**3GPP TSG-CT WG4 Meeting #110-eC4-223**

**E-Meeting, 12th – 20th May 2022 revision of C4-223073**

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **29.504** | **CR** | **0188** | **rev** | **1** | **Current version:** | **17.6.0** |  |
|  |
| *For* [*HE**LP*](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |
| --- |
|  |
| ***Title:***  | OAuth2 scopes for application data |
|  |  |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | CT4 |
|  |  |
| ***Work item code:*** | SBIProtoc17 |  | ***Date:*** | 2022-05-18 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-17 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | Resource level authorization for application data requires the definition of additional OAuth2 scopes. |
|  |  |
| ***Summary of change:*** | OAuth2 scopes are added to table 6.1.7.1 and A.2 |
|  |  |
| ***Consequences if not approved:*** | No resource-level authorization for application data. |
|  |  |
| ***Clauses affected:*** | 6.1.7, A.2 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS 29.519 ... CR 0337 |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** | This CR introduces backwards compatible additions to the following API:TS29504\_Nudr\_DR.yaml |
|  |  |
| ***This CR's revision history:*** |  |

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

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

### 6.1.7 Security

As indicated in 3GPP TS 33.501 [12], the access to the Nudr\_DataRepository API may be authorized by means of the OAuth2 protocol (see IETF RFC 6749 [13]), using the "Client Credentials" authorization grant, where the NRF (see 3GPP TS 29.510 [14]) plays the role of the authorization server.

If Oauth2 authorization is used, an NF Service Consumer, prior to consuming services offered by the Nudr\_DataRepository API, shall obtain a "token" from the authorization server, by invoking the Access Token Request service, as described in 3GPP TS 29.510 [14], clause 5.4.2.2.

NOTE: When multiple NRFs are deployed in a network, the NRF used as authorization server is the same NRF that the NF Service Consumer used for discovering the Nudr\_DataRepository service.

The Nudr\_DataRepository API defines the following scopes for OAuth2 authorization:

Table 6.1.7-1: Oauth2 scopes defined in Nudr\_DataRepository API

|  |  |
| --- | --- |
| Scope | Description |
| "nudr-dr" | Access to the Nudr DataRepository API |
| "nudr-dr:subscription-data" | Access to the SubscriptionData data set. |
| "nudr-dr:subscription-data:authentication-subscription:read" | Access to read the AuthenticationSubscription resource of the SubscriptionData data set. |
| "nudr-dr:subscription-data:authentication-subscription:modify" | Access to update the AuthenticationSubscription resource of the SubscriptionData data set. |
| "nudr-dr:subscription-data:registrations:write" | Write access to NF registration resources of the SubscriptionData data set. |
| "nudr-dr:policy-data" | Access to the PolicyData data set. |
| "nudr-dr:exposure-data" | Access to the ExposureData data set. |
| "nudr-dr:application-data" | Access to the ApplicationData data set. |
| "nudr-dr:application-data:pfds:read" | Access to read PFDData. |
| "nudr-dr:application-data:pfds:modify" | Access to update PFDData. |
| "nudr-dr:application-data:pfds:create" | Access to create PFDData. |
| "nudr-dr:application-data:influence-data:read" | Access to read Traffic Influence Data. |
| "nudr-dr:application-data:influence-data:create" | Access to create Traffic Influence Data. |
| "nudr-dr:application-data:influence-data:modify" | Access to update Traffic Influence Data. |
| "nudr-dr:application-data:influence-data:subscriptions:create" | Access to create Traffic Influence Data Subscriptions. |
| "nudr-dr:application-data:influence-data:subscriptions:read" | Access to read Traffic Influence Data Subscriptions. |
| "nudr-dr:application-data:influence-data:subscriptions:modify" | Access to update Traffic Influence Data Subscriptions. |
| "nudr-dr:application-data:bdt-policy-data:read" | Access to read BDT Policy Data. |
| "nudr-dr:application-data:bdt-policy-data:create" | Access to create BDT Policy Data. |
| "nudr-dr:application-data:bdt-policy-data:modify" | Access to update BDT Policy Data. |
| "nudr-dr:application-data:iptv-config-data:read" | Access to read IPTV Configuration Data. |
| "nudr-dr:application-data:iptv-config-data:create" | Access to create IPTV Configuration Data. |
| "nudr-dr:application-data:iptv-config-data:modify" | Access to update IPTV Configuration Data. |
| "nudr-dr:application-data:service-param-data:read" | Access to read Service Parameter Data. |
| "nudr-dr:application-data:service-param-data:create" | Access to create Service Parameter Data. |
| "nudr-dr:application-data:service-param-data:modify" | Access to update Service Parameter Data. |
| "nudr-dr:application-data:am-influence-data:read" | Access to read AM Influence Data. |
| "nudr-dr:application-data:am-influence-data:create" | Access to create AM Influence Data. |
| "nudr-dr:application-data:am-influence-data:modify" | Access to update AM Influence Data. |
| "nudr-dr:application-data:subs-to-notify:create" | Access to create Subscriptions resources. |
| "nudr-dr:application-data:subs-to-notify:read" | Access to read Subscriptions resources. |
| "nudr-dr:application-data:subs-to-notify:modify" | Access to update Subscriptions resources. |
| "nudr-dr:application-data:eas-deploy-data:read" | Access to read EAS Deployment Information Data. |
| "nudr-dr:application-data:eas-deploy-data:create" | Access to create EAS Deployment Information Data. |
| "nudr-dr:application-data:eas-deploy-data:modify" | Access to update EAS Deployment Information Data. |

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

## A.2 Nudr\_DataRepository API

This Annex specifies the formal definition of the Nudr\_DataRepository service. It consists of OpenAPI 3.0.0 specifications, in YAML format.

The OpenAPI 3.0.0 definition related to SubscriptionData shall comply with the definition in 3GPP TS 29.505 [2].

The OpenAPI 3.0.0 definition related to PolicyData, StructuredDataForExposure and ApplicationData shall comply with the definition in 3GPP TS 29.519 [3].

The OpenAPI file for the Nudr\_DataRepository API is defined as follows:

openapi: 3.0.0

info:

 version: 2.2.0-alpha.7

 title: 'Nudr\_DataRepository API OpenAPI file'

 description: |

 Unified Data Repository Service.

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externalDocs:

 description: 3GPP TS 29.504 V17.6.0; 5G System; Unified Data Repository Services; Stage 3

 url: 'http://www.3gpp.org/ftp/Specs/archive/29\_series/29.504/'

servers:

 - description: API root

 url: '{apiRoot}/nudr-dr/v2'

 variables:

 apiRoot:

 default: https://example.com

security:

 - {}

 - oAuth2ClientCredentials:

 - nudr-dr

paths:

 /subscription-data/{ueId}/authentication-data/authentication-subscription:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1authentication-data~1authentication-subscription'

 /subscription-data/{ueId}/authentication-data/authentication-status:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1authentication-data~1authentication-status'

 /subscription-data/{ueId}/authentication-data/authentication-status/{servingNetworkName}:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1authentication-data~1authentication-status~1%7BservingNetworkName%7D'

 /subscription-data/{ueId}/ue-update-confirmation-data/sor-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1ue-update-confirmation-data~1sor-data'

 /subscription-data/{ueId}/ue-update-confirmation-data/upu-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1ue-update-confirmation-data~1upu-data'

 /subscription-data/{ueId}/ue-update-confirmation-data/subscribed-cag:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1ue-update-confirmation-data~1subscribed-cag'

 /subscription-data/{ueId}/ue-update-confirmation-data/subscribed-snssais:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1ue-update-confirmation-data~1subscribed-snssais'

 /subscription-data/{ueId}/{servingPlmnId}/provisioned-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1%7BservingPlmnId%7D~1provisioned-data'

 /subscription-data/{ueId}/{servingPlmnId}/provisioned-data/am-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1%7BservingPlmnId%7D~1provisioned-data~1am-data'

 /subscription-data/{ueId}/{servingPlmnId}/provisioned-data/smf-selection-subscription-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1%7BservingPlmnId%7D~1provisioned-data~1smf-selection-subscription-data'

 /subscription-data/{ueId}/{servingPlmnId}/provisioned-data/sm-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1%7BservingPlmnId%7D~1provisioned-data~1sm-data'

 /subscription-data/{ueId}/{servingPlmnId}/provisioned-data/lcs-bca-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1%7BservingPlmnId%7D~1provisioned-data~1lcs-bca-data'

 /subscription-data/{ueId}/context-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data'

 /subscription-data/{ueId}/context-data/amf-3gpp-access:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1amf-3gpp-access'

 /subscription-data/{ueId}/context-data/amf-non-3gpp-access:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1amf-non-3gpp-access'

 /subscription-data/{ueId}/context-data/smf-registrations:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1smf-registrations'

 /subscription-data/{ueId}/context-data/smf-registrations/{pduSessionId}:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1smf-registrations~1%7BpduSessionId%7D'

 /subscription-data/{ueId}/operator-specific-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1operator-specific-data'

 /subscription-data/{ueId}/context-data/smsf-3gpp-access:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1smsf-3gpp-access'

 /subscription-data/{ueId}/context-data/smsf-non-3gpp-access:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1smsf-non-3gpp-access'

 /subscription-data/{ueId}/context-data/location:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1location'

 /subscription-data/{ueId}/context-data/ip-sm-gw:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1ip-sm-gw'

 /subscription-data/{ueId}/context-data/mwd:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1mwd'

 /subscription-data/{ueId}/context-data/roaming-information:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1roaming-information'

 /subscription-data/{ueId}/{servingPlmnId}/provisioned-data/sms-mng-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1%7BservingPlmnId%7D~1provisioned-data~1sms-mng-data'

 /subscription-data/{ueId}/{servingPlmnId}/provisioned-data/sms-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1%7BservingPlmnId%7D~1provisioned-data~1sms-data'

 /subscription-data/{ueId}/lcs-privacy-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1lcs-privacy-data'

 /subscription-data/{ueId}/lcs-mo-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1lcs-mo-data'

 /subscription-data/{ueId}/pp-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1pp-data'

 /subscription-data/{ueId}/context-data/ee-subscriptions:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1ee-subscriptions'

 /subscription-data/{ueId}/context-data/ee-subscriptions/{subsId}:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1ee-subscriptions~1%7BsubsId%7D'

 /subscription-data/{ueId}/context-data/ee-subscriptions/{subsId}/amf-subscriptions:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1ee-subscriptions~1%7BsubsId%7D~1amf-subscriptions'

 /subscription-data/{ueId}/context-data/ee-subscriptions/{subsId}/smf-subscriptions:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1ee-subscriptions~1%7BsubsId%7D~1smf-subscriptions'

 /subscription-data/{ueId}/context-data/ee-subscriptions/{subsId}/hss-subscriptions:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1ee-subscriptions~1%7BsubsId%7D~1hss-subscriptions'

 /subscription-data/group-data/{ueGroupId}/ee-subscriptions:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~1%7BueGroupId%7D~1ee-subscriptions'

 /subscription-data/group-data/{ueGroupId}/ee-subscriptions/{subsId}:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~1%7BueGroupId%7D~1ee-subscriptions~1%7BsubsId%7D'

 /subscription-data/group-data/{ueGroupId}/ee-subscriptions/{subsId}/amf-subscriptions:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~1%7BueGroupId%7D~1ee-subscriptions~1%7BsubsId%7D~1amf-subscriptions'

 /subscription-data/group-data/{ueGroupId}/ee-subscriptions/{subsId}/smf-subscriptions:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~1%7BueGroupId%7D~1ee-subscriptions~1%7BsubsId%7D~1smf-subscriptions'

 /subscription-data/group-data/{ueGroupId}/ee-subscriptions/{subsId}/hss-subscriptions:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~1%7BueGroupId%7D~1ee-subscriptions~1%7BsubsId%7D~1hss-subscriptions'

 /subscription-data/group-data/{ueGroupId}/ee-profile-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~1%7BueGroupId%7D~1ee-profile-data'

 /subscription-data/group-data/5g-vn-groups:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~15g-vn-groups'

 /subscription-data/group-data/5g-vn-groups/{externalGroupId}:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~15g-vn-groups~1%7BexternalGroupId%7D'

 /subscription-data/group-data/5g-vn-groups/internal:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~15g-vn-groups~1internal'

 /subscription-data/group-data/5g-vn-groups/pp-profile-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~15g-vn-groups~1pp-profile-data'

 /subscription-data/{ueId}/ee-profile-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1ee-profile-data'

 /subscription-data/{ueId}/context-data/sdm-subscriptions:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1sdm-subscriptions'

 /subscription-data/{ueId}/context-data/sdm-subscriptions/{subsId}:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1sdm-subscriptions~1%7BsubsId%7D'

 /subscription-data/{ueId}/context-data/nidd-authorizations:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1nidd-authorizations'

 /subscription-data/{ueId}/context-data/sdm-subscriptions/{subsId}/hss-sdm-subscriptions:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1sdm-subscriptions~1%7BsubsId%7D~1hss-sdm-subscriptions'

 /subscription-data/shared-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1shared-data'

 /subscription-data/shared-data/{sharedDataId}:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1shared-data~1%7BsharedDataId%7D'

 /subscription-data/subs-to-notify:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1subs-to-notify'

 /subscription-data/subs-to-notify/{subsId}:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1subs-to-notify~1%7BsubsId%7D'

 /subscription-data/{ueId}/{servingPlmnId}/provisioned-data/trace-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1%7BservingPlmnId%7D~1provisioned-data~1trace-data'

 /subscription-data/{ueId}/identity-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1identity-data'

 /subscription-data/{ueId}/operator-determined-barring-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1operator-determined-barring-data'

 /subscription-data/{ueId}/nidd-authorization-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1nidd-authorization-data'

 /subscription-data/{ueId}/service-specific-authorization-data/{serviceType}:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1service-specific-authorization-data~1%7BserviceType%7D'

 /subscription-data/{ueId}/v2x-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1v2x-data'

 /subscription-data/{ueId}/pp-profile-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1pp-profile-data'

 /subscription-data/{ueId}/coverage-restriction-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1coverage-restriction-data'

 /subscription-data/group-data/group-identifiers:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1group-data~1group-identifiers'

 /subscription-data/{ueId}/prose-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1prose-data'

 /subscription-data/{ueId}/pp-data-store:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1pp-data-store'

 /subscription-data/{ueId}/context-data/service-specific-authorizations/{serviceType}:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1context-data~1service-specific-authorizations~1%7BserviceType%7D'

 /subscription-data/{ueId}/5mbs-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~15mbs-data'

 /subscription-data/{ueId}/uc-data:

 $ref: 'TS29505\_Subscription\_Data.yaml#/paths/~1subscription-data~1%7BueId%7D~1uc-data'

 /policy-data/ues/{ueId}:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1ues~1%7BueId%7D'

 /policy-data/ues/{ueId}/am-data:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1ues~1%7BueId%7D~1am-data'

 /policy-data/ues/{ueId}/ue-policy-set:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1ues~1%7BueId%7D~1ue-policy-set'

 /policy-data/ues/{ueId}/sm-data:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1ues~1%7BueId%7D~1sm-data'

 /policy-data/ues/{ueId}/sm-data/{usageMonId}:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1ues~1%7BueId%7D~1sm-data~1%7BusageMonId%7D'

 /policy-data/sponsor-connectivity-data/{sponsorId}:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1sponsor-connectivity-data~1%7BsponsorId%7D'

 /policy-data/bdt-data:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1bdt-data'

 /policy-data/bdt-data/{bdtReferenceId}:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1bdt-data~1%7BbdtReferenceId%7D'

 /policy-data/subs-to-notify:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1subs-to-notify'

 /policy-data/subs-to-notify/{subsId}:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1subs-to-notify~1%7BsubsId%7D'

 /policy-data/ues/{ueId}/operator-specific-data:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1ues~1%7BueId%7D~1operator-specific-data'

 /application-data/pfds:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1pfds'

 /application-data/pfds/{appId}:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1pfds~1%7BappId%7D'

 /application-data/influenceData:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1influenceData'

# The path segment is left not following the naming convention as defined in 3GPP TS 29.501 due to backward compatibility consideration.

 /application-data/influenceData/{influenceId}:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1influenceData~1%7BinfluenceId%7D'

# The path segment is left not following the naming convention as defined in 3GPP TS 29.501 due to backward compatibility consideration.

 /policy-data/plmns/{plmnId}/ue-policy-set:

 $ref: 'TS29519\_Policy\_Data.yaml#/paths/~1policy-data~1plmns~1%7BplmnId%7D~1ue-policy-set'

 /application-data/bdtPolicyData:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1bdtPolicyData'

# The path segment is left not following the naming convention as defined in 3GPP TS 29.501 due to backward compatibility consideration.

 /application-data/bdtPolicyData/{bdtPolicyId}:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1bdtPolicyData~1%7BbdtPolicyId%7D'

# The path segment is left not following the naming convention as defined in 3GPP TS 29.501 due to backward compatibility consideration.

 /application-data/iptvConfigData:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1iptvConfigData'

# The path segment is left not following the naming convention as defined in 3GPP TS 29.501 due to backward compatibility consideration.

 /application-data/iptvConfigData/{configurationId}:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1iptvConfigData~1%7BconfigurationId%7D'

# The path segment is left not following the naming convention as defined in 3GPP TS 29.501 due to backward compatibility consideration.

 /application-data/serviceParamData:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1serviceParamData'

# The path segment is left not following the naming convention as defined in 3GPP TS 29.501 due to backward compatibility consideration.

 /application-data/serviceParamData/{serviceParamId}:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1serviceParamData~1%7BserviceParamId%7D'

# The path segment is left not following the naming convention as defined in 3GPP TS 29.501 due to backward compatibility consideration.

 /application-data/influenceData/subs-to-notify:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1influenceData~1subs-to-notify'

# The path segment is left not following the naming convention as defined in 3GPP TS 29.501 due to backward compatibility consideration.

 /application-data/influenceData/subs-to-notify/{subscriptionId}:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1influenceData~1subs-to-notify~1%7BsubscriptionId%7D'

# The path segment is left not following the naming convention as defined in 3GPP TS 29.501 due to backward compatibility consideration.

 /application-data/subs-to-notify:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1subs-to-notify'

 /application-data/subs-to-notify/{subsId}:

 $ref: 'TS29519\_Application\_Data.yaml#/paths/~1application-data~1subs-to-notify~1%7BsubsId%7D'

 /exposure-data/{ueId}/access-and-mobility-data:

 $ref: 'TS29519\_Exposure\_Data.yaml#/paths/~1exposure-data~1%7BueId%7D~1access-and-mobility-data'

 /exposure-data/{ueId}/session-management-data/{pduSessionId}:

 $ref: 'TS29519\_Exposure\_Data.yaml#/paths/~1exposure-data~1%7BueId%7D~1session-management-data~1%7BpduSessionId%7D'

 /exposure-data/subs-to-notify:

 $ref: 'TS29519\_Exposure\_Data.yaml#/paths/~1exposure-data~1subs-to-notify'

 /exposure-data/subs-to-notify/{subId}:

 $ref: 'TS29519\_Exposure\_Data.yaml#/paths/~1exposure-data~1subs-to-notify~1%7BsubId%7D'

 /data-restoration-events:

 post:

 # This is a pseudo operation, clients shall NOT invoke this method!

 summary: subscribe to data restoration notifications

 operationId: CreateIndividualSubcription

 tags:

 - Subscriptions (Collection)

 requestBody:

 required: true

 content:

 application/json:

 schema: {}

 responses:

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 callbacks:

 restorationNotification:

 '{dataRestorationCallbackUri}':

 # The URI in {dataRestorationCallbackUri} is the default endpoint discovered from NRF.

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: No Content, Notification was succesfull

 '307':

 description: Temporary Redirect

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: 'The URI pointing to the resource located on the redirect target NF service consumer'

 required: true

 schema:

 type: string

 '308':

 description: Permanent Redirect

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: 'The URI pointing to the resource located on the redirect target NF service consumer'

 required: true

 schema:

 type: string

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{nrfApiRoot}/oauth2/token'

 scopes:

 nudr-dr: Access to the Nudr\_DataRepository API

 nudr-dr:subscription-data: Access to the SubscriptionData data set

 nudr-dr:subscription-data:authentication-subscription:read: Access to read the AuthenticationSubscription resource of the SubscriptionData data set

 nudr-dr:subscription-data:authentication-subscription:modify: Access to update the AuthenticationSubscription resource of the SubscriptionData data set

 nudr-dr:subscription-data:registrations:write: Write access to NF registration resources of the SubscriptionData data set

 nudr-dr:policy-data: Access to the PolicyData data set

 nudr-dr:exposure-data: Access to the ExposureData data set

 nudr-dr:application-data: Access to the ApplicationData data set

 nudr-dr:application-data:pfds:read: Access to read PFDData

 nudr-dr:application-data:pfds:modify: Access to update PFDData

 nudr-dr:application-data:pfds:create: Access to create PFDData

 nudr-dr:application-data:influence-data:read: Access to read Traffic Influence Data

 nudr-dr:application-data:influence-data:create: Access to create Traffic Influence Data.

 nudr-dr:application-data:influence-data:modify: Access to update Traffic Influence Data

 nudr-dr:application-data:influence-data:subscriptions:read: Access to read Traffic Influence Data Subscriptions

 nudr-dr:application-data:influence-data:subscriptions:create: Access to create Traffic Influence Data Subscriptions

 nudr-dr:application-data:influence-data:subscriptions:modify: Access to update Traffic Influence Data Subscriptions

 nudr-dr:application-data:bdt-policy-data:read: Access to read BDT Policy Data

 nudr-dr:application-data:bdt-policy-data:create: Access to create BDT Policy Data

 nudr-dr:application-data:bdt-policy-data:modify: Access to update BDT Policy Data

 nudr-dr:application-data:iptv-config-data:read: Access to read IPTV Configuration Data

 nudr-dr:application-data:iptv-config-data:create: Access to create IPTV Configuration Data

 nudr-dr:application-data:iptv-config-data:modify: Access to update IPTV Configuration Data

 nudr-dr:application-data:service-param-data:read: Access to read Service Parameter Data

 nudr-dr:application-data:service-param-data:create: Access to create Service Parameter Data

 nudr-dr:application-data:service-param-data:modify: Access to update Service Parameter Data

 nudr-dr:application-data:am-influence-data:read: Access to read AM Influence Data

 nudr-dr:application-data:am-influence-data:create: Access to create AM Influence Data

 nudr-dr:application-data:am-influence-data:modify: Access to update AM Influence Data

 nudr-dr:application-data:subs-to-notify:create: Access to create Subscriptions resources

 nudr-dr:application-data:subs-to-notify:read: Access to read Subscriptions resources

 nudr-dr:application-data:subs-to-notify:modify: Access to update Subscriptions resources

 nudr-dr:application-data:eas-deploy-data:read: Access to read EAS Deployment Information Data

 nudr-dr:application-data:eas-deploy-data:create: Access to create EAS Deployment Information Data

 nudr-dr:application-data:eas-deploy-data:modify: Access to update EAS Deployment Information Data

 schemas:

 DataRestorationNotification:

 description: Contains identities representing those UEs potentially affected by a data-loss event at the UDR

 type: object

 properties:

 supiRanges:

 type: array

 items:

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

 minItems: 1

 gpsiRanges:

 type: array

 items:

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

 minItems: 1

 resetIds:

 type: array

 items:

 type: string

 minItems: 1

 sNssaiList:

 type: array

 items:

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

 minItems: 1

 dnnList:

 type: array

 items:

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

 minItems: 1

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