| | |
|---|---|
| **Source:** | **TSG SA WG2 (S2-042329)** |
| **Title:** | **Updated WID on "Circuit Switched Video and Voice Service"** |
| **Agenda Item:** | **7.2.3** |

# Work Item Description

**Title: Circuit Switched Video and Voice Service Improvements**

**1        3GPP Work Area**

| | |
|---|---|
| X | Radio Access |
| X | Core Network |
| X | Services |

**2        Linked work items**

*none identified*

**3        Justification**

Many operators regard circuit video services as a key part of UMTS. However there is a strong desire to have an effective and user friendly method of swapping between voice and video services when the user desires and/or when radio conditions change and video mode is no longer available. There are several situations where swapping between video and voice calls is needed. These include (but are not limited to):

a)        movement from good 3G coverage (ie able to support 64 kbit/s uplink) into "fringe 3G coverage" (ie able to support voice but not video on the uplink)

b)        movement from good 3G coverage into 2G coverage (eg at a corner, or entry into a building); and

c)        when using voice on a 2G cell (which is in a 3G coverage area) the customer initiates a video session with the person they are speaking to.

d)        whenever the user wishes to switch from a voice call to video call (or back).

Current stage 3 *interface* specifications appear to contain most of the tools needed to provide this functionality. However, in order to build the service, the system needs specific functionality that is not described in any current TR or TS. A standardised solution is required to provide interoperability and a consistent user experience.

**4        Objective**

The objectives are:

1)   document any relevant stage 1 requirements

2)   compare mechanisms to implement the requirement in an 800 series TR and based on the chosen solution produce a stage 2 description

3)   produce any necessary stage 3 changes (hopefully none are required)

The Release 5 Service Change and UDI Fall Back Mechanism (SCUDIF); "Dual Call" and "Re-dial" are some potential candidates.

In between SA #22 and SA #24, these candidates have been analysed. The result of this analysis is that the "idle-mode redial" solution should be pursued as a short term solution and that SCUDIF (both BICC based and ISUP based) should be further studied as long term solutions.

Enhancements might be required to fulfill the service requirements (e.g. inter RAT handover).

## 5 Service Aspects

Presentation of the service change to the user needs to be considered. The choice of criteria to trigger the service change needs to balance the desire to hold on to a video service as long as possible against the degradation of the video service under poor service conditions.

## 6 MMI-Aspects

No specification is expected. However, the output of this WI is needed as an *enabler* for mobile manufacturers to design customer friendly MMIs for this service.

## 7 Charging Aspects

User charging and Inter-operator accounting for calls which undergo service change needs to be considered.

## 8 Security Aspects

*None anticipated.*

## 9 Impacts

| Affects: | UICC apps | ME | AN | CN | Others |
|---|---|---|---|---|---|
| **Yes** | | | X | X – SCUDIF | |
| **No** | X | | | X – redial | |
| **Don't know** | | X | | | Transit networks? |

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

| New specifications | | | | | | |
|---|---|---|---|---|---|---|
| Spec No. | Title | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | Approved at plenary# | Comments |
| | | | | | | |
| TR 23.801*¥ | Potential Mechanisms for CS Domain Video and Voice Service Improvements | SA 2 | | #24 | #254 | |
| TR23.9ab | Redial solution for Video-voice switching | SA2 | | #25 | #26 | |
| | | | | | | |

| Affected existing specifications | | | | |
|---|---|---|---|---|
| Spec No. | CR | Subject | Approved at plenary# | Comments |
| | | | | |
| 22.101 | | 7.2.1 Circuit-switched multimedia calls | #23 | |
| 23.009 | | ? | #265 | |
| 23.172 | | Technical realisation of Circuit Switched (CS) Multimedia service UDI/RDI fallback and service modification | #265 | |
| 48.008 | | ? | #265 | |
| 25.413 | | ? | #265 | |
| 24.008 | | ? | #265 | |
| 48.018 | | Already approved CR  287r3 to Rel-6 | | It is FFS whether this CR should be applied to earlier releases |
| 45.008 | | Already approved CR 198r4 to Rel-6 | | It is FFS whether this CR should be applied to earlier releases |
| ? | | This list, and the identification of any need for a new stage 2 document, should be completed when the TR 23.801 is presented to SA "for approvalinformation" | #25 | |
| | | | | |

## 11 Work item raporteurs

Chris Pudney (Vodafone Group)

## 12 Work item leadership

SA 2

## 13 Supporting Companies

Vodafone Group, Nortel Networks, T-Mobile, Orange, TIM, Ericsson, Siemens, TeliaSonera

## 14 Classification of the WI (if known)

| X | Feature (go to 14a) |
|---|---|
|  | Building Block (go to 14b) |
|  | Work Task (go to 14c) |

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

Building Blocks and Work Tasks are anticipated to be identified when the stage 2 is presented "for information".

14b    The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

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

(one Work Item identified as a building block)