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

**E-Meeting, 18th – 28th August 2020 (was C4-204081)**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.503** | **CR** | **0465** | **rev** | **1** | **Current version:** | **16.4.0** |  |
|  | | | | | | | | |
| *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:*** | DN-AAA secondary authentication | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | Vertical\_LAN | | | | |  | ***Date:*** | | | 2020-07-27 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | TS 23.502 defines, as part of the Session Management Subscription Data, the following information, to be included per DNN:  - Secondary authentication indication  - DN-AAA server UE IP address allocation indication  - DN-AAA server addressing information  This information is not included in TS 29.503. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add to the DnnConfiguration object, in Numd\_SDM API, the missing attributes. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | UDM cannot inform SMF about the DN-AAA related attributes, so SMF does not interwork properly against a DN-AAA server. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.1.6.2.9, 6.5.6.2.7, A.2, A.6 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 introduces backwards compatible corrections, with impacts on the following APIs:  - TS29503\_Nudm\_SDM.yaml  - TS29503\_Nudm\_PP.yaml  - TS29504\_Nudr\_DataRepository.yaml  (via TS29505\_SubscriptionData.yaml) | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

##### 6.1.6.2.9 Type: DnnConfiguration

Table 6.1.6.2.9-1: Definition of type DnnConfiguration

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Attribute name | | Data type | P | Cardinality | | Description |
| pduSessionTypes | | PduSessionTypes | M | 1 | | Default/Allowed session types |
| sscModes | | SscModes | M | 1 | | Default/Allowed SSC modes |
| iwkEpsInd | | IwkEpsInd | O | 0..1 | | Indicates whether interworking with EPS is subscribed:  true: Subscribed; false: Not subscribed; If this attribute is absent it means not subscribed. |
| 5gQosProfile | | SubscribedDefaultQos | O | 0..1 | | 5G QoS parameters associated to the session for a data network |
| sessionAmbr | | Ambr | O | 0..1 | | The maximum aggregated uplink and downlink bit rates to be shared across all Non-GBR QoS Flows in each PDU Session |
| 3gppChargingCharacteristics | | 3GppChargingCharacteristics | O | 0..1 | | Subscribed charging characteristics data associated to the session for a data network. (NOTE) |
| staticIpAddress | | array(IpAddress) | O | 1..2 | | Subscribed static IP address(es) of the IPv4 and/or IPv6 type |
| upSecurity | | UpSecurity | O | 0..1 | | When present, this IE shall indicate the security policy for integrity protection and encryption for the user plane. |
| pduSessionContinuityInd | | PduSessionContinuityInd | O | 0..1 | | When present, this IE shall indicate how to handle a PDU Session when UE the moves to or from NB-IoT.  If this attribute is absent it means that Local policy shall be used. |
| invokeNefSelection | | boolean | O | 0..1 | | When present, this IE shall indicate whether to invoke NEF selection for NIDD session:  true: to invoke the NEF selection;  false or absent: not to invoke the NEF selection;  If this attribute is absent it means not to invoke the NEF selection. |
| niddNefId | | NefId | C | 0..1 | | Indicates the identity of the NEF to be selected for NIDD service for this DNN. It is required if invokeNefSelection attribute is present with value "true". |
| niddInfo | | NiddInformation | O | 0..1 | | When present, this IE shall indicate information used for SMF-NEF Connection.  This attribute may be present if "Invoke NEF Selection" indicator is set. |
| redundantSessionAllowed | | boolean | O | 0..1 | | Indicates whether redundant PDU Sessions are allowed:  true: Allowed; false: Not allowed; If this attribute is absent it means not allowed. |
| acsInfo | | AcsInfo | O | 0..1 | | When present, this IE shall include the ACS information for the 5G-RG as defined in BBF TR-069 [42] or in BBF TR-369 [43]. |
| ipv4FrameRouteList | | array(FrameRouteInfo) | O | 1..N | | List of Frame Route information of IPv4, see clause 5.6.14 of 3GPP TS 23.501 [2]. |
| ipv6FrameRouteList | | array(FrameRouteInfo) | O | 1..N | | List of Frame Route information of IPv6, see clause 5.6.14 of 3GPP TS 23.501 [2]. |
| atsssAllowed | boolean | | O | 0..1 | Indicates whether this DNN supports ATSSS, i.e. whether Multi-Access PDU session is allowed to this DNN.  true: Allowed; false (default): Not allowed; If this attribute is absent it means this DNN does not allow ATSSS. | |
| secondaryAuth | boolean | | O | 0..1 | Indicates whether secondary authentication and authorization is needed.  true: required.  false: not required.  If absent, it indicates that secondary authentication is not required by subscription data, but it still may be required by local policies at the SMF. | |
| dnAaaIpAddressAllocation | boolean | | O | 0..1 | Indicates whether the SMF is required to request the UE IP address from the DN-AAA server for PDU Session Establishment.  true: required  false: not required  If absent, it indicates that the request by SMF of the UE IP address from the DN-AAA server is not required by subscription data, but it still may be required by local policies at the SMF. | |
| dnAaaAddress | IpAddress | | O | 0..1 | The address information of DN-AAA server, used for secondary authentication and authorization. | |
| NOTE: When present, this attribute shall take precedence over the "3gppChargingCharacteristics" attribute in the SessionManagementSubscriptionData level. | | | | | | |

\* \* \* Next Change \* \* \* \*

##### 6.5.6.2.7 Type: 5GVnGroupData

Table 6.5.6.2.7-1: Definition of type 5GVnGroupData

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| dnn | Dnn | M | 1 | DNN of the 5G VN group, shall contain the Network Identifier only. |
| sNssai | Snssai | M | 1 | S-NSSAI of the 5G VN group's communication session |
| pduSessionTypes | array(PduSessionType) | O | 1..N | List of PDU Session Types allowed for 5G VN group's communication session |
| appDescriptors | array(AppDescriptor) | O | 1..N | List of Application Descriptors allowed for 5G VN group's communication session |
| secondaryAuth | boolean | O | 0..1 | Indicates whether secondary authentication and authorization is needed.  true: secondary authentication and authorization is needed.  false: secondary authentication and authorization is not needed.  If absent, it indicates that secondary authentication is not required by the NEF, but it still may be required by local policies at the SMF. |
| dnAaaAddress | IpAddress | O | 0..1 | The address information of DN-AAA server, used for secondary authentication and authorization. |

\* \* \* Next Change \* \* \* \*

## A.2 Nudm\_SDM API

***(… text not shown for clarity …)***

DnnConfiguration:

type: object

required:

- pduSessionTypes

- sscModes

properties:

pduSessionTypes:

$ref: '#/components/schemas/PduSessionTypes'

sscModes:

$ref: '#/components/schemas/SscModes'

iwkEpsInd:

$ref: '#/components/schemas/IwkEpsInd'

5gQosProfile:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/SubscribedDefaultQos'

sessionAmbr:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ambr'

3gppChargingCharacteristics:

$ref: '#/components/schemas/3GppChargingCharacteristics'

staticIpAddress:

type: array

items:

$ref: '#/components/schemas/IpAddress'

minItems: 1

maxItems: 2

upSecurity:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/UpSecurity'

pduSessionContinuityInd:

$ref: '#/components/schemas/PduSessionContinuityInd'

invokeNefSelection:

type: boolean

niddNefId:

$ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/NefId'

niddInfo:

$ref: '#/components/schemas/NiddInformation'

redundantSessionAllowed:

type: boolean

acsInfo:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/AcsInfo'

ipv4FrameRouteList:

type: array

items:

$ref: '#/components/schemas/FrameRouteInfo'

minItems: 1

ipv6FrameRouteList:

type: array

items:

$ref: '#/components/schemas/FrameRouteInfo'

minItems: 1

atsssAllowed:

type: boolean

default: false

secondaryAuth:

type: boolean

dnAaaIpAddressAllocation:

type: boolean

dnAaaAddress:

$ref: '#/components/schemas/IpAddress'

***(… text not shown for clarity …)***

\* \* \* Next Change \* \* \* \*

## A.6 Nudm\_PP API

***(… text not shown for clarity …)***

5GVnGroupData:

type: object

required:

- dnn

- sNssai

properties:

dnn:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

sNssai:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

pduSessionTypes:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/PduSessionType'

minItems: 1

appDescriptors:

type: array

items:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/AppDescriptor'

minItems: 1

secondaryAuth:

type: boolean

dnAaaAddress:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/IpAddress'

***(… text not shown for clarity …)***

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