**3GPP TSG-SA5 Meeting #141-e *S5-221240rev3***

**Online, , 17th Jan 2022 - 26th Jan 2022**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **28.532** | **CR** | **0196** | **rev** | **-** | **Current version:** | **16.10.0** |  |
|  | | | | | | | | |
| *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 | **X** | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Rel-17 CR 28.532 Add jobId to FileInfo | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | FIMA | | | | |  | ***Date:*** | | | 2022-01-07 |
|  |  | | | |  | |  | | |  |
| ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The notifications "notifyFileReady" and "notifyFilePreparationError" do not include an identification of the related job, that produced the file. It is hence not possible to provide subscriptions for notifications that are related to jobs a MnS consumer created or is interested in. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The attributes "jobId" and "jobRef" are added to "FileInfo".  In addition, the order of some parameters is modified to align with TS 28.622 (editorial modification). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | It is not possible to create subscriptions for specific jobs only. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 11.6.1.1.2, 12.6.1.4.2.1, A.7.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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's revision history:*** | |  | | | | | | | | |

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| **First modification** |

## 11.6 File data reporting service

### 11.6.1 Operations and notifications

#### 11.6.1.1 Notification notifyFileReady

##### 11.6.1.1.1 Definition

A MnS producer sends this notification to subscribed MnS consumers when a new file becomes ready (available) on the MnS producer for upload by MnS consumers. The "fileInfoList" parameter provides information (meta data) about the new file and optionally, in addition to that, information about all other files, which became ready for upload earlier and are still available for upload when the notification is sent.

The "objectClass" and "objectInstance" parameters of the notification header identify the object representing the function (process) making the file available for retrieval, such as the "PerfMetricJob" or the "TraceJob" defined in TS 28.622 [11]. When no dedicated object is standardized or instantiated, the "ManagedElement", where the file is processed, shall be used. For the case that the file is processed on a mangement node, the "ManagementNode", where the file is processed, shall be used instead.

##### 11.6.1.1.2 Input parameters

| Parameter Name | S | Information Type | Comment |
| --- | --- | --- | --- |
| objectClass | M | Entity.objectClass | See clause 11.6.1.1.1 for the definition of Entity |
| objectInstance | M | Entity.objectInstance | See clause 11.6.1.1.1 for the definition of Entity |
| notificationId | M | -- |  |
| notificationType | M | "notifyFileReady" |  |
| eventTime | M | -- | Time when the file, that triggered this notification, was ready for upload. |
| systemDN | M |  |  |
| fileInfoList | M | List of struct  <  fileLocation (M),  fileCompression (M),  fileSize (O),  fileDataType (M),  fileFormat (M),  fileReadyTime (O),  fileExpirationTime (O),  …jobId (CO)  >  Each element is defined as following:  - "fileLocation": Location of the file. The location may be a directory path or a URL, for example  "\\202.112.101.1\D:\user\Files\<xxx>", or  "ftp://nms.telecom\_org.com/datastore/<xxx>,  where <xxx> is the filename.  - "fileCompression": Name of the algorithm used for compressing the file. An empty or absent "fileCompression" parameter indicates the file is not compressed. The MnS producer selects the compression algorithm. It is encouraged to use popular algorithms such as GZIP.  - "fileSize": Size of the file. Its value is a non negative integer. The unit is byte.  - "fileDataType": Type of the management data stored in the file. Allowed values are:  - "PERFORMANCE"  - "TRACE"  - "ANALYTICS"  - "PROPRIETARY"  The value "PERFORMANCE" refers to measurements and KPIs.  - "fileFormat": Identifier of the XML or ASN.1 schema (incl. its version) used to produce the file content.  - "fileReadyTime": Date and time when the file was closed (the last time) and made available on the MnS producer. The file content will not be changed anymore.  - "fileExpirationTime": Date and time after which the file may be deleted. It shall not be empty and shall be later than "fileReadyTime".  - "jobId": Job identifier of the "PerfMetricJob" (3GPP TS 28.622 [11]) or "TraceJob" (3GPP TS 28.622 [11]) that produced the file. This parameter should be present, when the file is related to a job and that job is represented by a "PerfMetricJob" or "TraceJob". Multiple jobs may share the same job identifier. This may for example be the case for jobs collecting measurements to compuate a KPI or for jobs related to a specific task in some analytics application. Note a specific job is identified by the objectClass/objectInstance parameters of the notification header. | Information (meta data) about the new file, that became ready for upload and triggered this notification, and information about files, which became ready for upload earlier and are still available for upload when the notification is sent. |
| additionalText | O | -- | Allows a free form text description to be reported as defined in ITU-T Rec. X. 733 [4] |

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| **Next modification** |

12.6.1.4.2.1 Type FileInfo

Table 12.6.1.4.2.1-1: Definition of FileInfo

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute name** | **Data type** | **Description** | **S** |
| fileLocation | Uri | Location of the file | M |
|  |  |  |  |
| fileSize | integer | Size of the file, unit is byte | M |
|  |  |  |  |
|  |  |  |  |
| fileReadyTime | DateTime | Date and time when the file was last closed and made available in the MnS producer. The file content will not be changed any more. | M |
| fileExpirationTime | DateTime | Date and time after which the file may be deleted | M |
| jobId | string | Job identifier of the "PerfMetricJob" or "TraceJob" that produced the file | CM |
|  |  |  |  |
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| **Next modification** |

## A.7.2 OpenAPI document "fileDataReportingMnS.yaml"

openapi: 3.0.1

info:

title: File Data Reporting MnS

version: 17.1.0

description: >-

OAS 3.0.1 definition of the File Data Reporting MnS

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externalDocs:

description: 3GPP TS 28.532; Generic management services

url: http://www.3gpp.org/ftp/Specs/archive/28\_series/28.532/

servers:

- url: '{MnSRoot}/fileDataReportingMnS/{MnSVersion}'

variables:

MnSRoot:

description: See clause 4.4.3 of TS 32.158

default: http://example.com/3GPPManagement

MnSVersion:

description: Version number of the OpenAPI definition

default: XXX

paths:

/files:

get:

summary: Read information about available files

description: >-

Information about available files is read with HTTP GET. The files for

which information shall be returned are identified with the path

component (base resource) and the query component (fileDataType, beginTime,

endTime) of the URI.

parameters:

- name: fileDataType

in: query

description: >-

This parameter selects files based on the file data type.

required: true

schema:

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

- name: beginTime

in: query

description: >-

This parameter selects files based on the earliest time they

became available

required: false

schema:

$ref: 'comDefs.yaml#/components/schemas/DateTime'

- name: endTime

in: query

description: >-

This parameter selects files based on the latest time they

became available

required: false

schema:

$ref: 'comDefs.yaml#/components/schemas/DateTime'

responses:

'200':

description: >-

'Success case ("200 OK").

The resources identified in the request for retrieval are returned

in the response message body.'

content:

application/json:

schema:

type: array

items:

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

default:

description: Error case.

content:

application/json:

schema:

$ref: 'comDefs.yaml#/components/schemas/ErrorResponse'

/subscriptions:

post:

summary: Create a subscription

description: >-

To create a subscription the representation of the subscription is

POSTed on the /subscriptions collection resource.

requestBody:

required: true

content:

application/json:

schema:

$ref: 'faultMnS.yaml#/components/schemas/Subscription'

responses:

'201':

description: >-

Success case ("201 Created").

The representation of the newly created subscription resource shall

be returned.

content:

application/json:

schema:

$ref: 'faultMnS.yaml#/components/schemas/Subscription'

headers:

Location:

description: URI of the newly created subscription resource

required: true

schema:

type: string

default:

description: Error case.

content:

application/json:

schema:

$ref: 'comDefs.yaml#/components/schemas/ErrorResponse'

callbacks:

notifyFileReady:

'{request.body#/consumerReference}':

post:

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'204':

description: >-

Success case ("204 No Content").

The notification is successfully delivered. The response message

body is absent.

default:

description: Error case.

content:

application/json:

schema:

$ref: 'comDefs.yaml#/components/schemas/ErrorResponse'

notifyFilePreparationError:

'{request.body#/consumerReference}':

post:

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'204':

description: >-

Success case ("204 No Content").

The notification is successfully delivered. The response message

body is absent.

default:

description: Error case.

content:

application/json:

schema:

$ref: 'comDefs.yaml#/components/schemas/ErrorResponse'

/subscriptions/{subscriptionId}:

delete:

summary: Delete a subscription

description: >-

The subscription is deleted by deleting the corresponding subscription

resource. The resource to be deleted is identified with the path

component of the URI.

parameters:

- name: subscriptionId

in: path

description: Identifies the subscription to be deleted.

required: true

schema:

type: string

responses:

'204':

description: >-

Success case ("204 No Content").

The subscription resource has been deleted. The response message body

is absent.

default:

description: Error case.

content:

application/json:

schema:

$ref: 'comDefs.yaml#/components/schemas/ErrorResponse'

components:

schemas:

FileDataType:

type: string

enum:

- Performance

- Trace

- Anatytics

- Proprietary

FileNotificationTypes:

type: string

enum:

- notifyFileReady

- notifyFilePreparationError

FileInfo:

type: object

properties:

fileLocation:

$ref: 'comDefs.yaml#/components/schemas/Uri'

fileSize:

type: integer

fileReadyTime:

$ref: 'comDefs.yaml#/components/schemas/DateTime'

fileExpirationTime:

$ref: 'comDefs.yaml#/components/schemas/DateTime'

jobId:

type: string

NotifyFileReady:

allOf:

- $ref: 'comDefs.yaml#/components/schemas/NotificationHeader'

- type: object

properties:

fileInfoList:

type: array

items:

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

additionalText:

type: string

NotifyFilePreparationError:

allOf:

- $ref: 'comDefs.yaml#/components/schemas/NotificationHeader'

- type: object

properties:

fileInfoList:

type: array

items:

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

reason:

type: string

additionalText:

type: string

|  |
| --- |
| **End of modifications** |