3GPP TSG CN Plenary Meeting #20 **NP-030190**
4th - 6th June 2003. HÄMEENLINNA, Finland.

Source: **CN2**

Title: **CRs on Rel-5 Work Item CAMEL4**

Agenda item: **8.3**

Document for: **APPROVAL**

Introduction:

This document contains 7 CR on Rel-5 WI CAMEL4 (TS 29.078). TheseCRs has been agreed by TSG CN WG2 and are forwarded to TSG CN Plenary meeting #20 for approval.

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
29.078	308		N2-030193	Rel-5	Removal of SCI Operation from NC call CAP syntax	F	5.3.0
29.078	309	1	N2-030283	Rel-5	Correction to IPSSPCapabilities ASN.1 syntax	F	5.3.0
29.078	310		N2-030195	Rel-5	Removing UnknownLegId Error from DFCWA	F	5.3.0
29.078	311	1	N2-030284	Rel-5	Removing DFCWA from assisting gsmSSF dialogue	F	5.3.0
29.078	312	1	N2-030308	Rel-5	Correction to SplitLeg pre-conditions	F	5.3.0
29.078	321		N2-030243	Rel-5	ASN.1 syntax basic corrections	F	5.3.0
29.078	323		N2-030208	Rel-5	DP arming requirement for NP calls	F	5.3.0

3GPP TSG CN WG2 Meeting #29 **N2-030193**
San Diego, CA, USA, 19th - 23th May 2003

CHANGE REQUEST

⌘ **29.078** **CR** **308** ⌘ **rev** ⌘ Current version: **5.3.0** ⌘

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

Title:	⌘	Removal of SCI Operation from NC call CAP syntax
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	May 7, 2003
Category:	⌘	F
Release:	⌘	Rel-5

Use one 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)*

Use one 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:	⌘	Section 4.6.2.21 in TS 23.078 specifies that the gsmSCF is allowed to use Send Charging Information only in a MO call scenario and in a VT control scenario. When the gsmSCF initiates a call ("NC call case"), then the gsmSCF uses the CONTRACt definition "***capScfToSsfGeneric***"; refer to section 6.1.2.1 in TS 29.078. The definition of that CONTRACT includes the ***signallingControlPackage*** OPERATION-PACKAGE, which includes the ***sendChargingInformation*** Operation. However, the gsmSCF is not allowed to use the ***sendChargingInformation*** Operation within the context of an SCP-initiated call. Hence, the ***signallingControlPackage*** shall be removed from the ***capScfToSsfGeneric*** definition.
Summary of change:	⌘	Remove ***signallingControlPackage*** from the ***capScfToSsfGeneric*** definition.
Consequences if not approved:	⌘	Implementation difficulty for SCP-initiated calls; both gsmSCF and gsmSSF would have to support a CAP Operation in the Application Context, for SCP-initiated calls, while the gsmSCF is not allowed to use that Operation within that Application Context.

Clauses affected:	⌘	6.1.2.1

Other specs affected:	⌘	Y	N		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	

Other comments: ⌘

— For Information —

4.6.2 gsmSCF to gsmSSF information flows

...

4.6.2.21 Send Charging Information

. . .

4.6.2.21.2 Information Elements

Information element name	MO	MF	MT	VT	NC	NP	Description
SCI Billing Charging Characteristics	M	-	-	M	-	-	This IE defines the Advice Of Charge related information to be provided to the Mobile Station.
Leg ID	M	-	-	M	-	-	This IE indicates the leg to which the charging information shall be sent.

. . .

— First modified section —

6.1.2 gsmSSF/gsmSCF packages, contracts and ACs

6.1.2.1 gsmSSF/gsmSCF ASN.1 module

```
CAP-gsmSSF-gsmSCF-pkgs-contracts-acs {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
umts-network(1) modules(3) cap-gsmSSF-gsmSCF-pkgs-contracts-acs(102) version4(3)}

DEFINITIONS ::= BEGIN

...


signallingControlPackage {PARAMETERS-BOUND : bound} OPERATION-PACKAGE ::= {
    CONSUMER INVOKES    {sendChargingInformation {bound}}
    ID                  id-package-signallingControl}

...

capscf-ssfGenericAC APPLICATION-CONTEXT ::= {
    CONTRACT                    capScfToSsfGeneric
    DIALOGUE MODE               structured
    ABSTRACT SYNTAXES           {dialogue-abstract-syntax |
                                scf-gsmSSFGenericAbstractSyntax}
    APPLICATION CONTEXT NAME    id-ac-CAP-scf-gsmSSFGenericAC}

...


capScfToSsfGeneric CONTRACT ::= {
-- dialogue initiated by gsmSCF with InitiateCallAttempt, Generic Case
    INITIATOR CONSUMER OF       {activityTestPackage |
                                assistConnectionEstablishmentPackage {cAPSpecificBoundSet} |
                                bcsmEventHandlingPackage {cAPSpecificBoundSet} |
                                billingPackage {cAPSpecificBoundSet} |
                                callHandlingPackage {cAPSpecificBoundSet} |
                                callReportPackage {cAPSpecificBoundSet} |
                                cancelPackage {cAPSpecificBoundSet} |
                                chargingPackage {cAPSpecificBoundSet} |
                                connectPackage {cAPSpecificBoundSet} |
                                cphResponsePackage {cAPSpecificBoundSet} |
                                genericDisconnectResourcePackage {cAPSpecificBoundSet} |
                                nonAssistedConnectionEstablishmentPackage {cAPSpecificBoundSet} |
                                playTonePackage {cAPSpecificBoundSet} |
                                scfCallInitiationPackage {cAPSpecificBoundSet} |
                                signallingControlPackage {cAPSpecificBoundSet} |
                                specializedResourceControlPackage {cAPSpecificBoundSet} |
                                ssfCallProcessingPackage {cAPSpecificBoundSet} |
                                timerPackage {cAPSpecificBoundSet}}
    RESPONDER CONSUMER OF       {exceptionInformPackage {cAPSpecificBoundSet}}
    ID                          id-CAPScfToSsfGeneric}
```

— End of CR —

3GPP TSG CN WG2 Meeting #29 **N2-030195**
San Diego, CA, USA, 19th - 23th May 2003

CHANGE REQUEST

⌘ **29.078** **CR** **310** ⌘ **rev** ⌘ Current version: **5.3.0** ⌘

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

Title:	⌘	Removing UnknownLegId Error from DFCWA
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4 ***Date:*** ⌘ May 7, 2003
Category:	⌘	F ***Release:*** ⌘ Rel-5

Use one 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)*

Use one 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 definition of the Operation disconnectForwardConnectionWithArgument (DFCWA) contains the Error “unknownLegId”. However, the only parameter that may be present in the Operation Argument of DFCWA is “callSegmentID”. Hence, it is never possible for the receiver of DFCWA to report this Operation Error. Therefore, that Error shall be removed from the DFCWA Operation definition.
Summary of change:	⌘	Remove unknownLegId from the ***Disconnect Forward Connection With Argument*** Operation.
Consequences if not approved:	⌘	Implementation difficulty; designers would not know how to implement the “unknownLegId” error, since that error can never occur for DFCWA.

Clauses affected:	⌘	6.1.1

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘

— First modified section —

6 Circuit Switched Call Control

6.1 gsmSSF/CCF - gsmSCF Interface

6.1.1 Operations and arguments

```
CAP-gsmSSF-gsmSCF-ops-args {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
umts-network(1) modules(3) cap-gsmSSF-gsmSCF-ops-args(101) version4(3)}

DEFINITIONS IMPLICIT TAGS ::= BEGIN

...

disconnectForwardConnectionWithArgument {PARAMETERS-BOUND : bound} OPERATION ::= {
    ARGUMENT        DisconnectForwardConnectionWithArgumentArg {bound}
    RETURN RESULT   FALSE
    ERRORS          {missingParameter |
                     systemFailure |
                     taskRefused |
                     unexpectedComponentSequence |
                     unexpectedDataValue |
                     unexpectedParameter |
                     unknownLegID |
                     unknownCSID}
    CODE            opcode-dFCWithArgument}
-- Direction gsmSCF -> gsmSSF, Timer Tdfcwa
-- This operation is used to disconnect a forward temporary connection or a connection to a
-- resource. Refer to clause 11 for a description of the procedures associated with this operation.

DisconnectForwardConnectionWithArgumentArg {PARAMETERS-BOUND : bound} ::= SEQUENCE {
    callSegmentID                   [1] CallSegmentID {bound}                   OPTIONAL,
    extensions                      [2] Extensions {bound}                      OPTIONAL,
    ...
    }

...
```

— End of CR —

3GPP TSG CN WG2 Meeting #29
San Diego, USA, 19th – 23rd May 2003

N2-030208

CR-Form-v7

CHANGE REQUEST

⌘ **29.078** **CR** **323** ⌘ **rev** **-** ⌘ Current version: **5.3.0** ⌘

*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:	⌘	DP arming requirement for NP calls
Source:	⌘	Nokia
Work item code:	⌘	CAMEL4
Date:	⌘	29.4.2003
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one 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 one 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 text in 29.078 is not clear whether also NP (new party) case shall arm certain EDPs. This creates confusion for Enhanced Dialled Services because the EDS may trigger new CAP dialogue if the existing dialogue is not controlling enough.
Summary of change:	⌘	Text modified so that also in the NP cases the arming is required.
Consequences if not approved:	⌘	Non-working CPH or EDS.

Clauses affected:	⌘	

		Y	N		
Other specs affected:	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	For future compatibility it's better to fix this already in Rel-5.

-- First Modified Section --

11.21 InitiateCallAttempt procedure

11.21.1 General Description

The gsmSCF uses this operation to request the gsmSSF to create a new call leg to one call party using the address information provided by the gsmSCF (e.g. wake-up call). InitiateCallAttempt can also be used to create an additional call party in a new Call Segment within an existing Call Segment Association. In both use cases, ~~T~~the gsmSCF shall subsequently arm O_Answer as an EDP-R and the call failure events (Route_Select_Failure, O_Busy and O_No_Answer) as EDP-Rs and/or EDP-Ns, in order to enable the gsmSCF to treat this call appropriately when any of these events is encountered. ~~InitiateCallAttempt can also be used to create an additional call party in a new Call Segment within an existing Call Segment Association.~~

11.21.1.1 Parameters

11.21.1.1.1 Argument Parameters

- destinationRouteingAddress:
  This parameter contains the called party number towards which the call shall be routed.

- callingPartyNumber:
  This parameter identifies which number shall be regarded as the calling party for the created call.

- legToBeCreated:
  This parameter indicates the LegID to be assigned to the newly created party.

- newCallSegment:
  This parameter indicates the Call Segment ID to be assigned to the newly created Call Segment.

- callReferenceNumber:
  This parameter contains the call reference number assigned to the call by the gsmSCF.

- gsmSCFAddress:
  This parameter indicates the address of the gsmSCF initiating the operation.

- suppress-T-CSI:
  This parameter indicates that the T-CSI for the served subscriber shall be suppressed for this call leg.

11.21.1.1.2 Result Parameters

- supportedCamelPhases:
  This parameter indicates the CAMEL Phases supported in the gsmSSF which receives this operation.

- offeredCamel4Functionalities:
  This parameter contains the offered CAMEL phase 4 functionalities.

11.21.2 Responding entity (gsmSSF)

11.21.2.1 Normal procedure

gsmSSF preconditions:

None.

gsmSSF postconditions:

1) A new O-BCSM has been created; call processing is suspended.

2) A Return Result is sent to the gsmSCF.

3) The CS_gsmSSF FSMtransits from the state "Idle" to the state "Waiting_for_Instructions".

All subsequent operations are treated in accordance with their normal procedures.

11.21.2.2 Error handling

Generic error handling for the operation related errors is described in clause 10, and the TC services which are used for reporting operation errors are described in clause 14.

3GPP TSG CN WG2 Meeting #29
San Diego, USA, 19th – 23rd May 2003

N2-030243

CR-Form-v7

CHANGE REQUEST

⌘ **29.078** **CR** **321** ⌘**rev** ⌘ Current version: **5.3.0** ⌘

*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:	⌘	ASN.1 syntax basic corrections
Source:	⌘	Alcatel
Work item code:	⌘	CAMEL4
Date:	⌘	07/05/2003
Category:	⌘	**F (essential correction)**
Release:	⌘	Rel-5

Use one 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 one 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:	⌘	Some small syntactic corrections of the current Rel-5 29.078 ASN.1 modules; are necessary to have correct ASN.1 modules.
Summary of change:	⌘	"leg2" is used and need to be imported. ContinueWithArgumentArgExtension is using "LegOrCallSegment {bound}" and therefore needs to be bounded as well. This needs to be done in a transitive closure manner in all modules.
Consequences if not approved:	⌘	Syntax errors and spelling errors in the ASN.1 which the implementers must fix manually.

Clauses affected: ⌘ ASN.1 modules of clauses 6.1.1.

Other specs affected: ⌘

Y	N	
	X	Other core specifications
	X	Test specifications
	X	O&M Specifications

⌘

Other comments: ⌘ - 3GPP TSG-CN#18 New Orleans, USA, Meeting Report is stating "ASN.1 CRs which correct errors preventing proper compilation are considered essential corrections and allowable.".

— Modified module —

6 Circuit Switched Call Control

6.1 gsmSSF/CCF - gsmSCF Interface

6.1.1 Operations and arguments

```
CAP-gsmSSF-gsmSCF-ops-args {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
umts-network(1) modules(3) cap-gsmSSF-gsmSCF-ops-args(101) version4(3)}

DEFINITIONS IMPLICIT TAGS ::= BEGIN

-- This module contains the operations and operation arguments used for the
-- gsmSSF – gsmSCF interface, for the control of circuit switched calls.

-- The table in subclause 2.1 lists the specifications that contain the modules
-- that are used by CAP.

IMPORTS

    errortypes,
    datatypes,
    operationcodes,
    classes,
    tc-Messages,
    ros-InformationObjects
FROM CAP-object-identifiers {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
umts-network(1) modules(3) cap-object-identifiers(100) version4(3)}

    OPERATION
FROM Remote-Operations-Information-Objects ros-InformationObjects

    CallingPartysCategory,
    HighLayerCompatibility,
    LegID,
    RedirectionInformation,
    ServiceKey
FROM CS1-DataTypes {itu-t(0) identified-organization(4) etsi(0) inDomain(1) in-network(1)
modules(0) cs1-datatypes(2) version1(0)}

    MiscCallInfo
FROM CS2-datatypes {itu-t(0) identified-organization(4) etsi(0) inDomain(1) in-network(1)
cs2(20) modules(0) in-cs2-datatypes (0) version1(0)}

    Ext-BasicServiceCode,
    IMEI,
    IMSI,
    ISDN-AddressString
FROM MAP-CommonDataTypes {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
gsm-Network(1) modules(3) map-CommonDataTypes(18) version8(8)}

    CUG-Index,
    CUG-Interlock,
    CUG-Info,
    LocationInformation,
    MS-Classmark2,
    SubscriberState,
    SupportedCamelPhases,
    OfferedCamel4Functionalities
FROM MAP-MS-DataTypes {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
gsm-Network(1) modules(3) map-MS-DataTypes(11) version8(8)}

    CallReferenceNumber,
    SuppressionOfAnnouncement
FROM MAP-CH-DataTypes {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
gsm-Network(1) modules(3) map-CH-DataTypes(13) version8(8)}

    PARAMETERS-BOUND
FROM CAP-classes classes
```

```
    opcode-activityTest,
    opcode-applyCharging,
    opcode-applyChargingReport,
    opcode-assistRequestInstructions,
    opcode-callGap,
    opcode-callInformationReport,
    opcode-callInformationRequest,
    opcode-cancel,
    opcode-connect,
    opcode-connectToResource,
    opcode-continue,
    opcode-continueWithArgument,
    opcode-disconnectForwardConnection,
    opcode-dFCWithArgument,
    opcode-disconnectLeg,
    opcode-entityReleased,
    opcode-establishTemporaryConnection,
    opcode-eventReportBCSM,
    opcode-furnishChargingInformation,
    opcode-initialDP,
    opcode-initiateCallAttempt,
    opcode-moveLeg,
    opcode-playTone,
    opcode-releaseCall,
    opcode-requestReportBCSMEvent,
    opcode-resetTimer,
    opcode-sendChargingInformation,
    opcode-splitLeg
FROM CAP-operationcodes operationcodes

    AChBillingChargingCharacteristics {},
    AdditionalCallingPartyNumber {},
    AlertingPattern,
    AChChargingAddress {},
    AssistingSSPIPRoutingAddress {},
    BCSMEvent,
    BCSM-Failure,
    BearerCapability {},
    Burst,
    CalledPartyNumber {},
    CalledPartyBCDNumber {},
    CallingPartyNumber {},
    CallResult {},
    CallSegmentID {},
    CallSegmentToCancel {},
    CallSegmentFailure {},
    Carrier,
    Cause {},
    CGEncountered,
    ChargeNumber {},
    ControlType,
    CorrelationID {},
    DestinationRoutingAddress {},
    EventSpecificInformationBCSM {},
    EventTypeBCSM,
    Extensions {},
    FCIBillingChargingCharacteristics {},
    GapCriteria {},
    GapIndicators,
    GapTreatment,
    GenericNumbers {},
    InvokeID,
    IPRoutingAddress {},
    IPSSPCapabilities {},
    leg1,
    leg2,
    LegOrCallSegment {},
    LocationNumber {},
    MonitorMode,
    NAOliInfo,
    OCSIApplicable,
    OriginalCalledPartyID {},
    ReceivingSideID,
    RedirectingPartyID {},
    RequestedInformationList {},
    RequestedInformationTypeList,
    ScfID {},
    SCIBillingChargingCharacteristics {},
```

```
    SendingSideID,
    ServiceInteractionIndicatorsTwo,
    TimeAndTimezone {},
    TimerID,
    TimerValue
FROM CAP-datatypes datatypes

    cancelFailed,
    eTCFailed,
    missingCustomerRecord,
    missingParameter,
    parameterOutOfRange,
    requestedInfoError,
    systemFailure,
    taskRefused,
    unexpectedComponentSequence,
    unexpectedDataValue,
    unexpectedParameter,
    unknownLegID,
    unknownCSID
FROM CAP-errortypes errortypes

;

...


continueWithArgument {PARAMETERS-BOUND : bound} OPERATION ::= {
    ARGUMENT        ContinueWithArgumentArg {bound}
    RETURN RESULT   FALSE
    ERRORS          {missingParameter |
                     parameterOutOfRange |
                     unexpectedComponentSequence |
                     unexpectedDataValue |
                     unexpectedParameter |
                     unknownLegID |
                     unknownCSID}
    CODE            opcode-continueWithArgument}
-- Direction: gsmSCF -> gsmSSF, Timer: Tcwa
-- This operation is used to request the gsmSSF to proceed with call processing at the
-- DP at which it previously suspended call processing to await gsmSCF instructions
-- (i.e. proceed to the next point in call in the BCSM). The gsmSSF continues call
-- processing with the modified call setup information as received from the gsmSCF.

ContinueWithArgumentArg {PARAMETERS-BOUND : bound} ::= SEQUENCE {

    alertingPattern                 [1] AlertingPattern                         OPTIONAL,
    extensions                      [6] Extensions {bound}                      OPTIONAL,
    serviceInteractionIndicatorsTwo [7] ServiceInteractionIndicatorsTwo         OPTIONAL,
    callingPartysCategory           [12] CallingPartysCategory                  OPTIONAL,
    genericNumbers                  [16] GenericNumbers {bound}                 OPTIONAL,
    cug-Interlock                   [17] CUG-Interlock                          OPTIONAL,
    cug-OutgoingAccess              [18] NULL                                   OPTIONAL,
    chargeNumber                    [50] ChargeNumber {bound}                   OPTIONAL,
    carrier                         [52] Carrier {bound}                        OPTIONAL,
    suppressionOfAnnouncement       [55] SuppressionOfAnnouncement              OPTIONAL,
    naOliInfo                       [56] NAOliInfo                              OPTIONAL,
    bor-InterrogationRequested      [57] NULL                                   OPTIONAL,
    suppress-O-CSI                  [58] NULL                                   OPTIONAL,
    continueWithArgumentArgExtension [59] ContinueWithArgumentArgExtension {bound} OPTIONAL,
    ...
    }

ContinueWithArgumentArgExtension {PARAMETERS-BOUND : bound} ::= SEQUENCE {
    suppress-D-CSI                  [0] NULL                                    OPTIONAL,
    suppress-N-CSI                  [1] NULL                                    OPTIONAL,
    suppressOutgoingCallBarring     [2] NULL                                    OPTIONAL,
    legOrCallSegment                [3] LegOrCallSegment {bound}                OPTIONAL,
    ...
    }

...

END
```

— End of CR —

3GPP TSG CN WG2 Meeting #29 **N2-030283**
San Diego, CA, USA, 19th - 23th May 2003 (revision of N2-030194)

CHANGE REQUEST

⌘ **29.078** **CR** **309** ⌘ **rev** **1** ⌘ Current version: **5.3.0** ⌘

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

Title:	⌘	Correction to IPSSPCapabilities ASN.1 syntax
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	May 19, 2003
Category:	⌘	F
Release:	⌘	Rel-5

Use one 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)*

Use one 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 definition of IPSSPCapabilities in section 5.1, refers to CAP V2 and to CAP V3. However, the IPSSPCapabilities is used in a CAP V4 application context. This is clearly a discrepancy and shall be corrected.

The present CR proposes that the definition of IPSSPCapabilities shall refer to "CAP" in general, without specifying a particular version of CAP to which the definition applies.

In fact, the definition of IPSSPCapabilities in CAP V2, CAP V3 and CAP V4 are identical.

In section 14.2, there is also a reference to CAP V3; that reference is out of context in that section. In line with the above reasoning, that reference in section 14.2 shall be removed as well. Section 14.2 shall refer to CAP, without specifying a particular version of CAP.

Summary of change: ⌘
1. Remove the CAP version references in the definition of IPSSPCapabilities.
2. Remove the CAP version reference in section 14.2.

Consequences if not approved: ⌘
- Confusion for designers; difficulty for implementing the IPSSPCapabilities in the various Operation parameters.
- Misleading text in section 14.2.

Clauses affected: ⌘ 5.1, 14.2

Other specs affected: ⌘

Y	N	
	X	Other core specifications
	X	Test specifications
	X	O&M Specifications

⌘

Other comments:	⌘	The definition of “SGSNCapabilities” also contains a reference to CAP V.3. However, the parameter SGSNCapabilities is used only in a CAP V3 context, so there is no need to remove that reference.

— First modified section —

5 Common CAP Types

5.1 Data types

```
CAP-datatypes {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0) umts-network(1)
modules(3) cap-datatypes(52) version4(3)}

DEFINITIONS IMPLICIT TAGS ::= BEGIN

...

IPSSPCapabilities {PARAMETERS-BOUND : bound} ::= OCTET STRING (SIZE(
    bound.&minIPSSPCapabilitiesLength .. bound.&maxIPSSPCapabilitiesLength))
--  Indicates the gsmSRF resources available. The parameter has two parts, a standard and a
--  bilateral part. The standard part indicates capabilities defined as optional in CAP~~ V.2~~
--  that shall be recognised (but not necessarily supported) by a ~~CAP V.2~~ gsmSCF. The bilateral
--  part contains further information that is not specified in this standard, but which is set
--  according to bilateral agreements between network operators and/or equipment vendors.
--  The last octet of the standard part is indicated by bit 7 being set to 0, otherwise Bit 7 of
--  a standard part octet is set to 1 indicating that the standard part continues in the following
--  octet. Coding is as follows:

--  Octet 1                 Standard Part for CAP~~ V.3~~
--  Bit Value               Meaning
--  0   0                   IPRoutingAddress not supported
--      1                   IPRoutingAddress supported
--  1   0                   VoiceBack not supported
--      1                   VoiceBack supported
--  2   0                   VoiceInformation not supported, via speech recognition
--      1                   VoiceInformation supported, via speech recognition
--  3   0                   VoiceInformation not supported, via voice recognition
--      1                   VoiceInformation supported, via voice recognition
--  4   0                   Generation of voice announcements from Text not supported
--      1                   Generation of voice announcements from Text supported
--  5   -                   Reserved
--  6   -                   Reserved
--  7   0                   End of standard part
--      1                   This value is reserved in CAP~~ V.3~~
--
--  Octets 2 to 4           Bilateral Part: Network operator/equipment vendor specific


...
```

— Next modified section —

14.2 Services assumed from SCCP

The present subclause describes the services required from the SCCP that may be used by the CAMEL applications for the CAMEL Application Part (CAP) used between the gsmSSF, assisting gsmSSF, gsmSRF, gprsSSF, and gsmSCF.

The following SCCP revisions are supported by CAP~~ version 3~~:

- Signalling Connection Control Part, Signalling System no. 7 CCITT ("Blue Book SCCP")
- Signalling Connection Control Part, Signalling System no. 7 ITU-T Recommendation Q.711 to Q.716 ("White Book SCCP")

...

— End of CR —

3GPP TSG CN WG2 Meeting #29 **N2-030284**
San Diego, CA, USA, 19th - 23th May 2003 (revision of N2-030196)

CHANGE REQUEST

⌘ **29.078** **CR** **311** ⌘ **rev** **1** ⌘ Current version: **5.3.0** ⌘

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

Title:	⌘	Removing DFCWA from assisting gsmSSF dialogue
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	May 19, 2003
Category:	⌘	F
Release:	⌘	Rel-5

Use one 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)*

Use one 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 Operation Packages for the assisting gsmSSF dialogue contain the CAP Operation ***DisconnectForwardConnectionWithArgument*** (DFCWA). DFCWA is introduced in CAMEL Phase 4 to specify a Call Segment in the Disconnect Forward Connection (DFC) IF. However, when the DFC IF is used within an assisting dialogue, it shall never contain a Call Segment Id. Hence, the DFCWA is not required in the assisting dialogue. The procedure description of DFCWA (section 14.11) needs to be updated. The reference to "initiating gsmSSF" shall be replaced by "gsmSSF".
Summary of change:	⌘	- Remove the ***DisconnectForwardConnectionWithArgument*** from the Operation Package for the assisting dialogue. - Correct the description in section 14.11.
Consequences if not approved:	⌘	Implementation difficulty; both the assisting gsmSSF and the gsmSCF would need to support an Operation that is not allowed to be used in the assist dialogue.

Clauses affected:	⌘	6.1.2, 11.14

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘

— First modified section —

6.1.2 gsmSSF/gsmSCF packages, contracts and ACs

6.1.2.1 gsmSSF/gsmSCF ASN.1 module

```
CAP-gsmSSF-gsmSCF-pkgs-contracts-acs {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
umts-network(1) modules(3) cap-gsmSSF-gsmSCF-pkgs-contracts-acs(102) version4(3)}

DEFINITIONS ::= BEGIN

...

AssistHandoffssfToScfInvokable OPERATION ::= {
    activityTest |
    assistRequestInstructions {cAPSpecificBoundSet} |
    cancel {cAPSpecificBoundSet} |
    connectToResource {cAPSpecificBoundSet} |
    disconnectForwardConnection |
    disconnectForwardConnectionWithArgument {cAPSpecificBoundSet} |
    playAnnouncement {cAPSpecificBoundSet} |
    promptAndCollectUserInformation {cAPSpecificBoundSet} |
    resetTimer {cAPSpecificBoundSet} |
    specializedResourceReport
    }

AssistHandoffssfToScfReturnable OPERATION ::= {
    activityTest |
    assistRequestInstructions {cAPSpecificBoundSet} |
    cancel {cAPSpecificBoundSet} |
    connectToResource {cAPSpecificBoundSet} |
    disconnectForwardConnection |
    disconnectForwardConnectionWithArgument {cAPSpecificBoundSet} |
    playAnnouncement {cAPSpecificBoundSet} |
    promptAndCollectUserInformation {cAPSpecificBoundSet} |
    resetTimer {cAPSpecificBoundSet}
    }

...
```

— First modified section —

11.14 DisconnectForwardConnectionWithArgument procedure

11.14.1 General Description

The gsmSCF uses this operation to disconnect a connection to a resource (gsmSRF) established previously with a "ConnectToResource" or an "EstablishTemporaryConnection" operation.

11.14.1.1 Parameters

- callSegmentID:
  This parameter indicates the Call Segment to be disconnected from the resource.

11.14.2 Responding entity (gsmSSF)

11.14.2.1 Normal procedure

gsmSSF preconditions:

(1) The basic call processing has been suspended at a DP. The CS_gsmSSF FSM in the initiating gsmSSF is in the state "Waiting_for_end_of_User_Interaction" or in the state "Waiting_for_end_of_Temporary_Connection".

gsmSSF postconditions:

(1) The connection to the gsmSRF or assisting gsmSSF is released.

(2) The CS_gsmSSF FSM transits to the state "Waiting_for_Instructions".

The receipt of "DisconnectForwardConnectionWithArgument" results in disconnecting the PE containing the gsmSRF from the specified Call Segment. It does not result in a release of the connection between the gsmSSF and the end-user.

On receipt of this operation, the gsmSSF shall perform the following actions:

- The ~~initiating~~ gsmSSF releases the connection to the assisting gsmSSF or the gsmSRF.
- The gsmSSF loads Tssf with the default value and restarts Tssf.
- The gsmSSF FSM transits to the state "Waiting_for_Instructions".

NOTE: The successful disconnection from the gsmSRF causes the gsmSRF to transit to the state "Idle". A current order (e.g. "PlayAnnouncement" or "PromptAndCollectUserInformation") is cancelled and any queued order (e.g. "PlayAnnouncement" or "PromptAndCollectUserInformation") is discarded.

11.14.2.2 Error handling

Generic error handling for the operation related errors is described in clause 10 and the TC services which are used for reporting operation errors are described in clause 14.

— End of CR —

3GPP TSG CN WG2 Meeting #29 **N2-030308**
San Diego, CA, USA, 19th - 23th May 2003 (revision of N2-030197)

CHANGE REQUEST

⌘ **29.078** **CR** **312** ⌘ **rev** **1** ⌘ Current version: **5.3.0** ⌘

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

Title:	⌘	Correction to SplitLeg pre-conditions
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	May 22, 2003
Category:	⌘	F
Release:	⌘	Rel-5

Use one 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)*

Use one 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: ⌘ To move a leg from a Call Segment other than Call Segment 1 into Call Segment 1, the following CAP Operations may be used:

(1) When Call Segment 1 exists, the gsmSCF shall use MoveLeg;

(2) When Call Sement 1 does not exist, the gsmSCF shall use SplitLeg.

One of the pre-conditions for MoveLeg is currently defined as:

- The corresponding BCSM is in the alerting, active or mid-call phase.

The corresponding pre-condition for SplitLeg is, however, defined as:

- The BCSM for the leg to be split is in the state O_Active, T_Active, O_Mid_Call or T_Mid_Call.

The current situation is therefore that different pre-conditions apply to moving a leg into Call Segment 1, depending on which Operation is used. That is not in alignment with the rationale of the use of these CAP Operations and neither is it aligned with the stage 1 requirement; refer to TS 22.078 V5.10.0, section 8.1.4. The requirement in section 8.1.4 in TS 22.078 does not make a distinction between the use of SplitLeg or MoveLeg for this purpose.

The present CR proposes therefore that the pre-condition of SplitLeg is refined in accordance with the above reasoning. The result will be that the pre-condition for moving a leg into Call Segment 1 is the same for MoveLeg as for SplitLeg.

Summary of change: ⌘ Modify the pre-condition for SplitLeg.

Consequences if not approved: ⌘ More complex CAMEL Service Logic implementation; some service requirements may not be supported. E.g. the CAMEL Service can not move a newly created leg into Call Segment 1 before that call has answered.

Clauses affected:	⌘	11.31			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

— For Information —

11.22 MoveLeg procedure

11.22.1 General Description

The gsmSCF uses this operation to request the gsmSSF to move the leg from its current Call Segment to CSID1.

11.22.1.1 Parameters

- legIDToMove:
  This parameter indicates the leg that shall be moved.

11.22.2 Responding entity (gsmSSF)

11.22.2.1 Normal procedure

gsmSSF preconditions:

1) A control relationship exists between the gsmSCF and the gsmSSF.

2) The corresponding BCSM is in the alerting, active or mid-call phase.

3) The CS_gsmSSF FSM for each Call Segment involved is in the state "Waiting_for_Instructions" or in the state "Monitoring".

4) User Interaction is not in progress in either Call Segment.

gsmSSF postconditions:

1) The gsmSSF performs the appropriate call processing actions.

2) The CS_gsmSSF FSM for CSID1 transits to the state "Waiting_for_Instructions". The BCSM instances within CSID1 transit to the O_Mid_Call DP or to the T_Mid_Call DP, if not already suspended. The Mid_Call EDP shall not be reported for this case.

3) The CS_gsmSSF process for the source Call Segment is terminated.

4) A Return Result is sent to the gsmSCF immediately after successful execution of this operation.

11.22.2.2 Error handling

Generic error handling for the operation related errors is described in clause 10, and the TC services which are used for reporting operation errors are described in clause 14.

— First modified section —

11.31 SplitLeg Procedure

11.31.1 General Description

The gsmSCF uses this operation to request the gsmSSF to separate one party from the source Call Segment and place it in a new target Call Segment.

11.31.1.1 Parameters

- legToBeSplit:
  This parameter indicates the party in the call to be split from the source Call Segment.

- newCallSegment:
  This parameter indicates the CSID to be assigned to the newly-created Call Segment.

11.31.2 Responding entity (gsmSSF)

11.31.2.1 Normal procedure

gsmSSF preconditions:

1) A control relationship exists between the gsmSCF and the gsmSSF.

2) The CSID1 is either the source Call Segment or the target Call Segment.

3) ~~The BCSM for the leg to be split is in the state O_Active, T_Active, O_Mid_Call or T_Mid_Call.~~When SplitLeg is used to move a leg into CS1 (when CS1 does not exist), then the BCSM for the leg to be split shall be in the alerting, active or mid-call phase.

   When SplitLeg is used to split a leg off from CS1 into a new Call Segment, then the BCSM for the leg to be split shall be in the state O_Active, T_Active, O_Mid_Call or T_Mid_Call.

4) User interaction is not in progress in the source Call Segment.

gsmSSF postconditions:

1) The gsmSSF performs the necessary actions to separate the specified leg from its original Call Segment and place it in a new target Call Segment.

2) The CS_gsmSSF FSM for the new Call Segment transits to the state "Waiting_for_Instructions".

3) The CS_gsmSSF FSM for the source Call Segment transits to the state "Waiting_for_Instructions".

4) The remaining BCSM instances within the source Call Segment transit to the O_Mid_Call DP or to the T_Mid_Call DP, unless already suspended at a DP. The Mid_Call EDP shall not be reported for this case.

5) A Return Result shall be sent to the gsmSCF immediately after successful execution of this operation.

11.31.2.2 Error handling

Generic error handling for the operation related errors is described in clause 10, and the TC services which are used for reporting operation errors are described in clause 14.

— End of CR —