**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 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:*** | 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

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| --- | --- | --- | --- |
| **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

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| **End of modifications** |