

**3GPP TSG-CN Meeting #24
02 – 04 June 2004, Seoul, KOREA**

NP-040262

Source: CN5 (OSA)
Title: 12 Rel-5 CRs 29.198-xy OSA API: Correct Java Rulebook
Agenda item: 8.2 (OSA Enhancements [OSA2])
Document for: APPROVAL

Doc-1st-	Spec	CR	Rev	Phase	Subject	Cat	Version	Doc-2nd-	Workite
NP-040262	29.198-01	034	1	Rel-5	Correct Java Rulebook	F	5.5.0	N5-040358	OSA2
NP-040262	29.198-01	035	1	Rel-6	Correct Java Rulebook	A	6.0.1	N5-040359	OSA2
NP-040262	29.198-02	045	-	Rel-5	Correct Java Rulebook	F	5.6.0	N5-040360	OSA2
NP-040262	29.198-04-1	011	-	Rel-5	Correct Java Rulebook	F	5.5.0	N5-040361	OSA2
NP-040262	29.198-04-4	018	-	Rel-5	Correct Java Rulebook	F	5.6.0	N5-040362	OSA2
NP-040262	29.198-06	027	-	Rel-5	Correct Java Rulebook	F	5.4.0	N5-040363	OSA2
NP-040262	29.198-07	018	-	Rel-5	Correct Java Rulebook	F	5.5.0	N5-040364	OSA2
NP-040262	29.198-07	019	-	Rel-6	Correct Java Rulebook	A	6.0.1	N5-040365	OSA2
NP-040262	29.198-12	028	-	Rel-5	Correct Java Rulebook	F	5.5.0	N5-040366	OSA2
NP-040262	29.198-12	029	-	Rel-6	Correct Java Rulebook	A	6.0.1	N5-040367	OSA2
NP-040262	29.198-13	009	-	Rel-5	Correct Java Rulebook	F	5.4.0	N5-040368	OSA2
NP-040262	29.198-14	021	-	Rel-5	Correct Java Rulebook	F	5.5.0	N5-040369	OSA2

CHANGE REQUEST

⌘ **29.198-01 CR 034** ⌘ rev **1** ⌘ Current version: **5.5.0** ⌘

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:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, e.g. when OSA is used in J2EE.
Consequences if not approved:	⌘ Vendors would have to extend the Java source code of certain data types.

Clauses affected:	⌘ Annex C.3.6.5										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications	Y	N	X			X		X	⌘ Rel-5 29.198 Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14	
Y	N										
X											
	X										
	X										
Other comments:	⌘ Mirror CR to this CR exist for Rel-6 in N5-040359. This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.										

C.3.6.5 NameValuePair (Enumerations)

NameValuePair data types are represented in Java as public final classes that implement `java.io.Serializable`, and have:

- two static final data members per name-value pair
- a value returning method, named `getValue()`
- a name returning method, named `getValueText()`
- an integer conversion method, named `getObject()`
- a private constructor
- [readResolve\(\)](#), `hashCode` and `equals` implementations

No default constructor is provided. One of the data members per name-value pair has the same name as the name-value pair name. The other has an underscore “_” prepended and is intended for use in switch statements. Values are assigned sequentially, starting with 0.

The `getObject()` method returns the name-value pair class with the specified value if the specified value corresponds to an element of the name-value pair data type. If the specified value is out of range, an `InvalidEnumValueException` exception is raised

Example 9:

```
package org.csapi.jr.se;
public final class AddressScreening implements java.io.Serializable {
    private int _value;
    private static int _size = 5;
    private static AddressScreening[] _array = new AddressScreening[_size];

    public static final int _ADDRESS_SCREENING_UNDEFINED = 0;
    public static final AddressScreening ADDRESS_SCREENING_UNDEFINED = new
AddressScreening(_ADDRESS_SCREENING_UNDEFINED);

    public static final int _ADDRESS_SCREENING_USER_VERIFIED_PASSED = 1;
    public static final AddressScreening ADDRESS_SCREENING_USER_VERIFIED_PASSED = new
AddressScreening(_ADDRESS_SCREENING_USER_VERIFIED_PASSED);

    public static final int _ADDRESS_SCREENING_USER_NOT_VERIFIED = 2;
    public static final AddressScreening ADDRESS_SCREENING_USER_NOT_VERIFIED = new
AddressScreening(_ADDRESS_SCREENING_USER_NOT_VERIFIED);

    public static final int _ADDRESS_SCREENING_USER_VERIFIED_FAILED = 3;
    public static final AddressScreening ADDRESS_SCREENING_USER_VERIFIED_FAILED = new
AddressScreening(_ADDRESS_SCREENING_USER_VERIFIED_FAILED);

    public static final int _ADDRESS_SCREENING_NETWORK = 4;
    public static final AddressScreening ADDRESS_SCREENING_NETWORK = new
AddressScreening(_ADDRESS_SCREENING_NETWORK);

    private AddressScreening(int value) {
        this._value = value;
        this._array[this._value] = this;
    }

    private Object readResolve() throws java.io.ObjectStreamException {
        return _array[_value];
    }

    public int getValue() {
        return _value;
    }

    public String getValueText() {
        switch (_value) {
            case _ADDRESS_SCREENING_UNDEFINED:
                return "ADDRESS_SCREENING_UNDEFINED";
            case _ADDRESS_SCREENING_USER_VERIFIED_PASSED:
                return "ADDRESS_SCREENING_USER_VERIFIED_PASSED";
            case _ADDRESS_SCREENING_USER_NOT_VERIFIED:
```

```
        return "ADDRESS_SCREENING_USER_NOT_VERIFIED";
    case _ADDRESS_SCREENING_USER_VERIFIED_FAILED:
        return "ADDRESS_SCREENING_USER_VERIFIED_FAILED";
    case _ADDRESS_SCREENING_NETWORK:
        return "ADDRESS_SCREENING_NETWORK";
    default:
        return "ERROR";
    }
}

    public static AddressScreening getObject(int value) throws
org.csapi.jr.se.InvalidEnumValueException {
    if(value >= 0 && value < _size) {
        return _array[value];
    } else {
        throw new org.csapi.jr.se.InvalidEnumValueException();
    }
}

    public boolean equals(Object o) {
//equality logic
    }

    public int hashCode() {
//hash code calculation
    }
}
}
```

Annex D (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	047	--	CR 29.198: for moving TS 29.198 from R99 to Rel-4 (N5-010158)	3.2.0	4.0.0
Jun 2001	CN_12	NP-010330	001	--	Corrections to OSA API Rel4 (Correction to IDL namespace to align with that of ETSI and Parlay equivalent APIs: Change org.open_service_access_root namespace to org.csapi) (N5-010267)	4.0.0	4.1.0
Sep 2001	CN_13	NP-010464	002	--	Changing references to JAIN	4.1.0	4.2.0
Dec 2001	CN_14	NP-010594	003	--	Replace Out Parameters with Return Types	4.2.0	4.3.0
Dec 2001	CN_14	NP-010594	004	--	Remove the perception that the OSA API only uses CORBA for its transport mechanism	4.2.0	4.3.0
Mar 2002	--	--	--	--	Editorial update (no CR) following Hong Kong CN5#16	4.3.0	4.3.1
Jun 2002	CN_16	NP-020181	005	--	Addition of support for Java API technology realisation	4.3.1	5.0.0
Jun 2002	CN_16	NP-020182	006	--	Addition of support for WSDL realisation	4.3.1	5.0.0
Jun 2002	CN_16	NP-020184	007	--	Adding the full naming convention for exceptions	4.3.1	5.0.0
Jun 2002	CN_16	NP-020184	008	--	Correction of References in OSA specifications	4.3.1	5.0.0
Jun 2002	CN_16	NP-020184	009	--	Addition of text describing the technology realisations of the Parlay/OSA specification	4.3.1	5.0.0
Sep 2002	CN_17	NP-020427	010	--	Addition to ObjectRef description in WSDL Mapping Rules	5.0.0	5.1.0
Sep 2002	CN_17	NP-020427	011	--	Addition of sequence tag to Choice types	5.0.0	5.1.0
Sep 2002	CN_17	NP-020427	012	--	Replace all occurrences of the xsd:anyURI type to xsd:string	5.0.0	5.1.0
Sep 2002	CN_17	NP-020427	013	--	Correction to Namespace mapping in WSDL Mapping Rules	5.0.0	5.1.0
Sep 2002	CN_17	NP-020427	014	--	Correction to xmlns:wSDL Namespace	5.0.0	5.1.0
Sep 2002	CN_17	NP-020427	015	--	Prepend class name to <message> name.	5.0.0	5.1.0
Sep 2002	CN_17	NP-020427	016	--	Correction to void return types in WSDL Mapping Rules	5.0.0	5.1.0
Sep 2002	CN_17	NP-020427	017	--	Add missing CORBA realization rules in Part 1	5.0.0	5.1.0
Sep 2002	CN_17	NP-020427	018	--	Add general introduction to the OSA APIs in Part 1	5.0.0	5.1.0
Sep 2002	CN_17	NP-020395	020	--	Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0
Mar 2003	CN_19	--	--	--	Editorial update (no CR) following Bangkok CN5#22 (Introduction, Reference Titles)	5.1.0	5.1.1
Jun 2003	CN_20	NP-030298	022	1	Removal of un-used references	5.1.1	5.2.0
Jun 2003	CN_20	NP-030239	023	--	Correction to Java Realisation Annex	5.1.1	5.2.0
Sep 2003	CN_21	NP-030352	024	--	Correction to Java Realisation Annex	5.2.0	5.3.0
Dec 2003	CN_22	NP-030547	025	--	Add Java Realization rules to solve MPCC name conflicts	5.3.0	5.4.0
Dec 2003	CN_22	NP-030547	026	--	Correction to Java Realisation Rulebook	5.3.0	5.4.0
Apr 2004	CN_23bis	NP-040154	028	--	Correct Java Code to conform with Java Rulebook in TS 29.198-01 and to remove errors	5.4.0	5.5.0

CHANGE REQUEST

⌘ **29.198-01 CR 035** ⌘ rev **1** ⌘ Current version: **6.0.1** ⌘

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

Title:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ A	Release:	⌘ REL-6
	Use <u>one</u> of the following categories: 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 .		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)

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Y	N										
X											
	X										
	X										
Other comments:	⌘ This is a Rel-6 mirror to the CR in N5-040358. This CR forms part of a package introducing corrected J2SE & J2EE code in parts 7 and 12 of TS 29.198 Rel-6.										

C.3.6.5 NameValuePair (Enumerations)

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- two static final data members per name-value pair
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        }
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}
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        return "ADDRESS_SCREENING_USER_NOT_VERIFIED";
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    default:
        return "ERROR";
    }
}

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    if(value >= 0 && value < _size) {
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    } else {
        throw new org.csapi.jr.se.InvalidEnumValueException();
    }
}

    public boolean equals(Object o) {
//equality logic
    }

    public int hashCode() {
//hash code calculation
    }
}
}
```


Annex E (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	047	--	CR 29.198: for moving TS 29.198 from R99 to Rel-4 (N5-010158)	3.2.0	4.0.0
Jun 2001	CN_12	NP-010330	001	--	Corrections to OSA API Rel4 (Correction to IDL namespace to align with that of ETSI and Parlay equivalent APIs: Change org.open_service_access root namespace to org.csapi) (N5-010267)	4.0.0	4.1.0
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Dec 2001	CN_14	NP-010594	004	--	Remove the perception that the OSA API only uses CORBA for its transport mechanism	4.2.0	4.3.0
Mar 2002	--	--	--	--	Editorial update (no CR) following Hong Kong CN5#16	4.3.0	4.3.1
Jun 2002	CN_16	NP-020181	005	--	Addition of support for Java API technology realisation	4.3.1	5.0.0
Jun 2002	CN_16	NP-020182	006	--	Addition of support for WSDL realisation	4.3.1	5.0.0
Jun 2002	CN_16	NP-020184	007	--	Adding the full naming convention for exceptions	4.3.1	5.0.0
Jun 2002	CN_16	NP-020184	008	--	Correction of References in OSA specifications	4.3.1	5.0.0
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Sep 2002	CN_17	NP-020427	014	--	Correction to xmlns:wSDL Namespace	5.0.0	5.1.0
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Sep 2002	CN_17	NP-020395	020	--	Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0
Mar 2003	CN_19	--	--	--	Editorial update (no CR) following Bangkok CN5#22 (Introduction, Reference Titles)	5.1.0	5.1.1
Jun 2003	CN_20	NP-030298	022	1	Removal of un-used references	5.1.1	5.2.0
Jun 2003	CN_20	NP-030239	023	--	Correction to Java Realisation Annex	5.1.1	5.2.0
Sep 2003	CN_21	NP-030352	024	--	Correction to Java Realisation Annex	5.2.0	5.3.0
Dec 2003	CN_22	NP-030547	025	--	Add Java Realization rules to solve MPCC name conflicts	5.3.0	5.4.0
Dec 2003	CN_22	NP-030547	026	--	Correction to Java Realisation Rulebook	5.3.0	5.4.0
Dec 2003	CN_22	NP-030553	027	--	Add OSA API support for 3GPP2 networks	5.4.0	6.0.0
Feb 2004	--	--	--	--	Added Java code attachment 2919801J2EE.zip which was delivered late by outside developers. See Annex C; clause C 1.3 Javadoc	6.0.0	6.0.1

CHANGE REQUEST

⌘ **29.198-02 CR 045** ⌘ rev **-** ⌘ Current version: **5.6.0** ⌘

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:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, i.e when OSA is used in J2EE.
Consequences if not approved:	⌘ Vendors would have to extend the Java source code of certain data types.

Clauses affected:	⌘ Annex C										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications	Y	N	X			X		X	⌘	Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5
Y	N										
X											
	X										
	X										
Other comments:	⌘ This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.										

Annex C (informative): Java API Description of the Common Data definitions

The Java API realisation of this specification is produced in accordance with the Java Realisation rules defined in Part 1 of this specification series. These rules aim to deliver for Java, a developer API, provided as a realisation, supporting a Java API that represents the UML specifications. The rules support the production of both J2SE and J2EE versions of the API from the common UML specifications.

The J2SE representation of this specification is provided as Java Code, contained in archive ~~2919802V560J2SE~~[2919802V570J2SE](#).ZIP that accompanies the present document.

The J2EE representation of this specification is provided as Java Code, contained in archive 2919802J2EE.ZIP that accompanies the present document.

Annex E (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	047	--	CR 29.198: for moving TS 29.198 from R99 to Rel 4 (N5-010158)	3.2.0	4.0.0
Jun 2001	CN_12	NP-010330	001	--	Corrections to OSA API Rel4 (Exception handling mechanism without ambiguity - Replace TpGeneralException and TpResultInfo with detailed exception classes which can be thrown for each method (N5-010261)	4.0.0	4.1.0
Jun 2001	CN_12	NP-010333	002	--	Introduction of TpOctet (In order to make sure that some data is sent over the "distributed wire" untouched a new data type is needed) (N5-010304)	4.0.0	4.1.0
Sep 2001	CN_13	NP-010465	003	--	Changing references to JAIN	4.1.0	4.2.0
Sep 2001	CN_13	NP-010465	004	--	Clarification of common exceptions	4.1.0	4.2.0
Sep 2001	CN_13	NP-010465	005	--	Invalid parameter value exception for SLA violation	4.1.0	4.2.0
Sep 2001	CN_13	NP-010465	006	--	Storing eventCriteria	4.1.0	4.2.0
Dec 2001	CN_14	NP-010595	007	--	Replace Out Parameters with Return Types	4.2.0	4.3.0
Dec 2001	CN_14	NP-010595	008	--	Correction to Common Data (CD)	4.2.0	4.3.0
Dec 2001	CN_14	NP-010595	009	--	Correction to values of TpAddressPlan	4.2.0	4.3.0
Mar 2002	CN_15	NP-020104	010	--	Ambiguous definition of TpAssignmentID	4.3.0	4.4.0
Mar 2002	CN_15	NP-020104	011	--	Data type alignment in the common data types	4.3.0	4.4.0
Jun 2002	CN_16	NP-020185	011	--	Allowing the use of tel URL in TpAddressPlan	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185	012	--	Adding TpInt64 in order to align with the new Rel-5 TS 29.198-14	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185	013	--	Addition of undefined Data types: TpStringList and TpStringSet	4.4.0	5.0.0
Jun 2002	CN_16	NP-020181	014	--	Addition of support for Java API technology realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020182	015	--	Addition of support for WSDL realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185	016	--	Deletion of P_SET_LENGTH_EXCEEDED	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185	017	--	Removal of MIDL	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185	018	--	Revise the scope of TpSessionID and TpAssignmentID	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185	019	--	Deprecate P_ADDRESS_PLAN_MSMail	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185	020	--	Addition of support for an Exception Hierarchy	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185	021	--	Addition of type TpVersion in common data	4.4.0	5.0.0
Sep 2002	CN_17	NP-020395	022	--	Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0
Oct 2002	--	--	--	--	Added the two missing attachments (osa.idl contained in archive 2919802IDL.ZIP) (osa.wsdL contained in archive 2919802WSDL.ZIP)	5.1.0	5.1.1
Mar 2003	CN_19	NP-030018	025	--	Clarification on uniqueness of assignmentID	5.1.1	5.2.0
Mar 2003	CN_19	NP-030018	027	--	Correction to P_INVALID_STATE value	5.1.1	5.2.0
Mar 2003	CN_19	NP-030018	029	--	Addition of Support of National Numbering Plans	5.1.1	5.2.0
Mar 2003	CN_19	NP-030027	030	--	Addition of Numbered List of Data Elements definition	5.1.1	5.2.0
Mar 2003	CN_19	NP-030027	031	--	Correction of Exception Hierarchy to align with Java Realisation	5.1.1	5.2.0
Mar 2003	CN_19	NP-030027	032	--	Promotion of TpDataSessionQoSClass dat type definition to the Common Data Types	5.1.1	5.2.0
Jun 2003	CN_20	NP-030236	034	--	Correction of SIP Address wildcard rules	5.2.0	5.3.0
Jun 2003	CN_20	NP-030240	035	--	Add the type TpURN to Common Data Types	5.2.0	5.3.0
Sep 2003	CN_21	NP-030352	036	--	Correction to Java Realisation Annex	5.3.0	5.4.0
Dec 2003	CN_22	NP-030580	038	1	Description correction of TpOctetSet	5.4.0	5.5.0
Dec 2003	CN_22	NP-030543	040	--	Clarify use of base interface Reference within an inheritance relationship	5.4.0	5.5.0
Dec 2003	CN_22	NP-030548	042	--	Correction of datatypes supported by TpAttribute	5.4.0	5.5.0
Apr 2004	CN_23bis	NP-040155	043	--	Correct Java Code to conform with Java Rulebook in TS 29.198-01 and to remove errors	5.5.0	5.6.0

CHANGE REQUEST

⌘ **29.198-04-1 CR 011** ⌘ rev **-** ⌘ Current version: **5.5.0** ⌘

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:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, i.e when OSA is used in J2EE.
Consequences if not approved:	⌘ Vendors would have to extend the Java source code of certain data types.

Clauses affected:	⌘ Annex C										
Other specs affected:	<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>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </table> Other core specifications Test specifications O&M Specifications	Y	N	X			X		X	⌘	Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5
Y	N										
X											
	X										
	X										
Other comments:	⌘ This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.										

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Annex C (informative): Java API Description of the Call Control SCFs

The Java API realisation of this specification is produced in accordance with the Java Realisation rules defined in Part 1 of this specification series. These rules aim to deliver for Java, a developer API, provided as a realisation, supporting a Java API that represents the UML specifications. The rules support the production of both J2SE and J2EE versions of the API from the common UML specifications.

The J2SE representation of this specification is provided as Java Code, contained in archive 2919804-~~V550J2SE~~[V560J2SE](#).ZIP that accompanies the present document.

The J2EE representation of this specification is provided as Java Code, contained in archive 2919804-1J2EE.ZIP that accompanies the present document.

Annex D (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	047	-	CR 29.198: for moving TS 29.198 from R99 to Rel 4 (N5-010158)	3.2.0	1.0.0
June 2001	CN_12	NP-010327	--	--	Approved at TSG CN#12 and placed under Change Control	2.0.0	4.0.0
Sep 2001	CN_13	NP-010467	001	--	Changing references to JAIN	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	002	--	Correction of text descriptions for methods enableCallNotification and createNotification	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	003	--	Specify the behaviour when a call leg times out	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	004	--	Removal of Faulty state in MPCCS Call State Transition Diagram and method callFaultDetected in MPCCS in OSA R4	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	005	--	Missing TpCallAppInfoSet description in OSA R4	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	006	--	Redirecting a call leg vs. creating a call leg clarification in OSA R4	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	007	--	Introduction of MPCC Originating and Terminating Call Leg STDs for IpCallLeg	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	008	--	Corrections to SetChargePlan() Addition of PartyToCharge parameter	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	009	--	Corrections to SetChargePlan()	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	010	--	Remove distinction between final- and intermediate-report	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	011	--	Inclusion of TpMediaType	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	012	--	Corrections to GCC STD	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	013	--	Introduction of sequence diagrams for MPCC services	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	014	--	The use of the REDIRECT event needs to be illustrated	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	015	--	Corrections to SetCallChargePlan()	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	016	--	Add one additional error indication	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	017	--	Corrections to Call Control – GCCS Exception handling	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	018	--	Corrections to Call Control – Errors in Exceptions	4.0.0	4.1.0
Dec 2001	CN_14	NP-010597	019	--	Replace Out Parameters with Return Types	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	020	--	Removal of time based charging property	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	021	--	Make attachMedia() and detachMedia() asynchronous	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	022	--	Correction of treatment datatype in superviseReq on call leg	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	023	--	Corrections to Call Control Data Types	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	024	--	Correction to Call Control (CC)	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	025	--	Amend the Generic Call Control introductory part	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	026	--	Correction in TpCallEventType	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	027	--	Addition of missing description of RouteErr()	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	028	--	Misleading description of createAndRouteCallLegErr()	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	029	--	Correction to values of TpCallNotificationType, TpCallLoadControlMechanismType	4.1.0	4.2.0
Dec 2001	CN_14	NP-010695	030	--	Correction of method getLastRedirectionAddress	4.1.0	4.2.0
Mar 2002	CN_15	NP-020106	031	--	Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()	4.2.0	4.3.0
Mar 2002	CN_15	NP-020106	032	--	Correction of Event Subscription/Notification Data Type	4.2.0	4.3.0
Mar 2002	CN_15	NP-020106	033	--	Correction of parameter name in IpCallLeg.routeReq() and in IpCallLeg.setAdviceOfCharge()	4.2.0	4.3.0
Mar 2002	CN_15	NP-020106	034	--	Clarification of ambiguous Event handling rules	4.2.0	4.3.0
Jun 2002	CN_16	NP-020180	035	--	Correction to TpCallChargePlan	4.3.0	4.4.0
Jun 2002	CN_16	NP-020180	036	--	Correction to CAMEL Service Property values	4.3.0	4.4.0
Jun 2002	CN_16	NP-020181	037	-	Addition of support for Java API technology realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020182	038	-	Addition of support for WSDL realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	039	-	Addition of support for Emergency Telecommunications Service	4.4.0	5.0.0
Jun 2002	CN_16	NP-020183	040	-	Addition of support for Network Controlled Notifications MPCC	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	041	-	Changes to getNotification()	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	042	-	Addition of P_UNSUPPORTED_MEDIA release cause to TpReleaseCause	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	043	-	Addition of CAMEL Phase 4 Service Property values	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	044	-	Addition of indication whether SCS supports initially multiple routeReqs in parallel	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	045	-	Explicit exception for continueProcessing when not in interrupted mode	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	046	-	Indication needed that supervision will be ended when call or callLeg is deassigned	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	047	-	Clarify ambiguous Supervision duration	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	048	-	Detach/Attach request illegal during pending Attach/Detach request	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	049	-	Correction of Multi-Party Call Control properties	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	050	-	Correcting the sequence diagram descriptions in GCC and MPCC	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	051	-	Correcting erroneous description of UI behaviour in call control	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	052	-	Correcting the descriptions of sequence diagrams that don't match	4.4.0	5.0.0

					the diagram		
Jun 2002	CN_16	NP-020187	053	-	Correcting erroneous references to GCC in MPCC	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	054	-	Addition of the Multi-media APIs to Call control SCF (29.198-4)	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	055	-	Updating Clause 4 for Release 5	4.4.0	5.0.0
Jun 2002	CN_16	NP-020188	056	-	Splitting of 29.198-04 into 4 separate TSs (sub-parts)	4.4.0	5.0.0
Sep 2002	CN_17	NP-020429	001	--	29.198-04-1 Add text to clarify requirements on support of methods	5.0.0	5.1.0
Sep 2002	CN_17	NP-020395	002		29.198-04-1 Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0
Mar 2003	CN_19	NP-030029	003	--	Correction to Application's requirements for supporting methods	5.1.0	5.2.0
Mar 2003	CN_19	NP-030020	004	--	Correction to remove unused TpCallChargeOrder	5.1.0	5.2.0
Jun 2003	CN_20	NP-030242	005		Correction to Common Call Control Data	5.2.0	5.3.0
Sep 2003	CN_21	NP-030352	007	--	Correction to Java Realisation Annex	5.3.0	5.4.0
Apr 2004	CN_23bis	NP-040155	009	--	Correct Java Code to conform with Java Rulebook in TS 29.198-01 and to remove errors	5.4.0	5.5.0

CHANGE REQUEST

⌘ **29.198-04-4 CR 018** ⌘ rev **-** ⌘ Current version: **5.6.0** ⌘

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:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, i.e when OSA is used in J2EE.
Consequences if not approved:	⌘ Vendors would have to extend the Java source code of certain data types.

Clauses affected:	⌘ Annex C										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications	Y	N	X			X		X	⌘	Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5
Y	N										
X											
	X										
	X										
Other comments:	⌘ This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.										

Annex C (informative): Java API Description of the Call Control SCFs

The Java API realisation of this specification is produced in accordance with the Java Realisation rules defined in Part 1 of this specification series. These rules aim to deliver for Java, a developer API, provided as a realisation, supporting a Java API that represents the UML specifications. The rules support the production of both J2SE and J2EE versions of the API from the common UML specifications.

The J2SE representation of this specification is provided as Java Code, contained in archive 2919804-~~4V560J2SE~~[4V570J2SE](#).ZIP that accompanies the present document.

The J2EE representation of this specification is provided as Java Code, contained in archive 2919804-4J2EE.ZIP that accompanies the present document.

Annex D (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	047	-	CR 29.198: for moving TS 29.198 from R99 to Rel 4 (N5-010158)	3.2.0	1.0.0
June 2001	CN_12	NP-010327	--	--	Approved at TSG CN#12 and placed under Change Control	2.0.0	4.0.0
Sep 2001	CN_13	NP-010467	001	--	Changing references to JAIN	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	002	--	Correction of text descriptions for methods enableCallNotification and createNotification	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	003	--	Specify the behaviour when a call leg times out	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	004	--	Removal of Faulty state in MPCCS Call State Transition Diagram and method callFaultDetected in MPCCS in OSA R4	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	005	--	Missing TpCallAppInfoSet description in OSA R4	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	006	--	Redirecting a call leg vs. creating a call leg clarification in OSA R4	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	007	--	Introduction of MPCC Originating and Terminating Call Leg STDs for IpCallLeg	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	008	--	Corrections to SetChargePlan() Addition of PartyToCharge parameter	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	009	--	Corrections to SetChargePlan()	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	010	--	Remove distinction between final- and intermediate-report	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	011	--	Inclusion of TpMediaType	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	012	--	Corrections to GCC STD	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	013	--	Introduction of sequence diagrams for MPCC services	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	014	--	The use of the REDIRECT event needs to be illustrated	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	015	--	Corrections to SetCallChargePlan()	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	016	--	Add one additional error indication	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	017	--	Corrections to Call Control – GCCS Exception handling	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467	018	--	Corrections to Call Control – Errors in Exceptions	4.0.0	4.1.0
Dec 2001	CN_14	NP-010597	019	--	Replace Out Parameters with Return Types	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	020	--	Removal of time based charging property	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	021	--	Make attachMedia() and detachMedia() asynchronous	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	022	--	Correction of treatment datatype in superviseReq on call leg	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	023	--	Corrections to Call Control Data Types	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	024	--	Correction to Call Control (CC)	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	025	--	Amend the Generic Call Control introductory part	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	026	--	Correction in TpCallEventType	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	027	--	Addition of missing description of RouteErr()	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	028	--	Misleading description of createAndRouteCallLegErr()	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	029	--	Correction to values of TpCallNotificationType, TpCallLoadControlMechanismType	4.1.0	4.2.0
Dec 2001	CN_14	NP-010695	030	--	Correction of method getLastRedirectionAddress	4.1.0	4.2.0
Mar 2002	CN_15	NP-020106	031	--	Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()	4.2.0	4.3.0
Mar 2002	CN_15	NP-020106	032	--	Correction of Event Subscription/Notification Data Type	4.2.0	4.3.0
Mar 2002	CN_15	NP-020106	033	--	Correction of parameter name in IpCallLeg.routeReq() and in IpCallLeg.setAdviceOfCharge()	4.2.0	4.3.0
Mar 2002	CN_15	NP-020106	034	--	Clarification of ambiguous Event handling rules	4.2.0	4.3.0
Jun 2002	CN_16	NP-020180	035	--	Correction to TpCallChargePlan	4.3.0	4.4.0
Jun 2002	CN_16	NP-020180	036	--	Correction to CAMEL Service Property values	4.3.0	4.4.0
Jun 2002	CN_16	NP-020181	037	-	Addition of support for Java API technology realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020182	038	-	Addition of support for WSDL realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	039	-	Addition of support for Emergency Telecommunications Service	4.4.0	5.0.0
Jun 2002	CN_16	NP-020183	040	-	Addition of support for Network Controlled Notifications MPCC	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	041	-	Changes to getNotification()	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	042	-	Addition of P_UNSUPPORTED_MEDIA release cause to TpReleaseCause	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	043	-	Addition of CAMEL Phase 4 Service Property values	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	044	-	Addition of indication whether SCS supports initially multiple routeReqs in parallel	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	045	-	Explicit exception for continueProcessing when not in interrupted mode	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	046	-	Indication needed that supervision will be ended when call or callLeg is deassigned	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	047	-	Clarify ambiguous Supervision duration	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	048	-	Detach/Attach request illegal during pending Attach/Detach request	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	049	-	Correction of Multi-Party Call Control properties	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	050	-	Correcting the sequence diagram descriptions in GCC and MPCC	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	051	-	Correcting erroneous description of UI behaviour in call control	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	052	-	Correcting the descriptions of sequence diagrams that don't match	4.4.0	5.0.0

					the diagram		
Jun 2002	CN_16	NP-020187	053	-	Correcting erroneous references to GCC in MPCC	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	054	-	Addition of the Multi-media APIs to Call control SCF (29.198-4)	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187	055	-	Updating Clause 4 for Release 5	4.4.0	5.0.0
Jun 2002	CN_16	NP-020188	056	-	Splitting of 29.198-04 into 4 separate TSs (sub-parts)	4.4.0	5.0.0
Sep 2002	CN_17	NP-020395	001	--	29.198-04-4 Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0
Mar 2003	CN_19	NP-030032	002	-	Correction of status of MMCC methods	5.1.0	5.2.0
Mar 2003	CN_19	NP-030032	003	-	Correction of TpMediaStreamDataTypeRequest	5.1.0	5.2.0
Mar 2003	CN_19	NP-030032	004	-	Addition of missing TpMultiMediaCallIdentifierSet to data types	5.1.0	5.2.0
Jun 2003	CN_20	NP-030238	005	--	Correction of the description for callEventNotify & reportNotification	5.2.0	5.3.0
Jun 2003	CN_20	NP-030243	006	--	Correction to TpAudioCapabilitiesType and TpVideoCapabilitiesType to correctly indicate the required capabilities	5.2.0	5.3.0
Sep 2003	CN_21	NP-030352	009	--	Correction to Java Realisation Annex	5.3.0	5.4.0
Dec 2003	CN_22	NP-030544	010	--	Correction of description in superviseVolumeRes	5.4.0	5.5.0
Dec 2003	CN_22	NP-030551	011	--	Correction of method references in MMCC	5.4.0	5.5.0
Dec 2003	CN_22	NP-030551	012	--	Include full set of 3GPP codecs in TpAudioCapabilitiesType and TpVideoCapabilitiesType	5.4.0	5.5.0
Apr 2004	CN_23bis	NP-040155	015	--	Correct Java Code to conform with Java Rulebook in TS 29.198-01 and to remove errors	5.5.0	5.6.0

CHANGE REQUEST

⌘ **29.198-06 CR 027** ⌘ rev **-** ⌘ Current version: **5.4.0** ⌘

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:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, i.e when OSA is used in J2EE.
Consequences if not approved:	⌘ Vendors would have to extend the Java source code of certain data types.

Clauses affected:	⌘ Annex C										
Other specs affected:	<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>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </table> Other core specifications Test specifications O&M Specifications	Y	N	X			X		X	⌘	Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5
Y	N										
X											
	X										
	X										
Other comments:	⌘ This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.										

Annex C (informative): Java API Description of the Mobility SCFs

The Java API realisation of this specification is produced in accordance with the Java Realisation rules defined in Part 1 of this specification series. These rules aim to deliver for Java, a developer API, provided as a realisation, supporting a Java API that represents the UML specifications. The rules support the production of both J2SE and J2EE versions of the API from the common UML specifications.

The J2SE representation of this specification is provided as Java Code, contained in archive 2919806V5540J2SE.ZIP that accompanies the present document.

The J2EE representation of this specification is provided as Java Code, contained in archive 2919806J2EE.ZIP that accompanies the present document.

Annex D (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	047	-	CR 29.198: for moving TS 29.198 from R99 to Rel 4 (N5-010158)	3.2.0	4.0.0
Jun 2001	CN_12	NP-010330	001	--	Corrections to OSA API Rel4	4.0.0	4.1.0
Jul 2001	--	--	--	--	29198-06-410.zip archive was packaged with the wrong accompanying IDL zip file, which should be mm.idl and not Call Control IDLs (04).	4.1.0	4.1.1
Sep 2001	CN_13	NP-010520	002	--	Changing references to JAIN	4.1.1	4.2.0
Sep 2001	CN_13	NP-010520	003	--	Introduction of missing mobility exceptions	4.1.1	4.2.0
Oct 2001	--	--	--	--	Correction to ToC	4.2.0	4.2.1
Dec 2001	CN_14	NP-010599	004	--	Replace Out Parameters with Return Types	4.2.1	4.3.0
Dec 2001	CN_14	NP-010599	005	--	Methods accepting an interface as a parameter need to be able to raise P_INVALID_INTERFACE_TYPE	4.2.1	4.3.0
Dec 2001	CN_14	NP-010599	006	--	Correction of references to 3GPP specifications	4.2.1	4.3.0
Dec 2001	CN_14	NP-010599	007	--	Correction to callback interface reference in method IpTriggeredUserLocation.triggeredLocationReportingStartReq	4.2.1	4.3.0
Mar 2002	CN_15	NP-020108	008	--	Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()	4.3.0	4.4.0
Jun 2002	CN_16	NP-020181	009	--	Addition of support for Java API technology realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020182	010	--	Addition of support for WSDL realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020190	011	--	Delete the repetitive description of P_APPLICATION_NOT_ACTIVATED and other exceptions	4.4.0	5.0.0
Jun 2002	CN_16	NP-020190	012	--	Correcting type of assignmentID parameters from TpSessionID to TpAssignmentID	4.4.0	5.0.0
Jun 2002	CN_16	NP-020190	013	--	Correcting erroneous references to Service Factory	4.4.0	5.0.0
Sep 2002	CN_17	NP-020433	014	--	Remove all parameter error and network error sequence diagrams	5.0.0	5.1.0
Sep 2002	CN_17	NP-020433	015	--	Removal of unnecessary exception from IpUserLocation.LocationReportReq(), IpUserLocation.extendedLocationReportReq(), IpUserLocation.periodicLocationReportingStartReq()	5.0.0	5.1.0
Sep 2002	CN_17	NP-020433	016	--	Remove unusable exceptions from IpUserLocationCamel.periodicLocationReportingStartReq()	5.0.0	5.1.0
Sep 2002	CN_17	NP-020433	017	--	Add text to clarify requirements on support of methods	5.0.0	5.1.0
Sep 2002	CN_17	NP-020395	018	--	Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0
Mar 2003	CN_19	NP-030022	020		Addition of status of methods to Mobility interfaces	5.1.0	5.2.0
Sep 2003	CN_21	NP-030352	023	--	Correction to Java Realisation Annex	5.2.0	5.3.0
Apr 2004	CN_23bis	NP-040155	025	--	Correct Java Code to conform with Java Rulebook in TS 29.198-01 and to remove errors	5.3.0	5.4.0

CHANGE REQUEST

⌘ **29.198-07 CR 018** ⌘ rev **-** ⌘ Current version: **5.5.0** ⌘

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:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, i.e when OSA is used in J2EE.
Consequences if not approved:	⌘ Vendors would have to extend the Java source code of certain data types.

Clauses affected:	⌘ Annex C										
Other specs affected:	<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>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </table> Other core specifications Test specifications O&M Specifications	Y	N	X			X		X	⌘	Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5
Y	N										
X											
	X										
	X										
Other comments:	⌘ This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.										

Annex C (informative): Java API Description of the Terminal Capabilities SCF

The Java API realisation of this specification is produced in accordance with the Java Realisation rules defined in Part 1 of this specification series. These rules aim to deliver for Java, a developer API, provided as a realisation, supporting a Java API that represents the UML specifications. The rules support the production of both J2SE and J2EE versions of the API from the common UML specifications.

The J2SE representation of this specification is provided as Java Code, contained in archive [2919807V550J2SE](#)[2919807V560J2SE](#).ZIP that accompanies the present document.

The J2EE representation of this specification is provided as Java Code, contained in archive 2919807J2EE.ZIP that accompanies the present document.

Annex D (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	047	--	CR 29.198: for moving TS 29.198 from R99 to Rel 4 (N5-010158)	3.2.0	4.0.0
Jun 2001	CN_12	NP-010330	001	--	Corrections to OSA API Rel4	4.0.0	4.1.0
Sep 2001	CN_13	NP-010470	002	--	Changing references to JAIN	4.1.0	4.2.0
Dec 2001	CN_14	NP-010600	003	--	Replace Out Parameters with Return Types	4.2.0	4.3.0
Mar 2002	CN_15	NP-020109	004	--	Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()	4.3.0	4.4.0
Mar 2002	CN_15	NP-020113	005	--	Addition of terminal capability change notifications	4.4.0	5.0.0
Jun 2002	CN_16	NP-020182	006	--	Addition of support for WSDL realisation	5.0.0	5.1.0
Sep 2002	CN-17	NP-020434	007	--	Add text to clarify requirements on support of methods	5.1.0	5.2.0
Sep 2002	CN-17	NP-020395	008	--	Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.1.0	5.2.0
Mar 2003	CN_19	NP-030023	011	--	Addition of status of methods to Terminal Capabilities interfaces	5.2.0	5.3.0
Mar 2003	CN_19	NP-030023	013	--	Correction to TpTerminalCapabilities in Terminal Capabilities	5.2.0	5.3.0
Sep 2003	CN_21	NP-030352	014	--	Correction to Java Realisation Annex	5.3.0	5.4.0
Apr 2004	CN_23bis	NP-040155	016	--	Correct Java Code to conform with Java Rulebook in TS 29.198-01 and to remove errors	5.4.0	5.5.0

CHANGE REQUEST

⌘ **29.198-07 CR 019** ⌘ rev **-** ⌘ Current version: **6.0.1** ⌘

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

Title:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ A	Release:	⌘ REL-6
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, i.e when OSA is used in J2EE.
Consequences if not approved:	⌘ Vendors would have to extend the Java source code of certain data types.

Clauses affected:	⌘ Annex C						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications	Y	N		X	⌘	Rel-5 29.198 Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 Rel-6 29.198 Parts 1, 7
Y	N						
	X						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;"> </td> <td style="width: 20px; text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table> Test specifications O&M Specifications		X		X		
	X						
	X						
Other comments:	⌘ This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.						

Annex C (informative): Java API Description of the Terminal Capabilities SCF

The Java API realisation of this specification is produced in accordance with the Java Realisation rules defined in Part 1 of this specification series. These rules aim to deliver for Java, a developer API, provided as a realisation, supporting a Java API that represents the UML specifications. The rules support the production of both J2SE and J2EE versions of the API from the common UML specifications.

The J2SE representation of this specification is provided as Java Code, contained in archive 2919807J2SEV610.ZIP that accompanies the present document.

The J2EE representation of this specification is provided as Java Code, contained in archive 2919807J2EE.ZIP that accompanies the present document.

Annex E (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	047	--	CR 29.198: for moving TS 29.198 from R99 to Rel 4 (N5-010158)	3.2.0	4.0.0
Jun 2001	CN_12	NP-010330	001	--	Corrections to OSA API Rel4	4.0.0	4.1.0
Sep 2001	CN_13	NP-010470	002	--	Changing references to JAIN	4.1.0	4.2.0
Dec 2001	CN_14	NP-010600	003	--	Replace Out Parameters with Return Types	4.2.0	4.3.0
Mar 2002	CN_15	NP-020109	004	--	Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()	4.3.0	4.4.0
Mar 2002	CN_15	NP-020113	005	--	Addition of terminal capability change notifications	4.4.0	5.0.0
Jun 2002	CN_16	NP-020182	006	--	Addition of support for WSDL realisation	5.0.0	5.1.0
Sep 2002	CN-17	NP-020434	007	--	Add text to clarify requirements on support of methods	5.1.0	5.2.0
Sep 2002	CN-17	NP-020395	008	--	Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.1.0	5.2.0
Mar 2003	CN_19	NP-030023	011	--	Addition of status of methods to Terminal Capabilities interfaces	5.2.0	5.3.0
Mar 2003	CN_19	NP-030023	013	--	Correction to TpTerminalCapabilities in Terminal Capabilities	5.2.0	5.3.0
Sep 2003	CN_21	NP-030352	014	--	Correction to Java Realisation Annex	5.3.0	5.4.0
Dec 2003	CN_22	NP-030553	015	--	Add OSA API support for 3GPP2 networks	5.4.0	6.0.0
Feb 2004	--	--	--	--	Added Java code attachment 2919807J2EE.zip which was delivered late by outside developers. See Annex C.	6.0.0	6.0.1

CHANGE REQUEST

⌘ **29.198-12 CR 028** ⌘ rev **-** ⌘ Current version: **5.5.0** ⌘

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:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, i.e when OSA is used in J2EE.
Consequences if not approved:	⌘ Vendors would have to extend the Java source code of certain data types.

Clauses affected:	⌘ Annex C										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications	Y	N	X			X		X	⌘	Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5
Y	N										
X											
	X										
	X										
Other comments:	⌘ This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.										

Annex C (informative): Java API Description of the Charging SCF

The Java API realisation of this specification is produced in accordance with the Java Realisation rules defined in Part 1 of this specification series. These rules aim to deliver for Java, a developer API, provided as a realisation, supporting a Java API that represents the UML specifications. The rules support the production of both J2SE and J2EE versions of the API from the common UML specifications.

The J2SE representation of this specification is provided as Java Code, contained in archive [2919812V550J2SE2919812V560J2SE](#).ZIP that accompanies the present document.

The J2EE representation of this specification is provided as Java Code, contained in archive 2919812J2EE.ZIP that accompanies the present document.

Annex D (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	047	--	CR 29.198: for moving TS 29.198 from R99 to Rel 4 (N5-010158)	3.2.0	1.0.0
Jun 2001	CN_12	NP-010328	--	--		2.0.0	4.0.0
Sep 2001	CN_13	NP-010473	001	--	Changing references to JAIN	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	002	--	Error corrections charging	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	003	--	Changed semantics of closeReservation parameter	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	004	--	Missing errors in definition of (credit/debit)(Amoun/Unit)Err	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	005	--	Clarification of Unit Reservation	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	006	--	Improving correlation request and response for applications	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	007	--	Remove the P_CHS_PARAM_RESULT value from the TpChargingParameterID type	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	008	--	Align the order of parameters for similar methods	4.0.0	4.1.0
Dec 2001	CN_14	NP-010603	009	--	Replace Out Parameters with Return Types	4.1.0	4.2.0
Mar 2002	CN_15	NP-020112	010	--	Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()	4.2.0	4.3.0
Mar 2002	CN_15	NP-020112	011	--	Correction of parameter name in IpAppChargingSession.extendLifeTimeRes()	4.2.0	4.3.0
Jun 2002	CN_16	NP-020194	012	--	Clarify the use of setCallback with charging	4.3.0	5.0.0
Jun 2002	CN_16	NP-020194	013	--	Adding Service Properties for the Content Based Charging API	4.3.0	5.0.0
Jun 2002	CN_16	NP-020194	014	--	Addition of support for interactive authorization of payments ("User Confirmation")	4.3.0	5.0.0
Jun 2002	CN_16	NP-020194	015	--	Addition of support for Split Charging feature	4.3.0	5.0.0
Jun 2002	CN_16	NP-020181	016	--	Addition of support for Java API technology realisation	4.3.0	5.0.0
Jun 2002	CN_16	NP-020182	017	--	Addition of support for WSDL realisation	4.3.0	5.0.0
Sep 2002	CN_17	NP-020437	018	--	Add text to clarify requirements on support of methods	5.0.0	5.1.0
Sep 2002	CN_17	NP-020395	019	--	Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0
Mar 2003	CN_19	NP-030026	021	--	Addition of status of methods to Charging interfaces	5.1.0	5.2.0
Sep 2003	CN_21	NP-030352	022	--	Correction to Java Realisation Annex	5.2.0	5.3.0
Dec 2003	CN_22	NP-030546	024	--	Correcting charging State Transition when reservation closed	5.3.0	5.4.0
Apr 2004	CN_23bis	NP-040155	026	--	Correct Java Code to conform with Java Rulebook in TS 29.198-01 and to remove errors	5.4.0	5.5.0

CHANGE REQUEST

⌘ **29.198-12 CR 029** ⌘ rev **-** ⌘ Current version: **6.0.1** ⌘

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

Title:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ A	Release:	⌘ REL-6
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, i.e when OSA is used in J2EE.
Consequences if not approved:	⌘ Vendors would have to extend the Java source code of certain data types.

Clauses affected:	⌘ Annex C						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><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="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><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="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><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:	⌘ This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.						

Annex C (informative): Java API Description of the Charging SCF

The Java API realisation of this specification is produced in accordance with the Java Realisation rules defined in Part 1 of this specification series. These rules aim to deliver for Java, a developer API, provided as a realisation, supporting a Java API that represents the UML specifications. The rules support the production of both J2SE and J2EE versions of the API from the common UML specifications.

The J2SE representation of this specification is provided as Java Code, contained in archive 2919812J2SEV610.ZIP that accompanies the present document.

The J2EE representation of this specification is provided as Java Code, contained in archive 2919812J2EE.ZIP that accompanies the present document.

Annex E (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	047	--	CR 29.198: for moving TS 29.198 from R99 to Rel 4 (N5-010158)	3.2.0	1.0.0
Jun 2001	CN_12	NP-010328	--	--		2.0.0	4.0.0
Sep 2001	CN_13	NP-010473	001	--	Changing references to JAIN	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	002	--	Error corrections charging	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	003	--	Changed semantics of closeReservation parameter	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	004	--	Missing errors in definition of (credit/debit)(Amoun/Unit)Err	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	005	--	Clarification of Unit Reservation	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	006	--	Improving correlation request and response for applications	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	007	--	Remove the P_CHS_PARAM_RESULT value from the TpChargingParameterID type	4.0.0	4.1.0
Sep 2001	CN_13	NP-010473	008	--	Align the order of parameters for similar methods	4.0.0	4.1.0
Dec 2001	CN_14	NP-010603	009	--	Replace Out Parameters with Return Types	4.1.0	4.2.0
Mar 2002	CN_15	NP-020112	010	--	Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()	4.2.0	4.3.0
Mar 2002	CN_15	NP-020112	011	--	Correction of parameter name in IpAppChargingSession.extendLifeTimeRes()	4.2.0	4.3.0
Jun 2002	CN_16	NP-020194	012	--	Clarify the use of setCallback with charging	4.3.0	5.0.0
Jun 2002	CN_16	NP-020194	013	--	Adding Service Properties for the Content Based Charging API	4.3.0	5.0.0
Jun 2002	CN_16	NP-020194	014	--	Addition of support for interactive authorization of payments ("User Confirmation")	4.3.0	5.0.0
Jun 2002	CN_16	NP-020194	015	--	Addition of support for Split Charging feature	4.3.0	5.0.0
Jun 2002	CN_16	NP-020181	016	--	Addition of support for Java API technology realisation	4.3.0	5.0.0
Jun 2002	CN_16	NP-020182	017	--	Addition of support for WSDL realisation	4.3.0	5.0.0
Sep 2002	CN_17	NP-020437	018	--	Add text to clarify requirements on support of methods	5.0.0	5.1.0
Sep 2002	CN_17	NP-020395	019	--	Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0
Mar 2003	CN_19	NP-030026	021	--	Addition of status of methods to Charging interfaces	5.1.0	5.2.0
Sep 2003	CN_21	NP-030352	022	--	Correction to Java Realisation Annex	5.2.0	5.3.0
Dec 2003	CN_22	NP-030546	024	-	Correcting charging State Transition when reservation closed	5.3.0	5.4.0
Dec 2003	CN_22	NP-030553	025	-	Add OSA API support for 3GPP2 networks	5.4.0	6.0.0
Feb 2004	--	--	--	--	Added Java code attachment 2919812J2EE.zip; which was delivered late by outside developers. See Annex C.	6.0.0	6.0.1

CHANGE REQUEST

⌘ **29.198-13 CR 009** ⌘ rev **-** ⌘ Current version: **5.4.0** ⌘

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

Title:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, i.e when OSA is used in J2EE.
Consequences if not approved:	⌘ Vendors would have to extend the Java source code of certain data types.

Clauses affected:	⌘ Annex B										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications	Y	N	X			X		X	⌘	Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5
Y	N										
X											
	X										
	X										
Other comments:	⌘ This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.										

Annex B (informative): Java API Description of the Policy Management SCF

The Java API realisation of this specification is produced in accordance with the Java Realisation rules defined in Part 1 of this specification series. These rules aim to deliver for Java, a developer API, provided as a realisation, supporting a Java API that represents the UML specifications. The rules support the production of both J2SE and J2EE versions of the API from the common UML specifications.

The J2SE representation of this specification is provided as Java Code, contained in archive [2919813V540J2SE](#) [2919813V550J2SE](#).ZIP that accompanies the present document.

The J2EE representation of this specification is provided as Java Code, contained in archive 2919813J2EE.ZIP that accompanies the present document.

Annex C (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
April 2002	--	--	--	--	Draft v100 submitted to TSG CN email list for Information	--	1.0.0
June 2002	CN_16	NP-020195	--	--	Draft v200 submitted to TSG CN#16 for Approval	2.0.0	5.0.0
Sep 2002	CN_17	NP-020439	001	--	Add text to clarify requirements on support of methods	5.0.0	5.1.0
Sep 2002	CN_17	NP-020395	002	--	Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0
Sep 2003	CN_21	NP-030352	004	--	Correction to Java Realisation Annex	5.1.0	5.2.0
Dec 2003	CN_22	NP-030548	006	--	Correction of standard datatypes supported by TpPolicy - Align with 29.198-02	5.2.0	5.3.0
Apr 2004	CN_23bis	NP-040155	008	--	Correct Java Code to conform with Java Rulebook in TS 29.198-01 and to remove errors	5.3.0	5.4.0

CHANGE REQUEST

⌘ **29.198-14 CR 021** ⌘ rev **-** ⌘ Current version: **5.5.0** ⌘

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

Title:	⌘ Correct Java Rulebook		
Source:	⌘ CN5 John-Luc Bakker		
Work item code:	⌘ OSA2	Date:	⌘ 21/05/2004
Category:	⌘ F	Release:	⌘ REL-5
	Use <u>one</u> of the following categories: 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 .		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)

Reason for change:	⌘ Java code, and a rulebook for developing it, were introduced into the OSA specifications in September 2003. The Java production process does not include generation for a mandatory method.
Summary of change:	⌘ This document introduces a required method in the Java source code by amending the Java source production process. The method is required for Java de-serialization of certain data types to work, i.e when OSA is used in J2EE.
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Other specs affected:	<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>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </table> Other core specifications Test specifications O&M Specifications	Y	N	X			X		X	⌘	Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5
Y	N										
X											
	X										
	X										
Other comments:	⌘ This CR forms part of a package introducing corrected J2SE & J2EE code in parts 2, 4-1, 4-4, 6, 7, 12, 13 and 14 of TS 29.198 Release 5.										

Annex B (informative): Java API Description of the Presence and Availability Management SCFs

The Java API realisation of this specification is produced in accordance with the Java Realisation rules defined in Part 1 of this specification series. These rules aim to deliver for Java, a developer API, provided as a realisation, supporting a Java API that represents the UML specifications. The rules support the production of both J2SE and J2EE versions of the API from the common UML specifications.

The J2SE representation of this specification is provided as Java Code, contained in archive [2919814V550J2SE2919814V560J2SE](#).ZIP that accompanies the present document.

The J2EE representation of this specification is provided as Java Code, contained in archive 2919814J2EE.ZIP that accompanies the present document.

Annex C (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
April 2002	--	--	--	--	Draft v100 submitted to TSG CN email list for Information		1.0.0
June 2002	CN_16	NP-020196	--	--	Draft v200 submitted to TSG CN#16 for Approval	2.0.0	5.0.0
Sep 2002	CN_17	NP-020440	001	--	Add text to clarify requirements on support of methods	5.0.0	5.1.0
Sep 2002	CN_17	NP-020440	002	--	Remove declaration of unused datatype TpPAMTime	5.0.0	5.1.0
Sep 2002	CN_17	NP-020395	003	--	Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0
Jun 2003	CN_20	NP-030245	004	--	Make TpPAMCapability extensible by changing its type to TpString	5.1.0	5.2.0
Jun 2003	CN_20	NP-030240	005	--	Change the type of TpPAMFQName to TpURN	5.1.0	5.2.0
Jun 2003	CN_20	NP-030245	006	--	Clarify use of askerData parameter to getAuthToken method in each PAM SCF	5.1.0	5.2.0
Jun 2003	CN_20	NP-030245	007	--	Add authToken parameter to computeAvailability method	5.1.0	5.2.0
Jun 2003	CN_20	NP-030245	008	--	Replace use of IpInterfaceRef in PAM with actual application interfaces	5.1.0	5.2.0
Jun 2003	CN_20	NP-030245	009	--	Add expiration time for PAM event registrations	5.1.0	5.2.0
Jun 2003	CN_20	NP-030245	010	--	Send subscription notification cancellation to watchers	5.1.0	5.2.0
Jun 2003	CN_20	NP-030241	011	--	Change PAM Presence and Availability SCF name to PAM Access	5.1.0	5.2.0
Jun 2003	CN_20	NP-030245	012	--	Move Access Control Mechanism to Manager Interface	5.1.0	5.2.0
Sep 2003	CN_21	NP-030352	013	--	Correction to Java Realisation Annex	5.2.0	5.3.0
Dec 2003	CN_22	NP-030548	017	--	Correction of description of TpAttributeType to adequately support possible types - Align with 29.198-02	5.3.0	5.4.0
Dec 2003	CN_22	NP-030548	018	--	Correction of definitin of TpPAMAttribute and addition of Service Properties to publish supported attribute types - Align with 29.198-02	5.3.0	5.4.0
Apr 2004	CN_23bis	NP-040155	019	--	Correct Java Code to conform with Java Rulebook in TS 29.198-01 and to remove errors	5.4.0	5.5.0