**3GPP TSG-CT WG3 Meeting #109eC3-202341**

**E-Meeting, 16th – 24th April 2020**  (Revision of C3-202237)

**Source: Samsung**

**Title: Pseudo-CR on Generic group query**

**Spec: 3GPP TS 29.549 v1.1.0**

**Agenda item: 16.27**

**Document for: Decision**

**1. Introduction**

As per feedback from CT3#108e meeting, it was agreed to have a generic query feature on group document collection resource, to enable VAL server to fetch VAL group information when VAL server is not aware of the VAL group document resource representation.

**2. Reason for Change**

Extending Query\_Group\_Info service operation to fetch VAL group documents based on query parameters from VAL group document collection resource.

**3. Conclusions**

None.

**4. Proposal**

It is proposed to agree the following changes to 3GPP TS 29.549 v1.1.0.

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

##### 5.3.1.2.1 Introduction

The service operation defined for SS\_GroupManagement API is shown in the table 5.3.1.2.1-1.

Table 5.3.1.2.1-1: Operations of the SS\_GroupManagement API

|  |  |  |
| --- | --- | --- |
| Service operation name | Description | Initiated by |
| Query\_Group\_Info | This service operation is used by VAL server to query for VAL group documents, group membership list and configuration information. | VAL Server |
| Update\_Group\_Info | This service operation is used by VAL server to modify group membership and configuration information. | VAL server |
| Create\_Group | This service operation is used by VAL server to configure new VAL group. | VAL server |
| Delete\_Group | This service operation is used by the VAL server to delete the VAL group. | VAL server |

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

###### 5.3.1.2.2.1 General

This service operation is used by a VAL server to obtain VAL group documents, group membership and configuration information.

###### 5.3.1.2.2.2 VAL server fetching VAL group documents, group membership and configuration information using Query\_Group\_Info service operation

To obtain membership, configuration information of a VAL group, the VAL server shall send a HTTP GET message to the group management server, on VAL group document’s resource representation URI as specified in clause 7.2.1.2.3.3.1. The GET message may include the following query parameters: membership list, group configuration. To obtain VAL groups information, the VAL server shall send a HTTP GET message to the group management server, on VAL group documents collection resource representation URI as specified in clause 7.2.1.2.2.3.X. The GET message may include the following query parameters: VAL Group ID, VAL Service ID.

Upon receiving the HTTP GET message as described above, the group management server shall:

1. verify the identity of the VAL server and check if the VAL server is authorized to fetch the VAL group information;

2. if the VAL server is authorized to obtain the group information, the group management server shall;

a. if the request to VAL group document’s resource representation URI includes query parameters, then, return in the response message with VAL group information which includes, group membership list information if the request includes membership list query, group configuration information if the request includes group configuration query and VAL group identifier;

b. if the request to VAL group document’s resource representation URI does not include query parameter, then, return the VAL group document resource in the response message;

c. in the request to VAL group documents collection resource representation URI, return the VAL group documents matching the query parameters in the response message

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

##### 7.2.1.2.1 Overview



Figure 7.2.1.2.1-1: Resource URI structure of the SS\_GroupManagement API

Table 7.2.1.2.1-1 provides an overview of the resources and applicable HTTP methods.

Table 7.2.1.2.1-1: Resources and methods overview

|  |  |  |  |
| --- | --- | --- | --- |
| Resource name | Resource URI | HTTP method or custom operation | Description |
| All VAL Group Documents | {apiRoot}  /group-management/{apiVersion} /group-documents | POST | Creates a new VAL group document. |
| GET | Retrieve VAL group documents according to the query parameters. If there are no query parameters, does not fetch any VAL group document. |
| Individual VAL Group Document | {apiRoot}  /group-management/{apiVersion}/group-documents/ /{groupDocId} | GET | Retrieve an individual VAL group’s membership and configuration information according to query parameter on the resource identified by {groupDocId}. If there are no query parameters, fetch the whole VAL group document resource identified by {groupDocId}. |
| PUT | Updates an individual VAL group’s membership and configuration information identified by {groupDocId}. |

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

7.2.1.2.2.3.X GET

This operation retrieves VAL group documents satisfying filter criteria. This method shall support the URI query parameters specified in table 7.2.1.2.2.3.X-1.

Table 7.2.1.2.2.3.X-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| val-group-id | string | O | 0..1 | String identifying the VAL group. |
| val-service-id | string | O | 0..1 | String identifying the VAL service. |

This method shall support the request data structures specified in table 7.2.1.2.2.3.X-2 and the response data structures and response codes specified in table 7.2.1.2.2.3.X -3.

Table 7.2.1.2.2.3.X-2: Data structures supported by the GET Request Body on this resource

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

Table 7.2.1.2.2.3.X-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| array(VALGroupDocument) | M | 1..N | 200 OK | List of VAL group documents. This response shall include VAL group documents matching the query parameters provided in the request. |
| n/a |  |  | 204 No Content | No VAL group document found matching the query parameters in the request. |
| NOTE: The mandatory HTTP error status codes for the GET method listed in table 5.2.6-1 of 3GPP TS 29.122 [3] also apply. | | | | |

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

## A.2 SS\_GroupManagement API

openapi: 3.0.0

info:

title: SS\_GroupManagement

description: |

API for SEAL Group management.

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version: "1.0.0.alpha-1"

externalDocs:

description: 3GPP TS 29.549 V1.2.0 Service Enabler Architecture Layer for Verticals (SEAL); Application Programming Interface (API) specification; Stage 3.

url: http://www.3gpp.org/ftp/Specs/archive/29\_series/29.549/

servers:

- url: '{apiRoot}/group-management/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/group-documents:

post:

description: Creates a new VAL group document.

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: VAL group created sucessfully.

content:

application/json:

schema:

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

headers:

Location:

description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/group-management/v1/group-documents/{groupDocId}'

required: true

schema:

type: string

'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'

get:

description: Retrieves VAL group documents satisfying filter criteria

parameters:

- name: val-group-id

in: query

description: String identifying the VAL group.

schema:

type: string

- name: val-service-id

in: query

description: String identifying the Val service.

schema:

type: string

responses:

'200':

description: List of VAL group documents matching the query parameters in the request.

content:

application/json:

schema:

type: array

items:

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

minItems: 1

'204':

description: No matching VAL group document found.

'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'

'406':

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

'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'

/group-documents/{groupDocId}:

get:

description: Retrieves VAL group information satisfying filter criteria

parameters:

- name: groupDocId

in: path

description: String identifying an individual VAL group document resource

required: true

schema:

type: string

- name: group-members

in: query

description: When set to true indicates the group management server to send the members list information of the VAL group.

schema:

type: boolean

- name: group-configuration

in: query

description: When set to true indicates the group management server to send the group configuration information of the VAL group.

schema:

type: boolean

responses:

'200':

description: The VAL group information based on the request from the VAL server. Includes VAL group members list if group-members flag is set to true in the request, VAL group configuration information if the group-configuration flag is set to true in the request, VAL group identifier, whole VAL group document resource if both group-members and group-configuration flags are omitted/set to false in the request.

content:

application/json:

schema:

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

'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'

'406':

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

'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'

put:

description: Updates an individual VAL group document.

parameters:

- name: groupDocId

in: path

description: String identifying an individual VAL group document resource

required: true

schema:

type: string

requestBody:

description: VAL group document to be updated in Group management server.

required: true

content:

application/json:

schema:

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

responses:

'200':

description: VAL group document updated successfully

content:

application/json:

schema:

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

'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'

delete:

description: Deletes a VAL Group.

parameters:

- name: groupDocId

in: path

description: String identifying an individual VAL group document resource

required: true

schema:

type: string

responses:

'204':

description: The individual VAL group matching groupDocId was deleted.

'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'

'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:

schemas:

VALGroupDocument:

type: object

properties:

valGroupId:

type: string

description: The VAL group idenitity.

grpDesc:

type: string

description: The text description of the VAL group.

membersList:

type: array

description: The list of VAL User IDs and VAL UE IDs, which are members of the VAL group.

items:

type: string

minItems: 1

valGrpConf:

type: string

description: Configuration data for the VAL group.

valServiceIds:

type: array

description: The list of VAL services enabled on the group.

items:

type: string

minItems: 1

suppFeat:

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

required:

- valGroupId

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