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

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	Α	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	Α	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	Α	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

joint-API-gro Meeting #27,								P TS	G_(CN WG5)		N5	5-040358
				(CHAN	IGE	REQ	UE	ST	•			CR-Form-v7
×	29.	.198	3-01	CR	034	:	⊭ rev	1	¥	Current ve	rsion:	5.5.0	#
For <u>HELP</u>	on us	ing tl	nis foi	rm, see	e bottom o	of this	page or	look	at th	e pop-up tex	t ove	r the ₩ sy	mbols.
Proposed chai	nge a	ffect	s: l	UICC a	apps#		ME	Ra	dio A	ccess Netw	ork	Core N	letwork X
Title:	\mathfrak{R}	Cor	ect J	ava Ru	ulebook								
Source:	Ж	CNS	Johr Johr	n-Luc E	Bakker								
Work item cod	le:₩	OSA	12							Date:	€ 21	/05/2004	
Reason for cha	ange:	Use of F	F (con. A (cor. B (add C (fun. D (edi. led expland in Java spect The meth This ame	rection, respondition of actional itorial m planatic 3GPP	ds to a cor f feature), modification pons of the a TR 21.900 and a rul ons in Sep production	rrection on of fe) above (. lebook otember of proces	in an ea ature) categorie for deve er 2003. ess does a requir produc	elopii ed m	ng it, include	2	of the for (GSI) (Relicing	a mandate ce code b s requirec	SA ory ory d for Java
Consequences not approved:		¥	Vend	dors w	ould have	to ext	tend the	Java	sou	rce code of	certair	n data typ	es.
Clauses affect	od:	æ	Ann	ex C.3	6.5								
Ciauses allect	eu.	ტ	Anne	=X U.3.	0.0								
Other specs		<u> </u>	Y N X X	Othe Test	r core spe	tions	tions	X		5 29.198 Pa 13 and 14	ırts 1,	2, 4-1, 4-	4, 6, 7,
				Ualvi	Specification	สแบบร							

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
- <u>readResolve()</u>, 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];</pre>
             } else {
                 throw new org.csapi.jr.se.InvalidEnumValueException();
        }
        public boolean equals(Object o) {
        //equality logic
        public int hashCode() {
        int hashCode() {
//hash code calculation
}
}
```

D-1-	T00 #	T00 D	00	D	Change history	01.1	Marin
Date	TSG #	TSG Doc.	CR		Subject/Comment	Old	New
Mar 2001	CN_11	NP-010134	_		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	4.0.0	4.1.0
					with that of ETSI and Parlay equivalent APIs: Change		
0 0004	ON 40	NID 040404	000		org.open_service_access root namespace to org.csapi) (N5-010267)	4.4.0	400
Sep 2001	_	NP-010464			Changing references to JAIN	4.1.0	4.2.0
Dec 2001	CN_14	NP-010594			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	800		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		NP-020427	012		Replace all occurrences of the xsd:anyURI type to xsd:string	5.0.0	5.1.0
Sep 2002		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.</message>	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 # For HELP on using this form, see bottom of this page or look at the pop-up text over the # symbols.

ME Radio Access Network Core Network X Proposed change affects: Title: **光 Correct Java Rulebook** Source: CN5 John-Luc Bakker Work item code:

SA2 Date: 第 21/05/2004 ₩ A Release:

REL-6 Category: Use one of the following categories: Use one of the following releases: F (correction) (GSM Phase 2) 2 **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), R97 (Release 1997) **C** (functional modification of feature) (Release 1998) R98 **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can (Release 4) Rel-4 be found in 3GPP TR 21.900. (Release 5) Rel-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 第 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:	Y N X Other core specifications X Test specifications O&M Specifications X O&M Specifications
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)

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
- <u>readResolve()</u>, 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];</pre>
             } else {
                 throw new org.csapi.jr.se.InvalidEnumValueException();
        }
        public boolean equals(Object o) {
        //equality logic
        public int hashCode() {
        int hashCode() {
//hash code calculation
}
}
```

					Change history		
Date		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	4.0.0	4.1.0
					with that of ETSI and Parlay equivalent APIs: Change		
					org.open_service_access root namespace to org.csapi) (N5-010267)		
Sep 2001		NP-010464	002		Changing references to JAIN	4.1.0	4.2.0
Dec 2001	_	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	4.2.0	4.3.0
					transport mechanism		
Mar 2002					Editorial update (no CR) following Hong Kong CN5#16	4.3.0	4.3.1
Jun 2002			005		Addition of support for Java API technology realisation	4.3.1	5.0.0
Jun 2002		NP-020182			Addition of support for WSDL realisation	4.3.1	5.0.0
Jun 2002		NP-020184	007		Adding the full naming convention for exceptions	4.3.1	5.0.0
Jun 2002		NP-020184	800		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	4.3.1	5.0.0
					Parlay/OSA specification		
Sep 2002		NP-020427	010		Addition to ObjectRef description in WSDL Mapping Rules	5.0.0	5.1.0
Sep 2002	_		011		Addition of sequence tag to Choice types	5.0.0	5.1.0
Sep 2002	_	NP-020427	012		Replace all occurrences of the xsd:anyURI type to xsd:string	5.0.0	5.1.0
Sep 2002		NP-020427	013		Correction to Namespace mapping in WSDL Mapping Rules	5.0.0	5.1.0
Sep 2002	_	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.</message>	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		NP-030547	025		Add Java Realization rules to solve MPCC name conflicts	5.3.0	5.4.0
Dec 2003		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

Meeting #27, Miami, FL, USA, 10-14 May 2004 CR-Form-v7 CHANGE REQUEST \mathfrak{R} Current version: 29.198-02 CR 045 **#rev** For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \mathbb{H} symbols. ME Radio Access Network Proposed change affects: UICC apps# Core Network X Correct Java Rulebook Title: Source: CN5 John-Luc Bakker Work item code:

SA2 Date: 第 21/05/2004 ₩ F Release: # REL-5 Category: Use one of the following releases: Use one of the following categories: (GSM Phase 2) F (correction) 2 **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), R97 (Release 1997) **C** (functional modification of feature) R98 (Release 1998) **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can (Release 4) Rel-4 be found in 3GPP TR 21.900. 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. Vendors would have to extend the Java source code of certain data types. Consequences if not approved: Annex C Clauses affected: \mathfrak{R} \mathfrak{R} Other core specifications # Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 Other specs of TS 29.198 Release 5 affected: Test specifications **O&M Specifications**

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 2919802V560J2SE2919802V570J2SE.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.

					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	4.0.0	4.1.0
					exception classes which can be thrown for each method (N5-010261)		
Jun 2001	CN_12	NP-010333	002		Introduction of TpOctet (In order to make sure that some data is sent over	4.0.0	4.1.0
					the "distributed wire" untouched a new data type is needed) (N5-010304)		
Sep 2001	CN_13	NP-010465			Changing references to JAIN	4.1.0	4.2.0
Sep 2001	CN_13	NP-010465			Clarification of common exceptions	4.1.0	4.2.0
Sep 2001	CN_13	NP-010465			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			Replace Out Parameters with Return Types	4.2.0	4.3.0
Dec 2001	CN_14		800		Correction to Common Data (CD)	4.2.0	4.3.0
Dec 2001	CN_14		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			Data type alignment in the common data types	4.3.0	4.4.0
Jun 2002	CN_16	NP-020185			Allowing the use of tel URL in TpAddressPlan	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185			Adding TpInt64 in order to aling with the new Rel-5 TS 29.198-14	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185			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			Addition of support for WSDL realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185			Deletion of P_SET_LENGTH_EXCEEDED	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185			Removal of MIDL	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185			Revise the scope of TpSessionID and TpAssignmentID	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185			Deprecate P_ADDRESS_PLAN_MSMAIL	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185			Addition of support for an Exception Hierarchy	4.4.0	5.0.0
Jun 2002	CN_16	NP-020185			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)	5.1.0	5.1.1
					(osa.wsdl contained in archive 2919802WSDL.ZIP)		
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

Meeting #27, Miami, FL, USA, 10-14 May 2004 CR-Form-v7 CHANGE REQUEST \mathfrak{R} 29.198-04-1 CR 011 Current version: **#rev** For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \mathbb{H} symbols. ME Radio Access Network Proposed change affects: UICC apps# Core Network X Correct Java Rulebook Title: Source: CN5 John-Luc Bakker Work item code: SA2 Date: 第 21/05/2004 ₩ F Release: # REL-5 Category: Use one of the following releases: Use one of the following categories: (GSM Phase 2) F (correction) 2 **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), R97 (Release 1997) **C** (functional modification of feature) R98 (Release 1998) **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can (Release 4) Rel-4 be found in 3GPP TR 21.900. 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. Vendors would have to extend the Java source code of certain data types. Consequences if not approved: Annex C Clauses affected: \mathfrak{R} \mathfrak{R} Other core specifications # Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 Other specs of TS 29.198 Release 5 affected: Test specifications

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.

O&M Specifications

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 2919804-1V550J2SE1V560J2SE.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.

					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			Removal of Faulty state in MPCCS Call State Transition Diagram and	4.0.0	4.1.0
3ep 2001	CIV_13	141 -010407	004		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			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			Introduction of MPCC Originating and Terminating Call Leg STDs for	4.0.0	4.1.0
					IpCallLeg		
Sep 2001	CN_13	NP-010467	800		Corrections to SetChargePlan() Addition of PartyToCharge parmeter	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			The use of the REDIRECT event needs to be illustrated	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467			Corrections to SetCallChargePlan()	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467			Add one additional error indication	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467			Corrections to Call Control – GCCS Exception handling	4.0.0	4.1.0
Sep 2001	CN_13	NP-010467			Corrections to Call Control – Errors in Exceptions	4.0.0	4.1.0
Dec 2001	CN_14	NP-010597			Replace Out Parameters with Return Types	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597			Removal of time based charging property	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597			Make attachMedia() and detachMedia() asynchronous	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597			Correction of treatment datatype in superviseReq on call leg	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597			Corrections to Call Control Data Types	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597			Correction to Call Control (CC)	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597			Amend the Generic Call Control introductory part	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597			Correction in TpCallEventType	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597			Addition of missing description of RouteErr()	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597			Misleading description of createAndRouteCallLegErr()	4.1.0	4.2.0
Dec 2001	CN_14	NP-010597	029		Correction to values of TpCallNotificationType,	4.1.0	4.2.0
Dec 2001	CN_14	NP-010695	020		TpCallLoadControlMechanismType Correction of method getLastRedirectionAddress	4.1.0	4.2.0
Mar 2002	CN_14	NP-010095		 	Add P_INVALID_INTERFACE_TYPE exception to	4.1.0	4.2.0
Wai 2002	CIN_13	141 -020100	031		IpService.setCallback() and IpService.setCallbackWithSessionID()	4.2.0	4.5.0
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			Correction of parameter name in IpCallLeg.routeReq() and in	4.2.0	4.3.0
					IpCallLeg.setAdviceOfCharge()		
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		<u> -</u>	Addition of support for Java API technology realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020182		-	Addition of support for WSDL realisation	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187		-	Addition of support for Emergency Telecommunications Service	4.4.0	5.0.0
Jun 2002	CN_16	NP-020183		-	Addition of support for Network Controlled Notifications MPCC	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187		-	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	l <u>-</u>	Addition of CAMEL Phase 4 Service Property values	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187		-	Addition of indication whether SCS supports initially multiple	4.4.0	5.0.0
0411 2002	011_10	141 020101	0		routeRegs in parallel	1	0.0.0
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		-	Detach/Attach request illegal during pending Attach/Detach request	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187		-	Correction of Multi-Party Call Control properties	4.4.0	5.0.0
Jun 2002	CN_16	NP-020187		-	Correcting the sequence diagram descriptions in GCC and MPCC	4.4.0	5.0.0
, -				1	Correcting erroneous description of UI behaviour in call control		5.0.0
Jun 2002	CN_16	NP-020187	I CO I	-	1Correcting errorieous description of Orbenaviour in Cali Control	4.4.0	3.0.0

					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	-	Spliting 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	5.0.0	5.1.0
					ETSI/Parlay OSA specifications		
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	5.4.0	5.5.0
					and to remove errors		

Meeting #27, Miami, FL, USA, 10-14 May 2004 CR-Form-v7 CHANGE REQUEST \mathfrak{R} Current version: 29.198-04-4 CR 018 **#rev** For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \mathbb{H} symbols. ME Radio Access Network Proposed change affects: UICC apps# Core Network X Correct Java Rulebook Title: Source: CN5 John-Luc Bakker Work item code: SA2 Date: 第 21/05/2004 ₩ F Release: # REL-5 Category: Use one of the following releases: Use one of the following categories: (GSM Phase 2) F (correction) 2 **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), (Release 1997) R97 **C** (functional modification of feature) R98 (Release 1998) **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can (Release 4) Rel-4 be found in 3GPP TR 21.900. 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. Vendors would have to extend the Java source code of certain data types. Consequences if not approved: Annex C Clauses affected: \mathfrak{R} \mathfrak{R} Other core specifications # Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 Other specs of TS 29.198 Release 5 affected: Test specifications

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.

O&M Specifications

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 2919804-4V560J2SE4V570J2SE.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.

						Change history		
Mar 2001 CN. 11 NP-010143 Q47 CR. 29.198 from reviews TS 29.198 from R99 to R81 4 (NS-010159) 3.2.0 1.0.0	Date	TSG #	TSG Doc.	CR	Rev		Old	New
June 2001 CN. 12 NP-010327 Approved at TSG CN+12 and placed under Change Control 2.0.0 4.0.0 4.1.0 Sep 2001 CN. 13 NP-010467 7002 Correction of text descriptions for methods enableCallNotification and 4.0.0 4.1.0 4	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
Sep 2001 CN 13 NP-010467 001 Changing references to JAIN	June 2001	CN 12	NP-010327				2.0.0	4.0.0
Sep 2001 CN_13 NP-010467 002 Correction of text descriptions for methods enableCallNotification and 4.0.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.1	Sep 2001			001			4.0.0	4.1.0
Sep 2001 CN 13 NP-010467 003 Sep 2001 CN 13 NP-010467 005 Sep 2001 CN 13 NP-010467 007 Sep 2001 CN 13 NP-010467 007 Sep 2001 CN 13 NP-010467 008 Sep 2001 CN 13 NP-010467 009 Sep 2001 CN 13 NP-010467 008 Sep 2001 CN 13 NP-010467 009 Sep 2001 CN 13 NP-010467 010 Sep 2001 CN 13 NP-010467 010 Sep 2001 CN 13 NP-010467 010 Sep 2001 CN 13 NP-010467 011 Sep 2001 CN 13 NP-010467 012 Sep 2001 CN 13 NP-010467 014 Sep 2001 CN 13 NP-010467 015 Sep 2001 CN 13 NP-010467 014 Sep 2001 CN 13 NP-010467 015 Sep 2001 CN 13 NP-010467 015 Sep 2001 Sep 2001 CN 13 NP-010467 015 Sep 2001 Sep	Sep 2001					Correction of text descriptions for methods enableCallNotification and	4.0.0	4.1.0
Sep 2001 CN_13 NP-010467 O04 Sep 2001 CN_13 NP-010467 O05 Missing TpCallAppintOset description in OSA R4 A.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O06 Missing TpCallAppintOset description in OSA R4 A.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O06 Introduction of MPCC Originating and Terminating Call Leg STDs for 4.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O07 Introduction of MPCC Originating and Terminating Call Leg STDs for 4.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O08 Corrections to SetChargePlan() Addition of PartyToCharge parmeter 4.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O09 Corrections to SetChargePlan() Addition of PartyToCharge parmeter 4.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O11 Remove distinction between final- and intermediate-report 4.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O11 Corrections to GCC STD 4.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O14 Corrections to GCC STD 4.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O14 The use of the REDIRECT event needs to be illustrated 4.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O15 Corrections to GCC STD Sep 2001 CN_13 NP-010467 O15 Corrections to GCC STD Sep 2001 CN_13 NP-010467 O16 Add one additional error indication 4.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O17 Corrections to Gali Control - GCCS Exception handling 4.0.0 4.1.0 Sep 2001 CN_13 NP-010467 O17 Corrections to Gali Control - GCCS Exception handling 4.0.0 4.1.0 Sep 2001 CN_14 NP-010597 O17 Corrections to Gali Control - Errors in Exceptions 4.0.0 4.1.0 Sep 2001 CN_14 NP-010597 O17 Sep 2001 CN_14 NP-010597	Sen 2001	CN 13	NP-010467	003	l		400	410
method callFaultbetereted in MPCCS in OSA R4 4.00 4.10					+	Removal of Faulty state in MPCCS Call State Transition Diagram and		
Sep 2001 CN 31 NP-010467 006 Redirecting a call leg vs. creating a call leg clarification in OSA R4 4.00 4.10						method callFaultDetected in MPCCS in OSA R4		
Introduction of MPCC Originating and Terminating Call Leg STDs for 4.00 4.10								
IpCall.leg								
Sep 2001 CN. 13 NP-010467 009 Corrections to SetChargePlan() 4.0.0 4.1.0 5.0.0 4.1.0	Sep 2001					IpCallLeg	4.0.0	
Sep 2001 CN 13 NP-010467 010 Remove distinction between final- and intermediate-report 4.00 4.10	Sep 2001							
Sep 2001 CN 13 NP-010467 011 - Inclusion of TpMediaType	Sep 2001	CN_13				Corrections to SetChargePlan()	4.0.0	4.1.0
Sep 2001 CN 13 NP-010467 012 Corrections to GCC STD A0.0 4.1.0 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 4.1.0 Sep 2001 CN 13 NP-010467 015 Corrections to Set CellaChargePlan() 4.0.0 4.1.0	Sep 2001					Remove distinction between final- and intermediate-report	4.0.0	
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 015 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 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 14 NP-010467 018 Corrections to Call Control - Errors in Exceptions 4.0.0 4.1.0 4.1.0 Sep 2001 CN 14 NP-010597 019 Replace Out Parameters with Return Types 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 020 Removal of time based charging property 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 022 Corrections to Call Control - Errors in Exceptions 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 023 Corrections of treatment datatype in superviseReq on call leg 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 023 Corrections to Call Control Data Types 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 025 Correction to Call Control Data Types 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 025 Correction to Call Control (CC) 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 025 Amend the Generic Call Control Introductory part 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 027 Addition of missing description of RouteErr() 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 027 Addition of missing description of RouteErr() 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 027 Addition of missing description of RouteErr() 4.1.0 4.2.0 Sep 2001 CN 14 NP-010597 027 Addition of missing description of RouteErr() 4.1.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.	Sep 2001	CN_13	NP-010467	011		Inclusion of TpMediaType	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						4.0.0	4.1.0
Sep 2001 CN 13	Sep 2001	CN_13	NP-010467	013		Introduction of sequence diagrams for MPCC services	4.0.0	4.1.0
Sep 2001 CN 13	Sep 2001						4.0.0	
Sep 2001 CN. 13 NP-010467 017 — Corrections to Call Control – GCCS Exception handling 4.0.0 4.1.0 Sep 2001 CN. 14 NP-010467 018 — Corrections to Call Control – Errors in Exceptions 4.0.0 4.1.0 4.2.0 Dec 2001 CN. 14 NP-010597 020 — 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 022 — Make attachMedia(a) and detachMedia(a) synchronous 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 024 — Corrections 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 TyCall EventType 4.1.0	Sep 2001	CN_13	NP-010467	015			4.0.0	4.1.0
Sep 2001 CN 14 NP-010597 O19	Sep 2001	CN_13	NP-010467	016			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	Sep 2001	CN_13	NP-010467	017	l	Corrections to Call Control – GCCS Exception handling	4.0.0	4.1.0
Dec 2001 CN_14 NP-010597 021 Removal of time based charging property 4.1.0 4.2.0	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 021 Make attachMedia() and detachMedia() asynchronous 4.1.0 4.2.0	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 021 Make attachMedia() and detachMedia() asynchronous 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 022 Correction of treatment datatype in superviseReq on call leg 4.1.0 4.2.0		CN 14					4.1.0	4.2.0
Dec 2001 CN_14		CN 14					4.1.0	
Dec 2001 CN_14		CN 14						
Dec. 2001 CN_14 NP-010597 025								
Dec 2001 CN_14 NP-010597 026 Correction in TpCallEventType 4.1.0 4.2.0					l			
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, 4.1.0 4.2.0 Dec 2001 CN_14 NP-010695 030 Correction of method getLastRedirectionAddress 4.1.0 4.2.0 Dec 2001 CN_15 NP-020106 031 Add P_INVALID_INTERFACE_TYPE exception to 4.2.0 4.3.0 IpService setCallback() and IpService setCallbackWithSessionID() 4.2.0 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 Event Subscription/Notification Data Type 4.2.0 4.3.0 Mar 2002 CN_15 NP-020106 033 Correction of Event Subscription/Notification Data Type 4.2.0 4.3.0 Mar 2002 CN_16 NP-020180 035 Correction of Data Type 4.2.0 4.3.0 Jun 2002 CN_16 NP-020180 035 Correction to TpCallCharge() 4.2.0 4.3.0 Jun 2002 CN_16 NP-020180 036 Correction to TpCallChargePlan 4.3.0 4.4.0 Jun 2002 CN_16 NP-020180 036 Correction to TpCallChargePlan 4.3.0 4.4.0 Jun 2002 CN_16 NP-020187 039 Addition of support for Java API technology realisation 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 039 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 043 Addition of Support for Network Controlled Notifications MPCC 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 044 Addition of Support for Network Controlled Notifications MPCC 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 045 Explicit exception for continueProcessing when not in interrupted 4.4.0 5								
Dec 2001 CN_14					l			
Dec 2001 CN_14								
Dec 2001 CN_14	Dec 2001					Correction to values of TpCallNotificationType,		
Mar 2002 CN_15 NP-020106 031	Dec 2001	CN 14	NP-010605	030	1		<i>1</i> 1 0	120
IpService.setCallback() and IpService.setCallbackWithSessionID()								
Mar 2002 CN_15 NP-020106 032	Wai 2002	011_13	141 020100	001			7.2.0	4.5.0
Mar 2002 CN_15 NP-020106 033	Mar 2002	CN 15	NP-020106	032	l		420	430
IpCallLeg.setÅdviceOfCharge()								
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 Java API technology realisation 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 039 Addition of support for WSDL realisation 4.4.0 5.0.0 Jun 2002 CN_16 NP-020183 040 Addition of support for Emergency Telecommunications Service 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 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 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 045 Explicit exception for continueProcessing when not in interrupted 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 046 Indication needed that supervision will be ended when call or callLeg 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 049 Correction of Multi-Party Call Control properties 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 049 Correcting the sequence diagram descriptions in GCC and MPCC 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 050 Correcting the sequence diagram description of UI behaviour in call control 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 051 Correcting the sequence diagram description of UI behaviour in call control 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 051 Correcting t						IpCallLeg.setAdviceOfCharge()		
Jun 2002 CN_16 NP-020181 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-020187 039 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 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 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 045 Explicit exception for continueProcessing when not in interrupted 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 046 Explicit exception for continueProcessing when not in interrupted 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 Clarify ambiguous Supervision duration 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 049 Correcting for Multi-Party Call Control properties 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 049 Correcting the sequence diagram descriptions in GCC and MPCC 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 050 Correcting erroneous description of UI behaviour in call control 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					1			
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 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 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 045 - Explicit exception for continueProcessing when not in interrupted 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 046 - Indication needed that supervision will be ended when call or callLeg 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 050 - Correcting erroneous description of UI behaviour in call control 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 050 - Correcting erroneous description of UI behaviour in call control 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 050 - Correcting erroneous description of UI behaviour in call control 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 051 - Correcting								
Jun 2002 CN_16 NP-020187 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 routeRegs 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 050 - Correcting erroneous description of UI behaviour in call control 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 051 - Correcting erroneous description of UI behaviour in call control 4.4.0 5.0.0 Jun 2002 CN_16 NP-020187 051 - Correcting erroneous description of UI behaviour in call control 4								
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 045 - Addition of indication whether SCS supports initially multiple routeRegs 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 051 - Correcting erroneous description of UI behaviour in call control 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 051 - Correcting erroneous description of UI behaviour in call control 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					-			
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 7.0.0 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 051 - Correcting erroneous description of UI behaviour in call control 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 051 - Correcting erroneous description of UI behaviour in call control 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 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 routeRegs 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 051 - Correcting erroneous description of UI behaviour in call control 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 051 - Correcting erroneous description of UI behaviour in call control 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 routeRegs 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					-			
TpReleaseCause					-			
Dun 2002 CN_16 NP-020187 044 - Addition of indication whether SCS supports initially multiple routeRegs in parallel 4.4.0 5.0.0	Jun 2002	CN_16	NP-020187	042	-	TpReleaseCause	4.4.0	
TouteReqs in parallel Foundation Found	Jun 2002							
Un 2002	Jun 2002	CN_16	NP-020187	044	-		4.4.0	5.0.0
Un 2002	Jun 2002	CN_16	NP-020187	045	-	Explicit exception for continueProcessing when not in interrupted	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	046	-	Indication needed that supervision will be ended when call or callLeg	4.4.0	5.0.0
Jun 2002 CN_16 NP-020187 048 - Obstach/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	047	 -		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 2002CN_16NP-020187050-Correcting the sequence diagram descriptions in GCC and MPCC4.4.05.0.0Jun 2002CN_16NP-020187051-Correcting erroneous description of UI behaviour in call control4.4.05.0.0					l <u>-</u>			
Jun 2002 CN_16 NP-020187 051 - Correcting erroneous description of UI behaviour in call control 4.4.0 5.0.0					l_			
					 -			
AND ZURZ COAN ON THE DZUTO/ DELZ E. CONFERENCIA DECEMBER OF COMPANION PROPERTY OF THE PARTY OF THE PARTY OF THE	Jun 2002	CN_16			l_	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	-	Spliting 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	5.0.0	5.1.0
					ETSI/Parlay OSA specifications		
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 TpAudioCapabiltiesType and TpVideoCapabilitiesType	5.2.0	5.3.0
					to correctly indicate the required capabilities		
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 TpAudioCapabiltiesType and	5.4.0	5.5.0
					TpVideoCapabilitiesType		
Apr 2004	CN_23bis	NP-040155	015		Correct Java Code to conform with Java Rulebook in TS 29.198-01	5.5.0	5.6.0
					and to remove errors		

Meeting #27, Miami, FL, USA, 10-14 May 2004 CR-Form-v7 CHANGE REQUEST \mathfrak{R} Current version: 29.198-06 CR 027 **#rev** For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \mathbb{H} symbols. ME Radio Access Network Proposed change affects: UICC apps# Core Network X Correct Java Rulebook Title: Source: CN5 John-Luc Bakker Work item code: SA2 Date: 第 21/05/2004 ₩ F Release: # REL-5 Category: Use one of the following releases: Use one of the following categories: (GSM Phase 2) F (correction) 2 **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), R97 (Release 1997) **C** (functional modification of feature) R98 (Release 1998) **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can (Release 4) Rel-4 be found in 3GPP TR 21.900. 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. Vendors would have to extend the Java source code of certain data types. Consequences if not approved: Annex C Clauses affected: \mathfrak{R} \mathfrak{R} Other core specifications # Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 Other specs of TS 29.198 Release 5 affected: Test specifications

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.

O&M Specifications

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.

					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	4.1.0	4.1.1
					accompanying IDL zip file, which should be mm.idl		
					and not Call Control IDLs (04).		
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	4.2.1	4.3.0
					IpTriggeredUserLocation.triggeredLocationReportingStartReq		
Mar 2002	CN_15	NP-020108	800		Add P_INVALID_INTERFACE_TYPE exception to	4.3.0	4.4.0
					IpService.setCallback() and IpService.setCallbackWithSessionID()		
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	4.4.0	5.0.0
					TpAssignmentID		
Jun 2002	CN_16	NP-020190			Correcting erroneous references to Service Factory	4.4.0	5.0.0
Sep 2002	CN_17	NP-020433	_		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	5.0.0	5.1.0
					IpUserLocation.LocationReportReq(),		
					IpUserLocation.extendedLocationReportReq(),		
0 0000	ON 47	ND 000400	040		lpUserLocation.periodicLocationReportingStartReq()	500	5.4.0
Sep 2002	CN_17	NP-020433	016		Remove unusable exceptions from	5.0.0	5.1.0
C-= 0000	CN 47	ND 000400	047		IpUserLocationCamel.periodicLocationReportingStartReq()	F 0 0	T 4 0
Sep 2002	CN_17	NP-020433		 	Add text to clarify requirements on support of methods Add text to clarify relationship between 3GPP and ETSI/Parlay OSA	5.0.0	5.1.0
Sep 2002	CN_17	NP-020395	018		specifications	5.0.0	5.1.0
Mar 2003	CN_19	NP-030022			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
		_					

Meeting #27, Mi						. •	U_ U		J				,-1000-1
			CH	ANGE	REQ	UE	ST	ı				C	CR-Form-v7
ж <mark>29</mark>	.198	8-07	CR 018	3	⊭rev	-	Ж	Current	versi	ion:	5.5.0		¥
For <u>HELP</u> on u	ısing t	his for	m, see bott	om of this	page or	look	at the	e pop-up	text	over t	the ¥ sy	ymi	bols.
Proposed change	affect	ts: L	JICC apps8	# <u> </u>	ME	Rad	dio A	ccess Ne	etwor	k	Core N	let	work X
Title: ∺	Cor	rect Ja	ava Rulebo	ok									
Source: #	CN	<mark>5 John</mark>	-Luc Bakke	er									
Work item code: ∺	OS	A2						Date	e: ૠ	21/0	5/2004		
Category: ₩	Detai	F (corr A (corr B (add C (fund D (edit	the following rection) responds to lition of featuring modific rectional modific planations of 3GPP TR 21	a correction ire), fication of fe ation) the above (in an eal		elease	2	<u>ne</u> of 1 6 7 8 9 1-4 1-5	(GSM (Relea (Relea (Relea	lowing re Phase 2 ase 1996 ase 1997 ase 1998 ase 4) ase 5)	2) 3) 7) 3)	ses:
Reason for change		The meth	document inding the Ja	September ction processing for the control of the c	er 2003. ess does a require	not i	nclud ethod	de genera d in the J ss. The	ation ava s meth	for a source	mandat e code t required	ory by	r Java
Consequences if not approved:	₩		erialization lors would										
Clauses affected:	Ж	Anne	ex C										
Other specs affected:	*	Y N X	Other core		tions	*	Part of T	s 1, 2, 4- S 29.198	-1, 4 3 Rele	4, 6, 7 ease 5	7, 12, 13 5	3 aı	nd 14

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 2919807V550J2SE2919807V560J2SE.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.

					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	800		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

Meeting #27, N	liami,	, FL, l	JSA,	10-14 N	1ay 20	04						00.5 -
			(CHAN	GE I	REQ	UE	ST	•			CR-Form-v7
¥ 2	9.19	8-07	CR	019	ж	rev	-	¥	Current vers	sion:	6.0.1	¥
For <u>HELP</u> on	using	this for	m, see	e bottom o	of this p	age or	look	at th	e pop-up text	over	the # syl	mbols.
Proposed change	e affec	ets: l	JICC a	apps#		ME	Ra	dio A	ccess Netwo	rk	Core Ne	etwork X
Title:	ж <mark>Со</mark>	rrect J	ava Ru	ılebook								
Source:	₩ CN	15 Johr	n-Luc E	Bakker								
Work item code:	₩ OS	SA2							Date: ₩	21/	05/2004	
Category:	∺ A								Release: #	RE	T -6	
Category.	<i>Use</i> Deta	F (cord A (cord B (add C (fund D (editailed exp	rection) respon lition of ctional torial m blanatic	owing cate ds to a cor f feature), modification odification ons of the a TR 21.900	rection in the control of the contro	ture)			Use <u>one</u> of 2	the for (GSN (Relea (Relea (Relea (Relea (Relea (Relea	-	
Reason for chan	ge: Ж	spec	ificatio Java p	ns in Sep	tember	2003.			were introdu			
Summary of chai	n ge:	ame	nding t	he Java s	source	product	tion p	roce	d in the Java ss. The meth , i.e when Os	nod is	required	for Java
Consequences if not approved:	* #	Vend	dors w	ould have	to exte	end the	Java	sou	rce code of c	ertain	data type	es.
		_										
Clauses affected	<i>:</i>	Anne	ex C									
Other specs	ж			r core spe		ons	X	12,	5 29.198 Par 13 and 14 6 29.198 Par			1, 6, 7,
affected:		X		specificat Specifica								

CR page 1

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 2919807J2SE<u>V610</u>.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.

	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	800		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			

Meeting #27, Miami, FL, USA, 10-14 May 2004 CR-Form-v7 CHANGE REQUEST \mathfrak{R} Current version: 29.198-12 CR 028 **#rev** For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \mathbb{H} symbols. ME Radio Access Network Proposed change affects: UICC apps# Core Network X Correct Java Rulebook Title: Source: CN5 John-Luc Bakker Work item code: SA2 Date: 第 21/05/2004 ₩ F Release: # REL-5 Category: Use one of the following releases: Use one of the following categories: (GSM Phase 2) F (correction) 2 **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), R97 (Release 1997) **C** (functional modification of feature) R98 (Release 1998) **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can (Release 4) Rel-4 be found in 3GPP TR 21.900. 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. Vendors would have to extend the Java source code of certain data types. Consequences if not approved: Annex C Clauses affected: \mathfrak{R} \mathfrak{R} Other core specifications # Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 Other specs of TS 29.198 Release 5 affected: Test specifications **O&M Specifications**

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.

					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	4.0.0	4.1.0
					TpChargingParameterID type		
Sep 2001	CN_13	NP-010473	800		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	4.2.0	4.3.0
					IpService.setCallback() and IpService.setCallbackWithSessionID()		
Mar 2002	CN_15	NP-020112	011		Correction of parameter name in	4.2.0	4.3.0
					IpAppChargingSession.extendLifeTimeRes()		
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		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

Meeting #27, Miami, FL, USA, 10-14 May 2004 CR-Form-v7 CHANGE REQUEST \mathfrak{R} Current version: 29.198-12 CR 029 **#rev** For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \mathbb{H} symbols. ME Radio Access Network Core Network X Proposed change affects: Title: Correct Java Rulebook Source: CN5 John-Luc Bakker Work item code: SA2 Date: 第 21/05/2004 ₩ A Release: REL-6 Category: Use one of the following categories: Use one of the following releases: (GSM Phase 2) F (correction) 2 **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), R97 (Release 1997) **C** (functional modification of feature) R98 (Release 1998) **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can (Release 4) Rel-4 be found in 3GPP TR 21.900. 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. Vendors would have to extend the Java source code of certain data types. Consequences if not approved:

Clauses affected:	第 Annex C
Other specs affected:	Y N X Other core specifications X Test specifications O&M Specifications
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 2919812J2SE<u>V610</u>.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.

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	4.0.0	4.1.0				
					TpChargingParameterID type						
Sep 2001	CN_13	NP-010473	800		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	4.2.0	4.3.0				
					IpService.setCallback() and IpService.setCallbackWithSessionID()						
Mar 2002	CN_15	NP-020112	011		Correction of parameter name in	4.2.0	4.3.0				
					IpAppChargingSession.extendLifeTimeRes()						
Jun 2002	CN_16	NP-020194			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		022		Correction to Java Realisation Annex	5.2.0	5.3.0				
Dec 2003	CN 22		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				

CR-Form-v7 CHANGE REQUEST \mathfrak{R} Current version: 29.198-13 CR 009 **#rev** For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \mathbb{H} symbols. ME Radio Access Network Proposed change affects: UICC apps# Core Network X Correct Java Rulebook Title: Source: CN5 John-Luc Bakker Work item code:

SA2 Date: 第 21/05/2004 ₩ F Release: # REL-5 Category: Use one of the following releases: Use one of the following categories: (GSM Phase 2) F (correction) 2 **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), (Release 1997) R97 **C** (functional modification of feature) R98 (Release 1998) **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can Rel-4 (Release 4) be found in 3GPP TR 21.900. 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. Vendors would have to extend the Java source code of certain data types. Consequences if not approved: Clauses affected: \mathfrak{R} Annex B \mathfrak{R} Other core specifications # Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 Other specs of TS 29.198 Release 5 affected: Test specifications **O&M Specifications**

CR page 1

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 2919813V540J2SE2919813V550J2SE.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.

Change history											
TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New					
				Draft v100 submitted to TSG CN email list for Information		1.0.0					
CN_16	NP-020195			Draft v200 submitted to TSG CN#16 for Approval	2.0.0	5.0.0					
CN_17	NP-020439	001		Add text to clarify requirements on support of methods	5.0.0	5.1.0					
CN_17	NP-020395	002		Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications	5.0.0	5.1.0					
CN_21	NP-030352	004		Correction to Java Realisation Annex	5.1.0	5.2.0					
CN_22	NP-030548	006		Correction of standard datatypes supported by TpPolicy - Align with 29.198-02	5.2.0	5.3.0					
CN_23bis	NP-040155	800		Correct Java Code to conform with Java Rulebook in TS 29.198-01 and to remove errors	5.3.0	5.4.0					
	 CN_16 CN_17 CN_17 CN_21 CN_22	CN_16 NP-020195 CN_17 NP-020439 CN_17 NP-020395 CN_21 NP-030352 CN_22 NP-030548			TSG # TSG Doc. CR Rev Subject/Comment Draft v100 submitted to TSG CN email list for Information CN_16 NP-020195 Draft v200 submitted to TSG CN#16 for Approval CN_17 NP-020439 001 Add text to clarify requirements on support of methods CN_17 NP-020395 002 Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications CN_21 NP-030352 004 Correction to Java Realisation Annex CN_22 NP-030548 006 Correction of standard datatypes supported by TpPolicy - Align with 29.198-02 CN_23bis NP-040155 008 Correct Java Code to conform with Java Rulebook in TS 29.198-01	TSG # TSG Doc. CR Rev Subject/Comment Old Draft v100 submitted to TSG CN email list for Information CN_16 NP-020195 Draft v200 submitted to TSG CN#16 for Approval 2.0.0 CN_17 NP-020439 001 Add text to clarify requirements on support of methods 5.0.0 CN_17 NP-020395 002 Add text to clarify relationship between 3GPP and ETSI/Parlay OSA specifications 5.0.0 CN_21 NP-030352 004 Correction to Java Realisation Annex 5.1.0 CN_22 NP-030548 006 Correction of standard datatypes supported by TpPolicy - Align with 29.198-02 5.2.0 CN_23bis NP-040155 008 Correct Java Code to conform with Java Rulebook in TS 29.198-01 5.3.0					

Meeting #27, Miami, FL, USA, 10-14 May 2004 CR-Form-v7 CHANGE REQUEST \mathfrak{R} 29,198-14 CR 021 Current version: **#rev** For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \mathbb{H} symbols. ME Radio Access Network Proposed change affects: UICC apps# Core Network X Correct Java Rulebook Title: Source: CN5 John-Luc Bakker Work item code: SA2 Date: 第 21/05/2004 ₩ F Release: # REL-5 Category: Use one of the following releases: Use one of the following categories: (GSM Phase 2) F (correction) 2 **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), (Release 1997) R97 **C** (functional modification of feature) R98 (Release 1998) **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can (Release 4) Rel-4 be found in 3GPP TR 21.900. 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. Vendors would have to extend the Java source code of certain data types. Consequences if not approved: Clauses affected: \mathfrak{R} Annex B \mathfrak{R} Other core specifications # Parts 1, 2, 4-1, 4-4, 6, 7, 12, 13 and 14 Other specs of TS 29.198 Release 5 affected: Test specifications **O&M Specifications**

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.

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		Clarifiy 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	800		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