3GPP TSG SA WG3 Security — S3#32
Edinburgh, UK, 9-13 February 2004

Tdoc ⌘S3-040078

CR-Form-v7

Pseudo CHANGE REQUEST

⌘ **33.220** **CR** **CRNum** ⌘**rev** **-** ⌘ Current version: **1.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Removal of unnecessary text
Source:	⌘	Nokia
Work item code:	⌘	GAA
Date:	⌘	9/1/2004
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change:	⌘	Forthcoming techinical specifications (29.109 and 24.cde) address some issues that are marked by for further study (FFS) or with editor's note on TS 33.220. Therefore those sections can be removed from this TS.
Summary of change:	⌘	Removal of text which has in addressed in other techinical specifications (29.109 and 24.cde).
Consequences if not approved:	⌘	Unnecessary FFS (for futher study) notes are left into the TS.

Clauses affected:	⌘	4.3.1, 4.3.3

	Y	N		
Other specs affected: ⌘		X	Other core specifications	⌘
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

***** BEGIN CHANGE *****

4.3.1 Initiation of bootstrapping

When a UE wants to interact with an NAF, but it does not know if bootstrapping procedure is required, it shall contact NAF for further instructions (see figure 3).

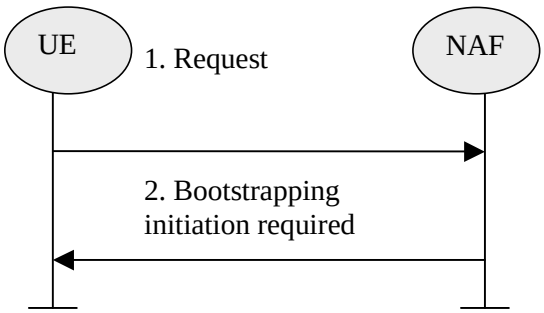


Figure 3: Initiation of bootstrapping

1. UE starts communication over Ua interface with the NAF without any bootstrapping related parameters.

2. If the NAF require bootstrapping but the request from UE does not include bootstrapping related parameters, NAF replies with a bootstrapping initiation message. The form of this indication may depend on the particular Ua interface ~~and is ffs~~.

~~Editor's note: If the protocol over Ua interface is based on HTTP, then NAF can initiate the bootstrapping procedure by using HTTP status codes (e.g. 401 Unauthorized).~~

***** END CHANGE *****

***** BEGIN CHANGE *****

4.3.3 Procedures using bootstrapped Security Association

After UE is authenticated with the BSF, every time the UE wants to interact with an NAF the following steps are executed as depicted in figure 5.

UE starts communication over Ua interface with the NAF

- In general, UE and NAF will not yet share the key(s) required to protect Ua interface. If they already do, there is no need for NAF to retrieve the key(s) over Zn interface.

- If the NAF shares a key with the UE, but an update of that key it sends a suitable key update request to the UE and terminates the protocol used over Ua interface. The form of this indication may depend on the particular protocol used over Ua interface ~~and is ffs~~.

- It is assumed that UE supplies sufficient information to NAF, e.g. a transaction identifier, to allow the NAF to retrieve specific key material from BSF.

- The UE derives the keys required to protect the protocol used over Ua interface from the key material, as specified in clause 4.3.2.

NOTE 1: The UE may adapt the key material Ks_NAF to the specific needs of the Ua interface. This adaptation is outside the scope of this specification.

NAF starts communication over Zn interface with BSF

- The NAF requests key material corresponding to the information supplied by the UE to the NAF (e.g. a transaction identifier) in the start of the protocol used over Ua interface.

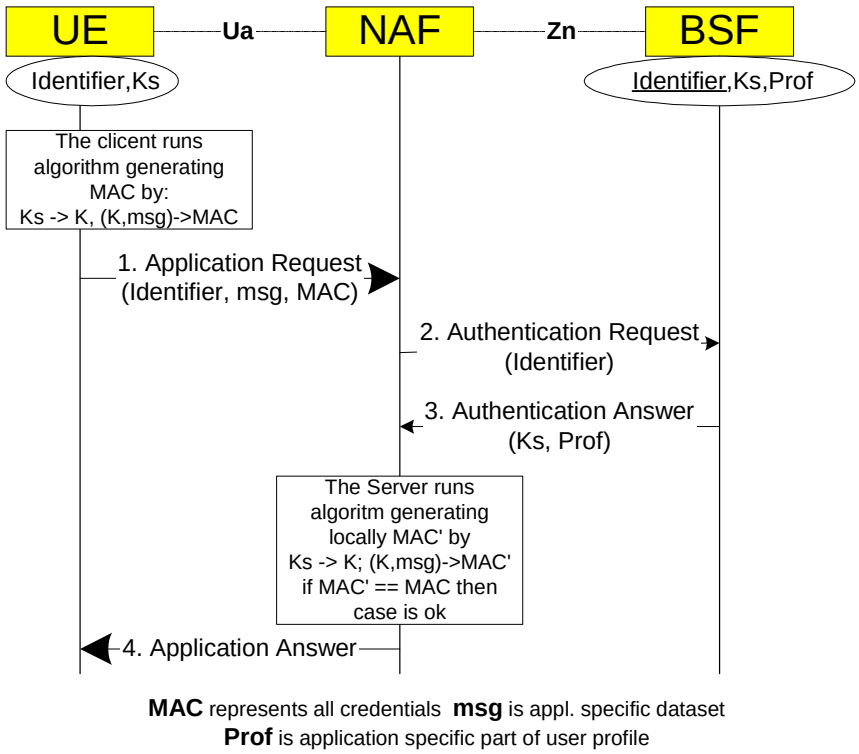
- The BSF derives the keys required to protect the protocol used over Ua interface from the key material and the key derivation parameters, as specified in clause 4.3.2, and supplies to NAF the requested key material. If the key identified by the transaction identifier supplied by the NAF is not available at the BSF, the BSF shall indicate this in the reply to the NAF. The NAF then indicates a key update request to the UE.

NOTE 2: The NAF may adapt the key material Ks_NAF to the specific needs of the Ua interface in the same way as the UE did. This adaptation is outside the scope of this specification.

NAF continues with the protocol used over Ua interface with UE.

Once the run of the protocol used over Ua interface is completed the purpose of bootstrapping is fulfilled as it enabled UE and NAF to use Ua interface in a secure way.

~~Editor's note: Message sequence diagram presentation and its details will be finalized later.~~



MAC represents all credentials **msg** is appl. specific dataset
Prof is application specific part of user profile

Figure 5: The bootstrapping usage procedure

***** END CHANGE *****