**3GPP TSG- Meeting # *rev1***

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
|  | | | | | | | | |
| *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:*** |  | | | | | | | | | |
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| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | |
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| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The “timeTick” parameter in the File MnS is defined with words without meaning. However, the definition of this parameter shall be aligned with the one in TS 32.302. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Define the “timeTick” parameter in the same fashion as TS 32.302. In addition, some more clarifications are provided. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Unclear definition of the “timeTick” parameter would result in interoperability issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 11.6.1.1.1, 11.6.1.1.2, 11.6.1.3.1, 11.6.1.3.2, 11.6.1.3.3, 11.6.1.4.1, 11.6.1.4.2, 11.6.1.5.1, | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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),  fileSize (O),  fileReadyTime (O),  fileExpirationTime (O),  fileCompression (M),  fileFormat (M),  fileDataType (M)  >  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.  - "fileSize": Size of the file. Its value is a non negative integer. The unit is byte.  - "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".  - "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.  - "fileFormat": Identifier of the XML or ASN.1 schema (incl. its version) used to produce the file content.  - "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. | 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] |

#### 11.6.1.2 Notification notifyFilePreparationError

##### 11.6.1.2.1 Definition

A MnS producer sends this notification to subscribed MnS consumers when an error occurs while preparing a file. For many error reasons, such as low memory or hard disk full, it is very likely that all ongoing file preparation processes fail at the same time. For that reason, it is possible to report with this notification that multiple file preparation processes failed.

In case the MnS producer keeps the file, where an error occurred during preparation, the "fileInfoList" parameter contains a list item with information about that file, otherwise, if the file is deleted or not created at all, the "fileInfoList" parameter has no list item related to that file.

##### 11.6.1.2.2 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 | -- | See Table 11.6.1.1.2-1. |
| notificationType | M | "notifyFilePreparationError" |  |
| eventTime | M | -- | Time when the file preparation error occured |
| systemDN | M |  |  |
| fileInfoList | M | See Table 11.6.1.1.2-1. | Each list item contains information about a file where a file preparation error occurred and that is kept on the MnS producer. Files, that are deleting or not created at all, have no list item. |
| reason | M | -- | Detailed error reason, including  - errorInPreparation  - hardDiskFull  - hardDiskFailure  - tooManyFiles  - collectionTimeOut  - incompleteTruncatedFile  - corruptedFile  - lowMemory  - dataNotAvailable |
| additionalText | O | -- | Allows a free form text description to be reported as defined in ITU-T Rec. X. 733 [4] |

#### 11.6.1.3 Operation subscribe

##### 11.6.1.3.1 Definition

This operation allows a MnS consumer to subscribe to the notifications of the file data reporting service producer.

##### 11.6.1.3.2 Input parameters

| Parameter Name | S | Information Type | Comment |
| --- | --- | --- | --- |
| consumerReference | M | Reference (address) of the MnS consumer to which the notifications shall be sent. |  |
| timeTick | O | Initial value of a timer held by the MnS producer. This value defines the time window within which the MnS consumer intends to invoke the "subscribe" operation again to confirm its subscription. The value "0" shall indicate infinity. In this case the subscription is not terminated by the MnS producer.  Unit is minutes. |  |
| filter | O | Filter constraint that the MnS producer shall use to filter notifications.The filter can be applied to all parameters of a notification.  The filter constraint grammar is solution set dependent. |  |

##### 11.6.1.3.3 Output parameters

| **Parameter Name** | **S** | **Matching Information** | **Comment** |
| --- | --- | --- | --- |
| subscriptionId | M | Unambiguous identity of this subscription. |  |
| status | M | ENUM (OperationSucceeded, OperationFailedExistingSubscription, OperationFailed) | If subscription is successfully created, status = OperationSuceeded.  If subscription is not created because it is duplicated or conflict with existing subscription(s), status = OperationFailedExistingSubscription  If the operation is failed for any other reason than being duplicated or conflict with existing subscription(s), status = OperationFailed. |

##### 11.6.1.3.4 Exceptions

|  |  |
| --- | --- |
| **Name** | **Definition** |
| operation\_failed\_existing\_subscription | **Condition:** The subscription is duplicated or conflict with existing subscription(s)  **Returned Information:** The output parameter status |
| operation\_failed | **Condition:** The operation failed for any other reason than being duplicated or conflict with subscription(s)  **Returned Information:** The output parameter status |

#### 11.6.1.4 Operation unsubscribe

##### 11.6.1.4.1 Definition

This operation allows a MnS consumer to cancel subscription(s) at a MnS producer.

A MnS consumer can cancel one subscription made with a "consumerReference" by providing the corresponding "subscriptionId" or all subscriptions made with the same "consumerReference" by leaving the "subscriptionId" parameter absent.

##### 11.6.1.4.2 Input parameters

| **Parameter Name** | **S** | **Information Type** | **Comment** |
| --- | --- | --- | --- |
| consumerReference | M | Reference of the MnS consumer whose subscriptions are to be cancelled. | The format of the reference may have dependency on the solution set. |
| subscriptionId | O | Subscription id returned in the subscribe operation response | If this parameter is absent, all subscriptions made with the same "consumerReference" shall be cancelled. |

##### 11.6.1.4.3 Output parameters

| **Parameter Name** | **S** | **Matching Information** | **Comment** |
| --- | --- | --- | --- |
| status | M | ENUM (OperationSucceeded, OperationFailed) | If subscription(s) as identified in the input parameter are cancelled, status = OperationSucceeded.  If the operation is failed, status = OperationFailed. |

##### 11.6.1.4.4 Exceptions

|  |  |
| --- | --- |
| **Name** | **Definition** |
| operation\_failed | **Condition:** the operation is failed  **Returned Information:** The output parameter status |

#### 11.6.1.5 Operation listAvailableFiles

##### 11.6.1.5.1 Definition

This operation allows a MnS consumer to retrieve a list of files available for upload on a MnS producer. The request message contains the file data type of the files, that shall be listed in the response. In addition to that it is possible to specify that only files shall be included in the response whosefile ready time falls intoa specific time window defined by the "beginTime" and "endTime" input parameters.

##### 11.6.1.5.2 Input parameters

| **Parameter Name** | **S** | **Information type** | **Comment** |
| --- | --- | --- | --- |
| fileDataType | M | It specifies the type of the management data stored in the file. | For performance data (including measurement data and KPI) files, the value is assigned to "PERFORMANCE".  For trace data files, the value is assigned to "TRACE".  For analytic data files, the value is assigned to "ANALYTICS".  For proprietary data files, the value is assigned to "PROPRIETARY". |
| beginTime | M | The consumer requests to list information about the available file(s) whose ready time(s) are later or equal to this time.  This parameter is expressed in UTC time. | This parameter indicates date and time.  If this parameter is empty or absent, no restriction on begin time is applied on the file ready time. |
| endTime | M | The consumer requests to list information about the available file(s) whose ready time(s) are earlier than this time.  This parameter is expressed in UTC time. | This parameter indicates date and time.  If this parameter is empty or absent, no restriction on end time is applied on the file ready time. |

##### 11.6.1.5.3 Output parameters

| **Parameter Name** | **S** | **Matching Information** | **Comment** |
| --- | --- | --- | --- |
| fileInfoList | M | See "fileInfoList" defined in notifyFileReady notification (clause 11.6.1.1.1) |  |
| status | M | ENUM (Success, Failure) |  |

##### 11.6.1.5.4 Exceptions

| **Exception Name** | **Definition** |
| --- | --- |
| invalidTimes | **Condition:** Either "beginTime" or "endTime" is invalid.  **Returned information:** output parameter status is set to Failure. |

### 11.6.2 File transfer protocols

The MnS producer shall support at least one of the following file transfer protocols:

- FTP;

- SFTP.

The MnS producer shall always act as the server while the MnS consumer shall always act as the initiator (client) of file transfer actions.

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| **End of modifications** |