Work Item Description

Source: **Nokia**
Title: **DRM (Digital Right Management) Security**

1   3GPP Work Area

X	Terminal
	Radio Access
X	Core Network
X	Services

2   Linked work items

The following work items are identified potentially relevant to DRM (not an exclusive list): Public key infrastructure , End-to-end Media streaming, Open Service Architecture (OSA), Generic User Profile (GUP), Push services, MMS.

3   Justification

TSG-S3 has prime responsibility for security aspects of specification work for DRM in 3GPP. In particular, SA3's support and advice is required for security issues regarding i) architecture design, ii) protocols and communication, iii) content encryption, and iv) rights specification and enforcement.

4   Objective

The objective of this WI is to address the security requirements documented in 3G TS 22.242 and assist S2 to set up the DRM service architecture with regard to security aspects. To propose and conclude any necessary CR's to S1 and S2 specifications.

DRM must ensure that rights associated with content are enforced by the UE. In technology detail, a couple of objectives are discovered for provision of DRM:
1. A **trust relation** shall be provided between content providers and UEs.
2. The architecture shall provide mechanism for protecting content and usage rights **delivery in end-to-end model**, allowing content providers to render content un-accessible to anybody else but the intended UE. However use of protection and trust methods may be optional for content providers.
3. **Content protection** should be provided, for example encryption.
4. Regarding to managing digital rights authorization, these objectives are discovered:
    *   **User information** used to create the usage rights shall not be disclosed without the explicit consent of the end user.
    *   The expression of rights grant UE **explicit authorization** in permission (e.g. play, view) and constraints (e.g. ten times, for one month) to the rights. It is not permitted to be modified by UE.

There may exist many types of transport mechanisms, but only one solution for digital rights management is to be standardised, i.e., the standardized DRM solution shall be transport agnostic.

5   Service Aspects

DRM shall enable all types of media content to be distributed in wireless networks and user equipment. The digital rights shall guarantee the Content Provider, Rights Holder the charge for the contents copyright and mobile operator's provision.

6 MMI-Aspects

DRM shall be as transparent to the end user as possible. The end-user shall not be required to enter into a dialog with the device in order to access DRM protected content for which rights are available. Only when there are no rights available for the content shall the user be given the possibility to obtain rights from the network.
The user shall also have the possibility to determine what rights s/he has for a piece of content.

7 Charging Aspects

In DRM systems, the value lies in the rights (to use the content) and not in the content itself, i.e., DRM content without corresponding rights is of no value to the user. Furthermore, the same content has different value to the end user whether it can be accessed permanently or, for example, ten times. Thus, it is expected that charging will occur for rights and not for content.
The charging mechanism, however, is out of scope for the standardization of the DRM system.

8 Security Aspects

This is a security work item.

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes		X		X	X
No			X		
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
						See comment below

Affected existing specifications					
Spec No.	CR	Subject	Approved at plenary#	Comments	

11 Work item raporteurs

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12   Work item leadership

TSG SA WG2 or SA WG3.

13   Supporting Companies

Nokia, Vodafone, T-Mobile, Ericsson

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

None at present. This may require BBs from CN1, CN4, SA5 and T3.

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)