INTERNATIONAL STANDARD ISO/IEC 21000-15:2006
TECHNICAL CORRIGENDUM 1

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Information technology — Multimedia framework (MPEG-21) —

Part 15:
Event Reporting

TECHNICAL CORRIGENDUM 1

Technologies de l'information — Cadre multimédia (MPEG-21) —

Partie 15: Rapport d'événement

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO/IEC 21000-15:2006 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

ICS 35.040 **Ref. No. ISO/IEC 21000-15:2006/Cor.1:2008(E)**

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In Clause 3, replace:

3.4
Event Report
the representation of an Event(s) as specified by the related Event Report Request

with:

3.4
Event Report
the representation of (an) Event(s)

NOTE An Event Report may be provided as specified by the related Event Report Request or as specified within the specification that adopts this part of ISO/IEC 21000.

EXAMPLE A specification that adopts this part of ISO/IEC 21000 might specify the information assets usually provided within an Event Report Request.

In 5.2, replace:

```
   xmlns:dip="urn:mpeg:mpeg21:2005:01-ERL-NS"
```

with:

```
   xmlns:erl="urn:mpeg:mpeg21:2005:01-ERL-NS"
```

In 5.3, add the following entry to Table 1:

Erl	urn:mpeg:mpeg21:2005:01-ERL-NS

In 7.2.1, replace:

```
<xsd:element name="ERR">

<xsd:complexType>
  <xsd:sequence>
    <xsd:element ref="erl:ERRDescriptor"/>
    <xsd:element ref="erl:ERSpecification"/>
    <xsd:element ref="erl:EventConditionDescriptor"/>
  </xsd:sequence>
</xsd:complexType>
```


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with:

```
<xsd:element name="ERR" type="ERRType">

<xsd:complexType name="ERRType">
  <xsd:sequence>
    <xsd:element ref="erl:ERRDescriptor"/>
    <xsd:element ref="erl:ERSpecification"/>
    <xsd:element ref="erl:EventConditionDescriptor"/>
  </xsd:sequence>
</xsd:complexType>
```

In 8.2.1, replace:

```
<!-- ######################################### -->
<!--       Definition of ER                    -->
<!-- ######################################### -->

<xsd:element name="ER">
<xsd:complexType>
  <xsd:sequence>
    <xsd:element ref="erl:ERDescriptor"/>
    <xsd:element ref="erl:ERData"/>
    <xsd:element ref="erl:EmbeddedERR" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

with:

```
<!-- ######################################### -->
<!--       Definition of ER                    -->
<!-- ######################################### -->

<xsd:element name="ER" type="erl:ERType">
<xsd:complexType name="erl:ERType">
  <xsd:sequence>
    <xsd:element ref="erl:ERDescriptor"/>
    <xsd:element ref="erl:ERData" maxOccurs="unbounded"/>
    <xsd:element ref="erl:EmbeddedERR" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
```

In 8.3.1, replace:

```
<!-- ######################################### -->
<!--   Definition of Event Report Descriptor  -->
<!-- ######################################### -->

<xsd:element name="ERDescriptor">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="Description" type="erl:DescriptionType" minOccurs="0"/>
      <xsd:element name="Recipient" type="erl:RecipientType"/>
      <xsd:element name="Status">
        <xsd:complexType>
          <xsd:attribute name="value" type="xsd:boolean" default="false"/>
```

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```
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="Modification" type="erl:ModificationType" minOccurs="1"
maxOccurs="unbounded"/>
    <xsd:element name="ERSource" maxOccurs="1">
      <xsd:complexType>
       <xsd:choice minOccurs="1">
         <xsd:element ref="erl:ERR" minOccurs="0"/>
         <xsd:element name="ERRReference" type="xsd:anyURI" minOccurs="0"/>
         <xsd:element name="OtherSource" type="xsd:anyURI" minOccurs="0"/>
       </xsd:choice>
      </xsd:complexType>
    </xsd:element>    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

with:

```
<!-- ######################################## -->
<!--   Definition of Event Report Descriptor  -->
<!-- ######################################## -->

<xsd:element name="ERDescriptor">
  <xsd:complexType>
   <xsd:sequence>
    <xsd:element name="Description" type="erl:DescriptionType" minOccurs="0"/>
    <xsd:element name="Recipient" type="erl:RecipientType"/>
    <xsd:element ref="erl:ERPayloadSpecification" minOccurs="0"
maxOccurs="unbounded"/>
    <xsd:element name="Status">
      <xsd:complexType>
       <xsd:attribute name="value" type="xsd:boolean" default="false"/>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="Modification" type="erl:ModificationType" minOccurs="1"
maxOccurs="unbounded"/>
    <xsd:element name="ERSource" maxOccurs="1">
      <xsd:complexType>
       <xsd:choice minOccurs="1">
         <xsd:element ref="erl:ERR" minOccurs="0"/>
         <xsd:element name="ERRReference" type="xsd:anyURI" minOccurs="0"/>
         <xsd:element name="OtherSource" type="xsd:anyURI" minOccurs="0"/>
       </xsd:choice>
      </xsd:complexType>
    </xsd:element>    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

In 8.3.2, append the following row at the end of the table:

ERPayloadSpecification	Provides a specification of the ER. NOTE Enables a receiver of the ER to parse the ER and extract the relevant information without sending an explicit ER-R.

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In 8.4.1, replace:

```
<!-- ########################################### -->
<!--   Definition of ERData                  -->
<!-- ########################################### -->

<xsd:element name="ERData">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="erl:PeerId" minOccurs="0"/>
      <xsd:element ref="erl:UserId" minOccurs="0"/>
      <xsd:element name="Time" type="xsd:dateTime" minOccurs="0"/>
      <xsd:element name="Location" type="mpeg7:PlaceType" minOccurs="0"/>
      <xsd:element name="DII" type="xsd:anyURI" minOccurs="0">
      <xsd:element name="RelatedDII" type="xsd:anyURI" minOccurs="0">
      <xsd:element name="DIOperation" type="xsd:anyURI" minOccurs="0">
      <xsd:element name="ReportedDomainData" minOccurs="0" maxOccurs="unbounded">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:any namespace="##any" processContents="lax"
maxOccurs="unbounded"/>
          </xsd:sequence>
          <xsd:attribute name="semantics" type="xsd:string"/>
        </xsd:complexType>
      </xsd:element>
      <xsd:element name="ReportedDIMetadata" minOccurs="0" maxOccurs="unbounded">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:any namespace="##any" processContents="lax"
maxOccurs="unbounded"/>
          </xsd:sequence>
          <xsd:attribute name="name" type="xsd:string"/>
        </xsd:complexType>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

with:

```
<!-- ########################################### -->
<!-- 8.3 Definition of ERData                  -->
<!-- ########################################### -->
<xsd:element name="ERData">
   <xsd:complexType>
     <xsd:sequence>
       <xsd:element ref="erl:PeerId" minOccurs="0"/>
       <xsd:element ref="erl:UserId" minOccurs="0"/>
       <xsd:element name="Time" type="xsd:dateTime" minOccurs="0"/>
       <xsd:element name="Location" type="mpeg7:PlaceType" minOccurs="0"/>
       <xsd:element name="DII" type="xsd:anyURI" minOccurs="0"/>
       <xsd:element name="RelatedDII" type="xsd:anyURI" minOccurs="0"/>
       <xsd:element name="DIOperation" type="xsd:anyURI" minOccurs="0"/>
       <xsd:element name="ReportedDomainData" minOccurs="0"
maxOccurs="unbounded">
         <xsd:complexType>
           <xsd:sequence>
```

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```
          <xsd:any namespace="##any" processContents="lax"
maxOccurs="unbounded"/>
         </xsd:sequence>
         <xsd:attribute name="name" type="xsd:string"/>
        </xsd:complexType>
       </xsd:element>
       <xsd:element name="ReportedDIMetadata" minOccurs="0"
maxOccurs="unbounded">
        <xsd:complexType>
         <xsd:sequence>
          <xsd:any namespace="##any" processContents="lax"
maxOccurs="unbounded"/>
         </xsd:sequence>
         <xsd:attribute name="name" type="xsd:string"/>
        </xsd:complexType>
       </xsd:element>
     </xsd:sequence>
     <xsd:attribute name="idData" type="xsd:string"/>
    </xsd:complexType>
 </xsd:element>
```

In 8.4.2, append the following row after the ERData row of the table:

idData	An attribute that identifies the data reported by a peer or user in an ER.

In 9.8.1, replace:

```
<!-- Definition of ModificationType -->

<xsd:complexType name="ModificationType">
  <xsd:sequence>
   <xsd:element ref="erl:PeerId"/>
   <xsd:element ref="erl:UserId"/>
   <xsd:element name="Time" type="xsd:dateTime"/>
   <xsd:element name="Description" type="erl:DescriptionType" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
```

with:

```
  <xsd:complexType name="ModificationType">
   <xsd:sequence>
    <xsd:element ref="erl:PeerId"/>
    <xsd:element ref="erl:UserId"/>
    <xsd:element name="Time" type="xsd:dateTime"/>
    <xsd:element name="Description" type="erl:DescriptionType" minOccurs="0"/>
   </xsd:sequence>
   <xsd:attribute name="idDataRef" type="xsd:string"/>
  </xsd:complexType>
```

In 9.8.2, append the following row after the ModificationType row of the table:

idDataRef	An attribute that references to the data reported by the peer or user that has modified or created the ER. NOTE The value of this attribute shall be equal to the value of the idData

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attribute of one of the ERData elements in the ER.

In Annex A, add the following text after the heading entitled Schema Definition:

The following text provides an extensible version of the XML Schema for ISO/IEC 21000-15 which shall be used when extending the schema (e.g., through extensions or restrictions).

In Schema Definition of Annex A, replace the whole text (i.e., the XML schema) with the following text:

```
<?xml version="1.0"?>
<!--================================================================-->
<!--   Schema for MPEG-21 Event Reporting (ISO/IEC 21000-15)    -->
<!--================================================================-->
<xsd:schema xmlns:erl="urn:mpeg:mpeg21:2005:01-ERL-NS"
xmlns:dsig="http://www.w3.org/2000/09/xmldsig#" xmlns:r="urn:mpeg:mpeg21:2003:01-
REL-R-NS" xmlns:sx="urn:mpeg:mpeg21:2003:01-REL-SX-NS"
xmlns:dii="urn:mpeg:mpeg21:2002:01-DII-NS"
xmlns:mpeg7="urn:mpeg:mpeg7:schema:2004"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="urn:mpeg:mpeg21:2005:01-ERL-NS" elementFormDefault="qualified"
attributeFormDefault="unqualified" version="ISO/IEC 21000-15 1.1">
  <xsd:import namespace="urn:mpeg:mpeg21:2002:01-DII-NS"
schemaLocation="http://standards.iso.org/ittf/PubliclyAvailableStandards/MPEG-
21_schema_files/dii.xsd/dii.xsd"/>
  <xsd:import namespace="urn:mpeg:mpeg21:2003:01-REL-R-NS"
schemaLocation="http://standards.iso.org/ittf/PubliclyAvailableStandards/MPEG-
21_schema_files/rel-r/rel-r.xsd"/>
  <xsd:import namespace="urn:mpeg:mpeg21:2003:01-REL-SX-NS"
schemaLocation="http://standards.iso.org/ittf/PubliclyAvailableStandards/MPEG-
21_schema_files/rel-r/rel-sx.xsd"/>
  <xsd:import namespace="urn:mpeg:mpeg7:schema:2004"
schemaLocation="http://standards.iso.org/ittf/PubliclyAvailableStandards/MPEG-
7_schema_files/MPEG%207/mpeg7-v2.xsd"/>
  <xsd:import namespace="http://www.w3.org/XML/1998/namespace"
schemaLocation="http://www.w3.org/2001/03/xml.xsd"/>
  <!-- ################################################ -->
  <!--  Definition of an Event Report Base Type         -->
  <!-- ################################################ -->
  <xsd:complexType name="ERBaseType" abstract="true">
    <xsd:complexContent>
      <xsd:restriction base="xsd:anyType"/>
    </xsd:complexContent>
  </xsd:complexType>
  <!-- ################################################ -->
  <!--  7.1 Definition of an Event Report Request (ERR)   -->
  <!-- ################################################ -->
  <xsd:element name="ERR" type="erl:ERRType"/>
  <xsd:complexType name="ERRType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element ref="erl:ERRDescriptor"/>
          <xsd:element ref="erl:ERSpecification"/>
          <xsd:element ref="erl:EventConditionDescriptor"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
```

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```
  <!-- ################################################ -->
  <!-- 7.2 Definition of Event Report Request Descriptor -->
  <!-- ################################################ -->
  <xsd:element name="ERRDescriptor" type="erl:ERRDescriptorType"/>
  <xsd:complexType name="ERRDescriptorType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element name="LifeTime" type="erl:LifeTimeType" minOccurs="0"/>
          <xsd:element name="Modification" type="erl:ModificationType"
maxOccurs="unbounded"/>
          <xsd:element name="Priority" type="erl:PriorityType" default="2"
minOccurs="0"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="LifeTimeType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element name="StartTime" type="xsd:dateTime"/>
          <xsd:element name="EndTime" type="xsd:dateTime"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:simpleType name="PriorityType">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="0"/>
      <xsd:enumeration value="1"/>
      <xsd:enumeration value="2"/>
      <xsd:enumeration value="3"/>
      <xsd:enumeration value="4"/>
      <xsd:enumeration value="5"/>
    </xsd:restriction>
  </xsd:simpleType>
  <!-- ################################################ -->
  <!-- 7.3 Definition of Event Report Specification    -->
  <!-- ################################################ -->
  <xsd:element name="ERSpecification" type="erl:ERSpecificationType"/>
  <xsd:element name="ERPayloadSpecification"
type="erl:ERPayloadSpecificationType"/>
  <xsd:complexType name="ERSpecificationType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element ref="dii:Identifier" minOccurs="0"/>
          <xsd:element name="ERDescription" type="erl:DescriptionType"
minOccurs="0"/>
          <xsd:element name="AccessControl" type="xsd:anyType" minOccurs="0"/>
          <xsd:element ref="erl:ERPayloadSpecification"/>
          <xsd:element name="ERFormatSpecification"
type="erl:ERFormatSpecificationType"/>
          <xsd:element name="ERDeliverySpecification"
type="erl:ERDeliverySpecificationType" minOccurs="0" maxOccurs="unbounded"/>
          <xsd:element ref="erl:EmbeddedERR" minOccurs="0"
maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:extension>
```

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```
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="ERPayloadSpecificationType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element name="ERIdentifier" type="erl:ERIdentifierType"
minOccurs="0"/>
          <xsd:element name="PeerId" minOccurs="0"/>
          <xsd:element name="UserId" minOccurs="0"/>
          <xsd:element name="Time" minOccurs="0"/>
          <xsd:element name="Location" minOccurs="0"/>
          <xsd:element name="DIOperation" minOccurs="0" maxOccurs="unbounded"/>
          <xsd:element name="DomainData" type="erl:DomainDataType" minOccurs="0"
maxOccurs="unbounded"/>
          <xsd:element name="DIMetadata" type="erl:DIMetadataType" minOccurs="0"
maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="ERIdentifierType">
    <xsd:simpleContent>
      <xsd:extension base="xsd:anyURI">
        <xsd:attribute name="baseId" type="xsd:boolean"/>
      </xsd:extension>
    </xsd:simpleContent>
  </xsd:complexType>
  <xsd:complexType name="DomainDataType">
    <xsd:attribute name="reportTag" type="xsd:string" use="optional"/>
    <xsd:attribute name="semantics" type="xsd:anyURI" use="required"/>
    <xsd:attribute name="syntax" type="xsd:anyURI" use="required"/>
    <xsd:attribute name="value" type="xsd:string" use="optional"/>
  </xsd:complexType>
  <xsd:complexType name="DIMetadataType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <!-- Selection of the DI from which the metadata will be reported -->
          <xsd:element name="DISelection" type="erl:DISelectionType"
minOccurs="0"/>
          <!-- Selection of the metadata to be reported -->
          <xsd:element name="DIMetadataElement" type="erl:DIMetadataElementType"
minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="DISelectionType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:choice>
          <xsd:element name="DISelectionViaDII" minOccurs="0">
            <xsd:complexType>
              <xsd:sequence>
                <xsd:element ref="dii:Identifier"/>
              </xsd:sequence>
            </xsd:complexType>
          </xsd:element>
          <xsd:element name="DISelectionViaRelatedDII" minOccurs="0">
```

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```
            <xsd:complexType>
              <xsd:sequence>
                <xsd:element ref="dii:Identifier"/>
              </xsd:sequence>
            </xsd:complexType>
          </xsd:element>
          <xsd:element name="DISelectionViaXPath" type="xsd:string"
minOccurs="0"/>
          <xsd:element name="DISelectionViaMetadataElements"
type="erl:DISelectionViaMetadataElementsType" minOccurs="0"
maxOccurs="unbounded"/>
        </xsd:choice>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="DISelectionViaMetadataElementsType">
    <xsd:attribute name="nameSpace"/>
    <xsd:attribute name="itemType"/>
    <xsd:attribute name="itemName"/>
    <xsd:attribute name="internalOperator"/>
    <xsd:attribute name="itemValue"/>
    <xsd:attribute name="externalOperator"/>
  </xsd:complexType>
  <xsd:complexType name="DIMetadataElementType">
    <xsd:attribute name="nameSpace"/>
    <xsd:attribute name="tagName"/>
  </xsd:complexType>
  <xsd:complexType name="ERFormatSpecificationType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:choice>
          <xsd:element name="Ref" type="xsd:anyURI"/>
          <xsd:element name="XMLschema" type="xsd:anyURI"/>
          <xsd:element name="MimeType" type="xsd:string"/>
        </xsd:choice>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="ERDeliverySpecificationType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element name="Recipient" type="erl:RecipientType" minOccurs="0"
maxOccurs="unbounded"/>
          <xsd:element name="DeliveryTime" type="erl:TimeType"/>
          <xsd:element name="DITransportService"
type="erl:DITransportServiceType"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="DITransportServiceType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element ref="r:serviceReference"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
```


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```
  <!-- ########################################### -->
  <!-- 7.4 Definition of Event Condition Descriptor -->
  <!-- ########################################### -->
  <xsd:element name="Operator" type="erl:ExternalOperatorType"/>
  <xsd:element name="EventConditionDescriptor"
type="erl:EventConditionDescriptorType"/>
  <xsd:complexType name="EventConditionDescriptorType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:choice maxOccurs="unbounded">
          <xsd:element ref="erl:Operator" minOccurs="0" maxOccurs="unbounded"/>
          <xsd:choice>
            <xsd:element name="TimeCondition" type="erl:TimeConditionType"
minOccurs="0" maxOccurs="unbounded"/>
            <xsd:element name="DIOperationCondition"
type="erl:DIOperationConditionType" minOccurs="0" maxOccurs="unbounded"/>
            <xsd:element name="PeerCondition" type="erl:PeerConditionType"
minOccurs="0" maxOccurs="unbounded"/>
          </xsd:choice>
        </xsd:choice>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <!-- ########################################### -->
  <!-- Definition of related groups                -->
  <!-- ########################################### -->
  <xsd:complexType name="TimeConditionType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:choice maxOccurs="unbounded">
          <xsd:element name="TimeEvent" type="erl:TimeType"/>
          <xsd:element ref="erl:Operator" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:choice>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="DIOperationConditionType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:choice maxOccurs="unbounded">
          <xsd:element name="DIOperationEvent" type="erl:DIOperationEventType"/>
          <xsd:element ref="erl:Operator" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:choice>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="DIOperationEventType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element ref="erl:UserId" minOccurs="0" maxOccurs="unbounded"/>
          <xsd:element ref="erl:PeerId" minOccurs="0" maxOccurs="unbounded"/>
          <xsd:element name="Operation" type="xsd:anyURI"/>
          <xsd:element name="DII" type="xsd:anyURI" maxOccurs="unbounded"/>
          <xsd:element name="RelatedDII" type="xsd:anyURI" minOccurs="0"
maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
```

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```
  <xsd:complexType name="PeerConditionType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:choice maxOccurs="unbounded">
          <xsd:element name="PeerEvent" type="erl:PeerEventType"/>
          <xsd:element ref="erl:Operator" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:choice>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="PeerEventType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:any namespace="##any" processContents="lax"
maxOccurs="unbounded"/>
        </xsd:sequence>
        <xsd:attributeGroup ref="erl:InternalOperator"/>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <!-- ########################################### -->
  <!-- 8.1 Definition of Event Report (ER)         -->
  <!-- ########################################### -->
  <xsd:element name="ER" type="erl:ERType"/>
  <xsd:complexType name="ERType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element ref="erl:ERDescriptor"/>
          <xsd:element ref="erl:ERData"/>
          <xsd:element ref="erl:EmbeddedERR" minOccurs="0"
maxOccurs="unbounded"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <!-- ########################################### -->
  <!-- 8.2 Definition of Event Report Descriptor  -->
  <!-- ########################################### -->
  <xsd:element name="ERDescriptor" type="erl:ERDescriptorType"/>
  <xsd:complexType name="ERDescriptorType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element name="Description" type="erl:DescriptionType"
minOccurs="0"/>
          <xsd:element name="Recipient" type="erl:RecipientType"/>
          <xsd:element ref="erl:ERPayloadSpecification" minOccurs="0"
maxOccurs="unbounded"/>
          <xsd:element name="Status" type="erl:StatusType"/>
          <xsd:element name="Modification" type="erl:ModificationType"
maxOccurs="unbounded"/>
          <xsd:element name="ERSource" type="erl:ERSourceType"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="StatusType">
    <xsd:attribute name="value" type="xsd:boolean" default="false"/>
```


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```
  </xsd:complexType>
  <xsd:complexType name="ERSourceType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:choice>
          <xsd:element ref="erl:ERR" minOccurs="0"/>
          <xsd:element name="ERRReference" type="xsd:anyURI" minOccurs="0"/>
          <xsd:element name="OtherSource" type="xsd:anyURI" minOccurs="0"/>
        </xsd:choice>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <!-- ########################################### -->
  <!-- 8.3 Definition of Event Report Data         -->
  <!-- ########################################### -->
  <xsd:element name="ERData" type="erl:ERDataType"/>
  <xsd:complexType name="ERDataType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element ref="erl:PeerId" minOccurs="0"/>
          <xsd:element ref="erl:UserId" minOccurs="0"/>
          <xsd:element name="Time" type="xsd:dateTime" minOccurs="0"/>
          <xsd:element name="Location" type="mpeg7:PlaceType" minOccurs="0"/>
          <xsd:element name="DII" type="xsd:anyURI" minOccurs="0"/>
          <xsd:element name="RelatedDII" type="xsd:anyURI" minOccurs="0"/>
          <xsd:element name="DIOperation" type="xsd:anyURI" minOccurs="0"/>
          <xsd:element name="ReportedDomainData"
type="erl:ReportedDomainDataType" minOccurs="0" maxOccurs="unbounded"/>
          <xsd:element name="ReportedDIMetadata"
type="erl:ReportedDIMetadataType" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
        <xsd:attribute name="idData" type="xsd:string"/>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="ReportedDomainDataType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:any namespace="##any" processContents="lax"
maxOccurs="unbounded"/>
        </xsd:sequence>
        <xsd:attribute name="semantics" type="xsd:string"/>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="ReportedDIMetadataType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:any namespace="##any" processContents="lax"
maxOccurs="unbounded"/>
        </xsd:sequence>
        <xsd:attribute name="name" type="xsd:string"/>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <!-- ########################################### -->
  <!-- 8.4 Definition of Embedded Event Report Request -->
```

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```
<!-- ################################################ -->
<xsd:element name="EmbeddedERR" type="erl:EmbeddedERRType"/>
<xsd:complexType name="EmbeddedERRType">
  <xsd:complexContent>
    <xsd:extension base="erl:ERBaseType">
      <xsd:choice maxOccurs="unbounded">
        <xsd:element ref="erl:ERR"/>
        <xsd:element name="ERRReference" type="xsd:anyURI"/>
      </xsd:choice>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<!-- ################################################ -->
<!-- 9.1 Definition of Time types                     -->
<!-- ################################################ -->
<xsd:complexType name="TimeType">
  <xsd:complexContent>
    <xsd:extension base="erl:ERBaseType">
      <xsd:choice minOccurs="0">
        <xsd:element name="SpecificTime" type="erl:SpecificTime"/>
        <xsd:element name="ElapsedTime" type="erl:ElapsedTime"/>
        <xsd:element name="PeriodicTime" type="erl:PeriodicTime"/>
      </xsd:choice>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="SpecificTime">
  <xsd:complexContent>
    <xsd:extension base="erl:ERBaseType">
      <xsd:choice>
        <xsd:element name="OnTime" type="xsd:dateTime"/>
        <xsd:sequence>
          <xsd:element name="AfterOn" type="xsd:dateTime" minOccurs="0"/>
          <xsd:element name="BeforeOn" type="xsd:dateTime" minOccurs="0"/>
        </xsd:sequence>
      </xsd:choice>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="ElapsedTime">
  <xsd:complexContent>
    <xsd:extension base="erl:ERBaseType">
      <xsd:sequence>
        <xsd:element name="StartElapse" type="erl:StartElapse" minOccurs="0"/>
        <xsd:element name="EndElapse" type="erl:EndElapse" minOccurs="0"/>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="StartElapse">
  <xsd:complexContent>
    <xsd:extension base="erl:ERBaseType">
      <xsd:choice>
        <xsd:element name="sTime" type="xsd:time"/>
        <xsd:element name="sDuration" type="xsd:duration"/>
      </xsd:choice>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="EndElapse">
```

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```
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:choice>
          <xsd:element name="eTime" type="xsd:time"/>
          <xsd:element name="eDuration" type="xsd:duration"/>
        </xsd:choice>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:complexType name="PeriodicTime">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element name="Start" type="xsd:dateTime"/>
          <xsd:element name="DayOfWeek" type="erl:DayOfWeekType" minOccurs="0"/>
          <xsd:element name="Period" type="xsd:duration"/>
          <xsd:element name="Duration" type="xsd:duration"/>
          <xsd:element name="End" type="xsd:dateTime"/>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <!-- Definition of DayOfWeekType datatype -->
  <xsd:simpleType name="DayOfWeekType">
    <xsd:restriction base="xsd:string">
      <xsd:pattern value="\-?[1-5]{1}W[1-7]{1}D"/>
    </xsd:restriction>
  </xsd:simpleType>
  <!-- ############################################ -->
  <!-- 9.2 Definition of PeerId                     -->
  <!-- ############################################ -->
  <xsd:element name="PeerId" type="xsd:anyURI"/>
  <!-- ############################################ -->
  <!-- 9.3 Definition of UserId                     -->
  <!-- ############################################ -->
  <xsd:element name="UserId" type="xsd:anyURI"/>
  <!-- ############################################ -->
  <!-- 9.4 Definition of External operator Type     -->
  <!-- ############################################ -->
  <xsd:complexType name="ExternalOperatorType">
    <xsd:attribute name="name" type="erl:ExternalOprType"/>
  </xsd:complexType>
  <xsd:simpleType name="ExternalOprType">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="AND"/>
      <xsd:enumeration value="OR"/>
      <xsd:enumeration value="XOR"/>
      <xsd:enumeration value="NOT"/>
      <xsd:enumeration value="("/>
      <xsd:enumeration value=")"/>
    </xsd:restriction>
  </xsd:simpleType>
  <!-- ############################################ -->
  <!-- 9.5 Definition of Internal operator          -->
  <!-- ############################################ -->
  <xsd:attributeGroup name="InternalOperator">
    <xsd:attribute name="name" type="erl:InternalOprType"/>
    <xsd:attribute name="location" type="erl:InternalOprLocationType"/>
  </xsd:attributeGroup>
  <xsd:simpleType name="InternalOprType">
```

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```
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="&gt;"/>
      <xsd:enumeration value="&lt;"/>
      <xsd:enumeration value="&gt;="/>
      <xsd:enumeration value="&lt;="/>
      <xsd:enumeration value="&gt;&lt;"/>
      <xsd:enumeration value="="/>
      <xsd:enumeration value="+"/>
      <xsd:enumeration value="-"/>
      <xsd:enumeration value="*"/>
      <xsd:enumeration value="/"/>
      <xsd:enumeration value="%"/>
      <xsd:enumeration value="("/>
      <xsd:enumeration value=")"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="InternalOprLocationType">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="prefix"/>
      <xsd:enumeration value="infix"/>
      <xsd:enumeration value="postfix"/>
    </xsd:restriction>
  </xsd:simpleType>
  <!-- ############################################ -->
  <!-- 9.6 Definition of DescriptionType            -->
  <!-- ############################################ -->
  <xsd:simpleType name="DescriptionType">
    <xsd:restriction base="xsd:string"/>
  </xsd:simpleType>
  <!-- ############################################ -->
  <!-- 9.7 Definition of ModificationType           -->
  <!-- ############################################ -->
  <xsd:complexType name="ModificationType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element ref="erl:PeerId"/>
          <xsd:element ref="erl:UserId"/>
          <xsd:element name="Time" type="xsd:dateTime"/>
          <xsd:element name="Description" type="erl:DescriptionType"
minOccurs="0"/>
        </xsd:sequence>
        <xsd:attribute name="idData" type="xsd:string"/>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <!-- ############################################ -->
  <!-- 9.8 Definition of RecipientType              -->
  <!-- ############################################ -->
  <xsd:complexType name="RecipientType">
    <xsd:complexContent>
      <xsd:extension base="erl:ERBaseType">
        <xsd:sequence>
          <xsd:element ref="erl:PeerId"/>
          <xsd:element ref="erl:UserId" minOccurs="0"/>
        </xsd:sequence>
```

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```
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
</xsd:schema>
```

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