

Work Item Description

Title: Liberty Alliance and 3GPP Security Interworking

1 3GPP Work Area

	Radio Access
X	Core Network
X	Services

2 Linked work items

SECI-SC

3 Justification

The GAA system provides mobile subscriber and an application with a shared secret or provides a certificate to the subscriber. The Liberty Alliance Project (LAP) defines in the ID-FF and ID-WSF specifications a family of protocols. Those protocols enable reuse of an authentication done at an Identity Provider (IdP) for user authentication towards a Service Provider, that trusts this authentication confirmation of the IdP. LAP does not specify the actual means of authentication, but leaves that for agreement between the business partners. The Liberty Alliance specifications -use the provided authentication to the IdP means without restricting the type of authentication mechanism, to enable easy integration with the existing infrastructure and legacy authentication mechanism (e.g. username / password). GAA, which is specific to mobile subscribers, is one of the methods that can be used to provide the authentication towards the Liberty IdP. There may also be other 3GPP security methods that could be used to authentication towards the Liberty IdP. 3GPP services might utilize the authentication model defined by LAP, but details of this interworking are not fully studied and specified. [In order to enable the use of 3GPP authentication methods within the Liberty framework, and hence leverage the access of 3G subscribers to Liberty-enabled services, it is therefore required to study the 3GPP security - Liberty interworking.](#)

The 3GPP security specifications (e.g. GAA, IMS) and the Liberty Alliance specifications (i.e. ID-FF and ID-WSF) have been drafted with different goals, hence their deployment should be kept independent of each other, but the interworking between them should be [made](#) possible and optimised.

The interworking of 3GPP authentication technologies and Liberty has been discussed in SA3 and some areas for optimisation and enhancement for interworking were outlined. New developments in related organisations that affect the interworking need to be studied in further detail. The enabling of optimal interworking of technologies might require work that lies outside the current GAA area and therefore interworking should be studied in a separate work item outlined by this WID. Another area of interworking is the ~~optimisation of~~ use of an authentication done at a Liberty IdP to a 3GPP service or applications.

4 Objectives

- To investigate relevant standards and technologies, both existing as well as the ones that are work-in-progress
- To identify clearly areas of interworking
- To investigate possible architectural scenarios [for 3GPP security – Liberty interworking](#)
- To study possible optimisation of the 3GPP security and LAP interworking and propose enhancements to the relevant specifications

- To investigate the need and define, if applicable, guidelines on the usage of 3GPP security and Liberty Alliance protocols for 3GPP services and applications.
- To identify suitable format, standards and forums to incorporate the interworking optimisation suggestions.

The results will be [a report on how an interworking between 3G security methods and the Liberty Alliance framework could be realised.](#) and suggestions to optimise the interworking between LAP and GAA.

5 Service Aspects

Services that utilize 3GPP security and / or Liberty Alliance ID-FF/ID-WSF protocols should be able to minimize the amount of interfaces, protocols and mechanisms to support. [Security requirements impacting 3GPP service requirements have to be analyzed by SA1. Any new security requirements deemed applicable to 3GPP system need to be captured by the SA1 service requirements. SA1, SA2 and CN will be involved to ensure there are no conflicting requirements.](#)

6 MMI-Aspects

Some authentication methods may require user interaction.

7 Charging Aspects

None

8 Security Aspects

Liberty Alliance Project defines a Single-Sign On System and a Web Service Framework. The interworking between 3GPP security methods and the Liberty Alliance protocols has many security aspects that need to be identified more clearly.

9 Impacts

Affects:	UICC apps	ME	AN	CN	Others
Yes		X		X	
No			X		
Don't know	X		X		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
TR ab.cde	Liberty and GAA Interworking	SA3		SA#28 (June 2005)	SA#29 (September 2005)	Whether the TR will be developed depends on the outcome of this work item.
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11 Work item rapporteur(s)

Silke Holtmanns, Nokia

12 Work item leadership

SA3

13 Supporting Companies

Nokia, BT, [Vodafone](#), [Siemens](#) (~~at least 4 Individual Members~~)

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

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

(one Work Item identified as a building block)