**3GPP TSG-CT WG3 Meeting #142C3-253291**

**Gothenburg, SE, 25 - 29 August 2025**

**Source: Samsung**

**Title: Pseudo-CR on AIMLES\_SplitOpEvent API - API defintion**

**Spec: 3GPP TS 29.482 v1.0.0**

**Agenda item: 19.41**

**Document for: Decision**

**1. Introduction**

 This pseudo CR implements the API definition for AIMLES\_SplitOpEvent API.

**2. Reason for Change**

As per TS 23.548 v19.2.0, the AIMLES\_SplitOpEvent API has been agreed and needs to be implemented in TS 29.548.

**3. Conclusions**

N/A

**4. Proposal**

It is proposed to agree the following changes to 3GPP TS 29.482 v1.0.0.

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

### 6.1.X AIMLES\_SplitOpEvent API

#### 6.1.X.1 Introduction

The AIMLES\_SplitOpEvent Service shall use the AIMLES\_SplitOpEvent API.

The API URI of the AIMLES\_SplitOpEvent API shall be:

**{apiRoot}/<apiName>/<apiVersion>**

The request URIs used in HTTP requests shall have the Resource URI structure defined in clause 5.2.4 of 3GPP TS 29.122 [2], i.e.:

**{apiRoot}/<apiName>/<apiVersion>/<apiSpecificSuffixes>**

with the following components:

- The {apiRoot} shall be set as described in clause 6.5 of 3GPP TS 29.549 [14].

- The <apiName>shall be "aimles-splitopevent".

- The <apiVersion> shall be "v1".

- The <apiSpecificSuffixes> shall be set as described in clause 6.1.X.3 and clause 6.1.X.4.

NOTE: When 3GPP TS 29.122 [2] is referenced for the common protocol and interface aspects for API definition in the clauses under clause 6.1.X, the AIMLE Server takes the role of the SCEF and the service consumer takes the role of the SCS/AS.

#### 6.1.X.2 Usage of HTTP

The provisions of clause 5.2 of 3GPP TS 29.122 [2] shall apply for the AIMLES\_SplitOpEvent API.

#### 6.1.X.3 Resources

##### 6.1.X.3.1 Overview

This clause describes the structure for the Resource URIs and the resources and methods used for the service.

Figure 6.1.X.3.1-1 depicts the resource URIs structure for the AIMLES\_SplitOpEvent API.



Figure 6.1.X.3.1-1: Resource URI structure of the AIMLES\_SplitOpEvent API

Table 6.1.X.3.1-1 provides an overview of the resources and applicable HTTP methods.

Table 6.1.X.3.1-1: Resources and methods overview

|  |  |  |  |
| --- | --- | --- | --- |
| Resource name | Resource URI | HTTP method or custom operation | Description |
| AIMLE Split Operation Event Subscriptions | /subscriptions | POST | Request the creation of an AIMLE Split Operation Event Subscription resource. |
| Individual AIMLE Split Operation Event Subscription | /subscriptions/{subscriptionId} | GET | Retrieve an existing "Individual AIMLE Split Operation Event" resource. |
| PUT | Request the update of an existing "Individual AIMLE Split Operation Event" resource. |
| PATCH | Modifies an "Individual AIMLE Split Operation Event” Subscription resource. |
| DELETE | Request the deletion of an existing "Individual AIMLE Split Operation Event Subscription" resource. |

##### 6.1.X.3.2 Resource: AIMLE Split Operation Event Subscriptions

###### 6.1.X.3.2.1 Description

This resource represents the collection of AIMLE Split Operation Event Subscriptions managed by the AIMLE Server.

###### 6.1.X.3.2.2 Resource Definition

Resource URI: {**apiRoot**}/**aimles-splitopevent**/<**apiVersion**>/**subscriptions**

This resource shall support the resource URI variables defined in Table 6.1.X.3.2.2-1.

Table 6.1.X.3.2.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Definition |
| apiRoot | string | See clause 6.1.X.1. |

###### 6.1.X.3.2.3 Resource Standard Methods

6.1.X.3.2.3.1 POST

The HTTP POST method enables an AIMLE service consumer to request the creation of a new Individual AIMLE Split Operation Event Subscription at the AIMLE Server.

This method shall support the URI query parameters specified in table 6.1.X.3.2.3.1-1.

Table 6.1.X.3.2.3.1-1: URI query parameters supported by the POST method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
|  |  |  |  |  |

This method shall support the request data structures specified in table 6.1.X.3.2.3.1-2 and the response data structures and response codes specified in table 6.1.X.3.2.3.1-3.

Table 6.1.X.3.2.3.1-2: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SplitOpEventSub | M | 1 | Create a new Individual AIMLE Split Operation Event Subscription resource. |

Table 6.1.X.3.2.3.1-3: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Responsecodes | Description |
| SplitOpEventSub | M | 1 | 201 Created | Successful case. The creation of an Individual AIMLE Split Operation Event Subscription resource is confirmed and a representation of that resource is returned.An HTTP "Location" header that contains the URI of the created resource shall also be included. |
| NOTE: The mandatory HTTP error status codes for the HTTP POST method listed in table 5.2.6-1 of 3GPP TS 29.122 [2] shall also apply. |

Table 6.1.X.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}/aimles-mlmpm/<apiVersion>/subscriptions{subscriptionId} |

###### 6.1.X.3.2.4 Resource Custom Operations

There are no resource custom operations defined for this resource in this release of the specification.

##### 6.1.X.3.3 Resource: Individual AIMLE Split Operation Event Subscription

###### 6.1.X.3.3.1 Description

The Individual Split Operation Event Subscription resource represents an individual event subscription of VAL server or AIMLE client.

###### 6.1.X.3.3.2 Resource Definition

Resource URI: {**apiRoot**}/**aimles-splitopevent**/<**apiVersion**>/**subscriptions**/{**subscriptionId**}

This resource shall support the resource URI variables defined in Table 6.1.X.3.3.2-1.

Table 6.1.X.3.3.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Definition |
| apiRoot | string | See clause 6.1.X.1 |
| subscriptionId | string | Represents the identifier of an "Individual AIMLE Split Operation Event Subscription" resource. |

###### 6.1.X.3.3.3 Resource Standard Methods

6.1.X.3.3.3.1 GET

The HTTP GET method allows a service consumer to retrieve an existing "Individual Split Operation Event Subscription" resource at the AIMLE server.

This method shall support the URI query parameters specified in table 6.1.X.3.3.3.1-1.

Table 6.1.X.3.3.3.1-1: URI query parameters supported by the GET method on this resource

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

This method shall support the request data structures specified in table 6.1.X.3.3.3.1-2 and the response data structures and response codes specified in table 6.1.X.3.3.3.1-3.

Table 6.1.X.3.3.3.1-2: Data structures supported by the GET Request Body on this resource

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

Table 6.1.X.3.3.3.1-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Responsecodes | Description |
| SplitOpEventSub | M | 1 | 200 OK | Successful case. The requested "Individual Split Operation Event Subscription" resource shall be returned. |
| n/a |  |  | 307 Temporary Redirect | Temporary redirection.The response shall include a Location header field containing an alternative URI of the resource located in an alternative AIMLE server.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [2]. |
| n/a |  |  | 308 Permanent Redirect | Permanent redirection.The response shall include a Location header field containing an alternative URI of the resource located in an alternative AIMLE server.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [2]. |
| NOTE: The mandatory HTTP error status codes for the HTTP GET method listed in table 5.2.6-1 of 3GPP TS 29.122 [2] shall also apply. |

Table 6.1.X.3.3.3.1-4: Headers supported by the 307 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains an alternative URI of the resource located in an alternative AIMLE server. |

Table 6.1.X.3.3.3.1-5: Headers supported by the 308 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains an alternative URI of the resource located in an alternative AIMLE server. |

6.1.X.3.3.3.2 PUT

The HTTP PUT method allows a service consumer to request the update of an existing "Individual Split Operation Event Subscription" resource at the AIMLE server.

This method shall support the URI query parameters specified in table 6.1.X.3.3.3.2-1.

Table 6.1.X.3.3.3.2-1: URI query parameters supported by the PUT method on this resource

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

This method shall support the request data structures specified in table 6.1.X.3.3.3.2-2 and the response data structures and response codes specified in table 6.1.X.3.3.3.2-3.

Table 6.1.X.3.3.3.2-2: Data structures supported by the PUT Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SplitOpEventSub | M | 1 | Represents the updated representation of the "Individual Split Operation Event Subscription" resource. |

Table 6.1.X.3.3.3.2-3: Data structures supported by the PUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Responsecodes | Description |
| SplitOpEventSub | M | 1 | 200 OK | Successful case. The "Individual Split Operation Event Subscription" resource is successfully updated and a representation of the updated resource shall be returned in the response body. |
| n/a |  |  | 204 No Content | Successful case. The "Individual Split Operation Event Subscription" resource is successfully updated and no content is returned in the response body. |
| n/a |  |  | 307 Temporary Redirect | Temporary redirection.The response shall include a Location header field containing an alternative URI of the resource located in an alternative AIMLE server.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [2]. |
| n/a |  |  | 308 Permanent Redirect | Permanent redirection.The response shall include a Location header field containing an alternative URI of the resource located in an alternative AIMLE server.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [2]. |
| NOTE: The mandatory HTTP error status codes for the HTTP PUT method listed in table 5.2.6-1 of 3GPP TS 29.122 [2] shall also apply. |

Table 6.1.X.3.3.3.2-4: Headers supported by the 307 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains an alternative URI of the resource located in an alternative AIMLE server. |

Table 6.1.X.3.3.3.2-5: Headers supported by the 308 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains an alternative URI of the resource located in an alternative AIMLE server. |

6.1.X.3.3.3.3 PATCH

This method shall support the URI query parameters specified in table 6.1.X.3.3.3.3-1.

Table 6.1.X.3.3.3.3-1: URI query parameters supported by the PATCH 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.X.3.3.3.3-2 and the response data structures and response codes specified in table 6.1.X.3.3.3.3-3.

Table 6.1.X.3.3.3.3-2: Data structures supported by the PATCH Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SplitOpEventSubPatch | M | 1 | Contains the modifications to be applied to the Split Operation Event subscription resource. |

Table 6.1.X.3.3.3.3-3: Data structures supported by the PATCH Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Responsecodes | Description |
| SplitOpEventSub | M | 1 | 200 OK | Split Operation Events Subscription resource is modified successfully and the representation of the modified Split Operation Event subscription is returned. |
| n/a |  |  | 204 No Content | The Split Operation Events Subscription is updated successfully.  |
| n/a |  |  | 307 Temporary Redirect | Temporary redirection, during resource termination. The response shall include a Location header field containing an alternative URI of the resource located in an alternative SEAL server.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [3]. |
| n/a |  |  | 308 Permanent Redirect | Permanent redirection, during resource termination. The response shall include a Location header field containing an alternative URI of the resource located in an alternative SEAL server.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [3]. |
| NOTE: The mandatory HTTP error status codes for the PATCH method listed in table 5.2.6-1 of 3GPP TS 29.122 [3] also apply. |

Table 6.1.X.3.3.3.3-4: Headers supported by the 307 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative SEAL server. |

Table 6.1.X.3.3.3.3-5: Headers supported by the 308 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative SEAL server. |

6.1.X.3.3.3.4 DELETE

The HTTP DELETE method allows an AIMLE service consumer to request the deletion of an existing "Individual AIMLE Split Operation Event Subscription" resource.

Table 6.1.X.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 6.1.X.3.3.3.2-2 and the response data structures and response codes specified in Table 6.1.X.3.3.3.2-3.

Table 6.1.X.3.3.3.2-2: Data structures supported by the DELETE Request Body on this resource

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

Table 6.1.X.3.3.3.2-3: Data structures supported by the DELETE Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Responsecodes | Description |
| n/a |  |  | 204 No Content | Successful case. The "Individual AIMLE Split Operation Event Subscription" resource is successfully deleted. |
| n/a |  |  | 307 Temporary Redirect | Temporary redirection.The response shall include a Location header field containing an alternative URI of the resource located in an alternative AIMLE Server.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [2]. |
| n/a |  |  | 308 Permanent Redirect | Permanent redirection.The response shall include a Location header field containing an alternative URI of the resource located in an alternative AIMLE Server.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [2]. |
| NOTE: The mandatory HTTP error status codes for the HTTP DELETE method listed in table 5.2.6-1 of 3GPP TS 29.122 [2] shall also apply. |

Table 6.1.X.3.3.3.2-4: Headers supported by the 307 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains an alternative URI of the resource located in an alternative AIMLE Server. |

Table 6.1.X.3.3.3.2-5: Headers supported by the 308 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains an alternative URI of the resource located in an alternative AIMLE Server. |

6.1.X.3.3.4 Resource Custom Operations

There are no resource custom operations defined for this resource in this release of the specification.

#### 6.1.X.4 Custom Operations without associated resources

There are no custom Operations without associated resources defined for this resource in this release of the specification.

#### 6.1.X.5 Notifications

##### 6.1.X.5.1 General

Notifications shall comply to clause 6.6 of 3GPP TS 29.122 [2].

Table 6.1.X.5.1-1: Notifications overview

|  |  |  |  |
| --- | --- | --- | --- |
| Notification | Callback URI | HTTP method or custom operation | Description(service operation) |
| AIMLE Split Operation Event Notification | {notifUri} | POST | This service operation enables an AIMLE Server to notify a previously subscribed AIMLE service consumer on AIML Split Operation related event(s). |

##### 6.1.X.5.2 AIMLE Split Operation Event Event Notification

6.1.X.5.2.1 Description

The AIMLE Split Operation Event Notification is used by the AIMLE Server to notify a previously subscribed AIMLE service consumer on AIML Split Operation related event(s).

6.1.X.5.2.2 Target URI

The Callback URI **"{notifUri}"** shall be used with the callback URI variables defined in table 6.1.X.5.2.2-1.

Table 6.1.X.5.2.2-1: Callback URI variables

|  |  |
| --- | --- |
| Name | Definition |
| notifUri | The Notification URI is assigned within the Individual AIMLE Split Operation Event Subscription and described within the SplitOpEventSub type |

6.1.X.5.2.3 Standard Methods

6.1.X.5.2.3.1 POST

This method shall support the request data structures specified in Table 6.1.X.5.2.3-1 and the response data structures and response codes specified in Table 6.1.X.5.2.3-2.

Table 6.1.X.5.2.3-1: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| SplitOpEventNotif | M | 1 | Represents the AIMLE Split Operation Event Notification. |

Table 6.1.X.5.2.3-2: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| n/a |  |  | 204 No Content | Successful case. The AIMLE Split Operation Event Notification is successfully received and acknowledged. |
| n/a |  |  | 307 Temporary Redirect | Temporary redirection.The response shall include a Location header field containing an alternative URI representing the endpoint of an alternative AIMLE service consumer where the notification should be sent.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [2]. |
| n/a |  |  | 308 Permanent Redirect | Permanent redirection.The response shall include a Location header field containing an alternative URI representing the endpoint of an alternative AIMLE service consumer where the notification should be sent.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [2]. |
| NOTE: The mandatory HTTP error status codes for the HTTP POST method listed in Table 5.2.6-1 of 3GPP TS 29.122 [2] shall also apply. |

Table 6.1.X.5.2.3-3: Headers supported by the 307 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains an alternative URI representing the end point of an alternative AIMLE service consumer towards which the notification should be redirected. |

Table 6.1.X.5.2.3-4: Headers supported by the 308 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains an alternative URI representing the end point of an alternative AIMLE service consumer towards which the notification should be redirected. |

#### 6.1.X.6 Data Model

##### 6.1.X.6.1 General

This clause specifies the application data model supported by the API.

Table 6.1.X.6.1-1 specifies the data types defined for the AIMLES\_SplitOpEvent API.

Table 6.1.X.6.1-1: AIMLES\_SplitOpEvent API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| AssistanceInfo | 6.1.X.6.2.7 | Represents the split operation assistance information. |  |
| AvailabilityInfo | 6.1.X.6.2.8 | Represents the split operation availability information. |  |
| DiscFilters | 6.1.X.6.2.5 | Represents the discovery filters to determine matching split operation profile or nodes. |  |
| SplitOpEventSub | 6.1.X.6.2.2 | Represents the AIMLE Split Operation Event subscription information. |  |
| SplitOpEventSubPatch | 6.1.X.6.2.3 | Represents the requested modifications to the AIMLE Split Operation Event subscription information. |  |
| SplitOpEventSubNotif | 6.1.X.6.2.4 | Represents the AIMLE Split Operation Event notification. |  |
| SplitOpPipelineInfo | 6.1.X.6.2.6 | Represents split operation pipeline information. |  |
| SplitOpProfile | 6.1.X.6.2.9 | Represents the split operation profile that VAL server participates to. |  |
| StageInfo | 6.1.X.6.2.10 | Represnts the information related to each stage in split operation pipeline. |  |

Table 6.1.X.6.1-2 specifies data types re-used by the AIMLES\_SplitOpEvent API service.

Table 6.1.X.6.1-2: AIMLES\_SplitOpEvent API re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| DateTime | 3GPP TS 29.122 [3] | Represents the subscription duration. |  |
| Endpoint | 3GPP TS 29.558[19] | Represent the endpoint information of a node. |  |
| TimeWindow | 3GPP TS 29.122 [2] | Identifies the start time and the end time for the validity time. |  |
| Uri | 3GPP TS 29.122 [3] | Used to indicate the notification URI. |  |

##### 6.1.X.6.2 Structured data types

###### 6.1.X.6.2.1 Introduction

This clause defines the data structures to be used in resource representations.

###### 6.1.X.6.2.2 Type: SplitOpEventSub

Table 6.1.X.6.2.2-1: Definition of type SplitOpEventSub

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| splitOpPipelineId | string | M | 1 | Contains the identifier for split operation pipeline. |  |
| notifUri | Uri | M | 1 | Contains the URI, towards which the notification should be delivered. |  |
| reportReq | ReportingInformation | O | 0..1 | Contains the reporting requirements of the subscription. |  |
| splitOpEventId | SplitOpEventId | M | 1 | Contains the event identifier for subscription. |  |
| discFilters | DiscFilters | O | 0..1 | Contains the set of characteristics to determine matching split operation profiles or nodes. |  |
| assistInfo | AssistanceInfo | O | 0..1 | Contains the assistance information for subscription. |  |
| expTime | DateTime | O | 0..1 | Contains the proposed expiration time of the subscription. |  |
| suppFeat | SupportedFeatures | C | 0..1 | Contains supported features information, used to negotiate the applicability of optional features.This attribute shall be present only if feature negotiation needs to take place. |  |

###### 6.1.X.6.2.3 Type: SplitOpEventSubPatch

Table 6.1.X.6.2.3-1: Definition of type SplitOpEventSubPatch

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| notifUri | Uri | O | 0..1 | Contains the URI, towards which the notification should be delivered. |  |
| reportReq | ReportingInformation | O | 0..1 | Contains the updated reporting requirements of the subscription. |  |
| splitOpEventId | SplitOpEventId | O | 0..1 | Contains the event identifier for subscription. |  |
| discFilters | DiscFilters | O | 0..1 | Contains the set of characteristics to determine matching split operation profiles or nodes. |  |
| expTime | DateTime | O | 0..1 | Contains the proposed expiration time of the subscription. |  |

###### 6.1.X.6.2.4 Type: SplitOpEventNotif

Table 6.1.X.6.2.4-1: Definition of type SplitOpEventNotif

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| splitOpEventId | SplitOpEventId | M | 1 | Contains the event identifier for subscription. |  |
| availabilityInfo | AvailabilityInfo | C | 0..1 | Contains the availability information. This shall be present for SPLIT\_OP\_AVAILABILITY event. |  |
| splitOpPipelineInfo | SplitOpPipelineInfo | C | 0..1 | Contains split operation pipeline information. This shall be present for SPLIT\_OP\_PIPELINE\_INFO event. |  |
| assistanceInfo | AssistanceInfo | C | 0..1 | Contains split operation assistance information. This shall be present for SPLIT\_OP\_ASSISTANCE\_INFO event. |  |

###### 6.1.X.6.2.5 Type: DiscFilters

Table 6.1.X.6.2.5-1: Definition of type DiscFilters

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| stageInfo | array(StageInfo) | M | N | Contains information about split operation stages. |  |
| usageInfo | UsageInfo | O | 0..1 | Contains information about planned usage of the split operation. |  |
| minNodes | string | O | 0..1 | Contains information about minimum number of nodes required to support AIMl operation splitting. |  |

###### 6.1.X.6.2.6 Type: SplitOpPipelineInfo

Table 6.1.X.6.2.6-1: Definition of type SplitOpPipelineInfo

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| splitOpProfile | SplitOpProfile | O | 0..1 | Contains the split operation profile that service consumer participates to. |  |
| subEventId | SubEventId | O | 0..1 | Indicates the sub event. |  |

###### 6.1.X.6.2.7 Type: AssistanceInfo

Table 6.1.X.6.2.7-1: Definition of type AssistanceInfo

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| deliveryTime | TimeWindow | O | 0..1 | Contains the time to deliver the task or data for the split operation. |  |
| achievableQoS | string | O | 0..1 | Contains the achievable QoS for the current configuration for the task or data delivery. |  |
| qosSuggestion | string | O | 0..1 | Contains the suggestion of QoS for the task or data delivery. |  |

###### 6.1.X.6.2.8 Type: AvailabilityInfo

Table 6.1.X.6.2.8-1: Definition of type AvailabilityInfo

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| splitOpProfile | array(SplitOpProfile) | O | 0..N | The list of newly available split operation profiles. |  |
| availableNodes | string | O | 0..1 | The list of newly available nodes. |  |

###### 6.1.X.6.2.9 Type: SplitOpProfile

Table 6.1.X.6.2.9-1: Definition of type SplitOpProfile

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| splitOpPipelineId | string | M | 1 | Contains the identifier for split operation pipeline. |  |
| headEp | Endpoint | M | 1 | Contains the endpoint information of the head node. |  |
| tailEp | Endpoint | M | 1 | Contains the endpoint information of the tail node. |  |
| usageInfo | UsageInfo | O | 0..1 | Contains the usage information of the AIML split operation. |  |
| stageInfo | array(StageInfo) | M | 1 | Contains the stage information for each stage in the split operation pipeline. |  |

###### 6.1.X.6.2.10 Type: StageInfo

Table 6.1.X.6.2.10-1: Definition of type StageInfo

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| stageId | string | M | 1 | Contains the identifier of the stage in split operation pipeline. |  |
| numNodes | string | O | 0..1 | Contains the number of nodes included in the stage. |  |
| headEp | Endpoint | M | 1 | Contains the endpoint of the head node for providing initial inference data. |  |
| tailEp | Endpoint | M | 1 | Contains the endpoint of the tail node for obtaining inference results. |  |
| nodeOrder | array(Endpoint) | M | N | Contains the order of nodes in the AI/ML split operation. |  |
| mlModelId | string | M | 1 | Contains ML model information used in the stage. |  |

###### 6.1.X.6.2.11 Type: UsageInfo

Table 6.1.X.6.2.11-1: Definition of type UsageInfo

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| inFreq | UInt32 | O | 0..1 | Contains the input frequency at which data is being fed to the ML model expressed in number of data samples per hour.  |  |
| outFreq | UInt32 | O | 0..1 | Contains the output frequency at which output is being generated by the ML model expressed in number of inferences per hour. |  |
| inSize | UInt32 | O | 0..1 | Contains the size of input data being fed to the ML model in bytes. |  |
| outSize | UInt32 | O | 0..1 | Contains the size of output data from the ML model in bytes. |  |

##### 6.1.X.6.3 Simple data types and enumerations

6.1.X.6.3.1 Introduction

This clause defines simple data types and enumerations that can be referenced from data structures defined in the previous clauses.

###### 6.1.X.6.3.2 Simple data types

The simple data types defined in table 6.1.X.6.3.2-1 shall be supported.

Table 6.1.2.6.3.2-1: Simple data types

|  |  |  |  |
| --- | --- | --- | --- |
| Type Name | Type Definition | Description | **Applicability** |
|  |  |  |  |

###### 6.1.X.6.3.3 Enumeration: SplitOpEventId

Table 6.1.X.6.3.3-1: Enumeration SplitOpEventId

|  |  |  |
| --- | --- | --- |
| Enumeration value | Description | Applicability |
| SPLIT\_OP\_AVAILABILITY | Indicates split operation availability event |  |
| SPLIT\_OP\_PIPELINE\_INFO | Indicates split operation pipeline information event. |  |
| SPLIT\_OP\_ASSISTANCE\_INFO | Indicates split operation assistance information event. |  |

###### 6.1.X.6.3.3 Enumeration: SubEventId

Table 6.1.X.6.3.3-1: Enumeration SubEventId

|  |  |  |
| --- | --- | --- |
| Enumeration value | Description | Applicability |
| CREATED | Indicates that a new split operation profile is created. |  |
| UPDATED | Indicates that an existing split operation profile is updated. |  |
| DELETED | Indicates that an existing split operation profile is deleted. |  |

##### 6.1.X.6.4 Data types describing alternative data types or combinations of data types

There are no data types describing alternative data types or combinations of data types defined for this API in this release of the specification.

##### 6.1.X.6.5 Binary data

6.1.X.6.5.1 Binary Data Types

Table 6.1.X.6.5.1-1: Binary Data Types

|  |  |  |
| --- | --- | --- |
| Name | Clause defined | Content type |
|  |  |  |

#### 6.1.X.7 Error Handling

##### 6.1.X.7.1 General

For the AIMLES\_SplitOpEvent API, HTTP error responses shall be supported as specified in clause 5.2.1.6 of 3GPP TS 29.122 [2]. Protocol errors and application errors specified in clause 5.2.1.6 of 3GPP TS 29.122 [2] shall be supported for the HTTP status codes specified in table 5.2.1.6-1 of 3GPP TS 29.122 [2].

In addition, the requirements in the following clauses are applicable for the AIMLES\_SplitOpEvent API.

##### 6.1.X.7.2 Protocol Errors

No specific protocol errors for the AIMLES\_SplitOpEvent API are specified.

##### 6.1.X.7.3 Application Errors

The application errors defined for AIMLES\_SplitOpEvent API are listed in table 6.1.X.7.3-1.

Table 6.1.X.7.3-1: Application errors

|  |  |  |  |
| --- | --- | --- | --- |
| Application Error | HTTP status code | Description | Applicability |
|  |  |  |  |

#### 6.1.X.8 Feature negotiation

The optional features in table 6.1.X.8-1 are defined for the AIMLES\_SplitOpEvent API. They shall be negotiated using the extensibility mechanism defined clause 5.2.1.7 of 3GPP TS 29.122 [2].

Table 6.1.X.8-1: Supported Features

|  |  |  |
| --- | --- | --- |
| Feature number | Feature Name | **Description** |
|  |  |  |

#### 6.1.X.9 Security

The provisions of clause 6 of 3GPP TS 29.122 [2] shall apply for the AIMLES\_SplitOpEvent API.

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