**3GPP TSG- Meeting #C3-242xxx**

**Changsha, China, – was C3-242362**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** | **0023** | **rev** | **1** | **Current version:** |  |  |
|  |
| *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:***  | Updates to the definition of the NSCE\_NetSliceLifeCycleMngt API |
|  |  |
| ***Source to WG:*** | Huawei |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | NSCALE |  | ***Date:*** | 2024-04-25 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** |  |
|  | *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:*** | There are a few necessary updates that need to be applied to the definition of the NSCE\_NetSliceLifeCycleMngt API:* The QoE Metrics Subscription Notification and Network Slice LCM Recommendation Notification need to be defined as custom notifications as they correspond to implicit subscriptions and in order to differentiate them from the Network Slice Lifecycle Management Notification that is the main notification defined to fulfil the explicit Network Slice Lifecycle Management Subscription.
* Terminology alignments are needed in several places.
* The description fields of the 307/308 status codes for the QoE Metrics Notification custom operation need to be corrected to refer to the correct entity (NSCE Server instead of service consumer).
* Missing clauses need to be added.
 |
|  |  |
| ***Summary of change:*** | This CR proposes to:* Apply necessary updates to the definition of the NSCE\_NetSliceLifeCycleMngt API as detailed above.
 |
|  |  |
| ***Consequences if not approved:*** | * The definition of the NSCE\_NetSliceLifeCycleMngt API remains incorrect/incomplete.
 |
|  |  |
| ***Clauses affected:*** | 5.3.2.1, 5.3.2.2.1, 5.3.2.2.2, 5.3.2.2.3, 5.3.2.2.4, 5.3.2.3.1, 5.3.2.3.2, 5.3.2.4, 5.3.2.4.1, 5.3.2.4.2, 5.3.2.5.1, 5.3.2.5.2, 5.3.2.6, 5.3.2.6.1, 5.3.2.6.2, 6.2.3.1, 6.2.3.2.3.2, 6.2.3.3.4.1, 6.2.3.3.4.2, 6.2.3.3.4.2.1, 6.2.3.3.4.2.2, 6.2.5.1, 6.2.5.3, 6.2.5.3.1, 6.2.5.4.1, 6.2.5.4.2, 6.2.5.4.3, 6.2.6.4 (new clause), 6.2.6.5 (new clause) |
|  |  |
|  | **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 descriptions of the APIs defined in this specification. |
|  |  |
| ***This CR's revision history:*** |  |

\* \* \* \* Start of changes \* \* \* \*

#### 5.3.2.1 Introduction

The service operations defined for the NSCE\_PolicyManagement service are shown in table 5.3.2.1-1.

Table 5.3.2.1-1: NSCE\_NetSliceLifeCycleMngt Service Operations

|  |  |  |
| --- | --- | --- |
| Service Operation Name | Description | Initiated by |
| NSCE\_NetSliceLifeCycleMngt\_Subscribe | This service operation enables a service consumer to request the creation/update/deletion of an Application layer Network Slice Lifecycle Management Subscription at the NSCE Server. | e.g., VAL Server |
| NSCE\_NetSliceLifeCycleMngt\_Notify | This service operation enables a service consumer to receive application layer network slice lifecycle management related notifications. | NSCE Server |
| NSCE\_NetSliceLifeCycleMngt\_QoEMetricsSubscribe | This service operation enables the NSCE Server to subscribe to QoE metrics reporting at the service consumer. | NSCE Server |
| NSCE\_NetSliceLifeCycleMngt\_QoEMetricsNotify | This service operation enables a service consumer to send QoE metrics report(s) to the NSCE Server. | e.g., VAL Server |
| NSCE\_NetSliceLifeCycleMngt\_Recommend | This service operation enables a service consumer to receive network slice LCM recommendation notifications. | NSCE Server |

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.2.1 General

This service operation is used by a service consumer to request the creation/update/deletion of an Application layer Network Slice Lifecycle Management Subscription at the NSCE Server.

The following procedures are supported by the "NSCE\_NetSliceLifeCycleMngt\_Subscribe" service operation:

- Network Slice Lifecycle Management Subscription Creation.

- Network Slice Lifecycle Management Subscription Update.

- Network Slice Lifecycle Management Subscription Deletion.

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.2.2 Network Slice Lifecycle Management Subscription Creation

Figure 5.3.2.2.2-1 depicts a scenario where a a service consumer sends a request to the NSCE Server to request the creation of a Network Slice Lifecycle Management Subscription (see also clause 9.4 of 3GPP°TS°23.435°[14]).



Figure 5.3.2.2.2-1: Procedure for Network Slice Lifecycle Management Subscription Creation

1. In order to request the creation of a new Network Slice Lifecycle Management Subscription, the service consumer shall send an HTTP POST request to the NSCE Server targeting the URI of the "Network Slice Lifecycle Management Subscriptions" collection resource, with the request body including the NSLCMSubsc data structure.

2a. Upon success, the NSCE Server shall respond with an HTTP "201 Created" status code, with the response body containing a representation of the created "Individual Network Slice Lifecycle Management Subscription" resource within the NSLCMSubsc data structure, and an HTTP "Location" header field containing the URI of the created resource.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP POST response body, as specified in clause 6.2.7.

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.2.4 Network Slice Lifecycle Management Subscription Deletion

Figure 5.3.2.2.4-1 depicts a scenario where a service consumer sends a request to the NSCE Server to request the deletion of an existing Network Slice Lifecycle Management Subscription (see also clause 9.4 of 3GPP°TS°23.435°[14]).



Figure 5.3.2.2.4-1: Procedure for Network Slice Lifecycle Management Subscription Deletion

1. In order to request the deletion of an existing Network Slice Lifecycle Management Subscription, the service consumer shall send an HTTP DELETE request to the NSCE Server targeting the corresponding "Individual Network Slice Lifecycle Management Subscription" resource.

2a. Upon success, the NSCE Server shall respond with an HTTP "204 No Content" status code.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP DELETE response body, as specified in clause 6.2.7.

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.3.1 General

This service operation is used by the NSCE Server to notify a previously subscribed service consumer on:

- Network Slice Lifecycle Management event(s).

The following procedures are supported by the "NSCE\_NetSliceLifeCycleMngt\_Notify" service operation:

- Network Slice Lifecycle Management Notification.

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.3.2 Network Slice Lifecycle Management Notification

Figure 5.3.2.3.2-1 depicts a scenario where the NSCE Server sends a request to notify a previously subscribed service consumer on Network Slice Lifecycle Management event(s) (see also clause 9.4 of 3GPP°TS°23.435°[14]).



Figure 5.3.2.3.2-1: Network Slice Lifecycle Management Notification

1. In order to notify a previously subscribed service consumer on Network Slice Lifecycle Management event(s), the NSCE Server shall send an HTTP POST request to the service consumer with the request URI set to "{notifUri}", where the "notifUri" is set to the value received from the service consumer during the creation/update of the corresponding Network Slice Lifecycle Management Subscription using the procedures defined in clause 5.3.2.2, and the request body including the NSLCMNotif data structure.

2a. Upon success, the service consumer shall respond to the NSCE Server with an HTTP "204 No Content" status code to acknowledge the reception of the notification.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP POST response body, as specified in clause 6.2.7.

\* \* \* \* Next changes \* \* \* \*

#### 5.3.2.4 NSCE\_NetSliceLifeCycleMngt\_QoEMetricsSubscribe

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.4.1 General

This service operation is used by a NSCE Server to subscribe a previously subscribed service consumer on:

- QoE metrics.

The following procedures are supported by the "NSCE\_NetSliceLifeCycleMngt\_QoEMetricsSubscribe" service operation:

- QoE Metrics Subscription Notification.

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.4.2 QoE Metrics Subscription Notification

Figure 5.3.2.4.2-1 depicts a scenario where the NSCE Server sends a request to subscribe to QoE metrics reporting at the service consumer (see also clause 9.4 of 3GPP°TS°23.435°[14]).



Figure 5.3.2.4.2-1: QoE Metrics Subscribe Notification

1. In order to subscribe at the service consumer on QoE metrics reporting, the NSCE Server shall send an HTTP POST request to the service consumer with the request URI set to "{notifUri}/subscribe-qoe", where the "notifUri" variable is set to the value received from the service consumer during the creation/update of the corresponding Network Slice Lifecycle Management Subscription using the procedures defined in clause 5.3.2.2, and the request body including the QoEMetricsSubscNotif data structure.

2a. Upon success, the service consumer shall respond to the NSCE Server with either:

- an HTTP "200 OK" status code with the response body containing immediate QoE metrics reporting related information within the QoEMetricsNotifResp data structure, if immediate reporting was requested.

- an HTTP "204 No Content" status code to acknowledge the reception of the notification and the successful subscription to QoE metrics reporting.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP POST response body, as specified in clause 6.2.7.

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.5.1 General

This service operation is used by a service consumer to notify the NSCE Server on:

- QoE metrics report(s).

The following procedures are supported by the "NSCE\_NetSliceLifeCycleMngt\_QoEMetricsNotify" service operation:

- QoE Metrics Notification.

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.5.2 QoE Metrics Notification

Figure 5.3.2.5.2-1 depicts a scenario where the service consumer sends a request to notify the NSCE Server on QoE metrics report(s) (see also clause 9.4 of 3GPP°TS°23.435°[14]).



Figure 5.3.2.5.2-1: QoE Metrics Notification

1. In order to send a notification on QoE metrics report(s), the service consumer shall send an HTTP POST request targeting the corresponding resource custom operation (i.e., "QoE Metrics Notification") to the NSCE Server, with request body including the QoEMetricsReportNotif data structure.

2a. Upon success, the NSCE Server shall respond to the service consumer with an HTTP "204 No Content" status code to acknowledge the reception of the notification.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP POST response body, as specified in clause 6.2.7.

\* \* \* \* Next changes \* \* \* \*

#### 5.3.2.6 NSCE\_NetSliceLifeCycleMngt\_Recommend

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.6.1 General

This service operation is used by a NSCE Server to notify a previously subscribed service consumer on:

- network slice LCM recommendation Notification.

The following procedures are supported by the "NSCE\_NetSliceLifeCycleMngt\_Recommend" service operation:

- Network Slice LCM Recommendation Notification.

\* \* \* \* Next changes \* \* \* \*

##### 5.3.2.6.2 Network Slice LCM Recommendation Notification

Figure 5.3.2.6.2-1 depicts a scenario where the NSCE Server sends a request to notify a previously subscribed service consumer on network slice LCM recommendation (see also clause 9.4 of 3GPP°TS°23.435°[14]).



Figure 5.3.2.6.2-1: Network Slice LCM Recommendation Notification

1. In order to notify a previously subscribed service consumer on network Slice LCM Recommendation, the NSCE Server shall send an HTTP POST request to the service consumer with the request URI set to "{notifUri}/recommend", where the "notifUri" variable is set to the value received from the service consumer during the creation/update of the corresponding Network Slice Lifecycle Management Subscription using the procedures defined in clause 5.3.2.2, and the request body including the NSLCMRecom data structure.

2a. Upon success, the service consumer shall respond to the NSCE Server with an HTTP "204 No Content" status code to acknowledge the reception of the notification.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP POST response body, as specified in clause 6.2.7.

\* \* \* \* Next changes \* \* \* \*

#### 6.2.3.1 Overview

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

Figure 6.2.3.1-1 depicts the resource URIs structure for the NSCE\_NetSliceLifeCycleMngt API.



Figure 6.2.3.1-1: Resource URIs structure of the NSCE\_NetSliceLifeCycleMngt API

Table 6.2.3.1-1 provides an overview of the resources and applicable HTTP methods for the NSCE\_NetSliceLifeCycleMngt API.

Table 6.2.3.1-1: Resources and methods overview

|  |  |  |  |
| --- | --- | --- | --- |
| Resource name | Resource URI | HTTP method or custom operation | Description |
| Network Slice Lifecycle Management Subscriptions | /subscriptions | POST | Request the creation of a Network Slice Lifecycle Management Subscription. |
| Individual Network Slice Lifecycle Management Subscription | /sbscriptions/{subscriptionId} | GET | Retrieve an existing Network Slice Lifecycle Management Subscription. |
| PUT | Request the update of an existing Network Slice Lifecycle Management Subscription. |
| PATCH | Request the modification of an existing Network Slice Lifecycle Management Subscription. |
| DELETE | Request the deletion of an existing Network Slice Lifecycle Management Subscription. |
| /sbscriptions/{subscriptionId}/notify | POST | Enables to notify the NSCE Server on QoE metrics. |

\* \* \* \* Next changes \* \* \* \*

###### 6.2.3.2.3.2 POST

The HTTP POST method allows a service consumer to request the creation of a Network Slice Lifecycle Management Subscription at the NSCE Server.

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

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

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

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

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

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| NSLCMSubsc | M | 1 | Represents the parameters to request the creation of a Network Slice Lifecycle Management Subscription. |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Responsecodes | Description |
| NSLCMSubsc | M | 1 | 201 Created | Successful case. The Network Slice Lifecycle Management Subscription is successfully created and a representation of the created "Individual Network Slice Lifecycle Management Subscription" resource shall be 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 6.2.3.2.3.2-4: 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}/nsce-nslcm/<apiVersion>/subscriptions/{subscriptionId} |

\* \* \* \* Next changes \* \* \* \*

###### 6.2.3.3.4.1 Overview

Table 6.2.3.3.4.1-1 specifies the custom operations defined on this resource.

Table 6.2.3.3.4.1-1: Resource Custom Operations

|  |  |  |  |
| --- | --- | --- | --- |
| Operation name | Custom operaration URI | Mapped HTTP method | Description |
| QoE Metrics Notification | /notify | POST | Enables a service consumer to notify the NSCE Server on QoE metrics. |

\* \* \* \* Next changes \* \* \* \*

###### 6.2.3.3.4.2 Operation: QoE Metrics Notification

\* \* \* \* Next changes \* \* \* \*

6.2.3.3.4.2.1 Description

This resource custom operation is used by a service consumer to notify the NSCE Server on QoE metrics.

\* \* \* \* Next changes \* \* \* \*

6.2.3.3.4.2.2 Operation Definition

This method shall support the request data structures specified in table 6.2.3.3.4.2.2-1 and the response data structures and response codes specified in table 6.2.3.3.4.2.2-2.

Table 6.2.3.3.4.2.2-1: Data structures supported by the POST Request Body

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| QoEMetricsReportNotif | M | 1 | Represents the QoE Metrics Notification related information. |

Table 6.2.3.3.4.2.2-2: Data structures supported by the POST Response Body

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| n/a |  |  | 204 No Content | Successful case. The QoE Metrics Notification is successfully received and processed, 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 NSCE Server.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [3]. |
| 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 NSCE 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 HTTP POST method listed in table 5.2.6-1 of 3GPP TS 29.122 [2] shall also apply. |

Table 6.2.3.3.4.2.2-3: Headers supported by the 307 Response Code on this resource

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

Table 6.2.3.3.4.2.2-4: Headers supported by the 308 Response Code on this resource

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

\* \* \* \* Next changes \* \* \* \*

#### 6.2.5.1 General

Notifications shall comply to clause 6.6 of 3GPP TS 29.549 [15].

Table 6.2.5.1-1: Notifications overview

|  |  |  |  |
| --- | --- | --- | --- |
| Notification | Callback URI | HTTP method or custom operation | Description(service operation) |
| Network Slice Lifecycle Management Notification | {notifUri} | POST | Enables the NSCE Server to notify a previously subscribed service consumer on Network Slice Lifecycle Management event(s). |
| QoE Metrics Subscription Notification | {notifUri}/subscribe-qoe | POST | Enables the NSCE Server to subscribe toQoE metrics reporting at the service consumer. |
| Network Slice LCM Recommendation Notification | {notifUri}/recommend | POST | Enables the NSCE Server to notify a previously subscribed service consumer on network slice LCM recommendation. |

\* \* \* \* Next changes \* \* \* \*

6.2.5.2.3.1 POST

This method shall support the request data structures specified in table 6.2.5.2.3.1-1 and the response data structures and response codes specified in table 6.2.5.2.3.1-2.

Table 6.2.5.2.3.1-1: Data structures supported by the POST Request Body

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| NSLCMNotif | M | 1 | Represents the Network Slice Lifecycle Management Notification. |

Table 6.2.5.2.3.1-2: Data structures supported by the POST Response Body

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| n/a |  |  | 204 No Content | Successful case. The Network Slice Lifecycle Management Notification is successfully received. |
| n/a |  |  | 307 Temporary Redirect | Temporary redirection.The response shall include a Location header field containing an alternative URI representing the end point of an alternative service consumer towards which the notification should be redirected.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 end point of an alternative service consumer towards which the notification should be redirected.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 6.2.5.2.3.1-3: 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 service consumer towards which the notification should be redirected. |

Table 6.2.5.2.3.1-4: 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 service consumer towards which the notification should be redirected. |

\* \* \* \* Next changes \* \* \* \*

#### 6.2.5.3 QoE Metrics Subscription Notification

\* \* \* \* Next changes \* \* \* \*

##### 6.2.5.3.1 Description

The QoE Metrics Subscription Notification is used by the NSCE Server to subscribe to QoE metrics reporting at the service consumer.

\* \* \* \* Next changes \* \* \* \*

6.2.5.3.3.1 POST

This method shall support the request data structures specified in table 6.2.5.3.3.1-1 and the response data structures and response codes specified in table 6.2.5.3.3.1-2.

Table 6.2.5.3.3.1-1: Data structures supported by the POST Request Body

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| QoEMetricsSubscNotif | M | 1 | Represents the QoE metrics Subscription. |

Table 6.2.5.3.3.1-2: Data structures supported by the POST Response Body

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| QoEMetricsNotifResp | M | 1 | 200 OK | Successful case. The QoE Metrics Subscription Notification is successfully received and processed, and immediate QoE metrics reporting related information shall be returned in the response body. |
| n/a |  |  | 204 No Content | Successful case. The QoE Metrics Subscription Notification is successfully received and processed, 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 representing the end point of an alternative service consumer towards which the notification should be redirected.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 end point of an alternative service consumer towards which the notification should be redirected.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 6.2.5.3.3.1-3: 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 service consumer towards which the notification should be redirected. |

Table 6.2.5.3.3.1-4: 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 service consumer towards which the notification should be redirected. |

\* \* \* \* Next changes \* \* \* \*

#### 6.2.5.4 Network Slice LCM Recommendation Notification

\* \* \* \* Next changes \* \* \* \*

##### 6.2.5.4.1 Description

The Network Slice LCM Recommendation is used by the NSCE Server to notify a previously subscribed service consumer on network slice LCM recommendation.

\* \* \* \* Next changes \* \* \* \*

##### 6.2.5.4.2 Target URI

The Callback URI **"{notifUri}"** shall be used with the callback URI variables defined in table 6.2.5.4.2-1.

Table 6.2.5.4.2-1: Callback URI variables

|  |  |
| --- | --- |
| Name | Definition |
| notifUri | Represents the callback URI encoded as a string formatted as a URI. |

\* \* \* \* Next changes \* \* \* \*

##### 6.2.5.4.3 Standard Methods

\* \* \* \* Next changes \* \* \* \*

6.2.5.4.3.1 POST

This method shall support the request data structures specified in table 6.2.5.4.3.1-1 and the response data structures and response codes specified in table 6.2.5.4.3.1-2.

Table 6.2.5.4.3.1-1: Data structures supported by the POST Request Body

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| NSLCMRecom | M | 1 | Represents the Network Slice LCM Recommendation Notification. |

Table 6.2.5.4.3.1-2: Data structures supported by the POST Response Body

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| NSLCMRecomResp | M | 1 | 200 OK | Successful case. The Network Slice LCM Recommendation Notification is successfully received and processed, and notification related information shall be returned in the response body. |
| n/a |  |  | 307 Temporary Redirect | Temporary redirection.The response shall include a Location header field containing an alternative URI representing the end point of an alternative service consumer towards which the notification should be redirected.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [3]. |
| n/a |  |  | 308 Permanent Redirect | Permanent redirection.The response shall include a Location header field containing an alternative URI representing the end point of an alternative service consumer towards which the notification should be redirected.Redirection handling is described in clause 5.2.10 of 3GPP TS 29.122 [3]. |
| 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] also apply. |

Table 6.2.5.4.3.1-3: 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 service consumer towards which the notification should be redirected. |

Table 6.2.5.4.3.1-4: 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 service consumer towards which the notification should be redirected. |

\* \* \* \* Next changes \* \* \* \*

#### 6.2.6.4 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.

\* \* \* \* Next changes \* \* \* \*

#### 6.2.6.5 Binary data

##### 6.2.6.5.1 Binary Data Types

Table 6.2.6.5.1-1: Binary Data Types

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

\* \* \* \* End of changes \* \* \* \*