
Source: SA5 (Telecom Management)
Title: 2 Rel-4/5 CR 32.205 Correction to ASN.1 Charging Data Record (CDR) - Alignment with R99 32.005
Document for: Decision
Agenda Item: 7.5.3

Doc-1st-Le	Spec	CR	R	Phase	Subject	Cat	Vers.	Doc-2nd-L	Workitem
SP-040139	32.205	024	-	Rel-4	Correction to ASN.1 Charging Data Record (CDR) - Alignment with R99 32.005	F	4.6.0	S5-044110	OAM-CH
SP-040139	32.205	025	-	Rel-5	Correction to ASN.1 Charging Data Record (CDR) - Alignment with R99 32.005	A	5.5.0	S5-044111	OAM-CH

CHANGE REQUEST

⌘ **32.205 CR 024** ⌘ rev **-** ⌘ Current version: **4.6.0** ⌘

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

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

Title:	⌘ Correction to ASN.1 Charging Data Record (CDR) - Alignment with R99 32.005		
Source:	⌘ SA5 (bvowen@lucent.com)		
Work item code:	⌘ OAM-CH	Date:	⌘ 27/02/2004
Category:	⌘ F	Release:	⌘ Rel-4
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	⌘ The ASN.1 TermCAMELRecord contains tag values that are incompatible with the R99 version of the specification (32.005).		
Summary of change:	⌘ The parameter mscServerIndication has been given the correct tag value. And the subsequent parameters have had their tag values re-numbered.		
Consequences if not approved:	⌘ Rel-4 of the Charging Data Record structure will not be compatible with R99, unnecessarily requiring separate implementations.		

Clauses affected:	⌘ 6.1										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;"> </td> </tr> </table> Other core specifications Test specifications O&M Specifications	Y	N		X		X	X		⌘	Rel-5 32.205
Y	N										
	X										
	X										
X											
Other comments:	⌘ Release 5 mirror CR in S5-044111										

How to create CRs using this form:

6 Charging Data Record Structure

6.1 ASN.1 definitions for CDR information

.....

```

RoamingRecord ::= SET
{
    recordType                [0] CallEventRecordType,
    servedIMSI                [1] IMSI,
    servedMSISDN              [2] MSISDN OPTIONAL,
    callingNumber              [3] CallingNumber OPTIONAL,
    roamingNumber              [4] RoamingNumber OPTIONAL,
    recordingEntity            [5] RecordingEntity,
    mscIncomingTKGP           [6] TrunkGroup OPTIONAL,
    mscOutgoingTKGP           [7] TrunkGroup OPTIONAL,
    basicService               [8] BasicServiceCode OPTIONAL,
    transparencyIndicator      [9] TransparencyInd OPTIONAL,
    changeOfService            [10] SEQUENCE OF ChangeOfService OPTIONAL,
    supplServicesUsed          [11] SEQUENCE OF SuppServiceUsed OPTIONAL,
    seizureTime                [12] TimeStamp OPTIONAL,
    answerTime                 [13] TimeStamp OPTIONAL,
    releaseTime                [14] TimeStamp OPTIONAL,
    callDuration               [15] CallDuration,
    dataVolume                 [16] DataVolume OPTIONAL,
    causeForTerm               [17] CauseForTerm,
    diagnostics                 [18] Diagnostics OPTIONAL,
    callReference              [19] CallReference,
    sequenceNumber             [20] INTEGER OPTIONAL,
    recordExtensions           [21] ManagementExtensions OPTIONAL,
    networkCallReference       [22] NetworkCallReference OPTIONAL,
    mSCAddress                 [23] MSCAddress OPTIONAL
}

TermCAMELRecord ::= SET
{
    recordtype                [0] CallEventRecordType,
    servedIMSI                [1] IMSI,
    servedMSISDN              [2] MSISDN OPTIONAL,
    recordingEntity            [3] RecordingEntity,
    interrogationTime          [4] TimeStamp,
    destinationRoutingAddress [5] DestinationRoutingAddress,
    gsm-SCFAddress             [6] Gsm-SCFAddress,
    serviceKey                 [7] ServiceKey,
    networkCallReference       [8] NetworkCallReference OPTIONAL,
    mSCAddress                 [9] MSCAddress OPTIONAL,
    defaultCallHandling        [10] DefaultCallHandling OPTIONAL,
    recordExtensions           [11] ManagementExtensions OPTIONAL,
    calledNumber               [12] CalledNumber,
    callingNumber              [13] CallingNumber OPTIONAL,
    mscIncomingTKGP           [14] TrunkGroup OPTIONAL,
    mscOutgoingTKGP           [15] TrunkGroup OPTIONAL,
    seizureTime                [16] TimeStamp OPTIONAL,
    answerTime                 [17] TimeStamp OPTIONAL,
    releaseTime                [18] TimeStamp OPTIONAL,
    callDuration               [19] CallDuration,
    dataVolume                 [20] DataVolume OPTIONAL,
    causeForTerm               [21] CauseForTerm,
    diagnostics                 [22] Diagnostics OPTIONAL,
    callReference              [23] CallReference,
    sequenceNumber             [24] INTEGER OPTIONAL,
    numberOfDPEncountered     [25] INTEGER OPTIONAL,
    levelOfCAMELService        [26] LevelOfCAMELService OPTIONAL,
    freeFormatData             [27] FreeFormatData OPTIONAL,
    cAMELCallLegInformation    [28] SEQUENCE OF CAMELInformation OPTIONAL,
    freeFormatDataAppend       [29] BOOLEAN OPTIONAL,
mscServerIndication       [30] BOOLEAN OPTIONAL,
    defaultCallHandling-2      [30+1] DefaultCallHandling OPTIONAL,
    gsm-SCFAddress-2           [31+2] Gsm-SCFAddress OPTIONAL,

```


CHANGE REQUEST

⌘ **32.205 CR 025** ⌘ rev **-** ⌘ Current version: **5.5.0** ⌘

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

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

Title:	⌘ Correction to ASN.1 Charging Data Record (CDR) - Alignment with R99 32.005		
Source:	⌘ SA5 (bvowen@lucent.com)		
Work item code:	⌘ OAM-CH	Date:	⌘ 27/02/2004
Category:	⌘ A	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	R96	2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R97	(Release 1996)
	B (addition of feature),	R98	(Release 1997)
	C (functional modification of feature)	R99	(Release 1998)
	D (editorial modification)	Rel-4	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-5	(Release 4)
		Rel-6	(Release 5)
			(Release 6)

Reason for change:	⌘ The ASN.1 TermCAMELRecord contains tag values that are incompatible with the R99 version of the specification.
Summary of change:	⌘ The parameter mscServerIndication has been given the correct tag value. And the subsequent parameters have had their tag values re-numbered.
Consequences if not approved:	⌘ Rel-5 of the Charging Data Record structure will be incompatible with R99, unnecessarily requiring separate implementations.

Clauses affected:	⌘ 6.1				
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications ⌘	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Y	N				
<input type="checkbox"/>	<input checked="" type="checkbox"/>				
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications ⌘	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Y	N				
<input type="checkbox"/>	<input checked="" type="checkbox"/>				
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications ⌘	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Y	N				
<input type="checkbox"/>	<input checked="" type="checkbox"/>				
Other comments:	⌘ Rel-5 Mirror CR of Rel-4 CR in S5-044110				

*****START OF CHANGE TO SECTION 6.1*****

6 Charging Data Record Structure

6.1 ASN.1 definitions for CDR information

```

.....

RoamingRecord ::= SET
{
    recordType                [0] CallEventRecordType,
    servedIMSI                [1] IMSI,
    servedMSISDN              [2] MSISDN OPTIONAL,
    callingNumber              [3] CallingNumber OPTIONAL,
    roamingNumber              [4] RoamingNumber OPTIONAL,
    recordingEntity            [5] RecordingEntity,
    mscIncomingTKGP           [6] TrunkGroup OPTIONAL,
    mscOutgoingTKGP           [7] TrunkGroup OPTIONAL,
    basicService               [8] BasicServiceCode OPTIONAL,
    transparencyIndicator      [9] TransparencyInd OPTIONAL,
    changeOfService            [10] SEQUENCE OF ChangeOfService OPTIONAL,
    supplServicesUsed          [11] SEQUENCE OF SuppServiceUsed OPTIONAL,
    seizureTime                [12] TimeStamp OPTIONAL,
    answerTime                 [13] TimeStamp OPTIONAL,
    releaseTime                [14] TimeStamp OPTIONAL,
    callDuration               [15] CallDuration,
    dataVolume                 [16] DataVolume OPTIONAL,
    causeForTerm               [17] CauseForTerm,
    diagnostics                [18] Diagnostics OPTIONAL,
    callReference              [19] CallReference,
    sequenceNumber             [20] INTEGER OPTIONAL,
    recordExtensions           [21] ManagementExtensions OPTIONAL,
    networkCallReference       [22] NetworkCallReference OPTIONAL,
    mSCAddress                 [23] MSCAddress OPTIONAL,
    locationRoutNum            [24] LocationRoutingNumber OPTIONAL,
    lrnSoInd                   [25] LocationRoutingNumberSourceIndicator OPTIONAL,
    lrnQueryStatus             [26] LocationRoutingNumberQueryStatus OPTIONAL,
    jIPPara                    [27] JurisdictionInformationParameter OPTIONAL,
    jIPSoInd                   [28] JurisdictionInformationParameterSourceIndicator OPTIONAL,
    jIPQueryStatus             [29] JurisdictionInformationParameterQueryStatus OPTIONAL,
    partialRecordType          [30] PartialRecordType OPTIONAL
}

TermCAMELRecord ::= SET
{
    recordtype                [0] CallEventRecordType,
    servedIMSI                [1] IMSI,
    servedMSISDN              [2] MSISDN OPTIONAL,
    recordingEntity            [3] RecordingEntity,
    interrogationTime          [4] TimeStamp,
    destinationRoutingAddress  [5] DestinationRoutingAddress,
    gsm-SCFAddress             [6] Gsm-SCFAddress,
    serviceKey                 [7] ServiceKey,
    networkCallReference       [8] NetworkCallReference OPTIONAL,
    mSCAddress                 [9] MSCAddress OPTIONAL,
    defaultCallHandling        [10] DefaultCallHandling OPTIONAL,
    recordExtensions           [11] ManagementExtensions OPTIONAL,
    calledNumber               [12] CalledNumber,
    callingNumber              [13] CallingNumber OPTIONAL,
    mscIncomingTKGP           [14] TrunkGroup OPTIONAL,
    mscOutgoingTKGP           [15] TrunkGroup OPTIONAL,
    seizureTime                [16] TimeStamp OPTIONAL,
    answerTime                 [17] TimeStamp OPTIONAL,
    releaseTime                [18] TimeStamp OPTIONAL,
    callDuration               [19] CallDuration,
    dataVolume                 [20] DataVolume OPTIONAL,
    causeForTerm               [21] CauseForTerm,
    diagnostics                [22] Diagnostics OPTIONAL,
    callReference              [23] CallReference,
}

```

```

sequenceNumber          [24] INTEGER OPTIONAL,
numberOfDPEncountered  [25] INTEGER OPTIONAL,
levelOfCAMELService     [26] LevelOfCAMELService OPTIONAL,
freeFormatData         [27] FreeFormatData OPTIONAL,
cAMELCallLegInformation [28] SEQUENCE OF CAMELInformation OPTIONAL,
freeFormatDataAppend   [29] BOOLEAN OPTIONAL,
mscServerIndication [30] BOOLEAN OPTIONAL,
defaultCallHandling-2  [301] DefaultCallHandling OPTIONAL,
gsm-SCFAddress-2      [312] Gsm-SCFAddress OPTIONAL,
serviceKey-2          [323] ServiceKey OPTIONAL,
freeFormatData-2      [334] FreeFormatData OPTIONAL,
freeFormatDataAppend-2 [345] BOOLEAN OPTIONAL,
mscServerIndication    [35] BOOLEAN OPTIONAL,
locationRoutNum        [36] LocationRoutingNumber OPTIONAL,
lrnSoInd               [37] LocationRoutingNumberSourceIndicator OPTIONAL,
lrnQueryStatus         [38] LocationRoutingNumberQueryStatus OPTIONAL,
jIPPara               [39] JurisdictionInformationParameter OPTIONAL,
jIPSoInd              [40] JurisdictionInformationParameterSourceIndicator OPTIONAL,
jIPQueryStatus        [41] JurisdictionInformationParameterQueryStatus OPTIONAL,
partialRecordType      [42] PartialRecordType OPTIONAL
}

IncGatewayRecord ::= SET
{
    recordType          [0] CallEventRecordType,
    callingNumber       [1] CallingNumber OPTIONAL,
    calledNumber        [2] CalledNumber,
    recordingEntity     [3] RecordingEntity,
    mscIncomingTKGP    [4] TrunkGroup OPTIONAL,
    mscOutgoingTKGP    [5] TrunkGroup OPTIONAL,
    seizureTime        [6] TimeStamp OPTIONAL,
    answerTime         [7] TimeStamp OPTIONAL,
    releaseTime        [8] TimeStamp OPTIONAL,
    callDuration       [9] CallDuration,
    dataVolume         [10] DataVolume OPTIONAL,
    causeForTerm       [11] CauseForTerm,
    diagnostics        [12] Diagnostics OPTIONAL,
    callReference      [13] CallReference,
    sequenceNumber     [14] INTEGER OPTIONAL,
    recordExtensions   [15] ManagementExtensions OPTIONAL,
    locationRoutNum    [16] LocationRoutingNumber OPTIONAL,
    lrnSoInd           [17] LocationRoutingNumberSourceIndicator OPTIONAL,
    lrnQueryStatus     [18] LocationRoutingNumberQueryStatus OPTIONAL,
    jIPPara            [19] JurisdictionInformationParameter OPTIONAL,
    jIPSoInd           [20] JurisdictionInformationParameterSourceIndicator OPTIONAL,
    jIPQueryStatus     [21] JurisdictionInformationParameterQueryStatus OPTIONAL,
    partialRecordType  [22] PartialRecordType OPTIONAL,
    iSDN-BC            [23] ISDN-BC OPTIONAL,
    LLC                [24] LLC OPTIONAL,
    hLC                [25] HLC OPTIONAL
}

```

.....

*****END OF CHANGE TO SECTION 6.1*****

Annex A (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Mar 2001	S_11	SP-010025	--	--	Replaces Release 99 of 3GPP 32.005, which will be discontinued from Release 4 onwards.	-	1.0.0
Jun 2001	S_12	SP-010236	--	--	Re-submitted to SA#12 for Information	1.1.0	1.1.1
Sep 2001	S_13	SP-010464	--	--	Submitted to TSG SA #13 for Approval	2.0.0	4.0.0
Mar 2002	S_15	SP-020022	001	--	Addition of CAMEL phase 3 extensions in SMS-MO CDR	4.0.0	4.1.0
Mar 2002	S_15	SP-020035	002	--	Addition of Charging Data Record definition for Location Service in CS domain	4.1.0	5.0.0
Mar 2002	S_15	SP-020025	003	--	Addition of CAMEL phase 4 extensions in SMS-MT CDRs	4.1.0	5.0.0
Jun 2002	S_16	SP-020285	005	--	Corrections of parameter CallEventRecord	5.0.0	5.1.0
Dec 2002	S_18	SP-020734	007	--	Corrections on parameter Destination Number	5.1.0	5.2.0
Dec 2002	S_18	SP-020736	009	--	Corrections on LCS error cause definitions	5.1.0	5.2.0
Dec 2002	S_18	SP-020737	010	--	Charging for Mobile Number Portability (MNP) - Alignment with 23.066	5.1.0	5.2.0
Dec 2002	S_18	SP-020808	012	1	Corrections on MMS records ASN.1 definition and addition of the MMBBox CDR types	5.1.0	5.2.0
Mar 2003	S_19	SP-030054	014	--	CDR correction for data services over Iu-interface - alignment with SA1's 22.002	5.2.0	5.3.0
Mar 2003	S_19	SP-030056	015	--	Corrections to ASN.1 Syntax associated with Wireless Number Portability (WNP)	5.2.0	5.3.0
Jun 2003	S_20	SP-030269	016	--	Correction of record contents regarding Partial Record Type	5.3.0	5.4.0
Jun 2003	S_20	SP-030269	017	--	Correction on MMS records ASN.1 definition	5.3.0	5.4.0
Jun 2003	S_20	SP-030269	018	--	Correction on IMS record definitions	5.3.0	5.4.0
Dec 2003	S_22	SP-030765	022	1	Add inter-network accounting in the GMSC (only if CN#22 approved CN3 CR 29.007)	5.4.0	5.5.0
Dec 2003	S_22	SP-030620	023	--	Correction to Level of CAMEL Service	5.4.0	5.5.0