoggleLabel</b>	String – The label of the button to use when the button is toggled.
<b>ButtonState</b>	Integer – The state of the button. <i>See table ButtonStates.</i>

**Table:** GetActionButtons response

ButtonState	ButtonState corresponding value
<b>0</b>	Toggled
<b>1</b>	Untoggled
<b>2</b>	Disabled

**Table:** ButtonStates

Example response:

HTTP Response: 200 OK

```
{
  "ActionButtons": {
    "2143_0566a4da-7ff4-4a72-bc4c-5fe609a46030": [],
    "2288_7490bc51-7990-460d-b14e-4e5bcd668b6e": [
      {
        "Id": {
          "Id": "4719_7490bc51-7990-460d-b14e-4e5bcd668b6e"
        },
        "IsToggleButton": true,
        "Label": "Turn on",
        "UntoggleLabel": "Turn off",
        "ButtonState": 1
      }
    ],
    "4625_7490bc51-7990-460d-b14e-4e5bcd668b6e": [
      {
        "Id": {
          "Id": "4702_7490bc51-7990-460d-b14e-4e5bcd668b6e"
        },
        "IsToggleButton": false,
        "Label": "Open Door",
        "ButtonState": 0
      }
    ]
  }
}
```

The operation is available from API version 1.6 and later.

### **SetActionButton**

Sets the status of an action button. *Note:* It is not possible to set ButtonState disabled.

URI: /Acs/Api/ActionButtonFacade/SetActionButton

Request:

Field	Description
<b>buttonId</b>	The button Id.
<b>Id</b>	Integer – The unique identifier of the button.
<b>buttonState</b>	Integer – The state to set for the button. See <i>table ButtonStates</i> .

**Table:** SetActionButton request

ButtonState	ButtonState corresponding value
<b>0</b>	Toggled
<b>1</b>	Untoggled

**Table:** ButtonStatesExample request:

```
https://172.25.127.28:55756/Acs/Api/ActionButtonFacade/SetActionButton
{
    "buttonId":
        {
            "Id": "3615_0566a4da-7ff4-4a72-bc4c-5fe609a46030"
        },
    "buttonState": 0
}
```

Response:

Field	Description
<b>IsButtonSet</b>	Boolean – If the new button state was set.

**Table:** SetActionButton responseExample response.

HTTP Response: 200 OK

```
{
    "IsButtonSet": true
}
```

The operation is available from API version 1.6 and later.

## 11.16. EventLogFacade

Exposes methods to retrieve event logs from the AXIS Camera Station server. It consists of the event timestamp, the event log type, and data that contains relevant information.

**GetEventLogList**

This method is used to retrieve a list of event logs from the AXIS Camera Station server from a specific date and time until the current time.

URI: /Acs/Api/EventLogFacade/GetEventLogList

Request:

Field	Description
<b>Range</b>	The range of elements to be collected from the server.
<b>StartIndex</b>	Integer - The starting index of the oldest event log in the reply.

<b>NumberOfElements</b>	Integer - The maximum number of event logs to be in the reply.
<b>Time</b>	String - The requested time in UTC and in "YYYY-MM-DD hh:mm:ss.ffffff". The second fraction digits can be omitted.

**Table: GetEventLogList request body parameters.**

Example request (Gets 10000 event logs from 2017-03-28 until now):

`https://172.25.127.28:55756/Acs/Api/EventLogFacade/GetEventLogList`

```
{
  "range" : {
    "StartIndex": "0",
    "NumberOfElements": "10000"
  },
  "time" : "2017-03-28 22:10:15"
}
```

### Response

Field	Description
<b>Events</b>	The list of event logs.
<b>Timestamp</b>	The date and time of the event log in Coordinated Universal Time (UTC).
<b>EventLogType</b>	String - specifies the type of the event log (i.e recording started, camera status down, disk error etc).
<b>Data</b>	Additional information regarding the event. <i>See table EventLogDataField.</i>
<b>Name</b>	The camera name to which the Event occurred.
<b>DiskPath</b>	The path of the disk to which the event occurred.
<b>RecordingExportDirectory</b>	The path of the directory to which the recording export is attempted.
<b>RecordingDirectoryPath</b>	The path of the directory to which a recording is saved.
<b>ContainsLastResult</b>	Specifies whether there are more event logs to be retrieved.

**Table: GetEventLogList response.**

Example response (*not all possible results are included in the example*):

HTTP Response: 200 OK

```
{
  "Events": [
    {
      "Timestamp": "2022-04-27 14:11:37.0803000",
      "EventLogType": "RecordingFailure",
      "Data": {
        "Name": "AXIS 223M",
        "CameraId": "89_070011fc-e4fb-4290-81fb-4e1140cae2f3"
      }
    },
    {
      "Timestamp": "2022-04-27 14:10:44.7977000",
      "EventLogType": "RecordingStarted",
      "Data": {
        "Name": "AXIS A8207-VE - Custom View",
        "CameraId": "156_070011fc-e4fb-4290-81fb-4e1140cae2f3"
      }
    }
  ]
}
```

}

## EventLogType cases explained

The event log type returned by the AXIS Camera Station server is in string format (as seen in the “*EventLogType*” field in the example response). The following table explains which event cases are included on each EventLogType.

EventLogType	Happens When
RecordingStarted	<ul style="list-style-type: none"> <li>A camera has started recording.</li> </ul>
RecordingStopped	<ul style="list-style-type: none"> <li>A camera has stopped recording.</li> </ul>
DiskError	<ul style="list-style-type: none"> <li>Disk access denied.</li> <li>Disk not found.</li> <li>Recording export disk space shortage.</li> <li>Recording directory inaccessible.</li> <li>Recording export failed.</li> </ul>
DiskWarning	<ul style="list-style-type: none"> <li>Intruding disk data.</li> <li>Disk full.</li> </ul>
RecordingFailCameraAccess	<ul style="list-style-type: none"> <li>Camera is inaccessible for recording.</li> </ul>
RecordingFailure	<ul style="list-style-type: none"> <li>Failed recording on camera.</li> </ul>
CameraStatusDown	<ul style="list-style-type: none"> <li>Camera status is down.</li> </ul>
CameraStatusUp	<ul style="list-style-type: none"> <li>Camera status is up.</li> </ul>

**Table: EventLogType.**

## EventLogType and data fields

Each event contains event log type specific information in a data structure called *Data*. The following table displays the various information that can be included inside the *Data* object alongside a description of its context.

EventLogType	Data	Description
RecordingStarted	Name	The name of the camera.
	Camerald	The ID of the camera. (2.21)
RecordingStopped	Name	The name of the camera.
	Camerald	The ID of the camera. (2.21)
DiskError	RecordingExportDirectory	The recording export directory path.
	RecordingDirectoryPath	The recording directory path.
	DiskPath	The path of the disk.
DiskWarning	DiskPath	The path of the disk.
RecordingFailCameraAccess	Name	The name of the camera.
	Camerald	The ID of the camera. (2.21)
RecordingFailure	Name	The name of the camera.
	Camerald	The ID of the camera. (2.21)
CameraStatusUp	Name	The name of the camera.
	Camerald	The ID of the camera. (2.21)
CameraStatusDown	Name	The name of the camera.
	Camerald	The ID of the camera. (2.21)

**Table: EventLogType Data Field.**

Available from API version 1.7 and later. The CameraId field within the Data structure was introduced in API version 2.21.

### 11.17. BookmarkFacade

Bookmarks in this context is an event indicator that is visible in the timeline in the AXIS Camera Station client. *Note:* Bookmarks are removed by Axis Camera Station following the same pattern as recordings, adhering to the retention time set for the camera. The bookmark identifier, or bookmark ID, is returned when adding or retrieved when listing bookmarks using GetBookmarks.

#### AddBookmark

Adds a bookmark for the camera at a specified time.

The ID of the newly created bookmark is returned as response and can be used in other endpoints.

URI: `Acs/Api/BookmarkFacade/AddBookmark`

#### Supported Http Methods

- POST

#### Request:

Field	Description
<b>CameraId</b>	The camera identifier.
<b>Id</b>	String – The unique camera identifier.
<b>Time</b>	String – Optional. Time for the bookmark in UTC in format “YYYY-MM-DD hh:mm:ss.ffffff”. The second fraction digits can be omitted. If not specified, the bookmark time will be set to the server time it was added.
<b>Name</b>	String - Name of the bookmark. Maximum 255 characters.
<b>Description</b>	String - Optional. Description of the bookmark. Maximum 255 characters.

Example request: `https://localhost:55756/Acs/Api/BookmarkFacade/AddBookmark`

```
{
  "CameraId": {
    "Id": "2542_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  },
  Time: "2019-08-01 19:20:19",
  Name: "Special event",
  Description: "This was a special event"
}
```

#### Response:

Field	Description
<b>Id</b>	String – Bookmark identifier. The ID of the newly created bookmark.

Example response: HTTP Response: 200 OK

```
{
  "Id": "144_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
}
```

## ***GetBookmark***

Retrieves a bookmark specified by its ID.

URI: Acs/Api/BookmarkFacade/GetBookmark

### Supported Http Methods

- POST

### Request

Field	Description
<b>BookmarkId</b>	String – Bookmark identifier.
<b>Id</b>	String – Unique bookmark identifier.

Example request: <https://localhost:55756/Acs/Api/BookmarkFacade/GetBookmark>

```
{
  "BookmarkId": {
    "Id": "77016_018b7214-cd17-4eab-bc0a-83ed4753feee"
  }
}
```

### Response:

Field	Description
<b>CameraId</b>	String – The camera identifier.
<b>Id</b>	String – The camera identifier.
<b>BookmarkId</b>	String – Bookmark identifier.
<b>Id</b>	String – Unique bookmark identifier.
<b>Time</b>	String –Time for the bookmark, in UTC, in format “YYYY-MM-DD hh:mm:ss.ffffff”.
<b>Name</b>	String - Name of the bookmark.
<b>Description</b>	String – If set, description of the bookmark.

Example response: HTTP Response: 200 OK

```
{
  "CameraId": {
    "Id": "2250_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
  },
  "BookmarkId": {
    "Id": "77016_018b7214-cd17-4eab-bc0a-83ed4753feee"
  },
  "Time": "2018-10-25 12:15:49.3228688",
  "Name": "Special event",
  "Description": "A very special event"
}
```



## UpdateBookmark

Updates name and description of a bookmark specified by its ID.

Note that the *time* and *camera* for the bookmark cannot be changed. In such cases a new bookmark should be added instead and the old one removed. If either name or description is omitted, their old values are retained.

URI: `Acs/Api/BookmarkFacade/UpdateBookmark`

### Supported Http Methods

- POST

### Request:

Field	Description
<b>BookmarkId</b>	Bookmark identifier for the bookmark to be updated.
<b>Id</b>	String – The unique bookmark identifier.
<b>Name</b>	String - Optional. Name of the bookmark. Maximum 255 characters.
<b>Description</b>	String - Optional. Description of the bookmark. Maximum 255 characters.

### Example request:

```
https://localhost:55756/Acs/Api/BookmarkFacade/UpdateBookmark
{
  "BookmarkId": {
    "Id": "144_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
  },
  "Name": "Changed event",
  "Description": "Updated information about this event"
}
```

Response: The operation lacks response body.

Example response: HTTP Response: 200 OK

## RemoveBookmark

Removes a bookmark specified by its ID.

URI: `Acs/Api/BookmarkFacade/RemoveBookmark`

### Supported Http Methods

- POST

### Request:

Field	Description
<b>BookmarkId</b>	Bookmark identifier for the bookmark to be removed.
<b>Id</b>	String – The unique bookmark identifier.

**Example request:** `https://localhost:55756/Acs/Api/BookmarkFacade/RemoveBookmark`

```
{
  "BookmarkId":
  {
    "Id": "17_5d5eabf6-49f7-449d-955a-839f8adb894b"
  }
}
```

**Response:** The operation lacks response body.

**Example response:** HTTP Response: 200 OK

### ***GetBookmarks***

Lists all bookmarks for a single camera or for multiple cameras within a certain time interval.

URI: `Acs/Api/BookmarkFacade/GetBookmarks`

#### Supported Http Methods

- POST

#### Request:

Field	Description
<b>CameraIds</b>	List of the IDs of the cameras to get bookmarks for.
<b>Id</b>	String - The unique identifier of each camera.
<b>Interval</b>	The time interval to get bookmarks from.
<b>StartTime</b>	The start time, in UTC, in "YYYY-MM-DD hh:mm:ss" format.
<b>StopTime</b>	The stop time, in UTC, in "YYYY-MM-DD hh:mm:ss" format.
<b>Range</b>	The range of element to be collected from the server
<b>StartIndex</b>	Integer - The starting index of the first bookmark in the response.
<b>NumberOfElements</b>	Integer - Number of bookmarks to include in the response.

**Example request:**

`https://localhost:55756/Acs/Api/BookmarkFacade/GetBookmarks`

```
{
  "CameraIds": [
    {
      "Id": "2250_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
    }
  ],
  "Interval": {
    "StartTime": "2018-10-25 12:00:00",
    "StopTime": "2018-10-25 13:00:00"
  },
  "Range": {
    "StartIndex": 0,
    "NumberOfElements": 5
  }
}
```

Response:

Field	Description
<b>Bookmarks</b>	The list of bookmarks.
<b>CameraId</b>	String – The camera identifier.
<b>Id</b>	String – The unique camera ID.
<b>BookmarkId</b>	String – Bookmark identifier.
<b>Id</b>	String – The unique bookmark ID.
<b>Time</b>	String – Time for the bookmark, in UTC, in format “YYYY-MM-DD hh:mm:ss.ffffff”.
<b>Name</b>	String – Name of the bookmark.
<b>Description</b>	String – If set, description of the bookmark.
<b>ContainsLastResult</b>	Specifies whether there are more bookmarks available for fetching within this interval.

**Table:** *GetBookmarks* response.

Example response: HTTP Response: 200 OK

```
{
  "Bookmarks": [
    {
      "CameraId": {
        "Id": "2250_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
      },
      "BookmarkId": {
        "Id": "144_e9f9497f-31a0-4e58-9d13-bb44ed78f294",
      },
      "Time": "2018-10-25 12:15:49.3228688",
      "Name": "Special event",
      "Description": "A very special event"
    },
    {
      "CameraId": {
        "Id": "2250_e9f9497f-31a0-4e58-9d13-bb44ed78f294"
      },
      "BookmarkId": {
        "Id": "123_e9f9497f-31a0-4e58-9d13-bb44ed78f294",
      },
      "Time": "2018-10-25 12:43:29.3128688",
      "Name": "Person detected",
      "Description": ""
    }
  ],
  "ContainsLastResult": true
}
```

## 11.18. OnScreenControlsFacade

Handles On-Screen Controls functionality. An extensive explanation of some properties may be required to get the most out of these functions. Contact Axis Communications for more details.

### ***GetOnScreenControls***

Gets the On-Screen Controls for a list of cameras.

URI: /Acs/Api/OnScreenControlsFacade/GetOnScreenControls

Request:

Field	Description
<b>cameraIds</b>	List of the IDs of the cameras to get On-Screen Controls for.
<b>Id</b>	String – The unique camera identifier.
<b>Locale</b>	String – Optional. Preferred language for the description. Follow RFC4646 or ISO639-1. Availability of specified language is not guaranteed. Default is "en-us".

**Table:** GetOnScreenControlsRequest requestExample request:

```
https://172.25.127.28:55756/Acs/Api/OnScreenControlsFacade/GetOnScreenControls
{
  "cameraIds" : [
    {
      "Id" : "3609_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    },
    {
      "Id" : "2438_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    }
  ],
  "locale" : "en-us"
}
```

Response: There is no guarantee that all listed properties are included in the response.

Field	Description
<b>OnScreenControls</b>	The list of On-Screen Controls.
<b>CameraId</b>	The camera id.
<b>Id</b>	String – The unique identifier of the camera.
<b>Controls</b>	A group of features for the device. <i>See table: FeatureGroup.</i>

**Table:** GetOnScreenControls response

Field	Description
<b>Feature Group properties</b>	Feature Group Properties explanation
<b>Name</b>	String – The name of the feature group in English used as an identifier.
<b>NiceName</b>	String – The name of the feature group to be displayed for the user according to the requested locale.
<b>Features</b>	The list of features in this feature group. <i>See table: Feature.</i>
<b>FeatureGroups</b>	The list of sub-feature groups for this feature group. Used for grouping features together, like PTZ features or similar.

**Table:** FeatureGroup

Field	Description
<b>Name</b>	String – The name of the feature in English used as an identifier.
<b>NiceName</b>	String – The name of the feature group to be displayed for the user according to the requested locale.
<b>Users</b>	List of integers – Describes the users allowed to trigger this On-Screen Control. <i>See table Users.</i>
<b>Info</b>	String – Information about the feature according to the requested locale.
<b>RequestType</b>	String – The type of request to be done to the camera by AXIS Camera Station. Valid values are GET and POST.

<b>RequestPayload</b>	String – The request Payload of the request AXIS Camera Station will send to the camera when triggering the feature. Valid values are JSON. Reserved for future use is BINARY, SOAP and XML,
<b>RequestUrl</b>	String – The request URL AXIS Camera Station will use when triggering this On-Screen Control. {<param>} should be replaced by parameters values. <i>See Table ParametersInRequestUrlStructure.</i>
<b>Response</b>	Boolean – Indicates whether this feature returns a response from the camera. <i>See table RequestUrlResponseStructure.</i>
<b>vmsHint</b>	String – Client-side actions that are suitable to do when the On-Screen Controls is triggered. <i>See table vmsHint.</i>
<b>vmsReq</b>	String – The VMS requirements to fulfill for the On-Screen Control to be useful for an operator. <i>See table vmsReq.</i>
<b>jsonTemplate</b>	Used as a template for the JSON payload of a POST request, this field is only present when RequestPayload is JSON. The String that shows how a JSON Request should be formatted. The template string could for example look like this: "{1,2,3,4:[4,5],6}" or "{1}", "{1,2,3,4:{5}}". 1,2,3,4.. is the name of the parameters in the parameters JSON Object.
<b>parameters</b>	Description of the parameters to be used in the requestUrl. <i>See table ParametersInRequestUrlStructure.</i>

**Table: Feature**

User	User corresponding value
0	Admin
1	Operator
2	Viewer

**Table: Users**

Field	Description
<b>Type</b>	Describes the type of the parameter. <i>See table Types.</i>
<b>NiceName</b>	String – Short description of the parameter
<b>Info</b>	String - Optional information about the parameter
<b>Key</b>	String – String to use as a key for parameters in a JSON Payload.
<b>jsonVariableFormat</b>	Format to use for the JSON parameter. <i>See table JsonVariableFormat.</i>

**Table: ParametersInRequestUrlStructure**

Type	Type corresponding value
0	JsonContext. <i>See table JsonOnlySpecificParameters.</i>
1	JsonFixed. <i>See table JsonOnlySpecificParameters.</i>
2	JsonKeyOnly. <i>See table JsonOnlySpecificParameters.</i>
3	MultiOptions. <i>See table MultiOptionSpecificParameters.</i>
4	Range. <i>See table RangeSpecificParameters.</i>
5	Shape. <i>See table ShapeTypeSpecificParameters.</i>
6	String. <i>See table StringSpecificParameters.</i>

**Table: Types**

Range specific fields		Description
<b>SelectedValue</b>	Double	– The selected value.
<b>Unit</b>	String	– Type of range value. Valid values are integer or fraction.
<b>Min</b>	Double	– Minimum value for range.
<b>Max</b>	Double	– Maximum value for range.
<b>Step</b>	Double	– Step size for range.

**Table:** RangeSpecificParameters

ShapeType specific fields		Description
<b>ShapeTypeDto</b>	String	– The shape of a shape parameter. Valid values are Coordinate, Line, Box, and Polygon.
<b>Coordinates</b>	String	– The coordinates of the shape.

**Table:** ShapeTypeSpecificParameters

StringSpecificParameters specific fields		Description
<b>SelectedValue</b>	String	– The selected value.

**Table:** StringSpecificParameters

MultiOptionSpecificParameters specific fields		Description
<b>SelectedValue</b>	String	– The selected value.
<b>ValueNiceNames</b>	Dictionary	with the Values and their corresponding NiceNames.

**Table:** MultiOptionSpecificParameters

JsonOnlySpecificParameters specific fields		Description
<b>fixed</b>	The string in "value"	should be used as the value in the key:value JSON pair.
<b>context</b>	The value in the value field	in the key:value pair will be returned by the camera.
<b>keyOnly</b>	Used when only a key is needed.	Such as header for JSON objects and lists.

**Table:** JsonOnlySpecificParameters

JsonVariableFormat valid values		Description
<b>string</b>	The key:value pair,	formatted like this "key": "variable string"
<b>integer</b>	The key:value pair,	formatted like this "key": 5 or "key": -5
<b>fraction</b>	The key:value pair,	formatted like this "key": 5.0 or "key": -5.0
<b>exponent</b>	The key:value pair,	formatted like this "key": 5.0e+2 or "key": -5.0e-3
<b>boolean</b>	The key:value pair,	formatted like this "key": true or "key": false
<b>null</b>	The key:value pair,	formatted like this "key": null

**Table:** JsonVariableFormat

vmsHint	vmsHint explanation
<b>windowClose</b>	If the camera is in a popup window, close the window.
<b>audioOutEnable</b>	Mute the operator microphone, usually used as a mute button for cameras with audio communication devices
<b>audioOutToggle</b>	Open the operator microphone to the camera, usually used as an unmute button for cameras with audio communication devices.
<b>AudioOutDisable</b>	Toggle the operator microphone between mute and unmute state
<b>audioInDisable</b>	Mute the camera microphone, usually used as a mute button for cameras with audio communication devices.
<b>audioInEnable</b>	Start listening on the microphone for the camera.
<b>audioInToggle</b>	Toggle the camera microphone between mute and unmute state
<b>hidden</b>	Features of lower importance which can be hidden from the operator.

**Table:** vmsHint

vmsReq	vmsReq explanation
<b>eventStream</b>	This On-Screen Control produces an event in the Dynamic Event Stream. The VMS must understand these events to benefit from this button.

**Table:** vmsReq

ParametersInRequestUriStructure	ParametersInRequestUriStructure explanation
<b>vmsHint</b>	Integer – How to treat the return value. <i>See table vmsHintInResponse.</i>
<b>context</b>	String – Variable containing the context value, from the request.
<b>type</b>	String – Type of response, integer, string, boolean, array, object.
<b>value</b>	Defined by type – Return value of the request.

**Table:** ParametersInRequestUriStructure

vmsHintInResponse valid values	vmsHintInResponse explanation — What the VMS should do with the return value
<b>0</b>	Display - Display the returned value to the user.
<b>1</b>	Store – Store the returned value as searchable metadata for an operator.
<b>2</b>	Unknown

**Table:** vmsHintInResponse

Example response: HTTP Response: 200 OK

```
{
  "OnScreenControls": [
    {
      "CameraId": {
        "Id": "8461_0e12a4e3-ef64-4db1-b2c1-8a9124adc66f"
      },
      "Controls": {
        "Name": "root",
        "Features": [],
        "FeatureGroups": [
          {
            "Name": "IR",
            "NiceName": "IR Illumination",
            "Features": [
              {
                "Users": [
                  1
                ],
                "Name": "activateLight",
                "NiceName": "Turn on IR Illumination",

```

```

    "Info": "Use the built-in IR Illumination in low-light environments",
    "RequestType": "POST",
    "RequestPayload": "JSON",
    "RequestUrl": "/axis-cgi/lightcontrol.cgi",
    "JsonTemplate": "{ 1, 2, 3, 4: {5}}",
    "Response": false,
    "Parameters": [
      {
        "Type": 1,
        "ParameterName": "1",
        "NiceName": "",
        "DefaultValue": "",
        "JsonKey": "apiVersion",
        "JsonValue": "1.0",
        "JsonVariableFormat": 0
      },
      {
        "Type": 0,
        "ParameterName": "2",
        "NiceName": "",
        "DefaultValue": "",
        "JsonValue": "",
        "JsonVariableFormat": 0
      },
      {
        "Type": 1,
        "ParameterName": "3",
        "NiceName": "",
        "DefaultValue": "",
        "JsonKey": "method",
        "JsonValue": "activateLight",
        "JsonVariableFormat": 0
      },
      {
        "Type": 2,
        "ParameterName": "4",
        "NiceName": "",
        "DefaultValue": "",
        "JsonKey": "params",
        "JsonValue": "",
        "JsonVariableFormat": 0
      },
      {
        "Type": 1,
        "ParameterName": "5",
        "NiceName": "",
        "DefaultValue": "",
        "JsonKey": "lightID",
        "JsonValue": "led0",
        "JsonVariableFormat": 0
      }
    ]
  },
  "FeatureGroups": []
}

```

The operation is available from API version 2.1 and later.



**TriggerOnScreenControl**

Triggers an On-Screen Control.

URI: /Acs/Api/OnScreenControlsFacade/TriggerOnScreenControl

Request:

Field	Description
<b>cameraId</b>	Object – The camera Id.
<b>Id</b>	String – The unique identifier of the camera.
<b>TriggeredFeature</b>	The feature to trigger, as described in the tables from the GetOnScreenControls section above.
<b>Users</b>	List of integers – Describes the users allowed to trigger this On-Screen Control. <i>See table Users. (List can be empty)</i>
<b>Name</b>	String – The name of the feature in English, used as an identifier.
<b>NiceName</b>	String – Optional. The name of the feature group to be displayed for the user according to the requested locale.
<b>Info</b>	String – Optional. Information about the feature according to the requested locale.
<b>RequestType</b>	String – The type of request to be done to the camera by AXIS Camera Station. Valid values are GET and POST.
<b>RequestUrl</b>	String – The request URL AXIS Camera Station will use when triggering this On-Screen Control. {<param>} should be replaced by parameters values. <i>See Table ParametersInRequestUrlStructure.</i>
<b>Response</b>	Boolean – Indicates whether this feature returns a response from the camera. <i>See table RequestUrlResponseStructure.</i>
<b>parameters</b>	List of string – Description of the parameters to be used in the requestUrl. <i>See table ParametersInRequestUrlStructure. (List can be empty).</i>

**Table:** TriggerOnScreenControl request

**Example request:**

https://172.25.127.28:55756/Acs/Api/OnScreenControlsFacade/TriggerOnScreenControl

```
{
  "cameraId" : {
    "Id" : "3609_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
  },
  "triggeredFeature" :
  {
    "Users": [
      1
    ],
    "Name": "SpeedDry",
    "NiceName": "Speed dry",
    "Info": "Vibrate the camera to remove water from dome",
    "RequestType": "GET",
    "RequestUrl": "/axis-cgi/com/ptz.cgi?auxiliary=speeddry",
    "Response": false,
    "Parameters": []
  }
}
```

Response:

Field	Description
<b>IsResponse</b>	Boolean – If the triggered feature has a response from the camera.
<b>VmsHint</b>	Integer – As described in the table <i>vmsHintInResponse</i> above.
<b>Type</b>	Integer – The type of the response value. See <i>table ResponseValueTypes</i> .
<b>Value</b>	String – The response value.

**Table:** TriggerOnScreenControl response

ResponseValueTypes valid values	ResponseValueTypes explanations
<b>0</b>	String
<b>1</b>	Integer
<b>2</b>	Boolean
<b>3</b>	Array
<b>4</b>	Object
<b>5</b>	Unknown

**Table:** ResponseValueTypes response

Example response.

HTTP Response: 200 OK

```
{
  "IsResponse": false,
  "VmsHint": 0,
  "Type": 0
}
```

The operation is available from API version 2.1 and later.

### 11.19. Deep Links for launching the AXIS Camera Station client

A 'Deep Link' in this API context is an URI (resource address) that links to a specific location within the AXIS Camera Station client application.

Using such a 'Deep Link' it is possible to launch and perform multiple actions within the client. The interaction can be performed internally within the client as well as from external sources such as browsers.

*Note:* Server IDs used in deep links must be known to the client to be triggered. Server IDs of AXIS Camera Station services not connected to the client will not have any effect.

The AXIS Camera Station deep links follow the URI syntax, using the custom scheme '**axacs**' :

**axacs://axis.com?query**

The query component of the URL is what ties parameters to the performed action. Query components are always initiated with a '?'-sign and multiple parameters are separated by '&'-signs. Example: **axacs://axis.com?queryParameterA&queryParameterB**

To use deep links the AXIS Camera client must be installed. During setup, the custom **axacs** scheme is automatically registered with windows and associated with the client.

To use a deep link to navigate to a camera stream even if camera streams are hidden from the navigation bar check the 'Show in navigation' client setting.

System specific IDs such as Camera ID are retrieved with the appropriate API method.

### Deep Link Actions

All deep link actions are governed by the mode parameter where mode identifies the action.

#### Basic

The most basic form of deep link is the pure link without any parameters. This launches the client but perform no further actions.

Link: `axacs://axis.com`

#### Live

Navigates to the AXIS Camera Station live view tab and opens a live stream for the selected camera.

Link: `axacs://axis.com?mode=live&cameraId=<CameraID>&newTab=<Boolean>`  
Request:

Parameter	Value or Description	Value Type
<b>mode</b>	live	String
<b>cameralid</b>	The ID of the camera in AXIS Camera Station to receive the live stream from. <i>Note:</i> This requires the long camera ID format.	Integer_GUID

**Table:** Launch live view tab URL

Example URLs:

- `axacs://axis.com?mode=live&cameraId=13111_4ea7e955-3169-4ae1-a433-a2d87e55e93b`

#### Recording

Navigates to the AXIS Camera Station client recordings tab for the selected camera, optionally to a pre-selected point in the recording's timeline.

Link:

`axacs://axis.com?mode=recording&cameraId=<CameraID>&timestamp=<yyyy-MM-ddHHmmss-ffffffZ>&exportMarkerStart=<yyyy-MM-ddHHmmss-ffffffZ>&exportMarkerStop=<yyyy-MM-ddHHmmss-ffffffZ>`

Request:

Parameter	Value or Description	Value Type
<b>mode</b>	recording or playback (alias)	String
<b>cameralid</b>	The ID of the camera in AXIS Camera Station to receive the live stream from. <i>Note:</i> This requires the long camera ID format.	Integer_GUID
<b>timestamp</b>	Date and time for position in the recordings timeline. Expected to be in the UTC+0 time zone (Z)	DateTime – Optional Format: "yyyy-MM-dd-HH:mm:ss-ffffffZ"
<b>exportMarkerStart</b> and <b>exportMarkerStop</b>	Date and time to place export markers designating a timeline area for export. Expected to be in the UTC+0 time zone (Z)	DateTime – Optional Format: "yyyy-MM-dd-HH:mm:ss-ffffffZ"

**Table:** Launch recordings tab URL**Example URLs:**

- Camera recordings  
axacs://axis.com?mode=recording&cameraId=12252&serverId=a2595185-8057-44b4-88e0-d228aaa5ea81
- Camera recordings with timestamp  
axacs://axis.com?mode=recording&cameraId=12252&serverId=a2595185-8057-44b4-88e0-d228aaa5ea81&timestamp=2021-08-05-134253-9529723Z
- Camera recordings with export markers  
axacs://axis.com?mode=recording&cameraId=12951&serverId=3c1b4421-dc7b-4b11-b201-3215256353e9&exportMarkerStart=2021-10-13-090255-8665680Z&exportMarkerStop=2021-10-13-090315-8665680Z

**Export**

Adds all recordings in a time span to the export tab for a selected camera. Silent mode, i.e., adding selected recordings without bringing the export tab into focus is supported.

An export mode link is available for 24 hours.

Link: axacs://axis.com?mode=export&cameraId=<CameraID>&exportStart=<yyyy-MM-ddHHmmss-ffffffffZ>&exportStop=<yyyy-MM-ddHHmmss-ffffffffZ>&exportNotes=<URL encoded UTF-8 text>&silentExport=true>

**Request:**

Parameter	Value or Description	Value Type
<b>mode</b>	export	String
<b>cameraId</b>	The ID of the camera to receive the live stream from. <i>Note:</i> This requires the long camera ID format.	Integer_GUID
<b>exportStart</b> and <b>exportStop</b>	Optional. Date and time to place export markers designating a timeline area for export. Expected to be in the UTC+0 time zone (Z)	DateTime on format: "yyyy-MM-dd-HHmmss-ffffffffZ"
<b>exportNotes</b>	Notes that can be attached to all recordings added to the export. <i>Note:</i> This text must be URL-encoded using the UTF-8 character set and will be cropped if more than 1300 characters long.	String
<b>silentExport</b>	Recordings exported silently will be added to the export tab without bringing the tab into focus, allowing more recordings to be added without interrupting the user workflow. Default value: false.	Boolean

**Table:** Launch export tab URL**Example URLs:**

- With export notes  
axacs://axis.com?mode=export&cameraId=12951&serverId=3c1b4421-dc7b-4b11-b201-3215256353e9&exportStart=2021-10-13-090255-8665680Z&exportStop=2021-10-13-090315-8665680Z&exportNotes=Export%20Notes.
- Using silent export  
axacs://axis.com?mode=export&cameraId=12951&serverId=3c1b4421-dc7b-4b11-b201-3215256353e9&exportStart=2021-10-13-090255-8665680Z&exportStop=2021-10-13-090315-8665680Z&silentExport=true

## Configuration

Navigates to the configuration tab at optional specific configuration page.

If AXIS Camera Station has no added devices and a deep link with `mode=configuration` is triggered during start-up or login, `DeviceDiscovery` ("Add devices") will be selected.

The scroll bar will not be adjusted for configuration links.

Link: `axacs://axis.com?mode=configuration&page=<ID String>`

### Request:

Parameter	Value or Description	Value Type
<b>mode</b>	configuration	String
<b>page</b>	ID string of the page to show in the configuration tab. See <i>table Configuration page ID string</i> .	String

**Table:** Launch configuration tab URL

Configuration Category	Configuration Page	ID String
<b>Devices</b>	Add devices	DeviceDiscovery
	Cameras	Cameras
	Other devices	Devices
	Streaming profiles	StreamingProfiles
	Image configuration	ImageConfiguration
	PTZ presets	PtzPresets
	Management	DeviceManagement
	External data sources	ExternalDataSources
<b>Storage</b>	Management	StorageManagement
	Selection	StorageSelection
<b>Recording and events</b>	Schedules	Schedules
	Recording method	RecordingMethod
	I/O ports	IOSettings
	Action rules	ActionRules
<b>Client</b>	Settings	ClientSettings
	Streaming	ClientStreamingSettings
<b>Connected services</b>	Firmware upgrade settings	UpgradeFirmware
	Axis Secure Remote Access	SecureRemoteAccess
	AXIS Camera Station Update	CameraStationUpdate
<b>Server</b>	Scheduled export	ScheduledExport
	Incident report	IncidentReport
	Settings	ServerSettings
<b>Switch</b>	Management	Switch
<b>Licenses</b>	Management	LicenseManagement
	Device status	DeviceLicenseStatus
	Keys	LicenseKeys
<b>Security</b>	User permissions	UserPermission
	Certificates	Certificates

**Table:** Configuration page ID strings

Example URL:

`axacs://axis.com?mode=configuration&page=DeviceDiscovery`

### Limitations

An AXIS Camera Station client running in Administrator mode requires a link sent from a client also running in Administrator mode. Multi-screen and AXIS Camera Station client windows focus loss might cause an external deep link to fail. Live view action is not available for a disabled camera. Recording tabs cannot be reused by timestamped links once the client is restarted.

## 11.20. ClientCommandsFacade

**NOTE:** It is strongly recommended to instead use the Deep Links feature described above.

Handles Client Commands making it possible to remote control the AXIS Camera Station Windows client. It is possible to select cameras, start/stop playback, change playback speed and move the playback marker in the timeline.

The client is identified by the name of the computer the client is running on. This can be found, both in the basic system information view in Windows or in the Client Configuration Sheet in AXIS Camera Station.

The commands are executed with best effort. If no connected client is connected to the server or if the client is in a state where it will not accept commands, the command is discarded.

### GoToCameras

Opens a new tab in the client with a dynamic split with the provided cameras. Consecutive calls to GoToCameras navigates in the same tab. If the tab is closed a new tab will be opened on the next call.

URI: /Acs/Api/ClientCommandsFacade/GoToCameras

#### Request:

Field	Description
<b>machineName</b>	The name of the client
<b>cameraIds</b>	List of the IDs of the cameras to include in the opened view.

**Table:** GoToCameras request

Example request: `https://172.25.127.28:55756/Acs/Api/ClientCommandsFacade/GoToCameras`

```
{
  "machineName" : "ACSCClientPC",
  "cameraIds" : [
    {
      "Id" : "3609_54dd4102-96c7-4cdb-a8d2-85c2187a5d47"
    }
  ]
}
```

Response: The operation lacks response body.

Example response: HTTP Response: 200 OK

### StartPlayback

Starts playback in the tab opened by calling GoToCameras.

URI: /Acs/Api/ClientCommandsFacade/StartPlayback

#### Request:

Field	Description
<b>serverAddress</b>	The IP address or host name of the AXIS Camera Station server.
<b>machineName</b>	The name of the client

**Table: StartPlayback request**

Example request: `https://172.25.127.28:55756/Acs/Api/ClientCommandsFacade/StartPlayback`  

```
{
  "machineName" : "ACSCClientPC"
}
```

Response: The operation lacks response body.

Example response: HTTP Response: 200 OK

### ***PausePlayback***

Pauses playback in the tab opened by calling GoToCameras.

URI: `/Acs/Api/ClientCommandsFacade/PausePlayback`

Request:

Field	Description
<b>serverAddress</b>	The IP address or host name of the ACS server.
<b>machineName</b>	The name of the client

**Table: PausePlayback request**

Example request:  
`https://172.25.127.28:55756/Acs/Api/ClientCommandsFacade/PausePlayback`  

```
{
  "machineName" : "ACSCClientPC"
}
```

Response: The operation lacks response body.

Example response: HTTP Response: 200 OK

### ***GoToLiveView***

Switches in the tab opened by calling GoToCameras to live view mode.

URI: `/Acs/Api/ClientCommandsFacade/GoToLiveView`

Request:

Field	Description
<b>serverAddress</b>	The IP address or host name of the AXIS Camera Station server.
<b>machineName</b>	The name of the client

**Table: GoToLiveView request**

Example request:  
`https://172.25.127.28:55756/Acs/Api/ClientCommandsFacade/GoToLiveView`  

```
{
```

```
    "machineName" : "ACSCClientPC"
  }
```

Response: The operation lacks response body.

Example response: HTTP Response: 200 OK

### ***SetPlaybackSpeed***

Sets the playback speed on the client. The speed can be a value between ]0.0-100.0]

URI: /Acs/Api/ClientCommandsFacade/SetPlaybackSpeed

Request:

Field	Description
<b>serverAddress</b>	The IP address or host name of the AXIS Camera Station server.
<b>machineName</b>	The name of the client
<b>speed</b>	The speed factor

**Table: SetPlaybackSpeed request**

Example request:

```
https://172.25.127.28:55756/Acs/Api/ClientCommandsFacade/SetPlaybackSpeed
{
  "machineName" : "ACSCClientPC",
  "speed" : "4.0"
}
```

Response: The operation lacks response body.

Example response: HTTP Response: 200 OK

### ***SetPlaybackPositionUtc***

Sets the playback position on the client. The position must be in UTC time.

URI: /Acs/Api/ClientCommandsFacade/SetPlaybackPositionUtc

Request:

Field	Description
<b>serverAddress</b>	The IP address or host name of the AXIS Camera Station server.
<b>machineName</b>	The name of the client
<b>position</b>	The position in UTC time

**Table: SetPlaybackPositionUtc request**

Example request:

```
https://172.25.127.8:55756/Acs/Api/ClientCommandsFacade/SetPlaybackPositionUtc
{
  "machineName" : "ACSCClientPC",
  "position" : "2019-11-22T12:06:00Z"
}
```

Response: The operation lacks response body.

Example response: HTTP Response: 200 OK