**TSG-CT WG3 Meeting #115-e *C3-212xyz***

**E-Meeting, 14th – 23rd April 2021 (Revision of C3-212328)**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.520** | **CR** | **0293** | **rev** | **1** | **Current version:** | **17.2.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Nnwdaf\_MLModelProvision Service API | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, China Mobile | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNA\_Ph2 | | | | |  | ***Date:*** | | | 2021-03-30 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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 can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The Nnwdaf\_MLModelProvision service is defined in TS 23.288 clause 7.5. It’s proposed to define the Nnwdaf\_MLModelProvision service API, including the Resource URI, Usage of HTTP, Resource, etc. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Define the Nnwdaf\_MLModelProvision service API, including the Resource URI, Usage of HTTP, Resource, etc. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Stage 2 requirement will not be specified in stage 3. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.b (new); A.b (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 does not impact the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

## 5.b Nnwdaf\_MLModelProvision Service API

### 5.b.1 Introduction

The Nnwdaf\_MLModelProvision Service shall use the Nnwdaf\_MLModelProvision API.

The request URIs used in each HTTP requests from the NF service consumer towards the NWDAF shall have the Resource URI structure defined in subclause 4.4.1 of 3GPP TS 29.501 [7], i.e.:

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

with the following components:

- The {apiRoot} shall be set as described in 3GPP TS 29.501 [7].

- The<apiName>shall be "nnwdaf-mlmodelprovision".

- The <apiVersion> shall be "v1".

- The <apiSpecificResourceUriPart> shall be set as described in subclause 5.2.3.

### 5.b.2 Usage of HTTP

#### 5.b.2.1 General

HTTP/2, IETF RFC 7540 [9], shall be used as specified in clause 5 of 3GPP TS 29.500 [6].

HTTP/2 shall be transported as specified in subclause 5.3 of 3GPP TS 29.500 [6].

The OpenAPI [11] specification of HTTP messages and content bodies for the Nnwdaf\_MLModelProvision is contained in Annex A.

#### 5.b.2.2 HTTP standard headers

##### 5.b.2.2.1 General

See subclause 5.2.2 of 3GPP TS 29.500 [6] for the usage of HTTP standard headers.

##### 5.b.2.2.2 Content type

JSON, IETF RFC 8259 [10], shall be used as content type of the HTTP bodies specified in the present specification as specified in subclause 5.4 of 3GPP TS 29.500 [6]. The use of the JSON format shall be signalled by the content type "application/json".

"Problem Details" JSON object shall be used to indicate additional details of the error in a HTTP response body and shall be signalled by the content type "application/problem+json", as defined in IETF RFC 7807 [15].

#### 5.b.2.3 HTTP custom headers

The Nnwdaf\_MLModelProvision Service API shall support mandatory HTTP custom header fields specified in subclause 5.2.3.2 of 3GPP TS 29.500 [6] and may support HTTP custom header fields specified in subclause 5.2.3.3 of 3GPP TS 29.500 [6].

In this release of the specification, no specific custom headers are defined for the Nnwdaf\_MLModelProvision Service API.

### 5.b.3 Resources

#### 5.b.3.1 Resource Structure



Figure 5.b.3.1-1: Resource URI structure of the Nnwdaf\_MLModelProvision API

Table 5.b.3.1-1 provides an overview of the resources and applicable HTTP methods.

Table 5.b.3.1-1: Resources and methods overview

|  |  |  |  |
| --- | --- | --- | --- |
| Resource name | Resource URI | HTTP method or custom operation | Description |
| NWDAF ML Model Provision Subscriptions | /subscriptions | POST | Creates a new Individual NWDAF ML Model Provision Subscription resource. |
| Individual NWDAF ML Model Provision Subscription | /subscriptions/{subscriptionId} | DELETE | Deletes an Individual NWDAF ML Model Provision Subscription identified by subresource {subscriptionId}. |
| PUT | Modifies an existing Individual NWDAF ML Model Provision Subscription identified by subresource {subscriptionId}. |

#### 5.b.3.2 Resource: NWDAF ML Model Provision Subscriptions

#### 5.b.3.3 Resource: Individual NWDAF ML Model Provision Subscription

### 5.b.4 Custom Operations without associated resources

None in this release of the specification.

### 5.b.5 Notifications

### 5.b.6 Data Model

### 5.b.7 Error handling

### 5.b.8 Feature negotiation

The optional features in table 5.b.8-1 are defined for the Nnwdaf\_MLModelProvision API. They shall be negotiated using the extensibility mechanism defined in subclause 6.6 of 3GPP TS 29.500 [6].

Table 5.b.8-1: Supported Features

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

### 5.b.9 Security

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

# A.b Nnwdaf\_MLModelProvision API

Editor’s Note: The OpenAPI file for the Nnwdaf\_MLModelProvision API needs to be updated later.

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