**3GPP TSG-SA WG6 Meeting #38-e S6-201232**

**e-meeting, 20th – 31st July 2020 (revision of S6-201092)**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
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| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Enhancement of Group standalone FD using MBMS | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eMCData3 | | | | |  | ***Date:*** | | | 2020-07-15 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **C** |  | | | | | ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | The procedure in clause 7.5.2.10 for group standalone file distribution using the MBMS download delivery method indicates that during the MBMS session establishment the MCData server only can define the pull ingest mode by providing the file location in the MCData content server. However, as described in 3GPP TS 26.348 and in the companion CR S6-201089, when the MBMS user service architecture is used, two different ingest modes can be defined by the MCData server. Therefore, the procedure in clause 7.5.2.10 is enhanced to properly use the MBMS download delivery method to define how a stored file in the MCData content server is provided for distribution over MBMS. | | | | | | | | |
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| ***Summary of change:*** | | The procedure in clause 7.5.2.10 is enhanced to properly use the MBMS download delivery method by including the option of supporting any of the specified ingest modes in 3GPP TS 26.346 to provide a stored file for distribution over MBMS. The change includes a reference to the solution described in the companion CR S6-201230. | | | | | | | | |
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| ***Consequences if not approved:*** | | The procedure in clause 7.5.2.10 will remain defined as if only one option, pull ingest mode, is supported to provide a stored file for distribution over MBMS when the MBMS download delivery method is used. | | | | | | | | |
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| ***Clauses affected:*** | | 7.5.2.10.2 | | | | | | | | |
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|  | | **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:*** | |  | | | | | | | | |

\* \* \* First change \* \* \*

##### 7.5.2.10.2 Procedure

The procedure in figure 7.5.2.10.2-1 describes the case where a MCData user is initiating group standalone data communication for sending file to multiple MCData users, with or without download completed report request.

Pre-conditions:

1. The MCData users on the MCData client 1 to n belong to the same group and are already registered for receiving MCData service and affiliated.

2. The file to be distributed is uploaded to the media storage function on the MCData content server using the procedure defined in subclause 7.5.2.2.



Figure 7.5.2.10.2-1: Group standalone FD using the MBMS download delivery method

1-4. Steps 1-4 are the same as in the procedure for Group standalone FD using HTTP (7.5.2.6).

5. The MCData server executes the procedure described in subclause 7.3.5. The MCData server defines, in the MBMS session properties (subclause 5.4 of 3GPP TS 26.348 [19]), the ingest mode to provide the file into the BM‑SC via xMB‑U. As described in clause 7.3.5.3.x, the MCData server decides how the file stored in the MCData content server is provided for distribution over the MBMS session.

If the pull ingest mode is defined, the MCData server may provide in this step the file list. As described in 3GPP TS 26.348 [19], the file list includes, among other information, the file URL to be used by the BM‑SC to fetch the file and the earliest fetch time. The earliest fetch time may be configured with a long enough delay so that the MBMS session is established and steps 6 to 8 are executed before the delivery over MBMS. The MCData server can also update the MBMS session with the file list in a later step.

If the push ingest mode is defined, the MCData server obtains the URL from the BM‑SC to be used to push the file via xMB‑U. The MCData server ingests the content into the BM‑SC after the MBMS session is established and steps 6 to 8 are performed.

6. The MCData server initiates the MCData group standalone FD over MBMS request towards each MCData user determined in step 3. The request is sent over unicast or within an MBMS bearer for application level control signalling.

7. The receiving MCData clients 2 to n notify the users about the incoming MCData group standalone FD request (including file metadata, if present).

8. The MCData clients 2 to n automatically send accepted MCData group standalone FD response when the incoming request included mandatory download indication.

NOTE 1: When the UE is in idle mode, MCData clients may skip step 8.

NOTE 2: If the pull ingest mode was defined in step 5 and the file list has not been provided yet, the MCData server updates the MBMS session with the file list. If the push ingest mode was defined, the MCData server can start pushing the file for distribution over MBMS.

9. The MCData server forwards the MCData group standalone FD responses to the MCData client 1.

NOTE 3: Step 8 can occur at any time following step 6, and prior to step 10 depending on the conditions to proceed with the file transmission.

10. The MCData clients receive the file delivered over MBMS.

11. If losses occurred during the file delivery over MBMS, the MCData clients may download the missing parts using the procedures defined in subclause 7.5.2.3.

NOTE 4: If the file is not successfully received over MBMS, e.g. due to a poor MBMS reception quality, the media storage client of the MCData client(s) can download the file using the procedure defined in subclause 7.5.2.3.

12. The MCData clients, after a successful reception, initiate a MCData download completed report for reporting file download completed, if requested by the user at MCData client 1.

13. The MCData file download completed reports from the MCData clients may be stored by the MCData server for download history interrogation from authorized MCData users. The MCData file download completed report from each MCData user may be aggregated.

14. Aggregated or individual MCData download completed report is sent by the MCData server to the MCData user at MCData client 1.