**3GPP TSG-CT WG4 Meeting #99eC4-204xxx**

**E-Meeting, 18th – 28th August 2020** *Revision of C4-204196*

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
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|  | **29.244** | **CR** | **0477** | **rev** | **1** | **Current version:** | **16.4.0** |  |
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| *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:***  | Editor's Note on TSN Bridge Name |
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| ***Source to WG:*** | Nokia, Nokia Shanghai Bell, Huawei |
| ***Source to TSG:*** | CT4 |
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| ***Work item code:*** | Vertical\_LAN |  | ***Date:*** | 2020-08-10 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***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 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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | Clause 5.26.2 contains the following editor's note: Editor's Note: It is FFS whether the Bridge Name needs to be signalled for the Bridge ID (see e.g. clause 5.28.1 of 3GPP TS 23.501).Bridge ID is used over N4 to distinguishes bridge instances within 5GS. Bridge Name does not need to be transferred over N4 (as an N4 IE) and has also been removed from TS 29.512 by CT3. |
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| ***Summary of change:*** | Remove the Editor's Note about the Bridge Name  |
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| ***Consequences if not approved:*** | Remaining editor's note that migth result in different implementations and in interoperability problems. |
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| ***Clauses affected:*** | 5.26.2 |
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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 ...  |
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| ***Other comments:*** | SA2 defines the ‘Bridge Name’ as one part of ‘bridge information of 5GS Bridge’ 23.501 clause 5.28.1, but there is no mentioning about the SMF or PCF requiring this information. There is mentioned: “The bridge information of 5GS Bridge is used by the TSN network to make appropriate management configuration for the 5GS Bridge.” and “Bridge ID is to distinguish between bridge instances within 5GS.”, but ‘Bridge Name’ is not mentioned to be used for example to distinguish the bridge instances.For information: * BridgeID contains the BridgePrio and the Bridge Address (=MAC address of the Bridge)
* A physical bridge has a unique Bridge Address but may have multiple BridgeIDs (e.g. for each network segment/VLAN a own Bridge ID)
* BridgePrio allows to differentiate multiple bridgeIDs of the same physical bridge
* Bridge Name is an alias for Bridge Address not BridgeID

To the CR authors' understanding the target is to expose the TSN Bridge related information to 5GS and its interfaces as minimum as possible and transfer this mainly between TSN AF and (DS-/)NW-TT in BMIC/PMIC. Bridge Name is already part of BMIC, so there is no need to duplicate this information to 5GC interfaces. Clause 12 in IEEE 802.1Q-2018 states: “This clause defines the set of managed objects, and their functionality, that allow administrative configuration of VLANs.” In 3GPP Rel. 16 administrative configuration of VLANs is limited to TSN stream information exchange between CNC and 5GS TSN bridge (TSN AF). TSN stream information exchange will not use Bridge Name.IEEE 802.1Q-2018 allows to set/change the Bridge Name. Bridge Name is signalled in BMIC between TSN AF and NW-TT.  If Bridge Name was also signalled as a separate N4 IE, additional protocol extensions would also be required to signal a modified Bridge Name over N4 to SMF-PCF (when change would be noticed in BMIC). This would be unnecessary complexity. |
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| ***This CR's revision history:*** |  |

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

### 5.26.2 5GS Bridge management

5GS Bridge information reporting is defined in Annex F.1 of 3GPP TS 23.502 [29]; this procedure enables the SMF to report 5GS Bridge information of a PDU session established for Time Sensitive Communication (TSC) to the TSN AF via the PCF.

Identities of 5GS Bridge and UPF/NW-TT ports may be pre-configured in the UPF based on deployment.

In order to establish an Ethernet PDU Session for TSC, the SMF shall send a PFCP Session Establishment Request to the UPF to establish the corresponding PFCP session as specified in clause 5.13. Additionally, the SMF shall request the UPF to allocate the port number for DS-TT, the port number(s) for NW-TT to form port pairs with the DS-TT port and provide the related TSN Bridge ID by including the Create Bridge Info for TSC IE with the Bridge Information Indication (BII) bit set to "1", in the PFCP Session Establishment Request. If so requested, the UPF shall provide corresponding information to the SMF in the Created Bridge Info for TSC IE in the PFCP Session Establishment Response message.

NOTE: The port number for DS-TT, port number(s) for NW-TT and Bridge ID are not meant to be used in PDRs.

Editor's Note: When the UPF (as NW-TT) is configured with multiple NW-TT ports, it is FFS whether the UPF can include a subset of NW-TT ports in a PFCP Session Establishment Response, so that different PDU sessions may be allocated with different NW-TT ports.

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\* \* \* End of Changes \* \* \* \*