**3GPP TSG-CT WG3 Meeting #108-eC3-201312**

[**E-Meeting**](https://www.3gpp.org/ftp/tsg_ct/WG3_interworking_ex-CN3/TSGC3_108_Sophia_Antipolis/)**, 19th -28th February 2020 (Revision of C3-200xyz)**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.513** | **CR** | **0130** | **rev** | **-** | **Current version:** | **16.2.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Subscription to Notification of Signalling Path Status at IMS Registration | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eIMS5G\_SBA | | | | |  | ***Date:*** | | | 2020-02-28 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change 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](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | PCC interactions with SIP/SDP signalling of the IMS are missing in current version of the specification. Subscription to Notification of Signalling Path Status at IMS Registration needs to be defined. | | | | | | | | |
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| ***Summary of change:*** | | Subscription to Notification of Signalling Path Status at IMS Registration is defined. | | | | | | | | |
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| ***Consequences if not approved:*** | | The specification is incompleted. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | B.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This CR does not impact the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\* 1st Change \*\*\*

## B.5 Subscription to Notification of Signalling Path Status at IMS Registration

This clause covers the optional Subscription to Notifications of IMS Signalling Path Status upon an initial successful IMS Registration procedure.



Figure B.5-1: Subscription to Notification of IMS Signaling Path Status at initial IMS Registration

1-4. The user initiates an initial SIP Registration procedure. The SIP Registration procedure is completed successfully (user has been authenticated and registered within the IMS Core NW).

5. The P-CSCF requests the creation of a new "Individual Application Session Context" resource with the intention to subscribe to the status of the IMS Signaling path. The P-CSCF sends an HTTP POST request message to the PCF.

5a. The P-CSCF requests the establishment of a new Diameter Rx session with the intention to subscribe to the status of the IMS Signaling path. The P-CSCF sends a Diameter AAR command to the PCF.

6. The PCF performs session binding and identifies corresponding PCC Rules related to IMS Signalling.

7. The PCF confirms the subscription to IMS Signaling path status and replies with an HTTP "201 Created" message back to the P-CSCF.

7a. The PCF confirms the subscription to IMS Signaling path status and replies with a Diameter AAA command back to the P-CSCF.

8. If the PCF had not previously subscribed to the required QoS flow level events from the PDU session for the affected PCC Rules, then the PCF shall do so now. The PCF initiates procedures according to figure 5.2.2.2.1-1.

\*\*\* End of Change \*\*\*