**3GPP TSG-SA5 Meeting #131e *S5-203099***

**e-meeting 25th May-3rd June 2020** Revision of S5-20xxxx

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v11.4* | | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | | |
|  | | | | | | | | | |
|  | **32.291** | **CR** | **0232** | **rev** | **-** | **Current version:** | **16.3.0** |  |
|  | | | | | | | | | |
| *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** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Correct the PDU address | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI16, 5GS\_Ph1-SBI\_CH | | | | |  | ***Date:*** | | | 2020-05-28 |
|  |  | | | |  | |  | | |  |
| ***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 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:*** | | According to the TS 32.255 clause 6.2.1.2, the field PDU Address holds the group of UE IP addresses.It may have multiple occurrences. In the TS 32.291 clause 6.1.6.2.2.8, the cardinality of attribute pduAddress defined by 0..1. Both IPv4 and IPv6 addresses can both exist for IPv4v6 scenario. In order to avoid the confusion ans support the IPv4v6 scenario, the bindings for PDU address should be corrected in the TS 32.291. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Change the PDU Address. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Can not align with other specifications. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 32.255 CR 0230 | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |

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| --- |
| **First change** |

## 7.2 Bindings for 5G data connectivity

Table 7.2-1: Bindings of 5G data connectivity CDR field, Information Element and Resource Attribute

| Information Element | | CDR Field | | Resource Attribute | |
| --- | --- | --- | --- | --- | --- |
|  | |  | | **ChargingDataRequest** | |
| Multiple Unit Usage | | List of Multiple Unit Usage | | /multipleUnitUsage | |
| UPF ID | | UPF ID | | /multipleUnitUsage/uPFID | |
| Used Unit Container | | Used Unit Container | | /multipleUnitUsage/usedUnitContainer | |
| PDU Container Information | | PDU Container Information | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation | |
| Time of First Usage | | Time of First Usage | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/timeofFirstUsage | |
| Time of Last Usage | | Time of Last Usage | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/timeofLastUsage | |
| QoS Information | | QoS Information | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/qoSInformation | |
| QoS Characteristics | | QoS Characteristics | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/qoSCharacteristics | |
| AF Charging Identifier | | AF Charging Identifier | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/afChargingIdentifier | |
| User Location Information | | User Location Information | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/userLocationInformation | |
| UE Time Zone | | UE Time Zone | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/uetimeZone | |
| RAT Type | | RAT Type | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/rATType | |
| Serving Network Function ID | | Serving Network Function ID | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/servingNodeID | |
| Presence Reporting Area Information | | Presence Reporting Area  Information | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/ presenceReportingAreaInformation | |
| 3GPP PS Data Off Status | | 3GPP PS Data Off Status | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/3gppPSDataOffStatus | |
| Sponsor Identity | | Sponsor Identity | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/sponsorIdentity | |
| Application Service Provider Identity | | Application Service Provider  Identity | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/applicationserviceProviderIdentity | |
| Charging Rule Base Name | | Charging Rule Base Name | | /multipleUnitUsage/usedUnitContainer/pDUContainerInformation/chargingRuleBaseName | |
| PDU Session Charging Information | | PDU Session Charging Information | | /pDUSessionChargingInformation | |
| Charging Id | | Charging Id | | /pDUSessionChargingInformation/chargingId | |
| Home Provided ChargingId | | Home Provided ChargingId | | /pDUSessionChargingInformation/ homeProvidedChargingId | |
| User Information | | User Information | | /pDUSessionChargingInformation/ userInformation | |
| User Identifier | | User Identifier | | /pDUSessionChargingInformation/userInformation/servedGPSI | |
| User Equipment Info | | User Equipment Info | | /pDUSessionChargingInformation/userInformation/ servedPEI | |
| Unauthenticated Flag | | Unauthenticated Flag | | /pDUSessionChargingInformation/userInformation/ unauthenticatedFlag | |
| Roamer In Out | | Roamer In Out | | /pDUSessionChargingInformation/userInformation/ roamerInOut | |
| User Location Info | | User Location Info | | /pDUSessionChargingInformation/ userLocationinfo | |
| UE Time Zone | | UE Time Zone | | /pDUSessionChargingInformation/uEtimeZone | |
| Presence Reporting Area  Information | | Presence Reporting Area  Information | | /pDUSessionChargingInformation/ presenceReportingAreaInformation | |
| PDU Session Information | | PDU Session Information | | /pDUSessionChargingInformation/pduSessionInformation | |
| PDU Session ID | | PDU Session ID | | /pDUSessionChargingInformation/pduSessionInformation/pduSessionID | |
| Network Slice Instance  Identifier | | Network Slice Instance Identifier | | /pDUSessionChargingInformation/pduSessionInformation/networkSlicingInfo | |
| PDU Type | | PDU Type | | /pDUSessionChargingInformation /pduSessionInformation/pduType | |
| PDU Address | | PDU Address | | /pDUSessionChargingInformation /pduSessionInformation/pduAddress | |
| PDU IPv4 Address | | PDU IPv4 Address | | /pDUSessionChargingInformation/pduSessionInformation/pduAddress/pduIPv4Address | |
| PDU IPv6 Address with prefix | | PDU IPv6 Address with prefix | | /pDUSessionChargingInformation/pduSessionInformation/pduAddress/pduIPv6Addresswithprefix | |
| PDU Address prefix length | | PDU Address prefix length | | /pDUSessionChargingInformation /pduSessionInformation/pduAddress/pduAddressprefixlength | |
| IPv4 Dynamic Address Flag | | IPv4 Dynamic Address Flag | | /pDUSessionChargingInformation /pduSessionInformation/pduAddress/ iPv4dynamicAddressFlag | |
| IPv6 Dynamic Address Flag | | IPv6 Dynamic Address Flag | | pDUSessionChargingInformation /pduSessionInformation/pduAddress/ iPv6dynamicAddressFlag | |
| SSC Mode | | SSC Mode | | /pDUSessionChargingInformation /pduSessionInformation/sscMode | |
| SUPI PLMN ID | | SUPI PLMN ID | | /pDUSessionChargingInformation /pduSessionInformation/hPlmnId | |
| Serving Network Function ID | | Serving Network Function ID | | /pDUSessionChargingInformation /pduSessionInformation/ servingNetworkFunctionID | |
| Serving CN PLMN ID | | Serving CN PLMN ID | | /pDUSessionChargingInformation/pduSessionInformation/servingCNPlmnId | |
| RAT Type | | RAT Type | | /pDUSessionChargingInformation /pduSessionInformation/ratType | |
| Data Network Name Identifier | | Data Network Name Identifier | | /pDUSessionChargingInformation /pduSessionInformation/dnnid | |
| DNN Selection Mode | | DNN Selection Mode | | /pDUSessionChargingInformation /pduSessionInformation/dNNselectionMode | |
| Authorized QoS information | | Authorized Qos Information | | /pDUSessionChargingInformation /pduSessionInformation/authorized qoSInformation | |
| Subscribed QoS Information | | Subscribed QoS Information | | /pDUSessionChargingInformation /pduSessionInformation/subscribedQoSInformation | |
| Authorized Session-AMBR | | Authorized Session-AMBR | | /pDUSessionChargingInformation /pduSessionInformation/authorizedSessionAMBR | |
| Subscribed Session-AMBR | | Subscribed Session-AMBR | | /pDUSessionChargingInformation /pduSessionInformation/subscribedSessionAMBR | |
| Charging Characteristics | | Charging Characteristics | | /pDUSessionChargingInformation /pduSessionInformation/ chargingCharacteristics | |
| Charging Characteristics  Selection Mode | | Charging Characteristics Selection Mode | | /pDUSessionChargingInformation /pduSessionInformation/chargingCharacteristicsSelectionMode | |
| PDU session start Time | | PDU session start Time | | /pDUSessionChargingInformation /pduSessionInformation/startTime | |
| PDU session stop Time | | PDU session stop Time | | /pDUSessionChargingInformation /pduSessionInformation/stopTime | |
| Diagnostics | | Diagnostics | | /pDUSessionChargingInformation /pduSessionInformation/diagnostics | |
| 3GPP PS Data Off Status | | 3GPP PS Data Off Status | | /pDUSessionChargingInformation /pduSessionInformation/3gppPSDataOffStatus | |
| Session Stop Indicator | | Session Stop Indicator | | /pDUSessionChargingInformation /pduSessionInformation/sessionStopIndicator | |
| Unit Count Inactivity Timer | | - | | /pDUSessionChargingInformation/unitCountInactivityTimer | |
| RAN Secondary RAT Usage Report | | RAN Secondary RAT Usage Report | | /pDUSessionChargingInformation/rANSecondaryRATUsageReport | |
| NG RAN Secondary RAT Type | | NG RAN Secondary RAT Type | | /pDUSessionChargingInformation/rANSecondaryRATUsageReport/rANSecondaryRATType | |
| Qos Flows Usage Reports | | Qos Flows Usage Reports | | /pDUSessionChargingInformation/rANSecondaryRATUsageReport/qosFlowsUsageReports | |
| Roaming QBC information | | Roaming QBC information | | /roamingQBCInformation | |
| Multiple QFI container | | Multiple QFI container | | /roamingQBCInformation/multipleQFIcontainer | |
| Triggers | | Triggers | | /roamingQBCInformation/multipleQFIcontainer/triggers | |
| Trigger Timestamp | | Trigger Timestamp | | /roamingQBCInformation/multipleQFIcontainer/triggerTimestamp | |
| Time | | Time | | /roamingQBCInformation/multipleQFIcontainer/time | |
| Total Volume | | Total Volume | | /roamingQBCInformation/multipleQFIcontainer/totalVolume | |
| Uplink Volume | | Uplink Volume | | /roamingQBCInformation/multipleQFIcontainer/uplinkVolume | |
| Downlink Volume | | Downlink Volume | | /roamingQBCInformation/multipleQFIcontainer/downlinkVolume | |
| Local Sequence Number | | Local Sequence Number | | /roamingQBCInformation/multipleQFIcontainer/localSequenceNumber | |
| QFI Container information | | QFI Container information | | /roamingQBCInformation/multipleQFIcontainer/qFIContainerInformation | |
| QoS Flow Id | | QoS Flow Id | | /roamingQBCInformation/multipleQFIcontainer/ qFIContainerInformation/qFI | |
| Time of First Usage | | Time of First Usage | | /roamingQBCInformation/multipleQFIcontainer/qFIContainerInformation/ timeofFirstUsage | |
| Time of Last Usage | | Time of Last Usage | | /roamingQBCInformation/multipleQFIcontainer/qFIContainerInformation/timeofLastUsage | |
| QoS Information | | QoS Information | | /roamingQBCInformation/multipleQFIcontainer/qFIContainerInformation/qoSInformation | |
| QoS Characteristics | | QoS Characteristics | | /roamingQBCInformation/multipleQFIcontainer/ qFIContainerInformation/qoSCharacteristics | |
| User Location Information | | User Location Information | | /roamingQBCInformation/multipleQFIcontainer/qFIContainerInformation/ userLocationInformation | |
| UE Time Zone | | UE Time Zone | | /roamingQBCInformation/multipleQFIcontainer/qFIContainerInformation/uetimeZone | |
| Presence Reporting Area Information | | Presence Reporting Area Information | | /roamingQBCInformation/multipleQFIcontainer/qFIContainerInformation/presenceReportingAreaInformation | |
| RAT Type | | RAT Type | | /roamingQBCInformation/multipleQFIcontainer/qFIContainerInformation/rATType | |
| Report Time | | Report Time | | /roamingQBCInformation/multipleQFIcontainer/ qFIContainerInformation/reportTime | |
| Serving Network Function ID | | Serving Network Function ID | | /roamingQBCInformation/multipleQFIcontainer/qFIContainerInformation/ servingNetworkFunctionID | |
| 3GPP PS Data Off Status | | 3GPP PS Data Off Status | | /roamingQBCInformation/multipleQFIcontainer/qFIContainerInformation/3gppPSDataOffStatus | |
| UPF ID | | UPF ID | | /roamingQBCInformation/uPFID | |
| Roaming Charging Profile | | Roaming Charging Profile | | /roamingQBCInformation/roamingChargingProfile | |
| Trigger | | Trigger | | /roamingQBCInformationroamingChargingProfile/trigger | |
| Partial record method | | Partial record method | | /roamingQBCInformation/roamingChargingProfile/partialRecordMethod | |
|  | |  | | **ChargingDataResponse** | |
| Multiple Unit information | | - | | /multipleUnitInformation | |
| UPF ID | | - | | /multipleUnitInformation/uPFID | |

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| **End of change** |