

Agenda item: 5.2

Document for: INFORMATION

3GPP TSG SA WG3 Security — S3#15

S3-000605

12-14 September, 2000

Washington D.C., USA

Source: TSG-SA3¹

To: TSG-CN4

Copy: TSG-CN

Title: Positive Authentication Reporting

S3 thank N4 for their reply liaison statement on positive authentication reporting (N4-000789). S3 offer the following answers to the specific questions raised by N4:

“N4 does not have a clear view on whether this functionality is required for R99 or for R00. Because this is clearly a major functional change, N4 assumes that this will be part of R00.”

S3 can confirm that this functionality is intended to be introduced in R00.

“What protocol would be used between 3GPP VLR/SGSNs and 3GPP2 HLRs? Currently the protocol is not defined in the specifications.”

S3 intend to facilitate security inter-working by ensuring that 3GPP and 3GPP2 adopt a common authentication mechanism. Harmonisation of the ANSI-41 and GSM/3GPP MAP protocols is outside the scope of S3 work.

“S3 advises that positive authentication report is mandatory during the first location updating for 3GPP2 subscribers roaming to the 3GPP networks. In this case how does the VLR/SGSN know that the subscriber is a 3GPP2 subscriber? This information is needed if the VLR/SGSN does not want to report positive authentication for subscribers not from the 3GPP2 networks.”

S3 point out that support of positive authentication reporting is intended to be mandatory for all VLR/SGSN but optional for the HLR. Furthermore, it is envisaged that a 3GPP2 HLR will typically request positive authentication reporting to be enabled when its customers are roaming in 3GPP VLR/SGSN.

“How can the HLR request authentication report from the VLR/SGSN?”

One solution would be for a flag to be included in the authentication vector to indicate whether or not a positive authentication report is required. S3 will elaborate on the stage 2 specifications of this feature.

“S3 liaison also included a proposal for modification of TS 33.102 to reflect generic authentication reporting mechanism. N4 recommends the separation of the Authentication Failure and Positive Authentication Reporting because Authentication Failure Report is already implemented in the N4 specification.”

S3 will take this into account when developing the stage 2 specifications.

“Regarding the question about the impact on network performance, N4 would also like to point out that

- 1. The requirement to perform authentication reporting only at the first registration as a means to save signalling is not applicable to 3GPP networks, since there is no distinction between first and subsequent location updates*
- 2. Roaming subscribers normally change their serving network quite often and that will noticeably increase the signalling traffic if the Positive Authentication Reporting is used”.*

S3 have noted the comments relating to network performance but would like to stress that it is a home network option whether or not to turn on positive authentication reporting.

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12-14 September, 2000

Washington D.C., USA

3GPP TSG-CN WG4

Tdoc 3GPP N4-000789

Seattle (WA), USA

28 August – 1 September 2000

Source: TSG-CN4²

Title: Liaison statement on Positive Authentication Reporting

To: TSG-SA WG3, TSG-CN

TSG CN WG4 thanks TSG SA WG3 for their liaison statement (S3-000499) on Positive Authentication Reporting.

N4 does not have a clear view on whether this functionality is required for R99 or for R00. Because this is clearly a major functional change, N4 assumes that this will be part of R00.

The following questions were raised during the N4 meeting:

- What protocol would be used between 3GPP VLR/SGSNs and 3GPP2 HLRs? Currently the protocol is not defined in the specifications
- S3 advises that positive authentication report is mandatory during the first location updating for 3GPP2 subscribers roaming to the 3GPP networks. In this case how does the VLR/SGSN know that the subscriber is a 3GPP2 subscriber? This information is needed if the VLR/SGSN does not want to report positive authentication for subscribers not from the 3GPP2 networks.
- How can the HLR request authentication report from the VLR/SGSN?

S3 liaison also included a proposal for modification of TS 33.102 to reflect generic authentication reporting mechanism. N4 recommends the separation of the Authentication Failure and Positive Authentication Reporting because Authentication Failure Report is already implemented in the N4 specification.

Regarding the question about the impact on network performance, N4 would also like to point out that

1. The requirement to perform authentication reporting only at the first registration as a means to save signalling is not applicable to 3GPP networks, since there is no distinction between first and subsequent location updates
2. Roaming subscribers normally change their serving network quite often and that will noticeably increase the signalling traffic if the Positive Authentication Reporting is used.

N4 ask advise from CN as to which work item this standardisation belongs.

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