**3GPP TSG-CT3 Meeting #132eC3-240047**

**e-meeting, 22nd** **– 24th November 2023**

**Source: Nokia, Nokia Shanghai Bell**

**Title: Pseudo-CR on defining the openAPI of the NSCE**\_**NSDiagnostics API**

**Spec: 3GPP TS 29.435 V 0.1.1**

**Agenda item: 18.49 (NSCALE)**

**Document for: Agreement**

**1. Introduction**

As specified in clause 9.14 of TS 23.435, the NSCE\_NSDiagnostics Service API was defined in order to support the functionality of receiving Network Slice Diagnostics for specified events by the VAL server.

The stage 3 definition of this API in this specification needs hence to be started.

**2. Reason for Change**

Update the definition of the open API clause of the new NSCE\_NSDiagnostics Service API in the new TS 29.435.

**3. Conclusions**

N/A

**4. Proposal**

It is proposed to agree the following changes to 3GPP TS 29.435 V 0.1.1.

# A.15 NSCE\_NSDiagnostics API

openapi: 3.0.0

info:

 title: NSCE Server Network Slice Diagnostics Service

 description: |

 API for NSCE Server Network Slice Diagnostics Service.

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 version: "1.1.0-alpha.1"

externalDocs:

 description: >

 3GPP TS 29.435 V0.1.1; Service Enabler Architecture Layer for Verticals (SEAL);

 Network Slice Capability Exposure (NSCE) Server Service(s); Stage 3.

 url: https://www.3gpp.org/ftp/Specs/archive/29\_series/29.435/

servers:

 - url: '{apiRoot}/nsce-nsd/v1'

 variables:

 apiRoot:

 default: https://example.com

 description: apiRoot as defined in clause 6.5 of 3GPP TS 29.549

security:

 - {}

 - oAuth2ClientCredentials: []

paths:

 /request:

 post:

 summary: request the network slice diagnostics.

 operationId: RequestNSDiagnostics

 tags:

 - Network Slice Diagnostics Request

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: The operation is successful.

 content:

 application/json:

 schema:

 type: array

 items:

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

 minItems: 1

 description: Network slice diagnostics reporting.

 '307':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29122\_CommonData.yaml#/components/responses/default'

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{tokenUrl}'

 scopes: {}

 schemas:

 NwSliceDiagReq:

 description: >

 Represents the information associated with requested network slice diagnostics.

 type: object

 properties:

 servDgradInfos:

 items:

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

 suppFeat:

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

 required:

 - servDgradInfos

 NwSliceDiagResp:

 description: >

 Represents the requested network slice diagnostics report.

 type: object

 properties:

 startTime:

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

 endTime:

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

 dataReport:

 type: array

 items:

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

 minItems: 1

 suppFeat:

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

 required:

 - startTime

 - stopTime

 - dataReport

 ServDgradInfo:

 description: >

 Represents the degraded service information.

 type: object

 properties:

 valServiceId:

 type: string

 reqErrors:

 type: array

 items:

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

 minItems: 1

 required:

 - valServiceId

 - reqErrors

 ErrorInfo:

 description: >

 Represents error related information.

 type: object

 properties:

 errorName:

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

 netSliceId:

 $ref: 'TS29435\_NSCE\_PolicyManagement.yaml#/components/schemas/NetSliceId'

 ueIds:

 type: array

 items:

 type: string

 minItems: 1

 areaOfInterest:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/LocationArea5G'

 startTime:

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

 endTime:

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

 required:

 - errorName

 - netSliceId

 - startTime

 - endTime

 DataReport:

 description: >

 Represents the reported data.

 type: object

 properties:

 errorName:

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

 dataType:

 type: string

 dataOutput:

 type: array

 items:

 type: string

 minItems: 1

 required:

 - errorName

 - dataType

 - dataOutput

#

# ENUMS

#

 Error:

 anyOf:

 - type: string

 enum:

 - COMMUNICATION\_ERROR

 - RTT\_ABOVE\_LIMIT

 - QOS\_DOWNGRADE

 - 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 errors causing service degradation.

 Possible values are:

 - COMMUNICATION\_ERROR: Indicates that the service degradation is due to a detected

 communication error.

 - RTT\_ABOVE\_LIMIT: Indicates that the service degradation is due to the packet round trip

 time exceeding an upper threshold limit.

 - QOS\_DOWNGRADE: Indicates that the service degradation is due to QoS being downgraded.

 DataType:

 anyOf:

 - type: string

 enum:

 - UE\_DATA

 - NETWORK\_DATA

 - APPLICATION\_DATA

 - 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 reported data type.

 Possible values are:

 - UE\_DATA: Indicates that the reported data type is UE data.

 - NETWORK\_DATA: Indicates that the reported data type is Network data.

 - APPLICATION\_DATA: Indicates that the reported data type is Application data.

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