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

**E-Meeting, 18th – 28th June 2020 *was* C4-204308**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.503** | **CR** | **0482** | **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:*** | Corrections on reference of common data structures | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SBIProtoc16 | | | | |  | ***Date:*** | | | 2020-08-11 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | 1. The references of common data structures in response body tables are not right 2. The expression of apiVersion in Uri is not inline with the norm. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. Corrected wrong references of common data structures in response body tables  2.Corrected expression of apiVersion in Uri | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The Incorrect reference in the TS may cause wrong implementation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.1.3.2.2, 6.1.3.2.3.1, 6.1.3.3.2, 6.1.3.3.3.1, 6.1.3.4.2, 6.1.3.4.3.1, 6.1.3.4.3.2, 6.1.3.5.2, 6.1.3.5.3.1, 6.1.3.6.2, 6.1.3.6.3.1, 6.1.3.7.2, 6.1.3.7.3.1, 6.1.3.8.2, 6.1.3.8.3.1, 6.1.3.9.2, 6.1.3.9.3.1, 6.1.3.10.2, 6.1.3.10.3.1, 6.1.3.11.2, 6.1.3.12.2, 6.1.3.12.3.1, 6.1.3.13.2, 6.1.3.13.3.1, 6.1.3.14.2, 6.1.3.14.3.1, 6.1.3.15.2, 6.1.3.15.3.1, 6.1.3.16.2, 6.1.3.16.3.1, 6.1.3.17.2, 6.1.3.17.3.1, 6.1.3.17.3.2, 6.1.3.18.2, 6.1.3.18.3.1, 6.1.3.19.2, 6.1.3.19.3.1, 6.1.3.20.2, 6.1.3.20.3.1, 6.1.3.21.2, 6.1.3.21.3.1, 6.1.3.22.2, 6.1.3.22.3.1, 6.1.3.23.2, 6.1.3.23.3.1, 6.1.3.24.2, 6.1.3.24.3.1, 6.1.3.25.2, 6.1.3.25.3.1, 6.1.3.26.2, 6.1.3.26.3.1, 6.1.3.27.2, 6.1.3.27.3.1, 6.1.3.28.2, 6.1.3.28.3.1, 6.2.5.2, 6.2.5.3, 6.3.3.4.2.2, 6.3.3.3.3.1, 6.3.3.4.3.1, 6.3.3.5.4.2.2, 6.3.3.6.2.1, 6.4.3.2.3.1, 6.4.3.3.2.1, 6.4.3.3.2.2, 6.4.5.2, 6.5.3.2.3.1, 6.5.3.3.3.1, 6.5.3.3.3.2, 6.5.3.3.3.3, 6.6.3.2.4.2.2, 6.7.3.2.3.1, 6.7.3.3.4.2.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This CR won’t introduce any impacts to the OpenAPI specification files. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev1:  1. {apiVersion} should be replaced with <apiVersion>, not with v2, so replace the new revision v2 by <apiVersion>  2.Reverted revisions in clause 6.6.3.2.2, 6.7.3.2.2, 6.7.3.3.2 | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*The start of changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.2.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/nssai

This resource shall support the resource URI variables defined in table 6.1.3.2.2-1.

Table 6.1.3.2.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.2.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.2.3.1-1.

Table 6.1.3.2.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| plmn-id | PlmnId | O | 0..1 | PLMN identity of the PLMN serving the UE |

If "plmn-id" is included, UDM shall return the Subscribed S-NSSAIs which the UE is subscribed to use in the PLMN identified by "plmn-id".

If "plmn-id" is not included, UDM shall return the Subscribed S-NSSAIs for HPLMN.

This method shall support the request data structures specified in table 6.1.3.2.3.1-2 and the response data structures and response codes specified in table 6.1.3.2.3.1-3.

Table 6.1.3.2.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.2.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| Nssai | M | 1 | 200 OK | Upon success, a response body containing the NSSAI shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.3.2.3.1-4: Headers supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| If-None-Match | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.2 |
| If-Modified-Since | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.3 |

Table 6.1.3.2.3.1-5: Headers supported by the 200 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Cache-Control | string | O | 0..1 | Cache-Control containing max-age, as described in IETF RFC 7234 [26], clause 5.2 |
| ETag | string | O | 0..1 | Entity Tag, containing a strong validator, as described in IETF RFC 7232 [25], clause 2.3 |
| Last-Modified | string | O | 0..1 | Timestamp for last modification of the resource, as described in IETF RFC 7232 [25], clause 2.2 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.3.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{ueId}/sdm-subscriptions

This resource shall support the resource URI variables defined in table 6.1.3.3.2-1.

Table 6.1.3.3.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| ueId | VarUeId | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2) or Generic Public Subscription Identifier (see 3GPP TS 23.501 [2] clause 5.9.8)  pattern: See pattern of type VarUeId in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.3.3.1 POST

This method shall support the URI query parameters specified in table 6.1.3.3.3.1-1.

Table 6.1.3.3.3.1-1: URI query parameters supported by the POST method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.1.3.3.3.1-2 and the response data structures and response codes specified in table 6.1.3.3.3.1-3.

Table 6.1.3.3.3.1-2: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SdmSubscription | M | 1 | The subscription that is to be created. |

Table 6.1.3.3.3.1-3: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SdmSubscription | M | 1 | 201 Created | Upon success, a response body containing a representation of the created Individual subscription resource shall be returned including the accepted values, e.g. in case of partial success UDM shall return the list of monitores resource Uri successfully subscribed..  The HTTP response shall include a "Location" HTTP header that contains the resource URI of the created resource. When stateless UDM is deployed, the stateless UDM may use an FQDN identifying the UDM group to which the UDM belongs as the host part of the resource URI. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors::  - USER\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 501 Not Implemented | The "cause" attribute may be used to indicate one of the following application errors:  - UNSUPPORTED\_RESOURCE\_URI  This response shall not be cached. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

NOTE: In the scenario of stateless UDM deployment, it is assumed that stateless UDMs are organized into several UDM groups, and for each UDM group an FQDN can be allocated.

Table 6.1.3.3.3.1-4: Headers supported by the 201 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/sdm-subscriptions/{subscriptionId} |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.4.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{ueId}/sdm-subscriptions/{subscriptionId}

This resource shall support the resource URI variables defined in table 6.1.3.4.2-1.

Table 6.1.3.4.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| ueId | VarUeId | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2) or Generic Public Subscription Identifier (see 3GPP TS 23.501 [2] clause 5.9.8)  pattern: See pattern of type VarUeId in 3GPP TS 29.571 [7] |
| subscriptionId | string | The subscriptionId identifies an individual subscription to notifications. |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.4.3.1 DELETE

This method shall support the URI query parameters specified in table 6.1.3.4.3.1-1.

Table 6.1.3.4.3.1-1: URI query parameters supported by the DELETE method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.1.3.4.3.1-2 and the response data structures and response codes specified in table 6.1.3.4.3.1-3.

Table 6.1.3.4.3.1-2: Data structures supported by the Delete Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  | The request body shall be empty. |

Table 6.1.3.4.3.1-3: Data structures supported by the DELETE Response Body on this resource

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Data type | | | P | Cardinality | | Response  codes | Description |
| n/a | | |  |  | | 204 No Content | Upon success, an empty response body shall be returned. |
| ProblemDetails | | O | | 0..1 | 404 Not Found | | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - SUBSCRIPTION\_NOT\_FOUND, see 3GPP TS 29.500 [4] table 5.2.7.2-1. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.4.3.2 PATCH

This method shall support the URI query parameters specified in table 6.1.3.4.3.2-1.

Table 6.1.3.4.3.2-1: URI query parameters supported by the PATCH method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.1.3.4.3.2-2 and the response data structures and response codes specified in table 6.1.3.4.3.2-3.

Table 6.1.3.4.3.2-2: Data structures supported by the PATCH Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SdmSubsModification | M | 1 | The modification Instruction |

Table 6.1.3.4.3.2-3: Data structures supported by the PATCH Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SdmSubscription | M | 1 | 200 OK | Upon success, the modified sdmSubscription shall be returned including the accepted values, e.g. in case of partial success UDM shall return the list of monitores resource Uri successfully subscribed. (NOTE 2) |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. (NOTE 2) |
| PatchResult | M | 1 | 200 OK | Upon success, the execution report is returned. (NOTE 2) |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - SUBSCRIPTION\_NOT\_FOUND, see 3GPP TS 29.500 [4] table 5.2.7.2-1. |
| ProblemDetails | O | 0..1 | 403 Forbidden | One or more attributes are not allowed to be modified.  The "cause" attribute may be used to indicate one of the following application errors:  - MODIFICATION\_NOT\_ALLOWED, see 3GPP TS 29.500 [4] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported.  NOTE 2: If the NF service consumer has not included in the supported-feature query parameter the "PatchReport" feature number, the UDM responds with SdmSubscription. If the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDM shall respond with 204 No Content response indicating that all the modification instructions in the PATCH request have been implemented or with PatchResult indicating that some of the modification instructions in the PATCH request have been discarded. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.5.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/am-data

This resource shall support the resource URI variables defined in table 6.1.3.5.2-1.

Table 6.1.3.5.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.5.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.5.3.1-1.

Table 6.1.3.5.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| plmn-id | PlmnId | O | 0..1 | PLMN identity of the PLMN serving the UE |

If "plmn-id" is included, UDM shall return the Access and Mobility Data for the SUPI associated to the PLMN identified by "plmn-id".

If "plmn-id" is not included, UDM shall return the Access and Mobility Data for the SUPI associated to the HPLMN.

This method shall support the request data structures specified in table 6.1.3.5.3.1-2 and the response data structures and response codes specified in table 6.1.3.5.3.1-3.

Table 6.1.3.5.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.5.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| AccessAndMobilitySubscriptionData | M | 1 | 200 OK | Upon success, a response body containing the Access and Mobility Subscription Data shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.3.5.3.1-4: Headers supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| If-None-Match | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.2 |
| If-Modified-Since | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.3 |

Table 6.1.3.5.3.1-5: Headers supported by the 200 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Cache-Control | string | O | 0..1 | Cache-Control containing max-age, as described in IETF RFC 7234 [26], clause 5.2 |
| ETag | string | O | 0..1 | Entity Tag, containing a strong validator, as described in IETF RFC 7232 [25], clause 2.3 |
| Last-Modified | string | O | 0..1 | Timestamp for last modification of the resource, as described in IETF RFC 7232 [25], clause 2.2 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.6.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/smf-select-data

This resource shall support the resource URI variables defined in table 6.1.3.6.2-1.

Table 6.1.3.6.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.6.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.6.3.1-1.

Table 6.1.3.6.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| plmn-id | PlmnId | O | 0..1 | PLMN identity of the PLMN serving the UE |

If "plmn-id" is included, UDM shall return the SMF Selection Subscription Data for the SUPI associated to the PLMN identified by "plmn-id".

If "plmn-id" is not included, UDM shall return the SMF Selection Subscription Data for the SUPI associated to the HPLMN.

This method shall support the request data structures specified in table 6.1.3.6.3.1-2 and the response data structures and response codes specified in table 6.1.3.6.3.1-3.

Table 6.1.3.6.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.6.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SmfSelectionSubscriptionData | M | 1 | 200 OK | Upon success, a response body containing the SMF Selection Subscription Data shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.3.6.3.1-4: Headers supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| If-None-Match | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.2 |
| If-Modified-Since | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.3 |

Table 6.1.3.6.3.1-5: Headers supported by the 200 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Cache-Control | string | O | 0..1 | Cache-Control containing max-age, as described in IETF RFC 7234 [26], clause 5.2 |
| ETag | string | O | 0..1 | Entity Tag, containing a strong validator, as described in IETF RFC 7232 [25], clause 2.3 |
| Last-Modified | string | O | 0..1 | Timestamp for last modification of the resource, as described in IETF RFC 7232 [25], clause 2.2 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.7.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/ue-context-in-smf-data

This resource shall support the resource URI variables defined in table 6.1.3.7.2-1.

Table 6.1.3.7.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.7.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.7.3.1-1.

Table 6.1.3.7.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.1.3.7.3.1-2 and the response data structures and response codes specified in table 6.1.3.7.3.1-3.

Table 6.1.3.7.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.7.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| UeContextInSmfData | M | 1 | 200 OK | Upon success, a response body containing the UeContextInSmfData shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.8.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/sm-data

This resource shall support the resource URI variables defined in table 6.1.3.8.2-1.

Table 6.1.3.8.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.8.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.8.3.1-1.

Table 6.1.3.8.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| single-nssai | Snssai | O | 0..1 |  |
| dnn | Dnn | O | 0..1 | The DNN shall be the DNN Network Identifier only. |
| plmn-id | PlmnId | O | 0..1 | PLMN identity of the PLMN serving the UE |

JSON objects (such as Snssai, PlmnId…) shall be included directly as part of the URI query parameters by specifying in the OpenAPI file that the "Content-Type" of such parameters is "application/json".

If "singleNssai" is not included, and "dnn" is not included, UDM shall return all DNN configurations for all network slice(s).

If "singleNssai" is included, and "dnn" is not included, UDM shall return all DNN configurations for the requested network slice identified by "singleNssai".

If "singleNssai" is not included, and "dnn" is included, UDM shall return all DNN configurations identified by "dnn" for all network slices where such DNN is available.

If "singleNssai" is included, and "dnn" is included, UDM shall return the DNN configuration identified by "dnn", if such DNN is available in the network slice identified by "singleNssai".

For all the combinations about the inclusion of "dnn" and "singleNssai" as URI query parameters, if "plmn-id" is included, UDM shall return the configurations for the DNN and network slices associated to the PLMN identified by "plmn-id". Otherwise (i.e. if "plmn-id" is not included), UDM shall return the configurations for the DNN and network slices associated to the HPLMN.

This method shall support the request data structures specified in table 6.1.3.8.3.1-2 and the response data structures and response codes specified in table 6.1.3.8.3.1-3.

Table 6.1.3.8.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.8.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| array(SessionManagementSubscriptionData) | M | 1..N | 200 OK | Upon success, a response body containing the Session Management Subscription data shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.3.8.3.1-4: Headers supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| If-None-Match | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.2 |
| If-Modified-Since | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.3 |

Table 6.1.3.8.3.1-5: Headers supported by the 200 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Cache-Control | string | O | 0..1 | Cache-Control containing max-age, as described in IETF RFC 7234 [26], clause 5.2 |
| ETag | string | O | 0..1 | Entity Tag, containing a strong validator, as described in IETF RFC 7232 [25], clause 2.3 |
| Last-Modified | string | O | 0..1 | Timestamp for last modification of the resource, as described in IETF RFC 7232 [25], clause 2.2 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.9.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/sms-data

This resource shall support the resource URI variables defined in table 6.1.3.9.2-1.

Table 6.1.3.9.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.9.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.9.3.1-1.

Table 6.1.3.9.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| plmn-id | PlmnId | C | 0..1 | if absent, H-PLMN ID is used as default |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.1.3.9.3.1-2 and the response data structures and response codes specified in table 6.1.3.9.3.1-3.

Table 6.1.3.9.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.9.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SmsSubscriptionData | M | 1 | 200 OK | Upon success, a response body containing the SMS Subscription Data shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.3.9.3.1-4: Headers supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| If-None-Match | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.2 |
| If-Modified-Since | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.3 |

Table 6.1.3.9.3.1-5: Headers supported by the 200 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Cache-Control | string | O | 0..1 | Cache-Control containing max-age, as described in IETF RFC 7234 [26], clause 5.2 |
| ETag | string | O | 0..1 | Entity Tag, containing a strong validator, as described in IETF RFC 7232 [25], clause 2.3 |
| Last-Modified | string | O | 0..1 | Timestamp for last modification of the resource, as described in IETF RFC 7232 [25], clause 2.2 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.10.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/sms-mng-data

This resource shall support the resource URI variables defined in table 6.1.3.10.2-1.

Table 6.1.3.10.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.10.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.10.3.1-1.

Table 6.1.3.10.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| plmn-id | PlmnId | C | 0..1 | if absent, H-PLMN ID is used as default |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.1.3.10.3.1-2 and the response data structures and response codes specified in table 6.1.3.10.3.1-3.

Table 6.1.3.10.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.10.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SmsManagementSubscriptionData | M | 1 | 200 OK | Upon success, a response body containing the SMS Management Subscription Data shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.3.10.3.1-4: Headers supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| If-None-Match | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.2 |
| If-Modified-Since | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.3 |

Table 6.1.3.10.3.1-5: Headers supported by the 200 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Cache-Control | string | O | 0..1 | Cache-Control containing max-age, as described in IETF RFC 7234 [26], clause 5.2 |
| ETag | string | O | 0..1 | Entity Tag, containing a strong validator, as described in IETF RFC 7232 [25], clause 2.3 |
| Last-Modified | string | O | 0..1 | Timestamp for last modification of the resource, as described in IETF RFC 7232 [25], clause 2.2 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.11.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}

This resource shall support the resource URI variables defined in table 6.1.3.11.2-1.

Table 6.1.3.11.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.12.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{ueId}/id-translation-result

This resource shall support the resource URI variables defined in table 6.1.3.12.2-1.

Table 6.1.3.12.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| ueId | VarUeId | Represents the Generic Public Subscription Identifier (see 3GPP TS 23.501 [2] clause 5.9.8) or Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type VarUeId in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.12.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.12.3.1-1.

Table 6.1.3.12.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| app-port-id | AppPortId | C | 0..1 | If ueId is a SUPI in Resource URI variables, this shall be present and indicates Application port identity, see 3GPP TS 23.501 [2] clause 4.4.7 |

This method shall support the request data structures specified in table 6.1.3.12.3.1-2 and the response data structures and response codes specified in table 6.1.3.12.3.1-3.

Table 6.1.3.12.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.12.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| IdTranslationResult | M | 1 | 200 OK | Upon success, a response body containing the SUPI and optionally the MSISDN shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.3.12.3.1-4: Headers supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| If-None-Match | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.2 |
| If-Modified-Since | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.3 |

Table 6.1.3.12.3.1-5: Headers supported by the 200 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Cache-Control | string | O | 0..1 | Cache-Control containing max-age, as described in IETF RFC 7234 [26], clause 5.2 |
| ETag | string | O | 0..1 | Entity Tag, containing a strong validator, as described in IETF RFC 7232 [25], clause 2.3 |
| Last-Modified | string | O | 0..1 | Timestamp for last modification of the resource, as described in IETF RFC 7232 [25], clause 2.2 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.13.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/am-data/sor-ack

This resource shall support the resource URI variables defined in table 6.1.3.13.2-1.

Table 6.1.3.13.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.13.3.1 PUT

This method shall support the URI query parameters specified in table 6.1.3.13.3.1-1.

Table 6.1.3.13.3.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.1.3.13.3.1-2 and the response data structures and response codes specified in table 6.1.3.13.3.1-3.

Table 6.1.3.13.3.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| AcknowledgeInfo | M | 1 | Contains the SOR-MAC-Iue received from the UE. |

Table 6.1.3.13.3.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Successful receiving the SorXmacIue in the Request. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.14.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/trace-data

This resource shall support the resource URI variables defined in table 6.1.3.14.2-1.

Table 6.1.3.14.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.14.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.14.3.1-1.

Table 6.1.3.14.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| plmn-id | PlmnId | O | 0..1 | PLMN identity of the PLMN serving the UE |

If "plmn-id" is included, UDM shall return the Trace Data for the SUPI associated to the PLMN identified by "plmn-id".

If "plmn-id" is not included, UDM shall return the Trace Data for the SUPI associated to the HPLMN.

This method shall support the request data structures specified in table 6.1.3.14.3.1-2 and the response data structures and response codes specified in table 6.1.3.14.3.1-3.

Table 6.1.3.14.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.14.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| TraceDataResponse | M | 1 | 200 OK | Upon success, a response body containing the Trace Data shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.3.14.3.1-4: Headers supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| If-None-Match | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.2 |
| If-Modified-Since | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.3 |

Table 6.1.3.14.3.1-5: Headers supported by the 200 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Cache-Control | string | O | 0..1 | Cache-Control containing max-age, as described in IETF RFC 7234 [26], clause 5.2 |
| ETag | string | O | 0..1 | Entity Tag, containing a strong validator, as described in IETF RFC 7232 [25], clause 2.3 |
| Last-Modified | string | O | 0..1 | Timestamp for last modification of the resource, as described in IETF RFC 7232 [25], clause 2.2 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.15.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/shared-data

This resource shall support the resource URI variables defined in table 6.1.3.15.2-1.

Table 6.1.3.15.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.15.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.15.3.1-1.

Table 6.1.3.15.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| shared-data-ids | array(SharedDataId) | M | 1..N | Contains unique items |

This method shall support the request data structures specified in table 6.1.3.15.3.1-2 and the response data structures and response codes specified in table 6.1.3.15.3.1-3.

Table 6.1.3.15.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.15.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| array(SharedData) | M | 1..N | 200 OK | Upon success, a response body containing a list of SharedData shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.3.15.3.1-4: Headers supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| If-None-Match | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.2 |
| If-Modified-Since | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.3 |

Table 6.1.3.15.3.1-5: Headers supported by the 200 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Cache-Control | string | O | 0..1 | Cache-Control containing max-age, as described in IETF RFC 7234 [26], clause 5.2 |
| ETag | string | O | 0..1 | Entity Tag, containing a strong validator, as described in IETF RFC 7232 [25], clause 2.3 |
| Last-Modified | string | O | 0..1 | Timestamp for last modification of the resource, as described in IETF RFC 7232 [25], clause 2.2 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.16.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/shared-data-subscriptions

This resource shall support the resource URI variables defined in table 6.1.3.16.2-1.

Table 6.1.3.16.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.16.3.1 POST

This method shall support the URI query parameters specified in table 6.1.3.16.3.1-1.

Table 6.1.3.16.3.1-1: URI query parameters supported by the POST method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.1.3.16.3.1-2 and the response data structures and response codes specified in table 6.1.3.16.3.1-3.

Table 6.1.3.16.3.1-2: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SdmSubscription | M | 1 | The subscription that is to be created. |

Table 6.1.3.16.3.1-3: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SdmSubscription | M | 1 | 201 Created | Upon success, a response body containing a representation of the created Individual subscription resource shall be returned.  The HTTP response shall include a "Location" HTTP header that contains the resource URI of the created resource. When stateless UDM is deployed, the stateless UDM shall use the FQDN identifying the UDM set to which the UDM belongs as the host part of the resource URI. |
| ProblemDetails | O | 0..1 | 501 Not Implemented | The "cause" attribute may be used to indicate one of the following application errors:  - UNSUPPORTED\_RESOURCE\_URI  This response shall not be cached. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

NOTE: In the scenario of stateless UDM deployment, it is assumed that stateless UDMs are organized into several UDM sets, and each UDM set is allocated an FQDN.

Table 6.1.3.16.3.1-4: Headers supported by the 201 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudm-sdm/<apiVersion>/shared-data-subscriptions/{subscriptionId} |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.17.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/shared-data-subscriptions/{subscriptionId}

This resource shall support the resource URI variables defined in table 6.1.3.17.2-1.

Table 6.1.3.17.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| subscriptionId | string | The subscriptionId identifies an individual subscription to notifications. |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.17.3.1 DELETE

This method shall support the URI query parameters specified in table 6.1.3.17.3.1-1.

Table 6.1.3.17.3.1-1: URI query parameters supported by the DELETE method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.1.3.17.3.1-2 and the response data structures and response codes specified in table 6.1.3.17.3.1-3.

Table 6.1.3.17.3.1-2: Data structures supported by the Delete Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  | The request body shall be empty. |

Table 6.1.3.17.3.1-3: Data structures supported by the DELETE Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The resource corresponding to the SubscriptionId can't be found.  The "cause" attribute may be used to indicate one of the following application errors::  - SUBSCRIPTION\_NOT\_FOUND, see 3GPP TS 29.500 [4] table 5.2.7.2-1. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.17.3.2 PATCH

This method shall support the URI query parameters specified in table 6.1.3.17.3.2-1.

Table 6.1.3.17.3.2-1: URI query parameters supported by the PATCH method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.1.3.17.3.2-2 and the response data structures and response codes specified in table 6.1.3.17.3.2-3.

Table 6.1.3.17.3.2-2: Data structures supported by the PATCH Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SdmSubsModification | M | 1 | The modification Instruction |

Table 6.1.3.17.3.2-3: Data structures supported by the PATCH Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SdmSubscription | M | 1 | 200 OK | Upon success, the modified sdmSubscription shall be returned. (NOTE 2) |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. (NOTE 2) |
| PatchResult | M | 1 | 200 OK | Upon success, the execution report is returned. (NOTE 2) |
| ProblemDetails | O | 0..1 | 404 Not Found | The resource corresponding to the SubscriptionId can't be found.  The "cause" attribute may be used to indicate one of the following application errors:  - SUBSCRIPTION\_NOT\_FOUND, see 3GPP TS 29.500 [4] table 5.2.7.2-1. |
| ProblemDetails | O | 0..1 | 403 Forbidden | One or more attributes are not allowed to be modified.  The "cause" attribute may be used to indicate one of the following application errors:  - MODIFICATION\_NOT\_ALLOWED, see 3GPP TS 29.500 [4] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported.  NOTE 2: If the NF service consumer has not included in the supported-features query parameter the "PatchReport" feature number, the UDM responds with SdmSubscription. If the NF service consumer has included in the supported-features query parameter the "PatchReport" feature number, the UDM shall respond with 204 No Content response indicating that all the modification instructions in the PATCH request have been implemented or with PatchResult indicating that some of the modification instructions in the PATCH request have been discarded. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.18.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/ue-context-in-smsf-data

This resource shall support the resource URI variables defined in table 6.1.3.18.2-1.

Table 6.1.3.18.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.18.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.18.3.1-1.

Table 6.1.3.18.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.1.3.18.3.1-2 and the response data structures and response codes specified in table 6.1.3.18.3.1-3.

Table 6.1.3.18.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.18.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| UeContextInSmsfData | M | 1 | 200 OK | Upon success, a response body containing the UeContextInSmsfData shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.19.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/am-data/upu-ack

This resource shall support the resource URI variables defined in table 6.1.3.19.2-1.

Table 6.1.3.19.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.19.3.1 PUT

This method shall support the URI query parameters specified in table 6.1.3.19.3.1-1.

Table 6.1.3.19.3.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.1.3.19.3.1-2 and the response data structures and response codes specified in table 6.1.3.19.3.1-3.

Table 6.1.3.19.3.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| AcknowledgeInfo | M | 1 | Contains the UPU-MAC-Iue received from the UE. |

Table 6.1.3.19.3.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Successful receiving the UpuXmacIue in the Request. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.20.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/group-data/group-identifiers

This resource shall support the resource URI variables defined in table 6.1.3.20.2-1.

Table 6.1.3.20.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.20.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.20.3.1-1.

Table 6.1.3.20.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| ext-groud-id | ExtGroupId | C | 0..1 | External Group ID |
| int-group-id | GroupId | C | 0..1 | Internal Group ID |
| ue-id-ind | boolean | C | 0..1 | Indication whether UE identifiers are required or not.  When present, it shall be set as following:  - true: UE identifiers are required  - false (default): UE identifiers are not required |
| NOTE: Either ext-group-id or int-group-id shall be present in the request. | | | | |

Either the ext-group-id or the int-group-id shall be present in the request.

This method shall support the request data structures specified in table 6.1.3.20.3.1-2 and the response data structures and response codes specified in table 6.1.3.20.3.1-3.

Table 6.1.3.20.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.20.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| GroupIdentifiers | M | 1 | 200 OK | Upon success, a response body containing the group identifier(s) shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - GROUP\_IDENTIFIER\_NOT\_FOUND |
| NOTE: In addition, common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.3.20.3.1-4: Headers supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| If-None-Match | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.2 |
| If-Modified-Since | string | O | 0..1 | Validator for conditional requests, as described in IETF RFC 7232 [25], clause 3.3 |

Table 6.1.3.20.3.1-5: Headers supported by the 200 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Cache-Control | string | O | 0..1 | Cache-Control containing max-age, as described in IETF RFC 7234 [26], clause 5.2 |
| ETag | string | O | 0..1 | Entity Tag, containing a strong validator, as described in IETF RFC 7232 [25], clause 2.3 |
| Last-Modified | string | O | 0..1 | Timestamp for last modification of the resource, as described in IETF RFC 7232 [25], clause 2.2 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.21.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/am-data/subscribed-snssais-ack

This resource shall support the resource URI variables defined in table 6.1.3.21.2-1.

Table 6.1.3.21.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.21.3.1 PUT

This method shall support the URI query parameters specified in table 6.1.3.21.3.1-1.

Table 6.1.3.21.3.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.1.3.21.3.1-2 and the response data structures and response codes specified in table 6.1.3.21.3.1-3.

Table 6.1.3.21.3.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| AcknowledgeInfo | M | 1 | Contains the provisioning time stamp as received within the Nssai. |

Table 6.1.3.21.3.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Successful receiving the UE acknowledgement for subscribed S-NSSAIs update. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.22.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/am-data/cag-ack

This resource shall support the resource URI variables defined in table 6.1.3.22.2-1.

Table 6.1.3.22.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.22.3.1 PUT

This method shall support the URI query parameters specified in table 6.1.3.22.3.1-1.

Table 6.1.3..3.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.1.3.22.3.1-2 and the response data structures and response codes specified in table 6.1.3.22.3.1-3.

Table 6.1.3.22.3.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| AcknowledgeInfo | M | 1 | Contains the provisioning time stamp as received within the CagInfo. |

Table 6.1.3.22.3.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Successful receiving the UE acknowledgement for CAG configuration update. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.23.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{ueId}/lcs-privacy-data

This resource shall support the resource URI variables defined in table 6.1.3.23.2-1.

Table 6.1.3.23.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| ueId | VarUeId | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2) or Generic Public Subscription Identifier (see 3GPP TS 23.501 [2] clause 5.9.8)  pattern: See pattern of type VarUeId in 3GPP TS 29.571 [7]. |
| NOTE: SUPI is only used to retrieve Location Privacy profile by GMLC. | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.23.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.23.3.1-1.

Table 6.1.3.23.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

UDM shall return the LCS Privacy Data for the UE identified by the ueId.

This method shall support the request data structures specified in table 6.1.3.23.3.1-2 and the response data structures and response codes specified in table 6.1.3.23.3.1-3.

Table 6.1.3.23.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.23.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| LcsPrivacyData | M | 1 | 200 OK | Upon success, a response body containing the LCS Privacy Subscription Data shall be returned (see 3GPP TS 23.273 [38] clause 5.4.2) |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.24.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/lcs-mo-data

This resource shall support the resource URI variables defined in table 6.1.3.24.2-1.

Table 6.1.3.24.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.24.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.24.3.1-1.

Table 6.1.3.24.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

UDM shall return the LCS Mobile Originated Data for the SUPI.

This method shall support the request data structures specified in table 6.1.3.24.3.1-2 and the response data structures and response codes specified in table 6.1.3.24.3.1-3.

Table 6.1.3.24.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.24.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| LcsMoData | M | 1 | 200 OK | Upon success, a response body containing the LCS Mobile Originated Subscription Data shall be returned (see 3GPP TS 23.273 [38] clause 5.4.2) |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.25.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/am-data/ecr-data

This resource shall support the resource URI variables defined in table 6.1.3.25.2-1.

Table 6.1.3.25.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 6.1.1 |
| supi | Supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.25.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.25.3.1-1.

Table 6.1.3.25.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.1.3.25.3.1-2 and the response data structures and response codes specified in table 6.1.3.25.3.1-3.

Table 6.1.3.25.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.25.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| EnhancedCoverageRestrictionData | M | 1 | 200 OK | Upon success, a response body containing the Access and Mobility Subscription Data shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.26.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/ue-context-in-amf-data

This resource shall support the resource URI variables defined in table 6.1.3.26.2-1.

Table 6.1.3.26.2-1: Resource URI variables for this resource

|  |  |
| --- | --- |
| Name | Definition |
| apiRoot | See clause 6.1.1 |
| supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.26.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.26.3.1-1.

Table 6.1.3.26.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.1.3.26.3.1-2 and the response data structures and response codes specified in table 6.1.3.26.3.1-3.

Table 6.1.3.26.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.26.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| UeContextInAmfData | M | 1 | 200 OK | Upon success, a response body containing the UeContextInAmfData shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.1.3.27.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/v2x-data

This resource shall support the resource URI variables defined in table 6.1.3.27.2-1.

Table 6.1.3.27.2-1: Resource URI variables for this resource

|  |  |
| --- | --- |
| Name | Definition |
| apiRoot | See clause 6.1.1 |
| supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.1.3.27.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.27.3.1-1.

Table 6.1.3.27.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.1.3.27.3.1-2 and the response data structures and response codes specified in table 6.1.3.27.3.1-3.

Table 6.1.3.27.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.1.3.27.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| V2xSubscriptionData | M | 1 | 200 OK | Upon success, a response body containing the V2X Subscription Data shall be returned (see 3GPP TS 23.273 [38] clause 5.4.2) |
| ProblemDetails | O | 1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

6.1.3.28.2 Resource Definition

Resource URI: {apiRoot}/nudm-sdm/<apiVersion>/{supi}/lcs-bca-data

This resource shall support the resource URI variables defined in table 6.1.3.28.2-1.

Table 6.1.3.28.2-1: Resource URI variables for this resource

|  |  |
| --- | --- |
| **Name** | **Definition** |
| apiRoot | See clause 6.1.1 |
| supi | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [2] clause 5.9.2)  pattern: See pattern of type Supi in 3GPP TS 29.571 [7] |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

6.1.3.28.3.1 GET

This method shall support the URI query parameters specified in table 6.1.3.28.3.1-1.

Table 6.1.3.28.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| plmn-id | PlmnId | O | 0..1 | PLMN identity of the PLMN serving the UE |

If "plmn-id" is included, the UDM shall return the LCS Broadcast Assistance Data Types for the SUPI associated to the PLMN identified by "plmn-id".

If "plmn-id" is not included, the UDM shall return the LCS Broadcast Assistance Data Types for the SUPI associated to the HPLMN.

This method shall support the request data structures specified in table 6.1.3.x.3.1-2 and the response data structures and response codes specified in table 6.1.3.x.3.1-3.

Table 6.1.3.28.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **P** | **Cardinality** | **Description** |
| n/a |  |  |  |

Table 6.1.3.28.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data type** | **P** | **Cardinality** | **Response**  **codes** | **Description** |
| LcsBroadcastAssistanceTypesData | M | 1 | 200 OK | Upon success, a response body containing the list of Broadcast Assistance Data Types Subscription Data shall be returned (see 3GPP TS 23.273 [38] clause 7.1) |
| ProblemDetails | O | 1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.1.5.2 Data Change Notification

The POST method shall be used for Data Change Notifications and the URI shall be as provided during the subscription procedure.

Resource URI: {callbackReference}

Support of URI query parameters is specified in table 6.1.5.2-1.

Table 6.1.5.2-1: URI query parameters supported by the POST method

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

Support of request data structures is specified in table 6.1.5.2-2 and of response data structures and response codes is specified in table 6.1.5.2-3.

Table 6.1.5.2-2: Data structures supported by the POST Request Body

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| ModificationNotification | M | 1 |  |

Table 6.1.5.2-3: Data structures supported by the POST Response Body

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. |
| ProblemDetails | M | 1 | 307 Temporary Redirect | This represents the case when the related UE context is not fully available at the target NF Service Consumer (e.g. AMF) during a planned maintenance case (e.g. AMF planned maintenance without UDSF case). The "cause" attribute shall be set to the following application error:  - NF\_CONSUMER\_REDIRECT\_ONE\_TXN  See table 6.1.7.3-1 for the description of this error.  The Location header of the response shall be set to the new Callback URI of the target NF Service Consumer (e.g. AMF) to which the request is redirected. |
| ProblemDetails | M | 1 | 308 Permanent Redirect | This represents the case when the related UE is not found in the NF Service Consumer (e.g AMF) and the NF Service Consumer knows which NF Service Consumer is serving the UE. The "cause" attribute shall be set to the following application error:  - CONTEXT\_NOT\_FOUND  See table 6.1.7.3-1 for the description of this error.  The Location header of the response shall be set to the new Callback URI of the target NF Service Consumer (e.g AMF) to which the request is redirected. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND  See table 6.1.7.3-1 for the description of this error. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.1.5.2-4: Headers supported by the 307 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the new Callback URI of the target NF Service Consumer (e.g. AMF) to which the request is redirected |

Table 6.1.5.2-5: Headers supported by the 308 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the new Callback URI of the target NF Service Consumer (e.g. AMF) to which the request is redirected |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.2.3.2.3 Resource Standard Methods

###### 6.2.3.2.3.1 PUT

This method shall support the URI query parameters specified in table 6.2.3.2.3.1-1.

Table 6.2.3.2.3.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.2.3.2.3.1-2 and the response data structures and response codes specified in table 6.2.3.2.3.1-3.

Table 6.2.3.2.3.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| Amf3GppAccessRegistration | M | 1 | The AMF registration for 3GPP access is replaced with the received information. |

Table 6.2.3.2.3.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| Amf3GppAccessRegistration | M | 1 | 201 Created | Upon success, a response body containing a representation of the created Individual Amf3GppAccessRegistration resource shall be returned. |
| Amf3GppAccessRegistration | M | 1 | 200 OK | Upon success, a response body containing a representation of the updated Individual Amf3GppAccessRegistration resource shall be returned. |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 403 Forbidden | The "cause" attribute may be used to indicate one of the following application errors:  - UNKNOWN\_5GS\_SUBSCRIPTION  - NO\_PS\_SUBSCRIPTION  - ROAMING\_NOT\_ALLOWED  - ACCESS\_NOT\_ALLOWED  - RAT\_NOT\_ALLOWED  - REAUTHENTICATION\_REQUIRED |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.2.3.2.3.1-4: Headers supported by the 201 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudm-uecm/v1/{ueId}/registrations/amf-3gpp-access |

###### 6.2.3.2.3.2 PATCH

This method shall support the URI query parameters specified in table 6.2.3.2.3.2-1.

Table 6.2.3.2.3.2-1: URI query parameters supported by the PATCH method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.2.3.2.3.2-2 and the response data structures and response codes specified in table 6.2.3.2.3.2-3.

Table 6.2.3.2.3.2-2: Data structures supported by the PATCH Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| Amf3GppAccessRegistrationModification | M | 1 | The AMF registration for 3GPP access is modified with the received information. |

Table 6.2.3.2.3.2-3: Data structures supported by the PATCH Response Body on this resource

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Data type | | P | Cardinality | Response  codes | | Description | |
| n/a | |  |  | 204 No Content | | Upon success, an empty response body is returned. (NOTE 2) | |
| PatchResult | | M | | 1 | | 200 OK | | Upon success, the execution report is returned. (NOTE 2) | |
| ProblemDetails | | O | | 0..1 | | 403 Forbidden | | The "cause" attribute may be used to indicate one of the following application errors:  - INVALID\_GUAMI | |
| ProblemDetails | | O | 0..1 | 404 Not Found | | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND  - USER\_NOT\_FOUND | |
| ProblemDetails | | O | 0..1 | 422 Unprocessable Entity | | The "cause" attribute may be used to indicate one of the following application errors:  - UNPROCESSABLE\_REQUEST | |
| NOTE 1: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported.  NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDM shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDM shall respond with PatchResult. | | | | | | | |

###### 6.2.3.2.3.3 GET

This method shall support the URI query parameters specified in table 6.2.3.2.3.3-1.

Table 6.2.3.2.3.3-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.2.3.2.3.3-2 and the response data structures and response codes specified in table 6.2.3.2.3.3-3.

Table 6.2.3.2.3.3-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.2.3.2.3.3-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| Amf3GppAccessRegistration | M | 1 | 200 OK | Upon success, a response body containing the Amf3GppAccessRegistration shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.2.3.3.3.1 PUT

This method shall support the URI query parameters specified in table 6.2.3.3.3.1-1.

Table 6.2.3.3.3.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.2.3.3.3.1-2 and the response data structures and response codes specified in table 6.2.3.3.3.1-3.

Table 6.2.3.3.3.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| AmfNon3GppAccessRegistration | M | 1 | The AMF registration for non 3GPP access is replaced with the received information. |

Table 6.2.3.3.3.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| AmfNon3GppAccessRegistration | M | 1 | 201 Created | Upon success, a response body containing a representation of the created Individual AmfNon3GppAccessRegistration resource shall be returned. |
| AmfNon3GppAccessRegistration | M | 1 | 200 OK | Upon success, a response body containing a representation of the updated Individual AmfNon3GppAccessRegistration resource shall be returned. |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 403 Forbidden | The "cause" attribute may be used to indicate one of the following application errors:  - UNKNOWN\_5GS\_SUBSCRIPTION  - NO\_PS\_SUBSCRIPTION  - ROAMING\_NOT\_ALLOWED  - ACCESS\_NOT\_ALLOWED  - RAT\_NOT\_ALLOWED  - REAUTHENTICATION\_REQUIRED |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.2.3.3.3.1-4: Headers supported by the 201 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudm-uecm/v1/{ueId}/registrations/amf-non-3gpp-access |

###### 6.2.3.3.3.2 PATCH

This method shall support the URI query parameters specified in table 6.2.3.3.3.2-1.

Table 6.2.3.3.3.2-1: URI query parameters supported by the PATCH method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.2.3.3.3.2-2 and the response data structures and response codes specified in table 6.2.3.3.3.2-3.

Table 6.2.3.3.3.2-2: Data structures supported by the PATCH Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| AmfNon3GppAccessRegistrationModification | M | 1 | The AMF registration for non 3GPP access is modified with the received information. |

Table 6.2.3.3.3.2-3: Data structures supported by the PATCH Response Body on this resource

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Data type | | P | Cardinality | Response  codes | | Description | |
| n/a | |  |  | 204 No Content | | Upon success, an empty response body shall be returned. (NOTE 2) | |
| PatchResult | | M | | 1 | | 200 OK | | Upon success, the execution report is returned. (NOTE 2) | |
| ProblemDetails | | O | 0..1 | 404 Not Found | | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND  - USER\_NOT\_FOUND | |
| ProblemDetails | | O | 0..1 | 422 Unprocessable Entity | | The "cause" attribute may be used to indicate one of the following application errors:  - UNPROCESSABLE\_REQUEST | |
| NOTE 1: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported.  NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDM shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDM shall respond with PatchResult. | | | | | | | |

###### 6.2.3.3.3.3 GET

This method shall support the URI query parameters specified in table 6.2.3.3.3.3-1.

Table 6.2.3.3.3.3-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.2.3.3.3.3-2 and the response data structures and response codes specified in table 6.2.3.3.3.3-3.

Table 6.2.3.3.3.3-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.2.3.3.3.3-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| AmfNon3GppAccessRegistration | M | 1 | 200 OK | Upon success, a response body containing the AmfNon3GppAccessRegistration shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.2.3.4.3 Resource Standard Methods

###### 6.2.3.4.3.1 GET

This method shall support the URI query parameters specified in table 6.2.3.4.3.1-1.

Table 6.2.3.4.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| single-nssai | Snssai | O | 0..1 |  |
| dnn | Dnn | O | 0..1 | The DNN shall be the DNN Network Identifier only. |

JSON objects (such as Snssai, Dnn…) shall be included directly as part of the URI query parameters by specifying in the OpenAPI file that the "Content-Type" of such parameters is "application/json".

If "single-nssai" is not included, and "dnn" is not included, UDM shall return all SMF registrations for all DNN(s) and network slice(s).

If "single-nssai" is included, and "dnn" is not included, UDM shall return all SMF registrations for all DNN(s) and the requested network slice identified by "single-nssai".

If "single-nssai" is not included, and "dnn" is included, UDM shall return all SMF registrations for all network slices where such DNN is available.

If "single-nssai" is included, and "dnn" is included, UDM shall return the all SMF registrations identified by "dnn" and "single-nssai".

This method shall support the request data structures specified in table 6.2.3.4.3.1-2 and the response data structures and response codes specified in table 6.2.3.4.3.1-3.

Table 6.2.3.4.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.2.3.4.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SmfRegistrationInfo | M | 1 | 200 OK | Upon success, a response body containing the SmfRegistrationInfo shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be set to one of the following application errors:  - CONTEXT\_NOT\_FOUND  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.2.3.5.2 Resource Standard Methods

###### 6.2.3.5.2.1 PUT

This method shall support the URI query parameters specified in table 6.2.3.5.2.1-1.

Table 6.2.3.5.2.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.2.3.5.2.1-2 and the response data structures and response codes specified in table 6.2.3.5.2.1-3.

Table 6.2.3.5.2.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SmfRegistration | M | 1 | The registration that is to be created |

Table 6.2.3.5.2.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SmfRegistration | M | 1 | 201 Created | Upon success, a response body containing a representation of the created Individual SmfRegistration resource shall be returned. |
| SmfRegistration | M | 1 | 200 OK | Upon success, a response body containing a representation of the updated Individual SmfRegistration resource shall be returned. |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 403 Forbidden | The "cause" attribute may be used to indicate one of the following application errors:  - ROAMING\_NOT\_ALLOWED  - DNN\_NOT\_ALLOWED |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.2.3.5.2.1-4: Headers supported by the 201 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudm-uecm/v1/{ueId}/registrations/smf-registrations/{pduSessionId} |

###### 6.2.3.5.2.2 DELETE

This method shall support the URI query parameters specified in table 6.2.3.5.2.2-1.

Table 6.2.3.5.2.2-1: URI query parameters supported by the DELETE method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| smf-set-id | NfSetId | O | 0..1 | The smf-set-id may be used by the UDM to guard against deletion of registrations by NFs that do not belong to the same NF set as the registered SMF. |

This method shall support the request data structures specified in table 6.2.3.5.2.2-2 and the response data structures and response codes specified in table 6.2.3.5.2.2-3.

Table 6.2.3.5.2.2-2: Data structures supported by the DELETE Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  | The request body shall be empty. |

Table 6.2.3.5.2.2-3: Data structures supported by the DELETE Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

###### 6.2.3.5.2.3 GET

This method shall support the URI query parameters specified in table 6.2.3.5.2.3-1.

Table 6.2.3.5.2.3-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.2.3.5.2.3-2 and the response data structures and response codes specified in table 6.2.3.5.2.3-3.

Table 6.2.3.5.2.3-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  | The request body shall be empty. |

Table 6.2.3.5.2.3-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SmfRegistration | M | 1 | 200 OK | Upon success, a response body containing the SmfRegistration shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be set to one of the following application errors:  - CONTEXT\_NOT\_FOUND  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.2.3.6.3 Resource Standard Methods

###### 6.2.3.6.3.1 PUT

This method shall support the URI query parameters specified in table 6.2.3.6.3.1-1.

Table 6.2.3.6.3.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.2.3.6.3.1-2 and the response data structures and response codes specified in table 6.2.3.6.3.1-3.

Table 6.2.3.6.3.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SmsfRegistration | M | 1 | The SMSF registration for 3GPP access is created or updated with the received information. |

Table 6.2.3.6.3.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SmsfRegistration | M | 1 | 201 Created | Upon success, a response body containing a representation of the created Individual SmsfRegistration resource shall be returned. |
| SmsfRegistration | M | 1 | 200 OK | Upon success, a response body containing a representation of the updated Individual SmsfRegistration resource shall be returned. |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 403 Forbidden | The "cause" attribute may be used to indicate one of the following application errors:  - UNKNOWN\_5GS\_SUBSCRIPTION  - ACCESS\_NOT\_ALLOWED  - ROAMING\_NOT\_ALLOWED |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.2.3.6.3.1-4: Headers supported by the 201 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudm-uecm/v1/{ueId}/registrations/smsf-3gpp-access |

###### 6.2.3.6.3.2 DELETE

This method shall support the URI query parameters specified in table 6.2.3.6.3.2-1.

Table 6.2.3.6.3.2-1: URI query parameters supported by the DELETE method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| smsf-set-id | NfSetId | O | 0..1 | The smsf-set-id may be used by the UDM to guard against deletion of registrations by NFs that do not belong to the same NF set as the registered SMSF. |

This method shall support the request data structures specified in table 6.2.3.6.3.2-2 and the response data structures and response codes specified in table 6.2.3.6.3.2-3.

Table 6.2.3.6.3.2-2: Data structures supported by the DELETE Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  | The request body shall be empty. |

Table 6.2.3.6.3.2-3: Data structures supported by the DELETE Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

###### 6.2.3.6.3.3 GET

This method shall support the URI query parameters specified in table 6.2.3.6.3.3-1.

Table 6.2.3.6.3.3-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.2.3.6.3.3-2 and the response data structures and response codes specified in table 6.2.3.6.3.3-3.

Table 6.2.3.6.3.3-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.2.3.6.3.3-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SmsfRegistration | M | 1 | 200 OK | Upon success, a response body containing the SmsfRegistration shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 6.2.3.7.3 Resource Standard Methods

###### 6.2.3.7.3.1 PUT

This method shall support the URI query parameters specified in table 6.2.3.7.3.1-1.

Table 6.2.3.7.3.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.2.3.7.3.1-2 and the response data structures and response codes specified in table 6.2.3.7.3.1-3.

Table 6.2.3.7.3.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SmsfRegistration | M | 1 | The SMSF registration for non 3GPP access is created or updated with the received information. |

Table 6.2.3.7.3.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SmsfRegistration | M | 1 | 201 Created | Upon success, a response body containing a representation of the created Individual SmsfRegistration for non 3GPP access resource shall be returned. |
| SmsfRegistration | M | 1 | 200 OK | Upon success, a response body containing a representation of the updated Individual SmsfRegistration for non 3GPP access resource shall be returned. |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:The "cause" attribute shall be set to the following application error:  - USER\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 403 Forbidden | The "cause" attribute may be used to indicate one of the following application errors:  - UNKNOWN\_5GS\_SUBSCRIPTION  - ACCESS\_NOT\_ALLOWED  - ROAMING\_NOT\_ALLOWED |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.2.3.7.3.1-4: Headers supported by the 201 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudm-uecm/v1/{ueId}/registrations/smsf-non-3gpp-access |

###### 6.2.3.7.3.2 DELETE

This method shall support the URI query parameters specified in table 6.2.3.7.2.2-1.

Table 6.2.3.7.2.2-1: URI query parameters supported by the DELETE method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| smsf-set-id | NfSetId | O | 0..1 | The smsf-set-id may be used by the UDM to guard against deletion of registrations by NFs that do not belong to the same NF set as than the registered SMSF. |

This method shall support the request data structures specified in table 6.2.3.7.2.2-2 and the response data structures and response codes specified in table 6.2.3.5.2.2-3.

Table 6.2.3.7.2.2-2: Data structures supported by the DELETE Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  | The request body shall be empty. |

Table 6.2.3.7.2.2-3: Data structures supported by the DELETE Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

###### 6.2.3.7.3.3 GET

This method shall support the URI query parameters specified in table 6.2.3.7.3.3-1.

Table 6.2.3.7.3.3-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.2.3.7.3.3-2 and the response data structures and response codes specified in table 6.2.3.7.3.3-3.

Table 6.2.3.7.3.3-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.2.3.7.3.3-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| SmsfRegistration | M | 1 | 200 OK | Upon success, a response body containing the SmsfRegistration shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### .2.3.8.3.1 GET

This method shall support the URI query parameters specified in table 6.2.3.8.3.1-1.

Table 6.2.3.8.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.2.3.8.3.1-2 and the response data structures and response codes specified in table 6.2.3.8.3.1-3.

Table 6.2.3.8.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.2.3.8.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| LocationInfo | M | 1 | 200 OK | Upon success, a response body containing the locationInfo shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.2.3.9.3.1 GET

This method shall support the URI query parameters specified in table 6.2.3.9.3.1-1.

NOTE: The retrieval of these registration data sets can also be achieved by sending individual GET requests to the corresponding sub-resources under the {ueId}/registraions resource. When multiple registration data sets need to be retrieved by the NF Service consumer, it is recommended to use a single GET request with query parameters rather than issuing multiple GET requests.

Table 6.2.3.9.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| registration-dataset-names | array(RegistrationDataSetName) | O | 2..N | If included, this IE shall contain the names of registration data sets to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| single-nssai | Snssai | O | 0..1 | Only applicable if registration-dataset-names contains SMF\_PDU\_SESSIONS |
| dnn | Dnn | O | 0..1 | The DNN shall be the DNN Network Identifier only.  Only applicable if registration-dataset-names contains SMF\_PDU\_SESSIONS |

This method shall support the request data structures specified in table 6.2.3.9.3.1-2 and the response data structures and response codes specified in table 6.2.3.9.3.1-3.

Table 6.2.3.9.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.2.3.9.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| RegistrationDataSets | M | 1 | 200 OK | Upon success, a response body containing all the requested UE registration data sets shall be returned. |
| ProblemDetails | M | 1 | 404 Not Found | The "cause" attribute shall be set to one of the following application errors:  - CONTEXT\_NOT\_FOUND  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.2.5.2 Deregistration Notification

The POST method shall be used for Deregistration Notifications and the URI shall be as provided during the registration procedure.

Resource URI: {callbackReference}

Support of URI query parameters is specified in table 6.2.5.2-1.

Table 6.2.5.2-1: URI query parameters supported by the POST method

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

Support of request data structures is specified in table 6.2.5.2-2 and of response data structures and response codes is specified in table 6.2.5.2-3.

Table 6.2.5.2-2: Data structures supported by the POST Request Body

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| DeregistrationData | M | 1 | Includes Deregistration Reason |

Table 6.2.5.2-3: Data structures supported by the POST Response Body

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.2.5.3 P-CSCF Restoration Notification

The POST method shall be used for P-CSCF Restoration Notifications and the URI shall be as provided during the registration procedure.

Resource URI: {callbackReference}

Support of URI query parameters is specified in table 6.2.5.3-1.

Table 6.2.5.3-1: URI query parameters supported by the POST method

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

Support of request data structures is specified in table 6.2.5.3-2 and of response data structures and response codes is specified in table 6.2.5.3-3.

Table 6.2.5.3-2: Data structures supported by the POST Request Body

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| PcscfRestorationNotification | M | 1 | contains the SUPI |

Table 6.2.5.3-3: Data structures supported by the POST Response Body

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 409 Conflict | The "cause" attribute may be used to indicate one of the following application errors:  - TEMPORARY\_REJECT\_REGISTRATION\_ONGOING  - TEMPORARY\_REJECT\_HANDOVER\_ONGOING |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

6.3.3.2.4.2.2 Operation Definition

This operation shall support the request data structures specified in table 6.3.3.2.4.2.2-1 and the response data structure and response codes specified in table 6.3.3.2.4.2.2-2.

Table 6.3.3.2.4.2.2-1: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| AuthenticationInfoRequest | M | 1 | Contains the serving network name and Resynchronization Information |

Table 6.3.3.2.4.2.2-2: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| AuthenticationInfoResult | M | 1 | 200 OK | Upon success, a response body containing the selected authentication method and an authentication vector if 5G AKA or EAP-AKA' has been selected shall be returned |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 403 Forbidden | The "cause" attribute may be used to indicate one of the following application errors:  - AUTHENTICATION\_REJECTED  - INVALID\_HN\_PUBLIC\_KEY\_IDENTIFIER  - INVALID\_SCHEME\_OUTPUT |
| ProblemDetails | O | 0..1 | 501 Not Implemented | The "cause" attribute may be used to indicate one of the following application errors:  - UNSUPPORTED\_PROTECTION\_SCHEME  This response shall not be cached. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.3.3.3.3.1 POST

This method shall support the URI query parameters specified in table 6.3.3.3.3.1-1.

Table 6.3.3.3.3.1-1: URI query parameters supported by the POST method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.3.3.3.3.1-2 and the response data structures and response codes specified in table 6.3.3.3.3.1-3.

Table 6.3.3.3.3.1-2: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| AuthEvent | M | 1 | The UE Authentication Event |

Table 6.3.3.3.3.1-3: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| AuthEvent | O | 0..1 | 201 Created | Upon success, a response body containing a representation of the created Authentication Event may be returned.  The HTTP response shall include a "Location" HTTP header that contains the resource URI of the created resource. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

Table 6.3.3.3.3.1-4: Headers supported by the 201 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudm-ueau/v1/{supi}/auth-events/{authEventId} |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.3.3.4.3.1 GET

This method shall support the URI query parameters specified in table 6.3.3.4.3.1-1.

Table 6.3.3.4.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| authenticated-ind | AuthenticatedInd | M | 1 | Indicates whether authenticated by the W-AGF or not: |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |
| plmn-id | PlmnId | O | 0..1 | PLMN identity of the PLMN serving the UE |

If "plmn-id" is included, UDM shall return the authentication data of FN-RG in the PLMN identified by "plmn-id".

If "plmn-id" is not included, UDM shall return the authentication data of FN-RG for HPLMN.

This method shall support the request data structures specified in table 6.3.3.4.3.1-2 and the response data structures and response codes specified in table 6.3.3.4.3.1-3.

Table 6.3.3.4.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.3.3.4.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| RgAuthCtx | M | 1 | 200 OK | Upon success, a response body containing the authentication indication. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate the following application error:  - USER\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 403 Forbidden | The "cause" attribute may be used to indicate one of the following application errors:  - AUTHENTICATION\_REJECTED  - INVALID\_SCHEME\_OUTPUT |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

6.3.3.5.4.2.2 Operation Definition

This operation shall support the request data structures specified in table 6.3.3.5.4.2.2-1 and the response data structure and response codes specified in table 6.3.3.5.4.2.2-2.

Table 6.3.3.5.4.2.2-1: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| HssAuthenticationInfoRequest | M | 1 | Contains the authentication method, number of requested vectors, serving network id and resynchronization information |

Table 6.3.3.5.4.2.2-2: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| HssAuthenticationInfoResult | M | 1 | 200 OK | Upon success, a response body containing authentication vector(s) shall be returned. |
| ProblemDetails | O | 1 | 404 Not Found | The "cause" attribute may be used to indicate the following application error:  - USER\_NOT\_FOUND |
| ProblemDetails | O | 1 | 501 Not Implemented | The "cause" attribute may be used to indicate the following application error:  - UNSUPPORTED\_AUTHENTICATION\_METHOD  This response shall not be cached. |
| NOTE: In addition, common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.3.3.6.2.1 PUT

This method shall support the URI query parameters specified in table 6.3.3.6.2.1-1.

Table 6.3.3.6.2.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.3.3.6.2.1-2 and the response data structures and response codes specified in table 6.3.3.6.2.1-3.

Table 6.3.3.6.2.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| AuthEvent | M | 1 | The UE Authentication Event |

Table 6.3.3.6.2.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Data type | | P | | Cardinality | | Response  codes | | Description | |
| n/a | |  | |  | | 204 No Content | | Upon success, an empty response body shall be returned. | |
| ProblemDetails | | O | 0..1 | 404 Not Found | | If the resource corresponding to the authEventId does not exist, a response code of 404 Not Found shall be returned.  The "cause" attribute may be set to:  - DATA\_NOT\_FOUND | |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.4.3.2.3.1 POST

This method shall support the URI query parameters specified in table 6.4.3.2.3.1-1.

Table 6.4.3.2.3.1-1: URI query parameters supported by the POST method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.4.3.2.3.1-2 and the response data structures and response codes specified in table 6.4.3.2.3.1-3.

Table 6.4.3.2.3.1-2: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| EeSubscription | M | 1 | The subscription that is to be created |

Table 6.4.3.2.3.1-3: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| CreatedEeSubscription | M | 1 | 201 Created | Upon success, a response body containing a representation of the created Individual subscription resource shall be returned.  The HTTP response shall include a "Location" HTTP header that contains the resource URI of the created resource. When stateless UDM is deployed, the stateless UDM may use an FQDN identifying the UDM group to which the UDM belongs as the host part of the resource URI. |
| ProblemDetails | O | 0..1 | 403 Forbidden | The "cause" attribute may be used to indicate one of the following application errors:  - MONITORING\_NOT\_ALLOWED |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 501 Not Implemented | The "cause" attribute may be used to indicate one of the following application errors:  - UNSUPPORTED\_MONITORING\_EVENT\_TYPE  - UNSUPPORTED\_MONITORING\_REPORT\_OPTIONS  This response shall not be cached. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

NOTE: In the scenario of stateless UDM deployment, it is assumed that stateless UDMs are organized into several UDM groups, and for each UDM group an FQDN can be allocated.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.4.3.3.2.1 DELETE

This method shall support the URI query parameters specified in table 6.4.3.3.2.1-1.

Table 6.4.3.3.1.1-1: URI query parameters supported by the DELETE method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.4.3.3.2.1-2 and the response data structures and response codes specified in table 6.4.3.3.2.1-3.

Table 6.4.3.3.2.1-2: Data structures supported by the Delete Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  | The request body shall be empty. |

Table 6.4.3.3.2.1-3: Data structures supported by the DELETE Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - SUBSCRIPTION\_NOT\_FOUND, see 3GPP TS 29.500 [4] table 5.2.7.2-1. |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

###### 6.4.3.3.2.2 PATCH

This method shall support the URI query parameters specified in table 6.4.3.3.2.2-1.

Table 6.4.3.3.2.2-1: URI query parameters supported by the PATCH method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.4.3.3.2.2-2 and the response data structures and response codes specified in table 6.4.3.3.2.2-3.

Table 6.4.3.3.2.2-2: Data structures supported by the PATCH Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| array(PatchItem) | M | 1..N | Items describe the modifications to the Event Subscription |

Table 6.4.3.3.2.2-3: Data structures supported by the PATCH Response Body on this resource

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Data type | | P | Cardinality | Response  codes | | Description | |
| n/a | |  |  | 204 No Content | | Upon success, an empty response body shall be returned. (NOTE 2) | |
| PatchResult | | M | | 1 | | 200 OK | | Upon success, the execution report is returned. (NOTE 2) | |
| ProblemDetails | | O | 0..1 | 404 Not Found | | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND  - SUBSCRIPTION\_NOT\_FOUND, see 3GPP TS 29.500 [4] table 5.2.7.2-1. | |
| O | 0..1 | 403 Forbidden | | One or more attributes are not allowed to be modified.  The "cause" attribute may be used to indicate one of the following application errors:  - MODIFICATION\_NOT\_ALLOWED, see 3GPP TS 29.500 [4] table 5.2.7.2-1. | |
| NOTE 1: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported.  NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDM shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDM shall respond with PatchResult. | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 6.4.5.2 Event Occurrence Notification

The POST method shall be used for Event Occurrence Notifications and the URI shall be as provided during the subscription procedure.

Resource URI: {callbackReference}

Support of URI query parameters is specified in table 6.4.5.2-1.

Table 6.4.5.2-1: URI query parameters supported by the POST method

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

Support of request data structures is specified in table 6.4.5.2-2 and of response data structures and response codes is specified in table 6.4.5.2-3.

Table 6.4.5.2-2: Data structures supported by the POST Request Body

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| array(MonitoringReport) | M | 1..N | A list of MonitoringReports each of which contains information regarding the occurred event |

Table 6.4.5.2-3: Data structures supported by the POST Response Body

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - CONTEXT\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.5.3.2.3.1 PATCH

This method shall support the URI query parameters specified in table 6.5.3.2.3.1-1.

Table 6.5.3.2.3.1-1: URI query parameters supported by the PATCH method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.5.3.2.3.1-2 and the response data structures and response codes specified in table 6.5.3.2.3.1-3.

Table 6.5.3.2.3.1-2: Data structures supported by the PATCH Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| PpData | M | 1 | Contains the data to be provisioned or the updated SoR Information to be conveyed to a UE. |

Table 6.5.3.2.3.1-3: Data structures supported by the PATCH Response Body on this resource

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Data type | | P | Cardinality | Response  codes | | Description | |
| n/a | |  |  | 204 No Content | | Upon success, an empty response body shall be returned. (NOTE 2) | |
| PatchResult | | M | | 1 | | 200 OK | | Upon success, the execution report is returned. (NOTE 2) | |
| ProblemDetails | | O | 0..1 | 404 Not Found | | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND | |
| ProblemDetails | | O | 0..1 | 403 Forbidden | | The "cause" attribute may be used to indicate one of the following application errors:  - MODIFICATION\_NOT\_ALLOWED | |
| NOTE 1: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported.  NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDM shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDM shall respond with PatchResult. | | | | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.5.3.3.3.1 PUT

This method shall support the URI query parameters specified in table 6.5.3.3.3.1-1.

Table 6.5.3.3.3.1-1: URI query parameters supported by the PUT method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.5.3.3.3.1-2 and the response data structures and response codes specified in table 6.5.3.3.3.1-3.

Table 6.5.3.3.3.1-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| 5GVnGroupConfiguration | M | 1 | Contains the configuration of the 5G VN Group |

Table 6.5.3.3.3.1-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 201 Created | Upon success, an empty resposne shall be returned. |
| ProblemDetails | O | 0..1 | 403 Forbidden | The "cause" attribute may be used to indicate one of the following application errors:  - CREATION\_NOT\_ALLOWED |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

###### 6.5.3.3.3.2 DELETE

This method shall support the URI query parameters specified in table 6.5.3.3.3.1-1.

Table 6.5.3.3.3.2-1: URI query parameters supported by the DELETE method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.5.3.3.3.1-2 and the response data structures and response codes specified in table 6.5.3.3.3.1-3.

Table 6.5.3.3.3.2-2: Data structures supported by the DELETE Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.5.3.3.3.2-3: Data structures supported by the DELETE Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - GROUP\_IDENTIFIER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

###### 6.5.3.3.3.3 PATCH

This method shall support the URI query parameters specified in table 6.5.3.3.3.3-1.

Table 6.5.3.3.3.3-1: URI query parameters supported by the PATCH method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| supported-features | SupportedFeatures | O | 0..1 | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 6.5.3.3.3.3-2 and the response data structures and response codes specified in table 6.5.3.3.3.3-3.

Table 6.5.3.3.3.3-2: Data structures supported by the PATCH Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| 5GVnGroupConfiguration | M | 1 | Contains the modification instruction |

Table 6.5.3.3.3.3-3: Data structures supported by the PATCH Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Upon success, an empty response body shall be returned. (NOTE 2) |
| PatchResult | M | 1 | 200 OK | Upon success, the execution report is returned. (NOTE 2) |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - GROUP\_IDENTIFIER\_NOT\_FOUND |
| ProblemDetails | O | 0..1 | 403 Forbidden | The "cause" attribute may be used to indicate one of the following application errors:  - MODIFICATION\_NOT\_ALLOWED |
| NOTE 1: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported.  NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDM shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

6.6.3.2.4.2.2 Operation Definition

This operation shall support the request data structures specified in table 6.6.3.2.4.2.2-1 and the response data structure and response codes specified in table 6.6.3.2.4.2.2-2.

Table 6.6.3.2.4.2.2-1: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| AuthorizationInfo | M | 1 | Contains NSSAI, DNN, MTC Provider Information, callback URI. |

Table 6.6.3.2.4.2.2-2: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| AuthorizationData | M | 1 | 200 OK | Upon success, a response body containing the SUPI(s) and GPSI shall be returned. |
| ProblemDetails | O | 1 | 404 Not Found | The "cause" attribute may be used to indicate one of the following application errors:  - USER\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

###### 6.7.3.2.3.1 GET

This method shall support the URI query parameters specified in table 6.7.3.2.3.1-1.

Table 6.7.3.2.3.1-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name | | Data type | | P | | Cardinality | | Description | |
| fields | array(string) | | M | | 1..N | | The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. See attribute names of type UeInfo. | |
| supported-features | | SupportedFeatures | | O | | 0..1 | | see 3GPP TS 29.500 [4] clause 6.6 | |

This method shall support the request data structures specified in table 6.7.3.2.3.1-2 and the response data structures and response codes specified in table 6.7.3.2.3.1-3.

Table 6.7.3.2.3.1-2: Data structures supported by the GET Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| n/a |  |  |  |

Table 6.7.3.2.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| UeInfo | M | 1 | 200 OK | Upon success, a response body containing the UeInfo shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to convey the following application errors:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

6.7.3.3.4.2.2 Operation Definition

This operation shall support the request data structures specified in table 6.7.3.3.4.2.2-1 and the response data structure and response codes specified in table 6.7.3.3.4.2.2-2.

Table 6.7.3.3.4.2.2-1: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| LocationInfoRequest | M | 1 | Contains the requested information: current location, local time zone, RAT type, or serving node identity only |

Table 6.7.3.3.4.2.2-2: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| LocationInfoResult | M | 1 | 200 OK | Upon success, a response body containing requested information shall be returned. |
| ProblemDetails | O | 0..1 | 404 Not Found | The "cause" attribute may be used to indicate the following application error:  - USER\_NOT\_FOUND  - DATA\_NOT\_FOUND |
| NOTE: In addition, common data structures as listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] are supported. | | | | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*The end of changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*