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 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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***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.  |
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| ***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 |
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| ***Clauses affected:*** | Annex 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:*** |  |

\* \* \* \* 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 \* \* \* \*