

Source: SA5 (Telecom Management)

Title: Rel-5 CR 32.615 (Configuration Management; Bulk CM IRP: XML file format definition) : Add missing Activities to Session Log XML

Document for: Approval

Agenda Item: 7.5.3

Doc-1st-Level	Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Doc-2nd-Level	Workitem
SP-030414	32.615	009	-	Rel-5	Add missing Activities to Session Log XML	F	5.1.0	S5-036797	OAM-NIM

CHANGE REQUEST

⌘ **32.615 CR 009** ⌘ rev **-** ⌘ Current version: **5.1.0** ⌘

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

Title:	⌘ Add missing Activities to Session Log XML		
Source:	⌘ SA5 (Trevor.Pirt@motorola.com/Rosemary.O'leary@motorola.com)		
Work item code:	⌘ OAM-NIM	Date:	⌘ 05/09/2003
Category:	⌘ F	Release:	⌘ Rel-5
	<i>Use <u>one</u> of the following categories:</i> F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		<i>Use <u>one</u> of the following releases:</i> 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)

Reason for change:	⌘ XML defintion for Bulk CM Session Log is missing activities for "validate" and "preactivate".
Summary of change:	⌘ Add two new activity identifiers for validate and preactiavte
Consequences if not approved:	⌘ Unable to log activities when validate and preactivate operations are invoked.

Clauses affected:	⌘ 5, Annex D.					
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><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;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>					
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>					
Other comments:	⌘					

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under [ftp://ftp.3gpp.org/specs/](http://ftp.3gpp.org/specs/) For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

KEEP the History box of the TS to be changed (see end of the present document)

Change in Clause 5

5 Structure and content of session log XML files

The present clause defines the file format of session log XML files exchanged between an IRPManager and an IRPAgent as part of `getSessionLog` operation of the Bulk CM IRP IS (see [1]).

This file format is defined by the XML schema in Annex D and by the following subclauses.

The use of an XML schema enables to ensure session log XML files have the proper structure and to some extent the proper content.

Location of the XML schemas used for session log XML files is outside the scope of this document.

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/32615-430.zip#sessionLog"
[...]
>
  <fileHeader [...]/>
  <activity [...>
[...]
  </activity>
  <activity [...>
[...]
  </activity>
  <fileFooter [...]/>
</bulkCmSessionLogFile>

```

5.2 XML elements fileHeader and fileFooter

The XML elements `fileHeader` and `fileFooter` for session log XML files have the same definition, structure and content as the XML elements `fileHeader` and `fileFooter` for configuration data XML files (see subclause 4.2).

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="validate"/>
          <enumeration value="preactivate"/>
          <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, validate, preactivate, 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>
      <extension base="string">
        <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-
430520.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>
```

End of Change in Clause 5

Change in Clause Annex D

Annex D (normative): Session log file XML schema (file name "sessionLog.xsd")

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-
430520.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>
                    <extension base="string">
                      <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>
          </complexType>
        </element>
      </sequence>
    </complexType>
  </element>

```

```
        </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="validate"/>
            <enumeration value="preactivate"/>
            <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>
```

End of Change in Clause Annex D End of Document
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Annex E (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Jun 2001	S_12	SP-010283	--	--	Approved at TSG SA #12 and placed under Change Control	2.0.0	4.0.0
Dec 2001	S_14	SP-010645	001	--	Addition of MCC and MNC attributes to GSM cell related MOCs in Bulk CM XML file format	4.0.0	4.1.0
Mar 2002	S_15	SP-020032	002	--	Alignment of XML file definitions with W3C, and modifications to allow use of commercially available XML processing tools	4.1.0	4.2.0
Jun 2002	S_16	SP-020298	003	--	New structure of specifications for the definition of Bulk CM IRP XML file formats	4.2.0	5.0.0
Sep 2002	--	--	--	--	Cosmetics by Rapporteur/MCC	5.0.0	5.0.1
Jun 2003	S_20	SP-030284	006	--	Correction of Bulk CM session log file XML element "log" declaration	5.0.1	5.1.0
Jun 2003	S_20	SP-030287	007	--	Correction of Bulk CM configuration data file XML schema namespace URIs	5.0.1	5.1.0
Jun 2003	S_20	SP-030288	008	--	Generic NRM XML schema dependencies removal	5.0.1	5.1.0