

## Work Item Description

### Title

**General R99 security enhancements**

### 1 3GPP Work Area

X	Radio Access
X	Core Network
X	Services

### 2 Linked work items

None identified

### 3 Justification

This work item is intended to cover miscellaneous security enhancements to R99 which are not covered by any other security work item. Examples of miscellaneous items include:

- ~~Feasibility~~ Feasibility of an authentication vector revocation mechanism
- Feasibility of positive A authentication result reporting
- Feasibility of control of lifetime of SA
- UE triggered authentication
- Retention of P-TMSI signature

### 4 Objective

The general objective of this work item is to produce the necessary CRs which provide the identified miscellaneous security enhancements.

### 5 Service Aspects

None identified.

### 6 MMI-Aspects

None identified.

### 7 Charging Aspects

None identified.

### 8 Security Aspects

The main aspect of this work item is security.

### 9 Impacts

The following examples only have an impact on CN:

- Feasibility of an authentication vector revocation mechanism
- Feasibility of positive A authentication result reporting
- Feasibility of control of lifetime of S security association (cipher/integrity keys established after an authentication)

The following examples have an impact on ME, AN and CN

- UE triggered authentication
- Retention of P-TMSI signature

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

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

Feasibility of an authentication vector revocation mechanism

N4 will look at this issue in July 2000 and respond to S3. ~~S3 feel that it is~~ Target for S3 decision/implementation: December 2000.

Feasibility of postive authentication result reporting

N4 will look at this issue in July 2000 and respond to S3. ~~S3 feel that it is~~ May be acceptable to only support this for 3GPP2 subscribers<sup>+</sup>. Target for S3 decision/implementation: December 2000

Feasibility of control of lifetime of security associationSA

Target for S3 decision/implementation: December 2000

UE triggered authentication

Target completion date: December 2000

Retention of P-TMSI signature

No security issues were identified with removal of P-TMSI signature from service request. BT asked to clarify that removal only addresses the service request. Decision to be made at CN#8.

Any further changes to P-TMSI signature should be approved by S3 plenary first. In the long term S3 need to describe the P-TMSI signature concept in 03.20/33.102 to ensure good visibility.

Meeting	Date	Activity

<sup>+</sup> We haven't really discussed this in a S3 meeting, but its fine by me

