

ONVIF™

ONVIF Specification Version 18.06 Release Notes

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1. Summary

The ONVIF 18.06 release incorporates a number of major enhancements and minor clarifications for better interoperability among ONVIF conformant clients and devices. The changes themselves are described in details in the list below chapters 2 and 3.

2. Additions

2.1. Metadata enhancement for Geolocation

A new GeoLocation attribute of the metadata configuration interface allows querying support for geo event streaming and enabling location information of analytics objects in the metadata stream. A respective geo location item has been added to the appearance descriptor.

2.2. Metadata enhancement for analytics

The metadata now can describe typical vehicle properties like type, brand, model, speed and license plate information. This also enables querying vehicles by their characteristics or behavior. The vehicle and license plate information have been added to the appearance descriptor and the speed property has been added to the behavior descriptor.

2.3. Export File Format Additions

The correct start time box has been added to allow retrospective correcting of time information. An informative Annex B has been added to ease understanding of the MP4 file structure.

2.4. Authentication Behavior Specification

This specification defines the web service interface for interaction with ONVIF devices which support scheduled authentication behavior (i.e. when what security level applies) for access points. In addition, the SetAccessPointAuthenticationProfile and DeleteAccessPointAuthenticationProfile operations, the SupportedSecurityLevels capability and the AccessPoint/State/SecurityLevel event have been added to the Access Control Specification.

2.5. Client-supplied tokens

The ClientSuppliedTokenSupported capability and Set operations have been added to all PACS services to be able to create or update entities using a client-supplied token.

2.6. Full management support for doors

The `GetDoors`, `GetDoorList`, `CreateDoor`, `SetDoor`, `ModifyDoor` and `DeleteDoor` operations have been added in Door Control Service. In addition the Door and Timings data structures and the MaxDoors capability have been added.

2.7. Full management support for access points

The `GetAccessPoints`, `GetAccessPointList`, `CreateAccessPoint`, `SetAccessPoint`, `ModifyAccessPoint` and `DeleteAccessPoint` operations have been added in Access Control Service. In addition the AccessPoint data structure and the MaxAccessPoints capability have been added.

2.8. Full management support for areas

The `GetAreas`, `GetAreaList`, `CreateArea`, `SetArea`, `ModifyArea` and `DeleteArea` operations have been added in Access Control Service. In addition the Area data structure and the MaxAreas capability have been added.

2.9. Default duration for temporarily suspended credentials

The `DefaultCredentialSuspensionDuration` capability have been added to the Credential Service to be able to set the default time period that a credential temporarily will be suspended for (e.g. by using the wrong PIN too many times).

2.10. Extended grant time for credentials

The `ExtendedGrantTime` field have been added to the Credential structure. The field indicates that the credential holder needs extra time to get through the door.

3. Changes

Find below all errata from Version 17.12 to 18.06 in order to improve interoperability. The numbers correspond to the Change Request ticket numbers and are not necessarily continuously ascending.

If not noted otherwise the changes refer to the Core specification.

2198 AnalyticsModuleConfigOptions requires a Name attribute

Add a parameter "**Name**" into *AnalyticsModuleConfigOptions* in *analytics.wsdl*.

```
<xs:attribute name="Name" type="xs:string">
```

```
  <xs:annotation>
```

```
    <xs:documentation>
```

The Name of the SimpleItemDescription/ElementItemDescription the AnalyticsModuleConfigOptions applies to.

This can be omitted when there is only one parameter the options could apply, including specifically typed elements such as RadiometryParameterOptions to RadiometryParameters.

Otherwise, the Name shall be provided.

```
  </xs:documentation>
```

```
  </xs:annotation>
```

```
</xs:attribute>
```

2205 Protocol for GetServices XAddr unclear

Add a following paragraph into section 8.1.2.2 *GetServices* command description in ONVIF Core specification.

For the returned XAddr a device shall match the scheme and IP part of the one used in the GetServices request. Note that if device is behind a NAT that device may return the local address and not the external address used by the client.

2211 Typo in metadatastream.xsd

Add a following complexType definition in metadatastream.xsd.

```
<xs:complexType name="StringLikelihood">
```

```
  <xs:simpleContent>
```

```
    <xs:extension base="xs:string">
```

```
      <xs:attribute name="Likelihood" type="xs:float"/>
```

```
      <xs:anyAttribute processContents="lax"/>
```

```
    </xs:extension>
```

```
  </xs:simpleContent>
```

```
</xs:complexType>
```

And add a following element into *complexType* "ClassDescriptor".

```
<xs:element name="Type" type="StringLikelihood" minOccurs="0" maxOccurs="unbounded">
```

2216 Clarification required to support <Entity>Configuration if Service is supported

Add paragraphs about restriction of Analytics/PTZ configuration into Media Service specification and Media2 Service specification.

At section 5.2 *Media Profile* in Media Service specification,

A device shall support at least one Analytics Configuration if Analytics service is supported. A device shall support at least one PTZ Configuration if PTZ service is supported.

At section 5.2.1 *General* in Media2 Service specification,

A device shall support at least one Analytics Configuration if Analytics service is supported. A device shall support at least one PTZ Configuration if PTZ service is supported.

2217 Clarification of requirement for GVEI when the total is 0

Add a sentence of third paragraph at section 5.3.5 *GetVideoEncoderInstances* in Media2 Service specification. As replace

A device shall guarantee to instantiate the indicated number of instances concurrently. If a device limits the number of instances of each particular video encoding type, the response shall contain information per video codec.

With

A device shall guarantee to instantiate the indicated number of instances concurrently. If a device limits the number of instances of each particular video encoding type, the response shall contain information per video codec. For each video source, there shall be at least one video source configuration for which the GetVideoEncoderInstances shall return a Total greater than 0.

2226 Clarify GetNetworkDefaultGateway

Change a clarification about default gateway at section 8.2.14 *Get default gateway* in ONVIF Core specification. The clarification is replaced

The device shall support the GetNetworkDefaultGateway command returning configured default gateway address(es).

With

The device shall support the GetNetworkDefaultGateway command returning manually configured default gateway address(es).

2227 GeoLocation not in common

Move following definitions from onvif.xsd to common.xsd.

- simpleType "ReferenceToken"
- complexType "GeoLocation"
- complexType "GeoOrientation"
- complexType "LocalLocation"
- complexType "LocalOrientation"
- simpleType "Entity"
- complexType "LocationEntity"

2229 RTSPWebSocketUri can't be variable

Add an reference into section 2 *Normative references* in Streaming specification

IETF RFC 2396, Uniform Resource Identifiers (URI): General Syntax

<<http://www.ietf.org/rfc/rfc2396.txt>>

And remove an reference

IETF RFC 2818, HTTP over TLS

<<http://www.ietf.org/rfc/rfc2818.txt>>

Replace a description at section 5.1.1.5 *RTP/RTSP/TCP/WebSocket*

The device indicating support for RTSPOverWebSocket as explained in section 5.11 of the ONVIF Media2 Service Specification or section 5.5 of the ONVIF Replay Control Service Specification shall support streaming media using WebSocket protocol according to this specification. A device shall use the same port of the HTTP for WebSocket protocol for a normal connection. If a device support TLS, then it shall support tunnelling WebSocket connections over TLS [RFC 2818] and the port number shall be same as the HTTPS port number.

With

The device indicating support for RTSP over WebSocket, as explained in section 5.11 of the ONVIF Media2 Service Specification and section 5.5 of the ONVIF Replay Control Service Specification, shall support streaming media using WebSocket protocol according to this specification. The provided URI shall set the hierarchical part (hier part) to absolute path (abs path) [RFC 2396]. For example, if the WebSocket URI with network path is “ws://1.2.3.4/my-websocket-uri”, the provided URI shall be “ws:/my-websocket-uri”.

Replace an annotation at *RTSPWebSocketUri* attribute in ver20/media/wsd1/media.wsd1

```
<xs:attribute name="RTSPWebSocketUri" type="xs:anyURI">
```

```
  <xs:annotation>
```

```
    <xs:documentation>
```

If streaming over websocket supported, RTSP websocket URI is provided. The scheme and IP part shall match the one used in the request (e.g. the GetServices request).

```
    </xs:documentation>
```

```
  </xs:annotation>
```

```
</xs:attribute>
```

With

```
<xs:attribute name="RTSPWebSocketUri" type="xs:anyURI">
```

```
  <xs:annotation>
```

```
    <xs:documentation>
```

If streaming over WebSocket is supported, this shall return the RTSP WebSocket URI as described in Streaming Specification Section 5.1.1.5.

```
    </xs:documentation>
```

```
  </xs:annotation>
```

```
</xs:attribute>
```

Replace an annotation at *RTSPWebSocketUri* attribute in replay.wsdl

```
<xs:attribute name="RTSPWebSocketUri" type="xs:anyURI">
```

```
  <xs:annotation>
```

```
    <xs:documentation>
```

If playback streaming over websocket supported, websocket URI is provided. The scheme and IP part shall match the one used in the request (e.g. the GetServices request).

```
    </xs:documentation>
```

```
  </xs:annotation>
```

```
</xs:attribute>
```

With

```
<xs:attribute name="RTSPWebSocketUri" type="xs:anyURI">
```

```
  <xs:annotation>
```

```
    <xs:documentation>
```

If playback streaming over WebSocket is supported, this shall return the RTSP WebSocket URI as described in Streaming Specification Section 5.1.1.5.

```
    </xs:documentation>
```

```
  </xs:annotation>
```

```
</xs:attribute>
```


2230 Clarification required for recording job on changing media attributes

Insert additional description as eighth paragraph at section 5.1 *Introduction* in Recording Control Service specification.

For the cases where media attributes of a source are changed for an active recording job, the recording state is outside the scope of this specification.

2234 Inconsistent fault code from ModifyAnalyticsModules API

Replace a fault code at section 5.3.3.4 *ModifyAnalyticsModules* in Analytics Service specification.

- env:Sender - ter:InvalidArgVal - ter:RuleNotExistent

The module name or names do not exist.

With

- env:Sender - ter:InvalidArgVal - ter:NameNotExistent

The module name or names do not exist.

2235 LicensePlateInfo metadata- CountryCode

Replace a description about CountryCode at section 5.1.3.9 *License plate information descriptor* In Analytics Service specification.

CountryCode	Describe the country of the license plate, <u>in order to avoid the same license plate number.</u> Refer to the ISO 3166-1 alpha-2 code of the country,e.g.,"CN" means China,"US" means United States,"JP"means Japan.
-------------	---

With

CountryCode	Describe <u>s</u> the country of the license plate. <u>The country code shall be encoded as two letter code according to ISO 3166-1:2013 Alpha-2.</u> Refer to the ISO 3166-1 alpha-2 code of the country,e.g.,"CN" means China,"US" means United States,"JP"means Japan.
-------------	--

2236 Element required for Rule/Module options

Add following element into rules.xsd.

```
<xs:element name="MotionRegionConfigOptions" type="axt:MotionRegionConfigOptions"/>
```

2237 Clarify Unsubscribe

Add definitions about *Unsubscribe* operation in ONVIF Core specification and event.wsdl.

At section 9.1.4 *Unsubscribe* in ONVIF Core specification,

The command is defined in section 6.1.2 of [OASIS Web Services Base Notification 1.3].

Under `<wsdl:portType name="PullPointSubscription">` in event.wsdl,

```
<wsdl:operation name="Unsubscribe">
  <wsdl:documentation>The device shall provide the following Unsubscribe command for all
  SubscriptionManager endpoints returned by the CreatePullPointSubscription command.<br/>
  This command shall terminate the lifetime of a pull point.
</wsdl:documentation>
  <wsdl:input name="UnsubscribeRequest" message="wsntw:UnsubscribeRequest" />
  <wsdl:output name="UnsubscribeResponse" message="wsntw:UnsubscribeResponse" />
  <wsdl:fault name="ResourceUnknownFault" message="wsrf-rw:ResourceUnknownFault" />
  <wsdl:fault name="UnableToDestroySubscriptionFault"
  message="wsntw:UnableToDestroySubscriptionFault" />
</wsdl:operation>
```

Under `<wsdl:binding name="PullPointSubscriptionBinding" type="tev:PullPointSubscription">` in event.wsdl,

```
<wsdl:operation name="Unsubscribe">
  <soap:operation soapAction="http://docs.oasis-open.org/wsn/bw-
  2/SubscriptionManager/UnsubscribeRequest"/>
  <wsdl:input name="UnsubscribeRequest">
    <soap:body use="literal"/>
  </wsdl:input>
  <wsdl:output name="UnsubscribeResponse">
    <soap:body use="literal"/>
  </wsdl:output>
  <wsdl:fault name="ResourceUnknownFault">
    <soap:fault name="ResourceUnknownFault" use="literal"/>
  </wsdl:fault>
  <wsdl:fault name="UnableToDestroySubscriptionFault">
    <soap:fault name="UnableToDestroySubscriptionFault" use="literal"/>
  </wsdl:fault>
</wsdl:operation>
```

2240 key and certificates handling

Add a parameter **"NoPrivateKeySharing"** into *KeystoreCapabilities* in Advanced Security service specification and advancedsecurity.wsdl.

At Table 50: Keystore Capabilities

NoPrivateKeySharing	Indicates the device requires that each certificate with private key has its own unique key.
---------------------	--

And at the end of *KeystoreCapabilities* complex type definition part

```
<xs:attribute name="NoPrivateKeySharing" type="xs:boolean">
  <xs:annotation>
    <xs:documentation>Indicates the device requires that each certificate with private key has its
own unique key.</xs:documentation>
  </xs:annotation>
</xs:attribute>
```

2245 Removing Rectangle parameter in MotionRegionConfig (Annex C ONVIF-Analytics-Service-Spec)

Remove a description about Rectangle parameter from *Table C-1 Motion Region Detector Rule configuration parameters in axl:MotionRegionConfig* in Analytics Service specification.

Rectangle	Provides the points of a Rectangle that is specified within a region defined by Bounds element of VideoSourceConfiguration.
-----------	---

2247 Clarify RTSP authentication access class

Add following sentence to clarify access class of streaming at section 7.2 *Authentication* in Streaming specification.

The access class of streams shall be READ_MEDIA.

2250 On Screen Display: OSDConfigurationOptions Clarification

Replace a description about *MaximumNumberOfOSDs* in Media Service specification and onvif.xsd.

At section 5.23.63 *OSDConfigurationOptions* in Media Service specification, replace the description

- MaximumNumberOfOSDs

The maximum number of OSD configurations supported for the specificate video source configuration. If a device limits the number of instances by OSDType, it should indicate the supported number via the related attribute.

With

- MaximumNumberOfOSDs

The maximum number of OSD configurations supported for the specified video source configuration. If the configuration does not support OSDs, this value shall be zero and the Type and PositionOption elements are ignored. If a device limits the number of instances by OSDType, it shall indicate the supported number for each type via the related attribute.

And replace the annotation of *MaximumNumberOfOSDs* element under *OSDConfigurationOptions* complexType in onvif.xsd,

```
<xs:documentation> The maximum number of OSD configurations supported for the specificate video source configuration. If a device limits the number of instances by OSDType, it should indicate the supported number via the related attribute.</xs:documentation>
```

With

```
<xs:documentation> The maximum number of OSD configurations supported for the specified video source configuration. If the configuration does not support OSDs, this value shall be zero and the Type and PositionOption elements are ignored. If a device limits the number of instances by OSDType, it shall indicate the supported number for each type via the related attribute.</xs:documentation>
```

2251 Clarification of PullMessages behavior in Core 9.1.2

Replace a description at section 9.1 *Real-time Pull-Point Notification Interface* in ONVIF Core specification.

- 4) The device shall immediately respond with notifications that have been aggregated on behalf of the client.

With

- 4) The device immediately responds with notifications that have been aggregated on behalf of the client.

And insert following pull point descriptions as the third paragraph of section 9.1.2 *Pull messages*

The response behavior shall be one of three types:

- If there are one or more messages waiting (i.e., aggregated) when the request arrives, the device shall immediately respond with the waiting messages, up to the MessageLimit. The

device shall not discard unsent messages, but shall await the next PullMessages request to send remaining messages.

- If there are no messages waiting, and the device generates a message (or multiple simultaneous messages) prior to reaching the Timeout, the device shall immediately respond with the generated messages, up to the MessageLimit. The device shall not wait for additional messages before returning the response.
- If there are no messages waiting, and the device does not generate any message prior to reaching the Timeout, the device shall respond with zero messages. The device shall not return a response with zero messages prior to reaching the Timeout.

2254 recvonly and sendonly in SDP record

Replace fourth paragraph at section 5.3.2 *Connection setup for a bi- directional connection* in Streaming specification

A SDP file is used to describe the session. The server shall include the a=sendonly or the a=recvonly attributes in each media section of the SDP file to indicate the direction the media data will be send.

With

A SDP file is used to describe the session. To indicated the direction of the media data the server shall include the a=sendonly in each media section representing media being sent from the client to the server and a=recvonly attributes in each media section representing media being sent from the server to the client.

2258 Clarification required for GetRecordingOptions->JobOptions->CompatibleSources

Replace following description about RESPONSE parameter **JobOptions/ CompatibleSources** at section 5.20 *GetRecordingOptions* in Recording Control Service specification.

CompatibleSources: A device that supports recording of a restricted set of Media Service Profiles shall return the list of profiles that can be recorded on the given Recording.

With

CompatibleSources: A device that supports recording of a restricted set of Media/Media2 Service Profiles shall return the list of profiles that can be recorded on the given Recording.

And replace corresponding annotation under definition complexType "RecordingOptions" in recording.wsdl.

```
<xs:attribute name="CompatibleSources" type="tt:StringAttrList">
  <xs:annotation>
```

```
<xs:documentation>A device that supports recording of a restricted set of Media Service Profiles returns the list of profiles that can be recorded on the given Recording.</xs:documentation>
```

```
</xs:annotation>
```

```
</xs:attribute>
```

With

```
<xs:attribute name="CompatibleSources" type="tt:StringAttrList">
```

```
<xs:annotation>
```

```
<xs:documentation>A device that supports recording of a restricted set of Media/Media2 Service Profiles returns the list of profiles that can be recorded on the given Recording.</xs:documentation>
```

```
</xs:annotation>
```

```
</xs:attribute>
```

2259 Remove TLS version requirement

Add a following reference into section 2 *Normative References* in Advanced Security Service specification.

RFC 5246 The Transport Layer Security (TLS) Protocol Version 1.2

<<http://www.ietf.org/rfc/rfc5246.txt>>

And remove a following sentence from description about a parameter *TLSServerSupported* at section 5.5.5 *Capability-implied Requirements Table 53: Requirements implied by Capabilities* ,

If not empty, the value 1.0 shall be contained in the list of supported TLS versions.

2267 Wrong element name in example

Replace a following line of XML example at *Annex C. Example for GetServices Response with capabilities* in ONVIF Core specification.

```
<tds:MiscCapabilities AuxiliaryCommands="" />
```

With

```
<tds:Misc AuxiliaryCommands="" />
```

2275 Add Audio Backchannel SDP example when a device support multiple audio decoders under certain AudioDecoderConfiguration

Add following sentence into the end of last paragraph at section 5.3.2 *Connection setup for a bi-*

directional connection in Streaming specification.

The payload type and the encoded bitstream shall be matched with one of the `a=rtpmap` fields provided by the server so that the server can properly determine the audio decoder.

And create a new section 5.3.2.3 *Example 3: Server with Onvif backchannel support (with multiple decoding capability)*

2276 recommend annotation for new class 'Type'.

Add an annotation to new '**Type**' element just under *ClassDescription* in `metadastream.xsd`. As replace

```
<xs:element name="Type" type="tt:StringLikelihood" minOccurs="0" maxOccurs="unbounded"/>
```

With

```
<xs:element name="Type" type="tt:StringLikelihood" minOccurs="0" maxOccurs="unbounded">
```

```
  <xs:annotation>
```

```
    <xs:documentation>ONVIF recommends to use this 'Type' element instead of 'ClassCandidate'  
    and 'Extension' above for new design.</xs:documentation>
```

```
  </xs:annotation>
```

```
</xs:element>
```

2281 Obsolete class type extension with mandatory any element

Replace an extension definition of minimum count about '**##any**' under definition `complexTypeOtherType` in `metadastream.xsd`.

```
<xs:any namespace="##any" processContents="lax" minOccurs="1" maxOccurs="unbounded"/>
```

```
  <!-- first Vendor then ONVIF -->
```

With

```
<xs:any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
```

```
  <!-- first Vendor then ONVIF -->
```

2282 [GetOSDOptions] Possible misprint in ONVIF Media2 Spec

Correct a REQUEST parameter description to match to wsdl at section 5.9.6 *GetOSDOptions* in Media2 Service specification, replacing

- **ConfigurationToken** - optional [tt:ReferenceToken]

With

- **ConfigurationToken** - [tt:ReferenceToken]

And correct typo on fault code explanation, replacing

- **env:Sender - ter:InvalidArgVal - ter:NoConfig**

The requested OSD token OSDToken does not exist.

With

- **env:Sender - ter:InvalidArgVal - ter:NoConfig**

The requested video source configuration ConfigurationToken does not exist.

2284 clarification for RTP timestamps in case of Revere Replay (with B Frames)

Insert a following sentence to clarify in case of streaming containing B-frames at end of section 6.6.3 *RTP timestamps* in Streaming specification.

Note that strict decreasing order of RTP timestamps does not apply for GOPs with B-Frames.

2285 Websocket URI example should be updated

Replace an example sentence at section 7.3.1.2 *Example: WebSocket Handshake* in Streaming specification.

An example WebSocket URI may look like, “ws://192.168.0.1/webSocketServer”

With

An example WebSocket URI may look like, “ws:/webSocketServer”

2286 Encoding type for VideoSourceMode@Media2 should use VideoEncodingMimeNames

Replace an annotation of simpleType EncodingTypes in ver20/media/wsd/mediawsd

```
<xs:simpleType name="EncodingTypes">
  <xs:annotation>
    <xs:documentation>Indication which encodings are supported for this video source. The list
may contain one or more enumeration values of tt:VideoEncoding.</xs:documentation>
  </xs:annotation>
  <xs:list itemType="xs:string"/>
</xs:simpleType>
```

With


```

<xs:simpleType name="EncodingTypes">
  <xs:annotation>
    <xs:documentation>Indication which encodings are supported for this video source. The list
may contain one or more enumeration values of tt:VideoEncodingMimeNames, and see IANA Media
Types</a>.</xs:documentation>
  </xs:annotation>
  <xs:list itemType="xs:string"/>
</xs:simpleType>

```

And replace an annotation of *Encodings* element in complexType *VideoSourceMode*

```

<xs:complexType name="VideoSourceMode">
  <xs:sequence>
    ...
    <xs:element name="Encodings" type="tr2:EncodingTypes">
      <xs:annotation>
        <xs:documentation>Indication which encodings are supported for this video source. The list
may contain one or more enumeration values of tt:VideoEncoding.</xs:documentation>
      </xs:annotation>
    </xs:element>

```

With

```

<xs:complexType name="VideoSourceMode">
  <xs:sequence>
    ...
    <xs:element name="Encodings" type="tr2:EncodingTypes">
      <xs:annotation>
        <xs:documentation>Indication which encodings are supported for this video source. The list
may contain one or more enumeration values of tt:VideoEncodingMimeNames, and see IANA Media
Types</a>.</xs:documentation>
      </xs:annotation>
    </xs:element>

```

2297 Media2 wsdl:operation GetVideoEncoderConfigurationOptions documentation

Remove underlined sentences from documentation part of *wsdl:operation* *name="GetVideoEncoderConfigurationOptions"* in *ver20/media/wsdl/media.wsdl*.

<wsdl:documentation>This operation returns the available options (supported values and ranges for video encoder

configuration parameters) when the video encoder parameters are reconfigured.

For JPEG, MPEG4 and H264 extension elements have been defined that provide additional information. A device must provide the

XxxOption information for all encodings supported and should additionally provide the corresponding XxxOption2 information.

This response contains the available video encoder configuration options. If a video encoder configuration is specified,

the options shall concern that particular configuration. If a media profile is specified, the options shall be

compatible with that media profile. If no tokens are specified, the options shall be considered generic for the device.

</wsdl:documentation>

2300 Deprecated use of the event AccessControl/Denied/CredentialNotFound/Card

Replace clarification at section 6.5.4 *CredentialNotFound* in Access Control Service specification.

Under some circumstances a device may be not able to resolve authentication data to a credential token. Whenever this happens the device should provide a corresponding event message as per the following sub-sections.

Depending on which authentication factors were used message payload may differ. Currently only a single subset is defined.

With

Under some circumstances a device may be not able to resolve authentication data to a credential token.

Whenever there is no credential matching the request stored in the device, the device shall provide the following event:

Topic: tns1:AccessControl/Denied/CredentialNotFound

<tt:MessageDescription IsProperty="false">

<tt:Source>

<tt:SimpleItemDescription Name="AccessPointToken"

Type="pt:ReferenceToken" />

</tt:Source>

<tt>Data>

<tt:SimpleItemDescription Name="IdentifierType"

Type="xs:string" />

```
<tt:SimpleItemDescription Name="IdentifierValue"
Type="xs:hexBinary" />
</tt:Data>
</tt:MessageDescription>
```

The content of the Identifier type string must be one of the formats listed in the Credential Specification (e.g. pt:Card) or a vendor-specific string.

The content of the Identifier value string must the contain credential number, PIN or any other string identifying the credential that could not be found.

And add a following notice into the top of section 6.6.4.1 Card

Please note that the use of this event is provided for backward compatibility reasons. See also CredentialNotFound.

2305 Remove mention of Rectangle structure from Motion Region Detector

Replace the description Annex C.1 Motion Region Detector in Analytics Service specification.

Region Motion detector detects any motion against the specified motion region. The rule is configured for an area (region of interest on the image source) which can be armed or disarmed. The region may be defined by a Rectangle or Polygon structure but cannot be defined by both. Although this rule is defined within the context of the Analytics service, it is intended to allow configuration of hardware motion detection as opposed to motion detection from scene description data.

With

Region Motion detector detects any motion against the specified motion region. The rule is configured for an area (region of interest on the image source) which can be armed or disarmed. The region is defined by a Polygon structure. Although this rule is defined within the context of the Analytics service, it is intended to allow configuration of hardware motion detection as opposed to motion detection from scene description data.

Replace annotation of element "**PolygonSupport**" under *MotionRegionConfigOptions* complex type definition in rules.xsd.

```
<xs:element name="PolygonSupport" type="xs:boolean" minOccurs="0">
  <xs:annotation>
    <xs:documentation>
```

True if the device supports defining a region using a Polygon instead of a Rectangle.

With

```
<xs:element name="PolygonSupport" type="xs:boolean" minOccurs="0">
  <xs:annotation>
```

<xs:documentation>

True if the device supports defining a region using a Polygon instead of a rectangle.

The rectangle points are still passed using a Polygon element if the device does not support polygon regions.

In this case, the points provided in the Polygon element shall represent a rectangle.

2306 MaxRegions and maxInstances are ambiguous

Add a clarification sentence to lead using maxInstances parameter. At the end of function description paragraph at section 5.2.3.1 *GetSupportedRules* in Analytics Service specification,

The device shall indicate its limit for maximum number of rules through the maxInstances attribute.

And add the following into the end of function description paragraph at section 5.3.3.1 *GetSupportedAnalyticsModules*,

The device shall indicate its limit for maximum number of analytics modules through the maxInstances attribute.

And add the following into the end of parameter description of “*MaxRegions*” in *Table C-2 Motion Region Detector Rule configuration options* at Annex C.1 *Motion Region Detector*,

This element is deprecated. maxInstances in the GetSupportedRules shall be used instead.

And replace the corresponding annotation of “*MaxRegions*” in rules.xsd,

```
<xs:element name="MaxRegions" type="xs:int" minOccurs="0">
```

```
<xs:annotation>
```

```
<xs:documentation>
```

```
The total number of Motion Region Detector rules that can be created on the device.
```

With

```
<xs:element name="MaxRegions" type="xs:int" minOccurs="0">
```

```
<xs:annotation>
```

```
<xs:documentation>
```

```
The total number of Motion Region Detector rules that can be created on the device.
```

```
This element is deprecated. maxInstances in the GetSupportedRules shall be used instead.
```

2312 Policy on optional parameters

Add following paragraph as the second paragraph after example operation table: *Table 4* at section 5.6.1 *General* in ONVIF Core specification.

If a request message which modifies the state of the device includes the definition of an optional element, and the optional element is not present in the request message, the device should treat the contents of that element as if it contains the current state value. Specific operations may override this treatment of optional elements, in which case the behaviour is specified in the operation's description.