**3GPP TSG-CT WG4 Meeting #101eC4-205**

**E-Meeting, 3rd – 13th November 2020 was C4-205407**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.328** | **CR** | **0636** | **rev** | **1** | **Current version:** | **15.8.0** |  |
|  | | | | | | | | |
| *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:*** | 5G Location Information retrieval | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GS\_Ph1-IMSo5G | | | | |  | ***Date:*** | | | 2020-11-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-15 |
|  | *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:*** | | Subclause 7.6.6 does not list the case where the HSS returns the location of the served subscriber in the AMF together with the location of the served subscriber in any other serving node. This has led to the interpretation that the response from the HSS shall not contain the subscriber's AMF location in combination with any other subscriber's serving node location. | | | | | | | | |
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| ***Summary of change:*** | | Correct clause 7.6.6 to allow any combination of subscriber's serving nodes location information to be retrieved via Sh. | | | | | | | | |
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| ***Consequences if not approved:*** | | Incorrect description results in interoperability problems. | | | | | | | | |
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| ***Clauses affected:*** | | 7.6.6. | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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's revision history:*** | |  | | | | | | | | |

\* \* \* First Change \* \* \* \*

### 7.6.6 Location Information

This information element contains either:

- the location of the served subscriber in the MSC/VLR if the requested domain is CS, or

- the location of the served subscriber in the SGSN if the requested domain is PS and either the requested node is solely SGSN or the requested node is not present, or

- the location of the served subscriber in the MME if the requested domain is PS and the requested nodes is solely MME, or

- the locations of the served subscriber in the 3GPP AAA Server for TWAN if the requested domain is PS and the requested nodes is solely 3GPP AAA SERVER for TWAN, or

- the location of the served subscriber in the AMF (for 3GPP access) if the requested domain is PS and the requested nodes is solely AMF.

- the locations of the served subscriber in the MME and the SGSN and 3GPP AAA Server for TWAN and AMF if the requested domain is PS and the requested nodes are all of MME and SGSN and 3GPP AAA SERVER for TWAN and AMF, or

- the locations of the served subscriber in any of the two or three serving nodes among the MME, the SGSN, the 3GPP AAA Server for TWAN and the AMF if the requested domain is PS and the requested nodes indicates the corresponding nodes for which the location are to be requested.

If the HSS has to communicate with the MSC/VLR or SGSN and/or MME and/or 3GPP AAA Server and/or AMF (via UDM) to retrieve location information, it shall make use of the service MAP-PROVIDE-SUBSCRIBER-INFO or S6a/S6d-IDR or SWx-PPR or make use (via UDM) of the Namf Service-Based Interface services. This information element shall contain the location information as received from the access nodes.

If the HSS or HSS/UDM cannot communicate with the VLR or SGSN or MME or AMF (e.g., because the UE is purged), or if the HSS or HSS/UDM cannot retrieve the location information from the serving nodes because they do not support such feature, the HSS shall provide locally stored location information if available (e.g., serving node name, Visited PLMN ID) received in a previous Update Location message, and the last known UE's location if available e.g. as received in the Purge message from VLR or SGSN or MME or AMF.

If the Serving Node Indication was present in the request, the location information shall contain the serving node address(es) as stored in the HSS, according to the requested domain and the requested nodes (if received). Other location information may be absent, in order to eliminate unnecessary communication with the MSC/VLR or SGSN and/or MME and/or 3GPP AAA Server and/or AMF when the AS does not require these information elements.

For both Location Information for CS and Location Information for GPRS, the considerations described in 3GPP TS 23.078 [14] apply.

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