



ISO/IEC 21000-5/Amd2

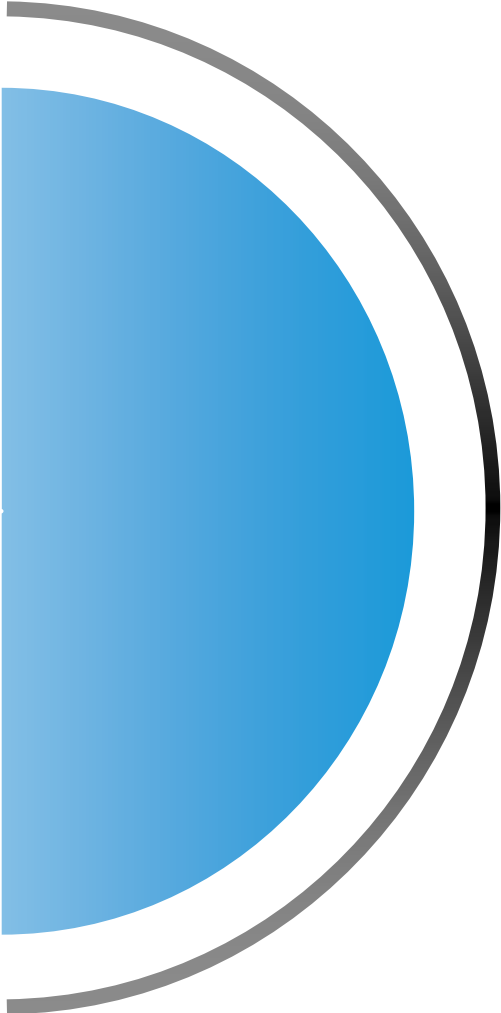
# DAC Profile of Rights Expression Language(REL)

DRM *inside*

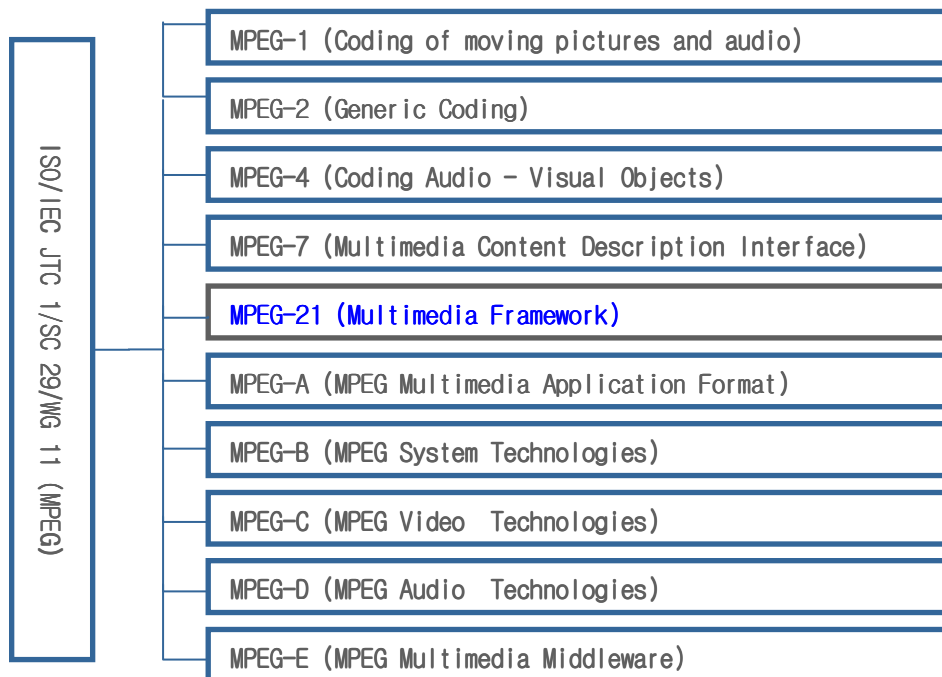


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2008. 4. 27

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- I. Introduction to MPEG-21 REL
  - II. DAC Profile Overview
  - III. Interoperability with Other Standards
  - IV. Summary

# MPEG-21 REL



- Part 1, Vision, Technologies and Strategies
- Part 2, DID (Digital Item Declaration)
- Part 3, DII (Digital Item Identification & Description)
- Part 4, IPMP ( Intellectual Property Management & Protection )
- Part 5, REL (Rights Expression Language)**
- Part 6, RDD (Rights Data Dictionary)
- Part 7, DIA (Digital Item Adaptation)
- Part 8, Reference S/W
- Part 9, File Format
- Part 10, Digital Item Processing
- Part 11, Evaluation Method for Persistent Association Technologies
- Part 12, Test Bed for MPEG-21 Resource Delivery
- Part 14, Conformance
- Part 15, Event Reporting
- Part 16, Binary Format
- Part 17, Fragment Identification of MPEG resources
- Part 18, Digital Item Streaming



Amendment 1 : MAM Profile (ISO/IEC 21000-5/Amd1)

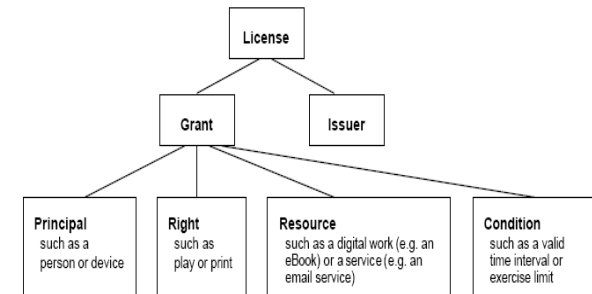
Amendment 2 : DAC Profile (ISO/IEC 21000-5/Amd2)

Amendment 3 : OAC Profile (ISO/IEC 21000-5/Amd3)

# MPEG-21 REL Profiles

## ■ Base

- ISO/IEC 21000-5:2004
- General REL for using digital content



## ■ MAM (Mobile And optical Media) Profile

- ISO/IEC 21000-5:2004/Amd1:2007
- An REL for using digital content on mobile and optical media



## ■ DAC (Dissemination And Capture) Profile


- ISO/IEC 21000-5:2004/Amd2:2007
- An REL for using broadcast content in a plurality of domains



## ■ OAC (Open Access Content) Profile

- ISO/IEC 21000-5:2004/Amd3:2008 (Exp.)
- An REL for using digital content in open release and access



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# Requirements for DAC Profile

## ■ Initial Requirements

### **Extended Conditions for Broadcast Contents**

- Time-shift operation
  - Trick play control
- Space-shift operation
  - Output signal control
  - Storing control
  - Redistribution control
  - Simultaneous access control

## ■ Additional Requirements

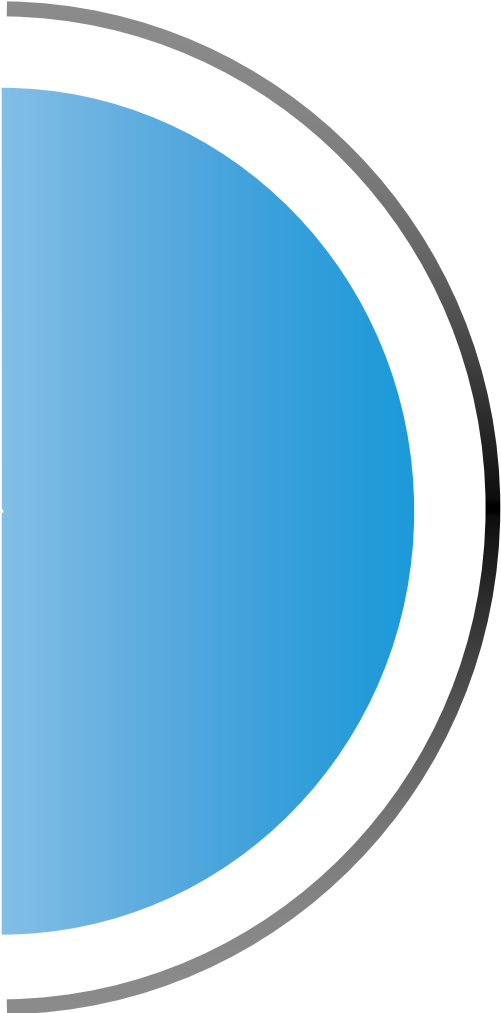
### **Expressing existing rights information standards**

- CCI from OpenCable
- RMPI from TV-Anytime
- USI from DVB-CPCM
- RO from OMA DRM v2.0 Extensions for B-cast
- Broadcast Flag from FCC



# History and Result

Item		Content
History		<ul style="list-style-type: none"> <li>• PuC : 2005.10</li> <li>• ISO/IEC 21000-5:2004/PDAM 2 : 2006.1</li> <li>• ISO/IEC 21000-5:2004/FPDAM2 : 2006.7</li> <li>• ISO/IEC 21000-5:2004/FDAM2 : 2006.10</li> <li>• ISO/IEC 21000-5:2004/DAM2 : 2007.1</li> <li>• ISO/IEC 21000-5:2004/AMD2 : 2007.9</li> </ul>
Result	Profiling	Inherit from MAM profile
	Extend Rights	<ul style="list-style-type: none"> <li>• m2x:export</li> <li>• m2x:extendRights</li> </ul>
	Extend Conditions	<ul style="list-style-type: none"> <li>• m2x:destinationPrincipal</li> <li>• m2x:destinationCondition</li> <li>• m2x:noSkipConstraint</li> <li>• m2x:proximity</li> <li>• m2x:scrambling</li> <li>• m2x:securitySystem</li> <li>• m2x:simultaneousAccess</li> <li>• m2x:timedExerciseLimit</li> <li>• m2x:timeShiftDuration</li> </ul>

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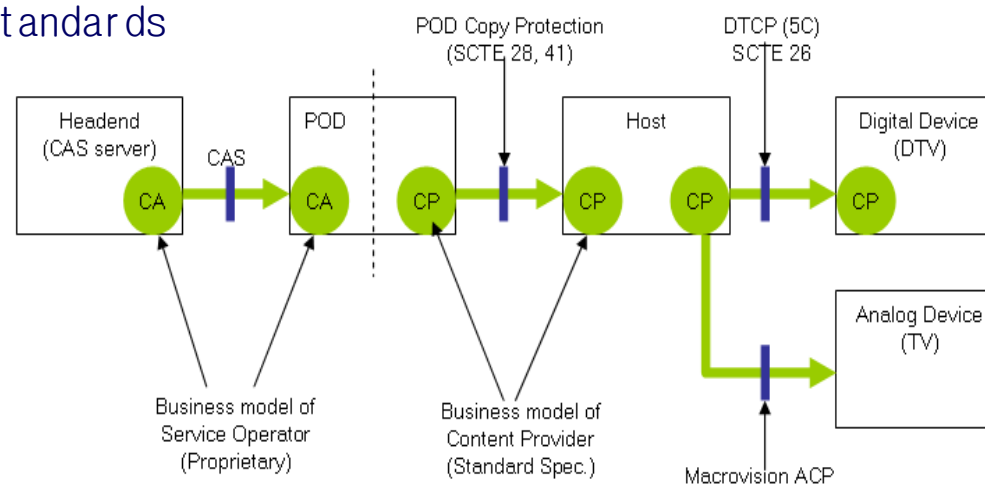


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- III. Interoperability with Other Standards

1. OpenCable's CCI
2. TV-Anytime's RMPI
3. DVB-CPCM's USI
4. OMA 2.0's RO for B-cast

## IV. Summary



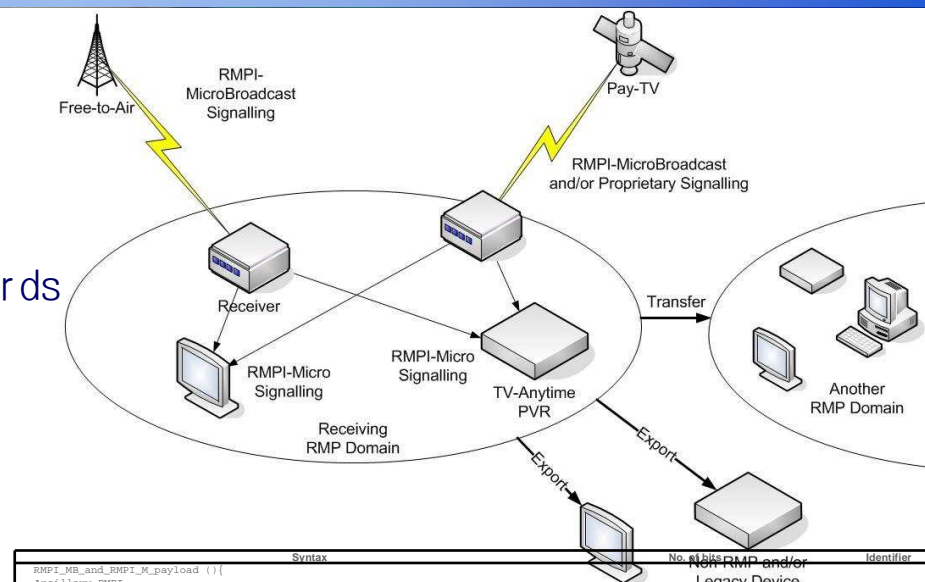
CCI Bits #	7	6	5	4	3	2	1	0
POD sets to	0	0	0	0	APS1	APS0	EMI1	EMI0
Host interprets as	rsvd	rsvd	rsvd	rsvd	APS1	APS0	EMI1	EMI0

- Copy Control Information: Rights information for digital broadcast or VOD contents on conditional access system, which controls unauthorized copy and redistribution

CCI field name	MPEG-21 REL DAC Profile
COPY_FREE	<m1x:governedCopy/>
COPY_ONCE	<m1x:governedCopy governanceRule="acme:CopyOnce"/>
COPY_NEVER	None or <m2x:timeShiftDuration> <m2x:duration>PT0S<m2x:duration> </m2x:timeShiftDuration>
COPY_NO_MORE	None

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Syntax	No. of RMP and/or Legacy Device	Identifier
RMPI_MB_and_RMPI_M_payload ()		
Ancillary RMPI	1	balbf
RMPI_type_flag	15	balbf
Version_of_RMPI	128	balbf
Origin_of_RMPI	1	balbf
Scrambling_control	4	balbf
Cipher		
Extend Rights (Grant is common to Receiving Domain and Any Domain)		
Extend_rights_flag	1	balbf
Security_level	2	uimabf
Source_of_additional_rights	128	balbf
Grant to Receiving Domain		
Domain_ID	128	balbf
Play_Right_flag	1	balbf
Analog_export_right_flag	1	balbf
Digital_export_SD_right_flag	1	balbf
Digital_export_HD_right_flag	1	balbf
Buffer_duration	2	balbf
Security_level	2	uimabf
Time_window_start_date	16	uimabf
Time_window_end_date	16	uimabf
Geographic_control	128	balbf
Analog_export_signalling	2	balbf
Analog_SD_control	1	balbf
Standard_Definition_digital_export_control	2	balbf
High_Definition_digital_export_control	2	balbf
Reserved_for_future_use	1	balbf
Single_point_of_control_flag	1	balbf
Physical_proximity_flag	1	balbf
Simultaneous_rendering_count	4	uimabf
Reserved_for_future_use	2	balbf
Single_point_of_control_ID	128	balbf
Grant to Any Domain		
Play_Right_flag	1	balbf
Analog_export_right_flag	1	balbf
Digital_export_SD_right_flag	1	balbf
Digital_export_HD_right_flag	1	balbf
Buffer_duration	2	balbf
Security_level	2	uimabf
Time_window_start_date	16	uimabf
Time_window_end_date	16	uimabf
Geographic_control	128	balbf
Analog_export_signalling	2	balbf
Analog_SD_control	1	balbf
Standard_Definition_digital_export_control	2	balbf
High_Definition_digital_export_control	2	balbf
Reserved_for_future_use	1	balbf

# TV-Anytime RMPI Overview

- Rights Management and Protection Information : Rights information for digital broadcast and VOD contents in the home networking based on STB and PVR

Category		Grants
Receiving Domain	Rights	Play, Analogue Export, Digital Export(SD/HD)
	Constraints	Single point of control, Domain, Simultaneous Rendering Count, Physical Proximity, Buffer Duration, Time Window Start/End, Digital Export Control (SD/HD), Analogue Export Signaling, Analogue SD Control
Any Domain	Rights	Play, Analogue Export, Digital Export(SD/HD)
	Constraints	Geographic Control, Buffer Duration, Time Window Start/End Digital Export Control(SD/HD), Analogue Export Signaling, Analogue SD Control
Ancillary		Cipher Algorithm, Scrambling control, Version of RMPI Origin of RMPI, RMPI-Type flag
Extended Rights		Security Level, Source of Additional Rights

# TV-Anytime RMPI (Rights)

TV-Anytime RMPI	MPEG-21 REL DAC Profile
Play	<mx:play/>
Analogue Export	<m2x:export/>
Digital SD Export	<m1x:outputRegulation> <m1x:regulation typeOfSignal="digital analog" qualityOfSignal="SD HD"/> </m1x:regulation> </m1x:outputRegulation>
Digital HD Export	
Extend Right Granted	<m2x:extendRights>

# TV-Anytime RMPI (Basic Control)

TV-Anytime RMPI	MPEG-21 REL DAC Profile
Single point of control	<pre>&lt;m1x:identityHolder&gt;   &lt;m1x:idValue&gt;DEVICE-ID&lt;/m1x:idValue&gt; &lt;/m1x:identityHolder&gt;</pre>
Domain	<pre>&lt;m1x:identityHolder&gt;   &lt;m1x:idValue&gt;DOMAIN-ID&lt;/m1x:idValue&gt; &lt;/m1x:identityHolder&gt;</pre>
Simultaneous Rendering Count	<pre>&lt;m2x:simultaneousAccess&gt;   &lt;m2x:count&gt;COUNT&lt;/m2x:count&gt; &lt;/m2x:simultaneousAccess&gt;</pre>
Physical Proximity	<pre>&lt;m2x:proximity/&gt;</pre>
Geographic Control	<pre>&lt;sx:territory&gt;   &lt;sx:location&gt;     &lt;sx:country&gt;COUNTRY&lt;/sx:country&gt;     &lt;sx:region&gt;REGION&lt;/sx:region&gt;   &lt;/sx:location&gt; &lt;/sx:territory&gt;</pre>
Buffer Duration	<pre>&lt;m2x:timeShiftDuration&gt;   &lt;m2x:duration&gt;DURATION&lt;/m2x:duration&gt; &lt;/m2x:timeShiftDuration&gt;</pre>
Security Level	<pre>&lt;m2x:securitySystem&gt;   &lt;m2x:level&gt;SECURITY_LEVEL&lt;/m2x:level&gt; &lt;/m2x&gt;</pre>
Time Window Start/End	<pre>&lt;r:validityInterval&gt;   &lt;r:notBefore&gt;BEFORE_DATE_TIME&lt;/r:notBefore&gt;   &lt;r:notAfter&gt;AFTER_DATE_TIME&lt;/r:notAfter&gt; &lt;/r:validityInterval&gt;</pre>



# TV-Anytime RMPI (Output Control 1)

TV-Anytime RMPI		MPEG-21 REL DAC Profile
SD HD Digital Export Control	Immediate Viewing	<pre> &lt;r:allConditions&gt;   &lt;m1x:outputRegulation&gt;     &lt;m1x:regulation typeOfSignal="digital" qualityOfSignal="SD HD"/&gt;   &lt;/m1x:outputRegulation&gt;   &lt;m2x:destinationCondition&gt;     &lt;m2x:timeShiftDuration&gt;       &lt;m2x:duration&gt;PT0S&lt;/m2x:duration&gt;     &lt;/m2x:timeShiftDuration&gt;   &lt;/m2x:destinationCondition&gt; &lt;/r:allConditions&gt; </pre>
	Storage Bound	<pre> &lt;m1x:outputRegulation&gt;   &lt;m1x:regulation typeOfSignal="digital" qualityOfSignal="SD HD"/&gt; &lt;/m1x:outputRegulation&gt; </pre>
	RMP Trusted	<pre> &lt;r:allConditions&gt;   &lt;m1x:outputRegulation&gt;     &lt;m1x:regulation typeOfSignal="digital" qualityOfSignal="SD HD"/&gt;   &lt;/m1x:outputRegulation&gt;   &lt;m2x:destinationPrincipal&gt;     &lt;m1x:identityHolder&gt;       &lt;m1x:idValue&gt;urn:tva:rmp&lt;/m1x:idValue&gt;     &lt;/m1x:identityHolder&gt;   &lt;/m2x:destinationPrincipal&gt; &lt;/r:allConditions&gt; </pre>



# TV-Anytime RMPI (Output Control 2)

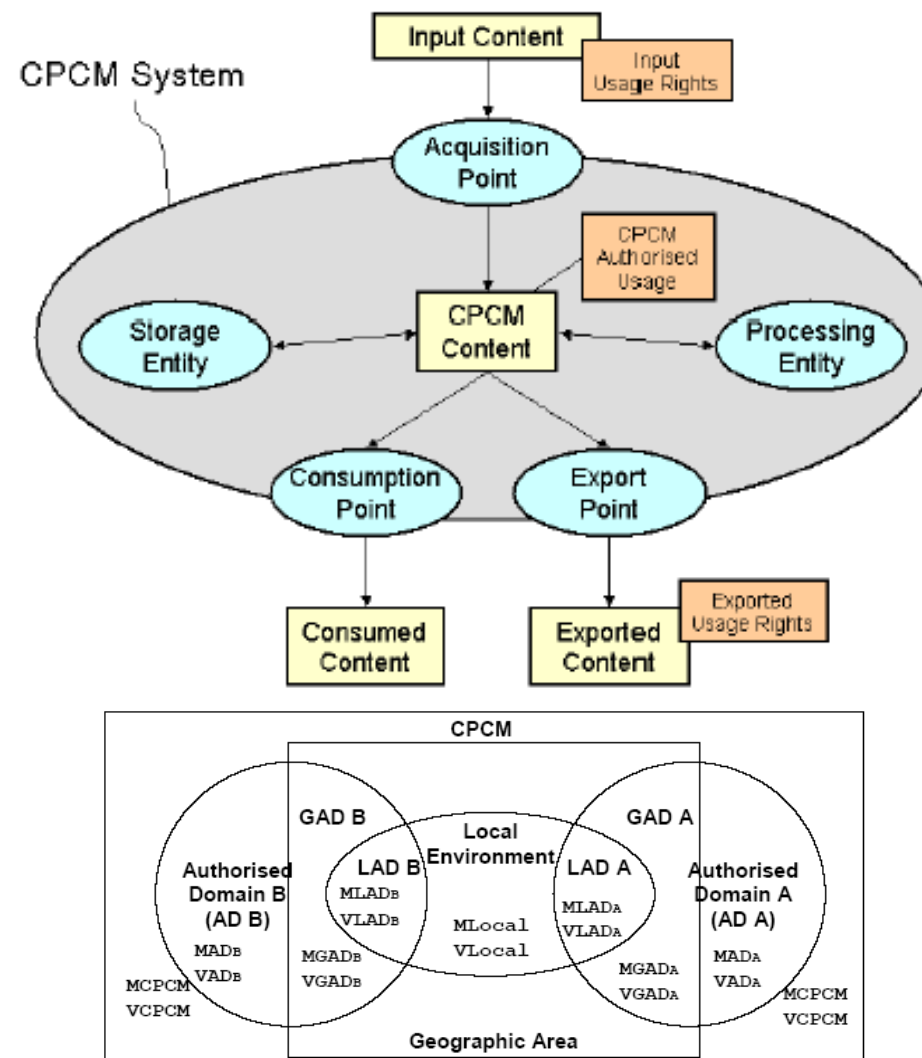
TV-Anytime RMPI		MPEG-21 REL DAC Profile
Analogue Export Signaling	Immediate Viewing	<pre> &lt;r:allConditions&gt;   &lt;m1x:outputRegulation&gt;     &lt;m1x:regulation typeOfSignal="analog"/&gt;   &lt;/m1x:outputRegulation&gt;   &lt;m2x:destinationCondition&gt;     &lt;m2x:timeShiftDuration&gt;       &lt;m2x:duration&gt;PT0S&lt;/m2x:duration&gt;     &lt;/m2x:timeShiftDuration&gt;   &lt;/m2x:destinationCondition&gt; &lt;/r:allConditions&gt; </pre>
	Storage Bound	<pre> &lt;m1x:outputRegulation&gt;   &lt;m1x:regulation typeOfSignal="analog"/&gt; &lt;/m1x:outputRegulation&gt; </pre>
Analogue SD Control	<pre> &lt;m1x:outputRegulation&gt;   &lt;m1x:regulation     typeOfSignal="analog"     qualityOfSignal="SD"&gt;CONSTRAINT&lt;/m1x:regulation&gt; &lt;/m1x:outputRegulation&gt; </pre>	

# TV-Anytime RMPI (Ancillary)

TV-Anytime RMPI	MPEG-21 REL DAC Profile
Cipher Algorithm	<code>&lt;m1x:protectedResource&gt;   &lt;xenc:encryptedData&gt;     &lt;xenc:encryptedMethod algorithm="ALGORITHM"/&gt;   &lt;/xenc:encryptedData&gt; &lt;/m1x:protectedResource&gt;</code>
Scrambling control	<code>&lt;m2x:scrambling/&gt;</code>
Version of RMPI	<code>&lt;r:license sx:profileCompliance="mpeg-rel-dac v1.0"&gt;</code>
Origin of RMPI	<code>&lt;r:issuer&gt;</code>
RMPI-Type flag	N/A

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# DVB-CPCM's USI Overview

- Usage State Information: Rights information for Content Protection & Copy Management of commercial digital content delivered to consumer products and home networks

Control Type	USI Field Name
Copy & Movement	CCI (CCNA, C1, CNM, CN), Zero Retention
Consumption	View Window, View Period From First Playback, Simultaneous View Count
Propagation	Movement and Copying Propagation Information (MLAD, MGAD, MAD, MCPCM), Viewing Propagation Information (VLAD, VGAD, VAD, VCPCM), Remote Access Rule (Delay Field, Record Flag, Date Field), Proximity-based (M-Local, V-Local)
Output	Export/Output Controlled CPS, Untrusted Export, Disable Analogue Export/Consumption(SD/HD), Image Constraint
Ancillary	Do not CPCM Scramble

# DVB-CPCM USI (C&M Control)

USI Field		MPEG-21 REL DAC Profile
CCI		Not applicable
	CCNA	<m1x:governedCopy/> or <m1x:governedMove/>
	C1	<m1x:governedCopy m1x:governanceRule = "acme:CopyOnce"> or <m1x:governedMove m1x:governanceRule = "acme:MoveOnce">
	CNM	None
	CN	None
Zero Retention		<m2x:timeShiftDuration> <m2x:duration>PT0S<m2x:duration> </m2x:timeShiftDuration>

# DVB-CPCM USI (Consumption Control)

USI Field	MPEG-21 REL DAC Profile
Viewable(V)	<mx:play>
View Window	<r:validityInterval> <r:notBefore>BEFORE_DATE_TIME</r:notBefore> <r:notAfter>AFTER_DATE_TIME</r:notAfter> </r:validityInterval>
View Period From First Playback	<sx:validityIntervalFloating> <sx:duration>PERIOD</sx:duration> </sx:validityIntervalFloating>
Simultaneous View Count	<m2x:simultaneousAccess> <m2x:count>COUNT</m2x:count> </m2x:simultaneousAccess>

# DVB-CPCM USI (Propagation AD1)

USI Field	MPEG-21 REL DAC Profile
<b>MLAD</b> (Copying and/or Movement within the same Localized AD is allowed)	<pre>&lt;r:allConditions&gt;   &lt;m2x:destinationPrincipal&gt;     &lt;m1x:identityHolder&gt;       &lt;m1x:idValue&gt;DOMAIN-ID&lt;/m1x:idValue&gt;     &lt;/m1x:identityHolder&gt;   &lt;/m2x:destinationPrincipal&gt;   &lt;m2x:destinationCondition&gt;     &lt;m2x:proximity/&gt;   &lt;/m2x:destinationCondition&gt; &lt;/r:allConditions&gt;</pre>
<b>MAD</b> (Copying and/or Movement within the same Authorized Domain is allowed)	<pre>&lt;m2x:destinationPrincipal&gt;   &lt;m1x:identityHolder&gt;     &lt;m1x:idValue&gt;DOMAIN-ID&lt;/m1x:idValue&gt;   &lt;/m1x:identityHolder&gt; &lt;/m2x:destinationPrincipal&gt;</pre>
<b>MCPCM</b> (Copying and/or Movement to any CPCM-compliant Storage Entity is allowed)	<pre>&lt;m2x:destinationPrincipal&gt;   &lt;m1x:identityHolder&gt;     &lt;m1x:idValue&gt;urn:DVB-CPCM&lt;/m1x:idValue&gt;   &lt;/m1x:identityHolder&gt; &lt;m2x:destinationPrincipal&gt;</pre>



# DVB-CPCM USI (Propagation AD2)

USI Field	MPEG-21 REL DAC Profile
MGAD (Copying and/or Movement within the same Geographically- constrained AD is allowed)	<pre>&lt;r:allConditions&gt;   &lt;m2x:destinationPrincipal&gt;     &lt;m1x:identityHolder&gt;       &lt;m1x:idValue&gt;DOMAIN-ID&lt;/m1x:idValue&gt;     &lt;/m1x:identityHolder&gt;   &lt;/m2x:destinationPrincipal&gt;   &lt;m2x:destinationCondition&gt;     &lt;sx:territory&gt;       &lt;sx:location&gt;         &lt;sx:country&gt;COUNTRY&lt;/sx:country&gt;         &lt;sx:region&gt;REGION&lt;/sx:region&gt;       &lt;/sx:location&gt;     &lt;/sx:territory&gt;   &lt;/m2x:destinationCondition&gt; &lt;/r:allConditions&gt;</pre>

# DVB-CPCM USI (Propagation RA)

USI Field	MPEG-21 REL DAC Profile
Remote Access Date Moving Window Flag (To allow remote access a specified period of time after acquisition of content)	<m2x:destinationCondition> <r:validityInterval> <r:notBefore>BEFORE_DATE</r:notBefore> <r:notAfter>AFTER_DATE</r:notAfter> </r:validityInterval> </m2x:destinationCondition>
Remote Access Record Flag (To allow remote access after recording of content is completed)	N/A
Remote Access Date Immediate Flag (To allow remote access of a content commencing on a specified date )	<m2x:destinationCondition> <r:validityInterval> <r:notBefore>BEFORE_DATE</r:notBefore> </r:validityInterval> </m2x:destinationCondition>

# DVB-CPCM USI (Proximity)

USI Field	MPEG-21 REL DAC Profile
MLocal	<code>&lt;m1x:govenedCopy&gt; or &lt;m1x:govenedMove&gt;</code> <code>&lt;m2x:destinationCondition&gt;</code> <code>&lt;m2x:proximity/&gt;</code> <code>&lt;/m2x:destinationCondition&gt;</code>
Vlocal	<code>&lt;mx:play&gt;</code> <code>&lt;m2x:destinationCondition&gt;</code> <code>&lt;m2x:proximity/&gt;</code> <code>&lt;/m2x:destinationCondition&gt;</code>

# DVB-CPCM USI (Output Control)

USI Field	MPEG-21 REL DAC Profile
Export/Output Controlled CPS	<pre>&lt;m2x:export&gt; &lt;m1x:outputRegulation&gt;   &lt;m1x:regulation&gt;CPS_NAME&lt;/m1x:regulation&gt; &lt;/m1x:outputRegulation&gt;</pre>
Untrusted Export	<pre>&lt;m2x:export&gt;</pre>
Disable Analogue SD HD Export / Consumption	<pre>&lt;m2x:export/&gt; or &lt;mx:play/&gt; &lt;m1x:outputRegulation&gt;   &lt;m1x:regulation     typeOfSignal="analog"     qualityOfSignal="HD SD"/&gt;   &lt;m1x:regulation typeOfSignal="digital"/&gt; &lt;/m1x:outputRegulation&gt;</pre>
Image Constraint (No more than 520,000 pixels per frame, e.g. 960 x 540 )	<pre>&lt;m1x:outputRegulation&gt;   &lt;m1x:regulation&gt;CONSTRAINT&lt;/m1x:regulation&gt; &lt;/m1x:outputRegulation&gt;</pre>
<b>Ancillary</b>	
Do not CPCM Scramble(DNCS)	None of <m2x:scrambling>

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## IV. Summary

```
<!ELEMENT o-ex:permission (o-ex:constraint?, o-ex:asset*, o-dd:play?, o-dd:display?, o-  
dd:execute?, o-dd:print?, oma-dd:export?, oma-dd:access?, oma-dd:save?)>  
<!ELEMENT o-dd:play (o-ex:constraint?)>  
<!ELEMENT o-dd:display (o-ex:constraint?)>  
<!ELEMENT o-dd:execute (o-ex:constraint?)>  
<!ELEMENT o-dd:print (o-ex:constraint?)>  
<!ELEMENT o-ex:constraint (o-dd:count?, oma-dd:timed-count?, o-dd:datetime?, o-dd:interval?,  
o-dd:accumulated?, o-dd:individual?, oma-dd:system*)>  
<!ELEMENT o-dd:count (#PCDATA)>  
<!ELEMENT oma-dd:timed-count (#PCDATA)>  
<!ATTLIST oma-dd:timed-count  
oma-dd:timer CDATA #IMPLIED  
>  
<!ELEMENT o-dd:datetime (o-dd:start?, o-dd:end?)>  
<!ELEMENT o-dd:start (#PCDATA)>  
<!ELEMENT o-dd:end (#PCDATA)>  
<!ELEMENT o-dd:interval (#PCDATA)>  
<!ELEMENT o-dd:accumulated (#PCDATA)>  
<!ELEMENT o-dd:individual (o-ex:context)>  
<!ELEMENT oma-dd:export (o-ex:constraint)>  
<!ATTLIST oma-dd:export  
oma-dd:mode (move | copy) #REQUIRED  
>  
<!ELEMENT oma-dd:system (o-ex:context)>  
<!ELEMENT oma-dd:access (o-ex:constraint)>  
<!ELEMENT oma-dd:save (o-ex:constraint)>
```

# OMA 2.0' s RO for B-cast Overview

- Right Object for Broadcast support: Rights information for broadcast content on mobile device, which is intended to be broadcast to receivers in a well-defined repetitive manner.

Category		RO Field Name
Actions	ODRL Profiles	PLAY_ACTION, DISPLAY_ACTION, EXECUTE_ACTION, PRINT_ACTION,
	OMA Extensions	EXPORT_ACTION
	OMA B-cast Extensions	ACCESS_ACTION, SAVE_ACTION
Constraints	ODRL Profiles	Count constraint, Date-Time constraint, Interval constraint Accumulated constraint, individual constraint
	OMA Extensions	Timed-Count constraint, System constraint
	OMA B-cast Extensions	Token-Based constraint

# RO of OMA 2.0 (Actions)

OMA v2.0 B-cast RO	MPEG-21 REL DAC Profile
PLAY_ACTION <o-dd:play/>	<mx:play/>
DISPLAY_ACTION <o-dd:display/>	<mx:play/>
EXECUTE_ACTION <o-dd:execute/>	<mx:execute/>
PRINT_ACTION <o-dd:print/>	<mx:print/>
EXPORT_ACTION <oma-dd:export mode="move"/> <oma-dd:export mode="copy"/>	<m1x:governedMove/> <m2x:governedCopy/>
ACCESS_ACTION <oma-dd:access/>	<mx:play/>
SAVE_ACTION <oma-dd:save/>	<m1x:governedCopy>




# RO of OMA 2.0 (Constraints 1)

OMA v2.0 B-cast RO	MPEG-21 REL DAC Profile
<b>COUNT</b> <o-dd:count>COUNT</o-dd:count>	<sx:exerciseLimit> <sx:count>COUNT</sx:count> </sx:exerciseLimit>
<b>TIMED-COUNT</b> <oma-dd:timed-count timer="SECOND"> <b>COUNT</b> </oma-dd:timed-count>	<m2x:timedExerciseLimit> <m2x:duration>PERIOD</m2x:duration> <m2x:count>COUNT</m2x:count> </m2x:timedExerciseLimit>
<b>DATE-TIME</b> <o-dd:datetime> <o-dd:start>START_DATE_TIME</o-dd:start> <o-dd:end>END_DATE_TIME</o-dd:end>	<r:validityInterval> <r:notBefore> START_DATE_TIME</r:notBefore> <r:notAfter>END_DATE_TIME</r:notAfter> </r:validityInterval>
<b>INTERVAL</b> <o-dd:interval>PERIOD</o-dd:interval>	<sx:validityIntervalFloating> <sx:duration>PERIOD</sx:duration> </sx:validityIntervalFloating>

# RO of OMA 2.0 (Constraints 2)

OMA v2.0 B-cast RO	MPEG-21 REL DAC Profile
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Token-based	N/A

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- I. Introduction to MPEG-21 REL
  - II. DAC Profile Overview
  - III. Interoperability with Other Standards
  - IV. Summary

- ISO/IEC 21000-5:2004/Amd2 ( DAC Profile ) is designed for using broadcast content in a plurality of domains.
- In the result, it has capability of expressing rights information defined in CCI, TV-Anytime RMPI, DVB-CPCM USI and OMA 2.0 RO for B-Cast
- DAC Profile can be considered as an Rights Metadata of IPTV

# Thank You !

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