

10th - 12th December. Maui, Hawaii.

Source: 3GPP TSG CN2
Title: WID: Full CAMEL4 prepay support for SCUDIF
Agenda item: 9.22
Document for: APPROVAL

Introduction:

The attached WID for CAMEL interworking with SCUDIF is approved by CN2 in N2-030580 and forwarded to CN#22 for approval.

Proposed changes

The following changes are required:

1. Update CAMEL stage 1 (SA1)
2. Update CAMEL stage 2 & 3 (CN2)

CN2, CN3 and CN4 have decided that for CS multimedia calls in Rel-5:

1. gsmSCF (of CAMEL) is informed about initial situation, i.e. the preferred and less preferred bearer service information is sent to the gsmSCF at call setup phase.
2. At answer the gsmSCF gets the initially used bearer information.
3. In-call modifications (speech <-> multimedia) would not be reported to the gsmSCF.

This work item is related to bullet #3 in 3GPP Rel-6. The in-call modifications can be reported to SCP in Rel-6 once this work item is complete.

In the above, two first bullets do not require changes to Stage 1, and the bullet #2 requires a Stage 2 and Stage 3 changes. The bullet #3 requires also Stage 1 change.

The indicated approval dates shall be adjusted to the actual Rel-6 time frame as soon as decided.

Work Item Description

Title

Full CAMEL4 prepay support for SCUDIF

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 **Linked work items**

None

3 **Justification**

Some operators may want to charge a CS multimedia call at a premium rate compared to a speech call. This is mainly because multimedia calls require more capacity in the radio network and core network (in the MSC server concept 16bit/s is adequate for speech but not for video). The same principle of charging would also apply to prepay subscribers. If the in-call modification would not be reported to the gsmSCF then the prepay service logic has no means to derive to correct charging rate for the call. The subscribers may soon find a work-around to get calls for a lower price – start with speech, continue with video. The other way around, it would not be acceptable to charge SCUDIF calls that fall-back to speech at the multimedia charging rate. Given that CS video call may become a key 3G service the risk of lost revenue is serious.

Another key point is the user interaction. The service logic shall know if the call is multimedia, i.e. a data call. During a data call not in-band tones or announcements shall be given, whereas for a speech call it is possible.

If the gsmSCF knows the bearer information then also the Call Party Handling (CPH) inter-work is better. For a multimedia call the CPH shall not be applied because a regular MSC or MSC server has no capability to conference video streams.

4 **Objective**

The objectives of this work item:-

- To define and develop the CAMEL protocols to support a bearer service change notification at the active phase of the call.

5 **Service Aspects**

Prepay service shall work with SCUDIF so that correct rate is applied to CS call depending whether it is speech or multimedia. Applies to all call cases (MO, MT, CF).

6 **MMI-Aspects**

None

7 **Charging Aspects**

Postpay/CDRs support this already, only CAMEL needs enhancements for prepay.

8 **Security Aspects**

Any presence solution shall provide a secure procedure to gain access to, and use, presence information.

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes				X	
No	X	X	X		
Don't know					X

10 Expected Output and Time scale (to be updated at each plenary)

The results of this Work Item shall be provided in CRs to existing Technical Standards.

For SA1, SCUDIF prepay charging will rely on 22.078 service requirement.

For CN2, SCUDIF prepay charging will rely on capabilities provided by 23.078 and 29.078. 29.002 may need a change if the enhancement is regarded a “subset” No additional changes to the Rel-6 specifications of these documents to support SCUDIF prepay are expected.

For CN4, SCUDIF prepay may need changes to 29.002 MAP signalling, if the CAMEL4 enhancement is regarded as a “subset”. CN2 will provide pre-processed CRs for CN4 approval.

The following Work Plan is proposed.

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
none						
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
22.078		CAMEL4 prepay interworking with SCUDIF		SA#22	Service requirement.	
23.078		CAMEL4 prepay interworking with SCUDIF		CN#23	New detection point. SDLs + text. DP reported if requested by gsmSCF.	
29.078		CAMEL4 prepay interworking with SCUDIF		CN#23	New detection point. ASN.1 changes. Reported if requested by gsmSCF.	
29.002		CAMEL4 prepay interworking with SCUDIF, subset		CN#23	Not necessarily needed. If needed, only one new bit to an existing bit string in ASN.1.	
23.172		CAMEL4 prepay interworking with SCUDIF		CN#23	It has to be indicated when we call CAMEL procedure for change of basic service	

11 Work item rapporteurs

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12 Work item leadership

CN2

13 Supporting Companies

Ericsson, Nokia, NEC, Nortel, NTT DoCoMo

14 Classification of the WI (if known)

	Feature (go to 14a)
x	Building Block (go to 14b)
	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

TEI_6

14c The WI is a Work Task: parent Building Block

(one Work Item identified as a building block)