3GPP TSG-CN1 Meeting #23   *Tdoc N1-020961*

Fort Lauderdale, Florida, USA 08. - 12. April 2002

Title:	Reply Liaison Statement 'Issues with SA handling at P-CSCF'
Source:	CN1
To:	SA3
Cc:	
Response to:	LS (S3-020161) on Issues with SA handling at P-CSCF'.

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Attachments: None

CN1 thanks SA3 for their liaison titled 'Issues with SA handling at P-CSCF' in which four questions were asked of CN1.

The answers from CN1 are given below.

- *Do CN1 see anyway of ensuring the P-CSCF knows that the UE successfully received the last message in a registration procedure?*

Answer : There is no solution at the SIP layer to detect if the message was received, except that the UE may restart the REGISTER procedure. At the transport layer, if TCP transport is used then it would be possible to determine if the message had been received by the terminal. There is no way for the network to tell if the message was delivered when UDP transport is used. UDP is the preferred option for transport to the terminal, consequently no guarantee of delivery is available.

- *Do CN1 see any reason why a UE should be allowed to initiate multiple simultaneous registrations for a particular IMPI?*
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Answer : The SIP specification states that
"UAs MUST NOT send a new registration (that is, containing new Contact header field values, as opposed to a retransmission) until they have received a final response from the registrar for the previous one or the previous REGISTER request has timed out." However, this would apply per IMPU rather than IMPI.

There is no scenario identified where multiple parallel registrations are required to be supported. Registration of multiple IMPU can be performed sequentially.

It should be noted that the P-CSCF and S-CSCF must in principle allow such parallel registrations otherwise an attacker flooding the network could potentially block a real registration from the valid user.

A change request to 24.229 to disallow multiple parallel registrations from the UE has been agreed by CN1 in document N1-020959.

- *Can CN1 proscribe any behaviour for the P-CSCF and S-CSCF to deal with an attacker flooding the network with multiple simultaneous registrations for the same IMPI?*

Answer : If the registrations are unprotected then the default behaviour of the P-CSCF is to pass them to the S-CSCF. It is possible that the P-CSCF could detect the flooding from a malicious user and start to discard these registrations. However, it must not prevent a registration from the valid user.

A change request to 24.229 to disallow multiple parallel registrations from the UE has been agreed by CN1 in document N1-020959. No P-CSCF behaviour is proscribed i.e. it will always pass on a REGISTER message that is unprotected.

It should also be noted that the registrations from an attacker should fail authentication and will therefore be dropped by the P-CSCF.

-   *Do CN1 see the need to limit the compulsory number of SAs stored at the P-CSCF to two?*

Answer : There is no identified restriction or impact within the scope of CN1 and this is therefore considered to be an SA3 decision.

2. Actions:

To SA3 group.

ACTION: CN1 asks SA3 to note the replies given to their questions above, and to reflect the decisions in their specifications where appropriate.

3. Date of Next CN1 Meetings:

CN1_24	13th – 17th May 2002	Budapest, Hungary
CN1_25	29th July – 02nd August 2002	Helsinki, Finland