**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

version: 1.1.0-alpha.1

description: |

NSCE Server Network Slice Diagnostics Service.

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externalDocs:

description: >

3GPP TS 29.435 V0.2.0; 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 network slice diagnostics information.

operationId: RequestNSDiagnostics

tags:

- Network Slice Diagnostics Request

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

The network slice diagnostics request is successful received and processed

and the requested network slice diagnostics information shall be returned in the

response body.

content:

application/json:

schema:

type: array

items:

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

minItems: 1

'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:

#

# STRUCTURED DATA TYPES

#

NwSliceDiagReq:

description: >

Represents the network slice diagnostics request.

type: object

properties:

servDgradInfos:

$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

- endTime

- 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:

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

dataOutput:

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

required:

- errorName

- dataType

- dataOutput

# SIMPLE DATA TYPES

#

#

# ENUMERATIONS

#

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 \* \* \* \*