3GPP TSG-WG SA2 Meeting #164 *S2-2408894*

**Maastricht, Netherlands, August 19 – 23, 2024 is revision of S2-2408289**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.501** | **CR** | **5561** | **rev** | **1** | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *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:*** | Control Plane and User Plane Protocol stacks involving the MWAB node | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Lenovo, Huawei, Nokia | | | | | | | | | |
| ***Source to TSG:*** | SA2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | VMR\_Ph2 | | | | |  | ***Date:*** | | | 2024-08-09 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | It is agreed in TR 23.700-60’s conclusion that,  - MWAB-gNB N2 interface with UE-AMF is provided over the IP connectivity offered by the PDU session of MWAB-UE.  - MWAB-gNB N3 interface with UE-UPF is over the IP connectivity provided by the PDU session of MWAB-UE.  However, the Control Plane and User Plane Protocol stacks involving the MWAB node are missing in TS 23.501 as Annex for informative. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add the Control Plane Protocol stacks for MWAB-gNB N2 interface with UE-AMF and User Plane Protocol Stacks for MWAB-gNB N3 interface with UE-UPF into TS 23.501 Annex X. | | | | | | | | |
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| ***Consequences if not approved:*** | | The Control Plane and User Plane Protocol stacks involving the MWAB node can not be supported | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | Annex X(new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

Annex X (informative)

Mobile gNB with Wireless Access Backhauling (MWAB)

### X.1 Protocol Stacks for MWAB node

#### X.1.1 Control Plane Protocol Stacks to support N2 interface for MWAB node



**Figure X.1.1-1: Control Plane Protocol Stacks to support the N2 interface**

Figure X.1.1-1 illustrates the Control Plane Protocol Stacks to support the N2 interface. A PDU session between MWAB-UE and MWAB-UPF is established as a backhaul link to support the overlayed N2 interface. The N2 interface terminates at MWAB-gNB and UE-AMF respectively, which includes NGAP and SCTP/IP layer protocols between them.

#### X.1.2 User Plane Protocol Stacks to support N3 interface for MWAB node



**Figure X.1.2-1: User Plane Protocol Stacks to support the N3 interface**

Figure X.1.2-1 illustrates the User Plane Protocol Stacks to support the N3 interface. A PDU session between MWAB-UE and MWAB-UPF is established as a backhaul link to support the overlayed N3 interface. The N3 interface terminates at MWAB-gNB and UE-UPF, which includes GTP-U and UDP/IP layer protocols between them. A PDU session between UE and UE-UPF is realized by 1) the Uu between UE and MWAB-gNB, and 2) the N3 between MWAB-gNB and UE-UPF on top of the backhauling PDU session between MWAB-UE and MWAB-UPF.

\* \* \* End of changes \* \* \* \*