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**Source:** SA5 (Telecom Management)  
**Title:** 2 Rel-4/5 CR 32.615 (Configuration Management; Bulk CM IRP:  
XML file format definition) : Correction of Bulk CM session log  
file XML element "log" declaration  
**Document for:** Approval  
**Agenda Item:** 7.5.3

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Doc-1st-	Spec	CR	R	Ph	Subject	Cat	Ver	Doc-2nd-	Workite
SP-030284	32.615	005	-	Rel-4	Correction of Bulk CM session log file XML element "log" declaration	F	4.2.0	S5-036641	OAM-CM
SP-030284	32.615	006	-	Rel-5	Correction of Bulk CM session log file XML element "log" declaration	A	5.0.1	S5-036642	OAM-CM

## CHANGE REQUEST

⌘ **32.615 CR 005** ⌘ rev - ⌘ Current version: **4.2.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘ Correction of Bulk CM session log file XML element "log" declaration		
<b>Source:</b>	⌘ S5 Nortel Networks (bonneau@nortelnetworks.com)		
<b>Work item code:</b>	⌘ OAM-CM	<b>Date:</b>	⌘ 23/05/2003
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ Rel-4
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	⌘ XML element "log" declaration is not compliant to W3C XML schema standard (see in "other comments" below for details).		
<b>Summary of change:</b>	⌘ <ul style="list-style-type: none"> <li>• In Bulk CM session log file XML schema:                         <ul style="list-style-type: none"> <li>• As regards XML element "log" declaration contained anonymous XML complex type definition:                                 <ul style="list-style-type: none"> <li>• Derivation method changed from restriction to extension</li> <li>• Containment of associated XML attribute declarations corrected.</li> </ul> </li> <li>• Evolution of the version part of Bulk CM session log file XML schema namespace URI definition</li> </ul> </li> <li>• Update of extracts from Bulk CM session log XML schema</li> <li>• In examples for Bulk CM session log XML files, correction of references to Bulk CM session log file XML schema namespace URI</li> <li>• Editorial corrections</li> </ul>		
<b>Consequences if not approved:</b>	⌘ Implementation of Rel-4 Bulk CM session log XML files would be impossible.		

<b>Clauses affected:</b>	⌘ 4.4, 5.1, 5.3, annex C, annex D						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="width: 20px;"><input type="checkbox"/></td> <td style="width: 20px;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="width: 20px;"><input type="checkbox"/></td> <td style="width: 20px;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="width: 20px;"><input type="checkbox"/></td> <td style="width: 20px;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
<b>Other comments:</b>	⌘ Rel-5 Mirror CR 32.615 attached in S5-036642. The XML schema file "sessionLog.xsd" reflects the changes from this CR (only). The attached XML schema files "configData.xsd", "genericNrm.xsd", "utranNrm.xsd", and "geranNrm.xsd" reflect the content of this CR base TS version. These files are not affected by the changes from this CR (only).						

.../...

Bulk CM session log XML schema local XML element "log" declaration contained anonymous XML complex type definition does not comply with referenced W3C Recommendation "XML Schema Part 1: Structures" [4] as regards:

- The XML representation for complex type definitions with simple content ([4] § 3.4.2):  
Associated XML attribute declarations must be contained within the XML schema element "restriction" or "extension" contained within the XML schema element "simpleContent".
- The constraints on the XML representation for complex type definitions with simple content ([4] § 3.4.3):  
If the base type definition is a simple type definition the derivation method must be by extension.

<b>Change in Subclause 4.4</b>
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<b>4.4</b>	<b><del>sXML</del>XML attribute specification modifier</b>
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<b>End of Change in Subclause 4.4</b>
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<b>Change in Subclause 5.1</b>
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## 5.1 Global structure

The content of a session log XML file is the succession of:

- the standard XML declaration with specification of the version of XML and of the character encoding being used (see [2])
- a `bulkCmSessionLogFile` XML element; this is the root XML element of session log XML files

The definition of the allowed character encoding(s) is outside the scope of this document.

As defined by the following extract of XML schema `sessionLog.xsd` (see Annex D):

```

<element name="bulkCmSessionLogFile">
  <complexType>
    <sequence>
      <element name="fileHeader">
[...]
      </element>
      <element name="activity" maxOccurs="unbounded">
[...]
      </element>
      <element name="fileFooter">
[...]
      </element>
    </sequence>
  </complexType>
</element>

```

the XML content of a `bulkCmSessionLogFile` XML element is the succession of:

- a `fileHeader` XML element (see subclause 5.2)
- one or several `activity` XML elements (see subclause 5.3)
- a `fileFooter` XML element (see subclause 5.2)

XML elements `fileHeader` and `fileFooter` are empty XML elements (see subclause 5.2).

The `bulkCmSessionLogFile` XML element shall also have all the XML attribute specifications that declare the XML namespaces (see [6]) used in the XML file.

Only the default XML namespace is used in session log XML files. It is associated with the session log file XML schema `sessionLog.xsd` (see Annex D).

The following is an example of a session log XML file, without presentation of the XML attribute specifications and XML content of `fileHeader`, `activity` and `fileFooter` XML elements (replaced by [...]; see subclauses 5.2 and 5.3):

```

<?xml version="1.0" encoding="UTF-8"?>
<bulkCmSessionLogFile
  xmlns=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32615-

```

```

| 420430.zip#sessionLog"
[...
>
  <fileHeader [...]/>
  <activity [...>
[...
  </activity>
  <activity [...>
[...
  </activity>
  <fileFooter [...]/>
</bulkCmSessionLogFile>

```

### End of Change in Subclause 5.1

### Change in Subclause 5.3

## 5.3 XML element activity

As defined by the following extract of XML schema `sessionLog.xsd` (see Annex D):

```

[...
  <element name="activity" maxOccurs="unbounded">
    <complexType>
      <sequence>
        <element name="log" maxOccurs="unbounded">
[...
          </element>
        </sequence>
        <attribute name="dateTime" type="dateTime" use="required"/>
        <attribute name="type" use="required">
          <simpleType>
            <restriction base="string">
              <enumeration value="upload"/>
              <enumeration value="download"/>
              <enumeration value="activate"/>
              <enumeration value="fallback"/>
            </restriction>
          </simpleType>
        </attribute>
      </complexType>
    </element>

```

an activity XML element:

- has the following XML attribute specifications:
  - a `dateTime` XML attribute specification; this attribute specification carries the date and time the Bulk CM activity was started
  - a `type` XML attribute specification; this attribute specification carries the type of the Bulk CM activity triggered by the IRPManager, upload, download, activate or fallback
- and its XML content is the succession of one or several log XML elements

As defined by the following extract of XML schema `sessionLog.xsd` (see Annex D):

```

  <element name="log" maxOccurs="unbounded">
    <complexType>
      <simpleContent>
        <restriction extension base="string"/>
      </simpleContent>

```

```

<attribute name="time" type="time" use="required"/>
<attribute name="type" use="required">
  <simpleType>
    <restriction base="string">
      <enumeration value="informative"/>
      <enumeration value="error"/>
    </restriction>
  </simpleType>
</attribute>
<attribute name="dn" type="string" use="optional"/>
<attribute name="modifier" use="optional">
  <simpleType>
    <restriction base="string">
      <enumeration value="create"/>
      <enumeration value="delete"/>
      <enumeration value="update"/>
    </restriction>
  </simpleType>
</attribute>
</extension>
</simpleContent>
</complexType>
</element>

```

a log XML element:

- has the following XML attribute specifications:
  - a `time` XML attribute specification; this attribute specification carries the time the logged Bulk CM internal event occurred
  - a `type` XML attribute specification; this attribute specification carries the type of the logged Bulk CM internal event, being either `informative` or `error`
  - an optional `dn` XML attribute specification; this attribute specification carries the DN of the NRM instance associated with the logged Bulk CM internal event, if any
  - an optional `modifier` XML attribute specification; this attribute specification carries the value of the modifier (see subclause 4.4) associated with the NRM instance, if any
- and it has an XML content; this XML content carries the description of the logged Bulk CM internal event

The following is an example of an `activity` XML element (in **bold**) in a session log XML file:

```

<?xml version="1.0" encoding="UTF-8"?>
<bulkCmSessionLogFile
  xmlns=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32615-
420430.zip#sessionLog"
[...]
>
[...]
<activity dateTime="2001-05-07T12:00:00+02:00" type="download">
  <log time="12:00:01+02:00" type="informative">
    Download requested with:
      downloadDataFileReference="ftp://a1.companyNN.com/data/upld123.xml"
  </log>
  <log time="12:00:02+02:00" type="error"
    dn="DC=a1.companyNN.com,SubNetwork=1"
    modifier="update"
  >
    No such instance
  </log>
</activity>

```

```
[...]
</bulkCmSessionLogFile>
```

<b>End of Change in Subclause 5.3</b>
---------------------------------------

<b>Change in Clause Annex C</b>
---------------------------------

## Annex C (informative): Configuration data file vendor-specific XML schema example

The following XML schema is an example of vendor-specific schema for configuration data XML files:

```
<?xml version="1.0" encoding="UTF-8"?>

<!--
  Configuration data file vendor-specific XML schema example
  NNRncHandOver.1.1.xsd
-->

<schema
  targetNamespace="http://www.companyNN.com/xmlschemas/NNRncHandOver.1.1"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32615-420.zip#genericNrm"
>

  <import
    namespace=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32615-420.zip#genericNrm"
    />

  <!-- RncHandOver version 1.1 company NN vendor-specific data -->

  <element name="vsDataRHO" substitutionGroup="xn:vsData">
    <complexType>
      <complexContent>
        <extension base="xn:vsData">
          <all>
            <element name="abcMin" minOccurs="0"/>
            <element name="abcMax" minOccurs="0"/>
          </all>
        </extension>
      </complexContent>
    </complexType>
  </element>

</schema>
```

<b>End of Change in Clause Annex C</b>
--

<b>Change in Clause Annex D</b>
---------------------------------

# Annex D (normative): Session log file XML schema

The following XML schema sessionLog.xsd is the schema for session log XML files:

```

<?xml version="1.0" encoding="UTF-8"?>

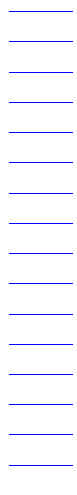
<!--
  3GPP TS 32.615 Bulk CM IRP
  Session log file XML schema
  sessionLog.xsd
-->

<schema
  targetNamespace=
  "http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32615-
  420430.zip#sessionLog"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
>

  <!-- Session log file root XML element -->

  <element name="bulkCmSessionLogFile">
    <complexType>
      <sequence>
        <element name="fileHeader">
          <complexType>
            <attribute name="fileFormatVersion" type="string" use="required"/>
            <attribute name="senderName" type="string" use="optional"/>
            <attribute name="vendorName" type="string" use="optional"/>
          </complexType>
        </element>
        <element name="activity" maxOccurs="unbounded">
          <complexType>
            <sequence>
              <element name="log" maxOccurs="unbounded">
                <complexType>
                  <simpleContent>
                    <restriction extension base="string"/>
                    </simpleContent>
                    <attribute name="time" type="time" use="required"/>
                    <attribute name="type" use="required">
                      <simpleType>
                        <restriction base="string">
                          <enumeration value="informative"/>
                          <enumeration value="error"/>
                        </restriction>
                      </simpleType>
                    </attribute>
                    <attribute name="dn" type="string" use="optional"/>
                    <attribute name="modifier" use="optional">
                      <simpleType>
                        <restriction base="string">
                          <enumeration value="create"/>
                          <enumeration value="delete"/>
                          <enumeration value="update"/>
                        </restriction>
                      </simpleType>
                    </attribute>
                  </complexType>
                </element>
              </sequence>
            </complexType>
          </element>
        </sequence>
      </complexType>
    </element>
  </sequence>
</complexType>
</element>

```





```

        </simpleType>
      </attribute>
    </extension>
  </simpleContent>
</complexType>
</element>
</sequence>
<attribute name="dateTime" type="dateTime" use="required"/>
<attribute name="type" use="required">
  <simpleType>
    <restriction base="string">
      <enumeration value="upload"/>
      <enumeration value="download"/>
      <enumeration value="activate"/>
      <enumeration value="fallback"/>
    </restriction>
  </simpleType>
</attribute>
</complexType>
</element>
<element name="fileFooter">
  <complexType>
    <attribute name="dateTime" type="dateTime" use="required"/>
  </complexType>
</element>
</sequence>
</complexType>
</element>

</schema>
```

<b>End of Change in Clause Annex D</b> <b>End of Document</b>
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## CHANGE REQUEST

⌘ **32.615 CR 006** ⌘ rev - ⌘ Current version: **5.0.1** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘ Correction of Bulk CM session log file XML element "log" declaration		
<b>Source:</b>	⌘ S5 Nortel Networks (bonneau@nortelnetworks.com)		
<b>Work item code:</b>	⌘ OAM-CM	<b>Date:</b>	⌘ 23/05/2003
<b>Category:</b>	⌘ <b>A</b>	<b>Release:</b>	⌘ Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	⌘ XML element "log" declaration is not compliant to W3C XML schema standard (see in "other comments" below for details).		
<b>Summary of change:</b>	⌘ <ul style="list-style-type: none"> <li>• In Bulk CM session log file XML schema:                     <ul style="list-style-type: none"> <li>• As regards XML element "log" declaration contained anonymous XML complex type definition:                             <ul style="list-style-type: none"> <li>• Derivation method changed from restriction to extension</li> <li>• Containment of associated XML attribute declarations corrected.</li> </ul> </li> <li>• Alignment of the version part of Bulk CM session log file XML schema namespace URI definition with corresponding Rel-4 version</li> </ul> </li> <li>• Update of extracts from Bulk CM session log XML schema</li> <li>• In examples for Bulk CM session log XML files, correction of references to Bulk CM session log file XML schema namespace URI</li> <li>• Editorial corrections</li> </ul>		
<b>Consequences if not approved:</b>	⌘ Implementation of Rel-5 Bulk CM session log XML files would be impossible.		

<b>Clauses affected:</b>	⌘ 5.1, 5.3, annex C, annex D										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="width: 20px;"><input type="checkbox"/></td> <td style="width: 20px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="width: 20px;"><input type="checkbox"/></td> <td style="width: 20px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="width: 20px;"><input checked="" type="checkbox"/></td> <td style="width: 20px;"><input type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other core specifications Test specifications O&M Specifications	⌘ Rel-5 CR 32.615
Y	N										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input checked="" type="checkbox"/>	<input type="checkbox"/>										
<b>Other comments:</b>	⌘ Rel-5 Mirror of Rel-4 CR 32.615 attached in S5-036641. The XML schema file "sessionLog.xsd" reflects the changes from this CR (only). .../...										

.../...

Bulk CM session log XML schema local XML element "log" declaration contained anonymous XML complex type definition does not comply with referenced W3C Recommendation "XML Schema Part 1: Structures" [4] as regards:

- The XML representation for complex type definitions with simple content ([4] § 3.4.2):  
Associated XML attribute declarations must be contained within the XML schema element "restriction" or "extension" contained within the XML schema element "simpleContent".
- The constraints on the XML representation for complex type definitions with simple content ([4] § 3.4.3):  
If the base type definition is a simple type definition the derivation method must be by extension.

<b>Change in Subclause 5.1</b>
--------------------------------

## 5.1 Global structure

The content of a session log XML file is the succession of:

- the standard XML declaration with specification of the version of XML and of the character encoding being used (see [2]);
- a `bulkCmSessionLogFile` XML element; this is the root XML element of session log XML files.

The definition of the allowed character encoding(s) is outside the scope of this document.

As defined by the following extract of XML schema `sessionLog.xsd` (see Annex D):

```

<element name="bulkCmSessionLogFile">
  <complexType>
    <sequence>
      <element name="fileHeader">
[...
      </element>
      <element name="activity" maxOccurs="unbounded">
[...
      </element>
      <element name="fileFooter">
[...
      </element>
    </sequence>
  </complexType>
</element>

```

the XML content of a `bulkCmSessionLogFile` XML element is the succession of:

- a `fileHeader` XML element (see subclause 5.2);
- one or several `activity` XML elements (see subclause 5.3);
- a `fileFooter` XML element (see subclause 5.2).

XML elements `fileHeader` and `fileFooter` are empty XML elements (see subclause 5.2).

The `bulkCmSessionLogFile` XML element shall also have all the XML attribute specifications that declare the XML namespaces (see [6]) used in the XML file.

Only the default XML namespace is used in session log XML files. It is associated with the session log file XML schema `sessionLog.xsd` (see Annex D).

The following is an example of a session log XML file, without presentation of the XML attribute specifications and XML content of `fileHeader`, `activity` and `fileFooter` XML elements (replaced by [...]; see subclauses 5.2 and 5.3):

```

<?xml version="1.0" encoding="UTF-8"?>
<bulkCmSessionLogFile
  xmlns=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32615-
429430.zip#sessionLog"
[...
>
  <fileHeader [...]/>
  <activity [...>
[...
  </activity>
  <activity [...>

```

```
[...]
  </activity>
  <fileFooter [...] />
</bulkCmSessionLogFile>
```

### End of Change in Subclause 5.1

### Change in Subclause 5.3

## 5.3 XML element activity

As defined by the following extract of XML schema `sessionLog.xsd` (see Annex D):

```
<element name="activity" maxOccurs="unbounded">
  <complexType>
    <sequence>
      <element name="log" maxOccurs="unbounded">
[...]
```

```
      </element>
    </sequence>
    <attribute name="dateTime" type="dateTime" use="required" />
    <attribute name="type" use="required">
      <simpleType>
        <restriction base="string">
          <enumeration value="upload" />
          <enumeration value="download" />
          <enumeration value="activate" />
          <enumeration value="fallback" />
        </restriction>
      </simpleType>
    </attribute>
  </complexType>
</element>
```

an activity XML element:

- has the following XML attribute specifications:
  - a `dateTime` XML attribute specification; this attribute specification carries the date and time the Bulk CM activity was started;
  - a `type` XML attribute specification; this attribute specification carries the type of the Bulk CM activity triggered by the IRPManager, `upload`, `download`, `activate` or `fallback`;
- and its XML content is the succession of one or several `log` XML elements.

As defined by the following extract of XML schema `sessionLog.xsd` (see Annex D):

```
<element name="log" maxOccurs="unbounded">
  <complexType>
    <simpleContent>
      <restriction-extension base="string" />
      </simpleContent>
      <attribute name="time" type="time" use="required" />
      <attribute name="type" use="required">
        <simpleType>
          <restriction base="string">
            <enumeration value="informative" />
            <enumeration value="error" />
          </restriction>
        </simpleType>
```

```

</attribute>
<attribute name="dn" type="string" use="optional"/>
<attribute name="modifier" use="optional">
  <simpleType>
    <restriction base="string">
      <enumeration value="create"/>
      <enumeration value="delete"/>
      <enumeration value="update"/>
    </restriction>
  </simpleType>
</attribute>
</extension>
</simpleContent>
</complexType>
</element>

```

a log XML element:

- has the following XML attribute specifications:
  - a time XML attribute specification; this attribute specification carries the time the logged Bulk CM internal event occurred;
  - a type XML attribute specification; this attribute specification carries the type of the logged Bulk CM internal event, being either *informative* or *error*;
  - an optional dn XML attribute specification; this attribute specification carries the DN of the NRM instance associated with the logged Bulk CM internal event, if any;
  - an optional modifier XML attribute specification; this attribute specification carries the value of the modifier (see subclause 4.4) associated with the NRM instance, if any;
- and it has an XML content; this XML content carries the description of the logged Bulk CM internal event.

The following is an example of an activity XML element (in **bold**) in a session log XML file:

```

<?xml version="1.0" encoding="UTF-8"?>
<bulkCmSessionLogFile
  xmlns=
    "http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32615-
    420430.zip#sessionLog"
  [...]
  >
  [...]
  <activity dateTime="2001-05-07T12:00:00+02:00" type="download">
    <log time="12:00:01+02:00" type="informative">
      Download requested with:
      downloadDataFileReference="ftp://a1.companyNN.com/data/upld123.xml"
    </log>
    <log time="12:00:02+02:00" type="error"
      dn="DC=a1.companyNN.com,SubNetwork=1"
      modifier="update"
    >
      No such instance
    </log>
  </activity>
  [...]
</bulkCmSessionLogFile>

```

<b>End of Change in Subclause 5.3</b>
---------------------------------------

<b>Change in Clause Annex C</b>
---------------------------------

## Annex C (informative): Configuration data file vendor-specific XML schema example

The following XML schema is an example of vendor-specific schema for configuration data XML files:

```
<?xml version="1.0" encoding="UTF-8"?>

<!--
  Configuration data file vendor-specific XML schema example
  NNRncHandOver.1.1.xsd
-->

<schema
  targetNamespace="http://www.companyNN.com/xmlschemas/NNRncHandOver.1.1"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-500.zip#genericNrm"
>

  <import
    namespace=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-500.zip#genericNrm"
    />

  <!-- RncHandOver version 1.1 company NN vendor-specific data -->

  <element name="vsDataRHO" substitutionGroup="xn:vsData">
    <complexType>
      <complexContent>
        <extension base="xn:vsData">
          <all>
            <element name="abcMin" minOccurs="0"/>
            <element name="abcMax" minOccurs="0"/>
          </all>
        </extension>
      </complexContent>
    </complexType>
  </element>

</schema>
```

<b>End of Change in Clause Annex C</b>
--

<b>Change in Clause Annex D</b>
---------------------------------

## Annex D (normative): Session log file XML schema

The following XML schema sessionLog.xsd is the schema for session log XML files:

```

<?xml version="1.0" encoding="UTF-8"?>

<!--
  3GPP TS 32.615 Bulk CM IRP
  Session log file XML schema
  sessionLog.xsd
-->

<schema
  targetNamespace=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32615-
420430.zip#sessionLog"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
>

  <!-- Session log file root XML element -->

  <element name="bulkCmSessionLogFile">
    <complexType>
      <sequence>
        <element name="fileHeader">
          <complexType>
            <attribute name="fileFormatVersion" type="string" use="required"/>
            <attribute name="senderName" type="string" use="optional"/>
            <attribute name="vendorName" type="string" use="optional"/>
          </complexType>
        </element>
        <element name="activity" maxOccurs="unbounded">
          <complexType>
            <sequence>
              <element name="log" maxOccurs="unbounded">
                <complexType>
                  <simpleContent>
                    <restriction extension base="string"/>
                    </simpleContent>
                    <attribute name="time" type="time" use="required"/>
                    <attribute name="type" use="required">
                      <simpleType>
                        <restriction base="string">
                          <enumeration value="informative"/>
                          <enumeration value="error"/>
                        </restriction>
                      </simpleType>
                    </attribute>
                    <attribute name="dn" type="string" use="optional"/>
                    <attribute name="modifier" use="optional">
                      <simpleType>
                        <restriction base="string">
                          <enumeration value="create"/>
                          <enumeration value="delete"/>
                          <enumeration value="update"/>
                        </restriction>
                      </simpleType>
                    </attribute>
                  </extension>
                </simpleContent>
              </complexType>
            </element>
          </sequence>
          <attribute name="dateTime" type="dateTime" use="required"/>
          <attribute name="type" use="required">
            <simpleType>

```



```
<restriction base="string">
  <enumeration value="upload"/>
  <enumeration value="download"/>
  <enumeration value="activate"/>
  <enumeration value="fallback"/>
</restriction>
</simpleType>
</attribute>
</complexType>
</element>
<element name="fileFooter">
  <complexType>
    <attribute name="dateTime" type="dateTime" use="required"/>
  </complexType>
</element>
</sequence>
</complexType>
</element>

</schema>
```

<b>End of Change in Clause Annex D</b> <b>End of Document</b>
--