**3GPP TSG-SA5 Meeting #142-e *S5-222422***

**e-meeting, 17th – 26th January 2022** Revision of S5-20xxxx

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **32.255** | **CR** | **0** | **rev** | **-** | **Current version:** | **17.5.0** |  |
|  |
| *For* [***HELP***](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:***  | Additional the architecture for LBO |
|  |  |
| ***Source to WG:*** | Huawei, Vodafone |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | CHROAM |  | ***Date:*** | 2022-03-25 |
|  |  |  |  |  |
| ***Category:*** | B |  | ***Release:*** | Rel-17 |
|  | *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 canbe 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | For the support of local breakout roaming scenario charging, the general description about local breakout roaming scenario should be introduced. |
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| ***Summary of change:*** | Add the architecture for the support of local breakout roaming scenario charging. Correct the format for clause 4.1.4 and 4.1.5.1. |
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| ***Consequences if not approved:*** | The support of the local breakout roaming scenario charging is incomplete. |
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| ***Clauses affected:*** | 4.1.4,4.1.5.1,4.1.x(New) |
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|  | **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:*** |  |

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| **First change** |

### 4.1.4 Architecture reference for Non-3GPP Accesses

Figure 4.1.4.1 shows the non-roaming architecture for Non-3GPP Accesses as defined in TS 23.501 [200] for 5G data connectivity.

Figure 4.1.4.1: Non-roaming architecture for Untrusted Non-3GPP Accesses

This reference architecture supports service based interfaces for AMF, SMF and other NFs not represented in the figure.

Figure 4.1.4.2 shows the non-roaming architecture for 5G Core Network with trusted non-3GPP access as defined in TS 23.501 [200] for 5G data connectivity.



Figure 4.1.4.2: Non-roaming architecture for 5G Core Network with trusted non-3GPP access

The UE is connected to the 5G Core Network over non-3GPP access. This reference architecture supports service based interfaces for AMF, SMF and other NFs not represented in the figure.

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| **Next change** |

#### 4.1.5.1 Non-roaming architecture with an I-SMF insertion without ULCL/BP

Figure 4.1.5.1 shows the 5G System high level non-roaming architecture, as defined in TS 23.501 [200], with an I-SMF insertion to the PDU Session without UL-CL/BP, using reference point representation.



Figure 4.1.5.1: Non-roaming architecture with I-SMF insertion to the PDU Session in reference point representation, with no UL-CL/BP

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| **Next change** |

### 4.1.X Roaming Local Breakout reference architecture

Figure 4.1.X.1 shows the 5G System high level Roaming Local Breakout architecture as defined in TS 23.501 [200] for 5G data connectivity, in the service-based representation for Control Plane (CP) Network Functions.



Figure 4.1.X.1: Roaming 5G System architecture- local breakout scenario in service-based interface representation

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| **End of change** |