

Source: Vodafone & Axalto
Title: WID on USSD message delivery and transfer to USIM
Document for: Approval
Agenda Item: 8

Work Item Description

Title: USSD message transfer to USIM

1 3GPP Work Area

X	Terminals
X	Radio Access
X	Core Network
X	Services

2 Linked work items

none identified

3 Justification

A mechanism to deliver USSD strings from the USIM to the network and receive the reply has existed since R99, however, there is currently no specified delivery and transfer mechanism for the USIM to receive Network initiated USSD. This feature is considered to be very desirable by many operators. To illustrate its usefulness, and by way of example, the following two use cases are given:

Use Case 1 – One shot Download

In this use case the network sends a packet of data to the USIM to cause a file to be updated or an application to be triggered. This might happen as part of a call or independently of a call. The data will be 8bit as typically this communication is encrypted and addressed using TS 23.048. The USIM may reply with a small package of encrypted data as 'Proof of receipt' as described in TS 23.048.

Use Case 2 – Interactive session with the USIM

In this case the network initiates an interactive dialogue with the USIM consisting of many data packets alternately to and from the USIM as a 'session' with an application on the USIM. This might happen as part of a call but is more likely to be independent of a call. The data will be 8bit as typically this communication is encrypted and addressed using TS 23.048 in both directions.

4 Objective

The objectives are:

- a) To specify the above stage 1 requirement for USSD message delivery and transfer to the USIM
- b) To identify secure mechanisms that will enable the above requirement to be satisfied

Whilst considering this matter TSG T3 has so far identified the need for:

- the addition of addressing in the USSD message;
- the addition of a USSD data download command to USAT;
- the addition of USSD as part of Bearer Independent protocol in USAT;
- the addition of a USSD section to TS 23.048 to clarify the use of this specification over USSD;

- the addition of the Java API routines for the above commands.
- the solution shall be backward compatible

5 Service Aspects

To develop further uses cases and identify any related service requirements.

6 Terminal and USIM Aspects

T3 to develop a secure mechanism for the transfer of USSD messages between UE and USIM

7 Charging Aspects

For further study following the development of the the use cases.

8 Security Aspects

Security is a primary consideration and SA3 are expected to endorse the chosen solution to be specified.

9 Impacts

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

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
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
22.090				#24	Alternatively requirements may be captured in a new or an existing specification.	
23.048				#24		
31.102				#24		
31.111				#24		
24.008				#24		
48.008				#24		
		This list should be completed when the stage 1 requirements have been further developed				

11 Work item rapporteurs

Christophe Dubois (Axalto)

12 Work item leadership

SA 1

13 Supporting Companies

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)