**3GPP TSG-CT WG3 Meeting #130 C3-234650**

**Xiamen, China, 9 - 13 October,2023 (Revision of C3-234321)**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **29.580** | **CR** | **0043** | **rev** | **1** | **Current version:** | **18.3.0** |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |
| --- |
|  |
| ***Title:***  | Notification events alighment with SA4 |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | TEI18, 5MBS |  | ***Date:*** | 2023-09-25 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-18 |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | SA4 TS 26.502 has further specified new Notification Events over interface Nmb10/Nmb5, and alignment has been done in the last meeting.However, further study indicates that there are still misalignments between the SA4 and CT3. We illustrate the problem as the table below:

|  |  |
| --- | --- |
| CT3 implemented events | SA4 events over reference point Nmb10/Nmb5 |
| USER\_DATA\_ING\_SESS\_STARTING |   |
| USER\_DATA\_ING\_SESS\_STARTED | User Data Ingest Session established |
| USER\_DATA\_ING\_SESS\_TERMINATED | User Data Ingest Session terminated |
| DIST\_SESS\_STARTING | Distribution Session starting |
| DIST\_SESS\_STARTED |  Distribution Session established |
| DIST\_SESS\_TERMINATED |  Distribution Session deactivated |
| DIST\_SESS\_SERV\_MNGT\_FAILURE | Distribution Session service management failure |
| DIST\_SESS\_POL\_CRTL\_FAILURE | Distribution Session policy control failure |
| DATA\_INGEST\_FAILURE | User data ingest failure |
| DELIVERY\_STARTED | User Data Ingest Session established |
| SESSION\_TERMINATED | User Data Ingest Session terminated |
|  | session started |
|  | session released |
| DIST\_SESS\_ACTIVATED | Distribution Session activated |
| DIST\_SESS\_DEACTIVATED | Distribution Session deactivated |
| DIST\_SESS\_EST\_FAILURE | Distribution Session establishment failure |
| DIST\_SESS\_ESTABLISHED | Distribution Session established |
| USER\_SER\_AD | User Service advertisement |

We can conclude:1. The highlighted green events are well aligned with the SA4 defined events
2. The highlighted event (USER\_DATA\_ING\_SESS\_STARTING) is defined in the stage 3 events but not defined in the SA4 events.
3. The two highlighted events (USER\_DATA\_ING\_SESS\_STARTED and DELIVERY\_STARTED) have different namings but the descriptions correspond to the same SA4 event of User Data Ingest Session Established.
4. The two highlighted events (USER\_DATA\_ING\_SESS\_TERMINATED and SESSION\_TERMINATED) have different namings but the descriptions correspond to the same SA4 event of User Data Ingest Session Terminated.
5. The two highlighed events (DIST\_SESS\_STARTED and DIST\_SESS\_ESTABLISHED) have different namings but the descriptions correspond to the same SA4 event of Distribution Session established.
6. The two highlighed events (DIST\_SESS\_TERMINATED and DIST\_SESS\_DEACTIVATED) have different namings but the descriptions can be interpreted as corresponding to the same SA4 event of Distribution Session deactivated.
7. The two highlighted events (Session started and Session released) indicating the MBS session is started/released are not defined in TS 29.580

Therefore, we proposed a modification to the Notification events and also clarify that the events are not one to one mapping between stage 3 and stage 2. |
|  |  |
| ***Summary of change:*** | 1. Add NOTES to clarify the notification events
2. Add the two missing event in stage 3.
 |
|  |  |
| ***Consequences if not approved:*** | Notification events are not aligned with SA4 requirements and cause implementation errors. |
|  |  |
| ***Clauses affected:*** | 6.2.6.3.4, A3 |
|  |  |
|  | **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 has backward compatible corrections to the OpenAPI Nmbsf\_MBSUserDataIngestSession |
|  |  |
| ***This CR's revision history:*** |  |

**Additional discussion(if needed):**

**Proposed changes:**

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

##### 6.2.6.3.4 Enumeration: Event

The enumeration Event represents the MBS User Data Ingest Session Status events. It shall comply with the provisions of table 6.2.6.3.4-1.

Table 6.2.6.3.4-1: Enumeration Event

|  |  |  |
| --- | --- | --- |
| Enumeration value | Description | Applicability |
| USER\_DATA\_ING\_SESS\_STARTING | Indicates that the MBS User Data Ingest Session is starting.This is an "MBS User Data Ingest Session" level event. |  |
| USER\_DATA\_ING\_SESS\_STARTED | Indicates that the MBS User Data Ingest Session established. This corresponds to the “user data ingest session established” event.This is an "MBS User Data Ingest Session" level event. |  |
| USER\_DATA\_ING\_SESS\_TERMINATED | Indicates that the MBS User Data Ingest Session is terminated.This is an "MBS User Data Ingest Session" level event.(NOTE) |  |
| DIST\_SESS\_STARTING | Indicates that the MBS Distribution Session is starting.This is an "MBS Distribution Session" level event. |  |
| DIST\_SESS\_STARTED | Indicates that the MBS Distribution Session is established.This is an "MBS Distribution Session" level event. |  |
| DIST\_SESS\_TERMINATED | Indicates that the MBS Distribution Session is deactivated.This is an "MBS Distribution Session" level event. |  |
| DIST\_SESS\_SERV\_MNGT\_FAILURE | Indicates that the MBS Distribution Session could not be started (e.g. the necessary resources could not be allocated by the MBS system).This is an "MBS Distribution Session" level event. |  |
| DIST\_SESS\_POL\_CRTL\_FAILURE | Indicates that the MBS Distribution Session could not be started because of a policy authorization/control failure or rejection.This is an "MBS Distribution Session" level event. |  |
| DATA\_INGEST\_FAILURE | The MBS User Data Ingest failed because the MBSTF is expecting data (the MBS Session is active), but not receiving it.This is an "MBS Distribution Session" level event. |  |
| DELIVERY\_STARTED | The MBS User Data delivery is started. |  |
| SESSION\_TERMINATED | The MBS User Data Ingest Session is terminated.(NOTE) |  |
| SESSION\_STARTED | The MBS Session is started. | EventExt |
| SESSION\_RELEASED | The MBS Session is released. | EventExt |
| DIST\_SESS\_ACTIVATED | The MBS Distribution Session is activated successfully. | EventExt |
|  |  |  |
| DIST\_SESS\_EST\_FAILURE | Indicates that the MBSF failed to establish the MBS Distribution Session at the MBSTF.This is an “MBS Distribution Session" level event. | EventExt |
|  |  |  |
| USER\_SER\_AD | Indicates that the MBSF advertises the User Service Announcement information to the MBS Application Provider. | EventExt |
| NOTE: These two enumeration values correspond to the same event. |

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

# A.3 Nmbsf\_MBSUserDataIngestSession API

openapi: 3.0.0

info:

 title: nmbsf-mbs-ud-ingest

 version: 1.1.0-alpha.4

 description: |

 API for MBS User Data Ingest Session Service.

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externalDocs:

 description: >

 3GPP TS 29.580 V18.3.0; 5G System; Multicast/Broadcast Service Function Services.

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.580/'

servers:

 - url: '{apiRoot}/nmbsf-mbs-ud-ingest/v1'

 variables:

 apiRoot:

 default: https://example.com

 description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501

security:

 - {}

 - oAuth2ClientCredentials: []

paths:

 /sessions:

 get:

 summary: Retrieve all the active MBS User Data Ingest Sessions managed by the MBSF.

 tags:

 - MBS User Data Ingest Sessions (Collection)

 operationId: RetrieveMBSUserDataIngSessions

 responses:

 '200':

 description: >

 OK. All the active MBS User Data Ingest Sessions managed by the MBSF are returned.

 content:

 application/json:

 schema:

 type: array

 items:

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

 minItems: 0

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 post:

 summary: Request the creation of a new MBS User Data Ingest Session.

 tags:

 - MBS User Data Ingest Sessions (Collection)

 operationId: CreateMBSUserDataIngSession

 requestBody:

 description: >

 Contains the parameters to request the creation of a new MBS User Data Ingest Session

 at the MBSF.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: >

 Created. A new MBS User Data Ingest Session is successfully created and a representation

 of the created Individual MBS User Data Ingest Session resource is returned.

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: >

 Contains the URI of the newly created resource, according to the structure

 {apiRoot}/nmbs-mbs-ud-ingest/v1/sessions/{sessionId}

 required: true

 schema:

 type: string

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 /sessions/{sessionId}:

 parameters:

 - name: sessionId

 in: path

 description: Identifier of the Individual MBS User Data Ingest Session resource.

 required: true

 schema:

 type: string

 get:

 summary: Retrieve an existing Individual MBS User Data Ingest Session resource.

 tags:

 - Individual MBS User Data Ingest Session (Document)

 operationId: RetrieveIndMBSUserDataIngSession

 responses:

 '200':

 description: >

 OK. The requested Individual MBS User Data Ingest Session resource is successfully

 returned.

 content:

 application/json:

 schema:

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

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 put:

 summary: Request the update of an existing Individual MBS User Data Ingest Session resource.

 tags:

 - Individual MBS User Data Ingest Session (Document)

 operationId: UpdateIndMBSUserDataIngSession

 requestBody:

 description: >

 Contains the updated representation of the Individual MBS User Data Ingest Session

 resource.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: >

 OK. The concerned Individual MBS User Data Ingest Session resource is successfully

 updated and a representation of the updated resource is returned in the response body.

 content:

 application/json:

 schema:

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

 '204':

 description: >

 No Content. The concerned Individual MBS User Data Ingest Session resource is

 successfully updated and no content is returned in the response body.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 patch:

 summary: Request the modification of an existing Individual MBS User Data Ingest Session resource.

 tags:

 - Individual MBS User Data Ingest Session (Document)

 operationId: ModifyIndMBSUserDataIngSession

 requestBody:

 description: >

 Contains the parameters to request the modification of the Individual MBS User Data Ingest

 Session resource.

 required: true

 content:

 application/merge-patch+json:

 schema:

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

 responses:

 '200':

 description: >

 OK. The concerned Individual MBS User Data Ingest Session resource is successfully

 modified and a representation of the updated resource is returned in the response body.

 content:

 application/json:

 schema:

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

 '204':

 description: >

 No Content. The concerned Individual MBS User Data Ingest Session resource is

 successfully modified and no content is returned in the response body.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 delete:

 summary: Request the deletion of an existing Individual MBS User Data Ingest Session resource.

 tags:

 - Individual MBS User Data Ingest Session (Document)

 operationId: DeleteIndMBSUserDataIngSession

 responses:

 '204':

 description: >

 No Content. The Individual MBS User Data Ingest Session resource is successfully

 deleted.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 /status-subscriptions:

 get:

 summary: Retrieve all the active MBS User Data Ingest Session Status Subscription resources managed by the MBSF.

 tags:

 - MBS User Data Ingest Session Status Subscriptions (Collection)

 operationId: RetrieveMBSUserDataIngStatSubscs

 responses:

 '200':

 description: >

 OK. All the active MBS User Data Ingest Session Status Subscriptions managed by the MBSF

 are returned.

 content:

 application/json:

 schema:

 type: array

 items:

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

 minItems: 0

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 post:

 summary: Request the creation of a new MBS User Data Ingest Session Status Subscription.

 tags:

 - MBS User Data Ingest Session Status Subscriptions (Collection)

 operationId: CreateMBSUserDataIngStatSubsc

 requestBody:

 description: >

 Contains the parameters to request the creation of a new MBS User Data Ingest Session

 Status Subscription.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: >

 Created. Successful creation of a new Individual MBS User Data Ingest Session

 Status Subscription resource.

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: >

 Contains the URI of the newly created resource, according to the structure

 {apiRoot}/nmbs-mbs-ud-ingest/v1/status-subscriptions/{subscriptionId}

 required: true

 schema:

 type: string

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 callbacks:

 mbsUserDataIngestSessionStatusNotif:

 '{request.body#/notifUri}':

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: No Content. Successful reception of the notification.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 /status-subscriptions/{subscriptionId}:

 parameters:

 - name: subscriptionId

 in: path

 description: >

 Identifier of the Individual MBS User Data Ingest Session Status Subscription resource.

 required: true

 schema:

 type: string

 get:

 summary: Retrieve an existing Individual MBS User Data Ingest Session Status Subscription resource.

 tags:

 - Individual MBS User Data Ingest Session Status Subscription (Document)

 operationId: RetrieveIndMBSUserDataIngStatSubsc

 responses:

 '200':

 description: >

 OK. Successful retrieval of the requested Individual MBS User Data Ingest Session

 Status Subscription resource.

 content:

 application/json:

 schema:

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

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 put:

 summary: Request the update of an existing Individual MBS User Data Ingest Session Status Subscription resource.

 tags:

 - Individual MBS User Data Ingest Session Status Subscription (Document)

 operationId: UpdateIndMBSUserDataIngStatSubsc

 requestBody:

 description: >

 Contains the updated representation of the Individual MBS User Data Ingest Session Status

 Subscription resource.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: >

 OK. The concerned Individual MBS User Data Ingest Session Status Subscription resource

 is successfully updated and a representation of the updated resource is returned in the

 response body.

 content:

 application/json:

 schema:

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

 '204':

 description: >

 No Content. The concerned Individual MBS User Data Ingest Session Status Subscription

 resource is successfully updated and no content is returned in the response body.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 patch:

 summary: Request the modification of an existing Individual MBS User Data Ingest Session Status Subscription resource.

 tags:

 - Individual MBS User Data Ingest Session Status Subscription (Document)

 operationId: ModifyIndMBSUserDataIngStatSubsc

 requestBody:

 description: >

 Contains the parameters to request the modification of the Individual MBS User Data Ingest

 Session Status Subscription resource.

 required: true

 content:

 application/merge-patch+json:

 schema:

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

 responses:

 '200':

 description: >

 OK. The concerned Individual MBS User Data Ingest Session Status Subscription resource

 is successfully modified and a representation of the updated resource is returned in the

 response body.

 content:

 application/json:

 schema:

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

 '204':

 description: >

 No Content. The concerned Individual MBS User Data Ingest Session Status Subscription

 resource is successfully modified and no content is returned in the response body.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

 delete:

 summary: Request the deletion of an existing Individual MBS User Data Ingest Session Status Subscription resource.

 tags:

 - Individual MBS User Data Ingest Session Status Subscription (Document)

 operationId: DeleteMBSUserDataIngStatSubsc

 responses:

 '204':

 description: >

 No Content. Successful deletion of the existing Individual MBS User Data Ingest Session

 Status Subscription resource.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

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

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

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

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{tokenUrl}'

 scopes: {}

 description: >

 When the Nmbsf\_MBSUserDataIngestSession is consumed by a trusted or internal AF, then

 'nmbsf-mbs-ud-ingest' shall be used as the scope (i.e. with the 'scopes' property) and

 '{nrfApiRoot}/oauth2/token' shall be used as the URI to retrieve the token

 (i.e. 'tokenUri').

#

# STRUCTURED DATA TYPES

#

 schemas:

 MBSUserDataIngSession:

 description: Represents MBS User Data Ingest Session information.

 type: object

 properties:

 mbsUserServId:

 type: string

 mbsDisSessInfos:

 type: object

 additionalProperties:

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

 minProperties: 1

 nullable: true

 description: >

 Represents one or more MBS Distribution Session(s) composing the MBS User Data Ingest

 Session.

 The key of the map shall be any unique string encoded value.

 actPeriods:

 type: array

 items:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/TimeWindow'

 minItems: 1

 mbsUserServAnmt:

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

 mbsUserServiceAnmt:

 $ref: 'TS26517\_MBSUserServiceAnnouncement.yaml#/components/schemas/UserServiceDescription'

 mbsUserServiceAnmtUrl:

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

 suppFeat:

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

 required:

 - mbsUserServId

 - mbsDisSessInfos

 MBSDistributionSessionInfo:

 description: Represents MBS Distribution Session information.

 type: object

 properties:

 mbsDistSessionId:

 type: string

 mbsDistSessState:

 $ref: 'TS29581\_Nmbstf\_DistSession.yaml#/components/schemas/DistSessionState'

 mbsSessionId:

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

 associatedSessionId:

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

 mbsServInfo:

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

 maxContBitRate:

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

 maxContDelay:

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

 distrMethod:

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

 fecConfig:

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

 objDistrInfo:

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

 pckDistrInfo:

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

 trafficMarkingInfo:

 type: string

 tgtServAreas:

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

 extTgtServAreas:

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

 mbsFSAId:

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

 locationDependent:

 type: boolean

 description: >

 Represents an indication that this MBS Distribution Session belongs to a location-

 dependent MBS. This attribute shall be set to "true" to indicate that the MBS

 Distribution Session belongs to a location-dependent MBS; or set to "false" to

 indicate that the MBS Distribution Session does not belong to a location-dependent MBS.

 The default value is "false", if omitted.

 default: false

 multiplexedServFlag:

 type: boolean

 description: >

 Represents an indication that this MBS Distribution Session belongs to a multiplex, i.e.

 forms part of a set of MBS Distribution Sessions under the same parent MBS User Data

 Ingest Session with identical or empty sets of target service areas and multiplexed onto

 the same MBS Session at the MB-SMF.

 default: false

 restrictedFlag:

 type: boolean

 description: >

 Represents an indication that this MBS Distribution Session is not open to any UE, i.e.

 restricted to a set of UEs according to their MBS related subscription information.

 This attribute may be included only if the parent MBS User Service is of Multicast

 service type. This attribute shall be set to "true" to indicate that this MBS

 Distribution Session is restricted to a set of UE(s); or set to "false" to indicate that

 this MBS Distribution Session is open to any UE.

 The default value is "false", if omitted.

 default: false

 required:

 - distrMethod

 - maxContBitRate

 MBSUserDataIngSessionPatch:

 description: >

 Represents the requested modifications to an MBS User Data Ingest Session Status

 Subscription.

 type: object

 properties:

 mbsDisSessInfos:

 type: object

 additionalProperties:

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

 minProperties: 1

 nullable: true

 description: >

 Contains the requested modifications to one or more MBS Distribution Session(s)

 composing the MBS User Data Ingest Session.

 The key of the map shall be any unique string encoded value.

 actPeriods:

 type: array

 items:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/TimeWindow'

 minItems: 1

 ObjectDistrMethInfo:

 description: >

 Represents additional MBS Distribution Session parameters for the case of an Object

 Distribution Method.

 type: object

 properties:

 operatingMode:

 $ref: 'TS29581\_Nmbstf\_DistSession.yaml#/components/schemas/ObjDistributionOperatingMode'

 objAcqMethod:

 $ref: 'TS29581\_Nmbstf\_DistSession.yaml#/components/schemas/ObjAcquisitionMethod'

 objAcqIds:

 type: array

 items:

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

 minItems: 0

 objIngUri:

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

 objDistrUri:

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

 objRepairUri:

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

 required:

 - operatingMode

 - objAcqMethod

 - objAcqIds

 PacketDistrMethInfo:

 description: >

 Represents additional MBS Distribution Session parameters for the case of Packet

 Distribution Method.

 type: object

 properties:

 operatingMode:

 $ref: 'TS29581\_Nmbstf\_DistSession.yaml#/components/schemas/PktDistributionOperatingMode'

 pckIngMethod:

 $ref: 'TS29581\_Nmbstf\_DistSession.yaml#/components/schemas/PktIngestMethod'

 ingEndpointAddrs:

 $ref: 'TS29581\_Nmbstf\_DistSession.yaml#/components/schemas/MbStfIngestAddr'

 required:

 - operatingMode

 - pckIngMethod

 - ingEndpointAddrs

 MBSUserDataIngStatSubsc:

 description: >

 Represents an MBS User Data Ingest Session Status Subscription.

 type: object

 properties:

 mbsIngSessionId:

 type: string

 eventSubscs:

 type: array

 items:

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

 minItems: 1

 notifUri:

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

 required:

 - mbsIngSessionId

 - eventSubscs

 - notifUri

 MBSUserDataIngStatSubscPatch:

 description: >

 Represents the requested modifications to an MBS User Data Ingest Session Status

 Subscription.

 type: object

 properties:

 eventSubscs:

 type: array

 items:

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

 minItems: 1

 notifUri:

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

 SubscribedEvent:

 description: >

 Represents a subscribed MBS User Data Ingest Session Status event and the related

 information.

 type: object

 properties:

 statusEvent:

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

 mbsDistSessionId:

 type: string

 required:

 - statusEvent

 MBSUserDataIngStatNotif:

 description: >

 Represents an MBS User Data Ingest Session Status Notification.

 type: object

 properties:

 mbsIngSessionId:

 type: string

 eventNotifs:

 type: array

 items:

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

 minItems: 1

 required:

 - mbsIngSessionId

 - eventNotifs

 EventNotification:

 description: Represents Event Notification.

 type: object

 properties:

 statusEvent:

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

 mbsDisSessionId:

 type: string

 mbsSessionId:

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

 statusAddInfo:

 type: string

 timeStamp:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/DateTime'

 required:

 - statusEvent

 - timeStamp

 MBSUserServAnmt:

 deprecated: true

 description: >

 Represents the MBS User Service Announcement currently associated with the MBS User Data

 Ingest Session.

 type: object

 properties:

 extServiceId:

 type: array

 items:

 type: string

 minItems: 1

 servClass:

 type: string

 startTime:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/DateTime'

 endTime:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/DateTime'

 servNameDescs:

 type: array

 items:

 $ref: 'TS29580\_Nmbsf\_MBSUserService.yaml#/components/schemas/ServiceNameDescription'

 minItems: 1

 mainServLang:

 type: string

 mbsDistSessAnmt:

 additionalProperties:

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

 minProperties: 1

 description: >

 Represents the set of MBS Distribution Session Announcements currently associated with

 this MBS User Service Announcement.

 required:

 - extServiceId

 - servClass

 - servNameDescs

 MBSDistSessionAnmt:

 description: >

 Represents the set of MBS Distribution Session Announcements currently associated with this

 MBS User Service Announcement.

 type: object

 properties:

 mbsSessionId:

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

 mbsFSAId:

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

 distrMethod:

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

 objDistrAnnInfo:

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

 sesDesInfo:

 type: array

 items:

 type: string

 minItems: 1

 required:

 - distrMethod

 - sesDesInfo

 ObjectDistMethAnmtInfo:

 description: >

 Represents MBS Distribution Session Announcement parameters for Object Distribution Method.

 type: object

 properties:

 objDistrSched:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/TimeWindow'

 objDistrBaseUri:

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

 objRepBaseUri:

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

 FECConfig:

 description: Represents FEC configuration information.

 type: object

 properties:

 fecScheme:

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

 fecOverHead:

 type: integer

 additionalParams:

 type: array

 items:

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

 minItems: 1

 required:

 - fecScheme

 - fecOverHead

 AddFecParams:

 description: Represents additional scheme-specific parameters for AL-FEC configuration.

 type: object

 properties:

 paramName:

 type: string

 paramValue:

 type: string

 required:

 - paramName

 - paramValue

# SIMPLE DATA TYPES

#

#

# ENUMERATIONS

#

 DistributionMethod:

 anyOf:

 - type: string

 enum:

 - OBJECT

 - PACKET

 - type: string

 description: >

 This string provides forward-compatibility with future extensions to the enumeration

 and is not used to encode content defined in the present version of this API.

 description: |

 Represents the MBS Distribution method.

 Possible values are:

 - OBJECT: Indicates the Object Distribution Method.

 - PACKET: Indicates the Packet Distribution Method.

 Event:

 anyOf:

 - type: string

 enum:

 - USER\_DATA\_ING\_SESS\_STARTING

 - USER\_DATA\_ING\_SESS\_STARTED

 - USER\_DATA\_ING\_SESS\_TERMINATED

 - DIST\_SESS\_STARTING

 - DIST\_SESS\_STARTED

 - DIST\_SESS\_TERMINATED

 - DIST\_SESS\_SERV\_MNGT\_FAILURE

 - DIST\_SESS\_POL\_CRTL\_FAILURE

 - DATA\_INGEST\_FAILURE

 - DELIVERY\_STARTED

 - SESSION\_TERMINATED

 - SESSION\_STARTED

 - SESSION\_RELEASED

 - DIST\_SESS\_ACTIVATED

 - DIST\_SESS\_EST\_FAILURE

 - USER\_SER\_AD

 - type: string

 description: >

 This string provides forward-compatibility with future extensions to the enumeration

 and is not used to encode content defined in the present version of this API.

 description: |

 Represents the MBS User Data Ingest Session Status events.

 Possible values are:

 - USER\_DATA\_ING\_SESS\_STARTING: >

 Indicates that the MBS User Data Ingest Session is starting. This is an "MBS User Data

 Ingest Session" level event.

 - USER\_DATA\_ING\_SESS\_STARTED: >

 Indicates that the MBS User Data Ingest Session established. This is an "MBS User Data

 Ingest Session" level event.

 - USER\_DATA\_ING\_SESS\_TERMINATED: >

 Indicates that the MBS User Data Ingest Session is terminated. This is an "MBS User Data

 Ingest Session" level event.

 - DIST\_SESS\_STARTING: >

 Indicates that the MBS Distribution Session is starting. This is an "MBS Distribution

 Session" level event.

 - DIST\_SESS\_STARTED: >

 Indicates that the MBS Distribution Session started. This is an "MBS Distribution

 Session" level event.

 - DIST\_SESS\_TERMINATED: >

 Indicates that the MBS Distribution Session is terminated. This is an "MBS Distribution

 Session" level event.

 - DIST\_SESS\_SERV\_MNGT\_FAILURE: >

 Indicates that the MBS Distribution Session could not be started (e.g. the necessary

 resources could not be allocated by the MBS system). This is an "MBS Distribution

 Session" level event.

 - DIST\_SESS\_POL\_CRTL\_FAILURE: >

 Indicates that the MBS Distribution Session could not be started because of a policy

 authorization/control failure or rejection. This is an "MBS Distribution Session"

 level event.

 - DATA\_INGEST\_FAILURE: >

 The MBS User Data Ingest is failed because the MBSTF is expecting data (the MBS Session

 is active), but not receiving it. This is an "MBS Distribution Session" level event.

 - DELIVERY\_STARTED: >

 The MBS User Data delivery is started.

 - SESSION\_TERMINATED: >

 The MBS User Data Ingest Session is terminated.

 - SESSION\_STARTED: >

 The MBS Session is started.

 - SESSION\_RELEASED: >

 The MBS Session is released.

 - DIST\_SESS\_ACTIVATED:

 Indicates that the MBS Distribution Session is activated successfully.

 - DIST\_SESS\_EST\_FAILURE:

 Indicates that the MBSF failed to successfully establish the MBS Distribution Session at

 the MBSTF. This is an "MBS Distribution Session" level event.

 - USER\_SER\_AD:

 Indicates that the MBSF advertises the User Service Announcement information to the MBS

 Application Provider.

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