**3GPP TSG- Meeting #-e *S4-240753***

**Online, – revision of S4-240636**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** | **0027** | **rev** | **1** | **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 | **x** | Radio Access Network |  | Core Network | **X** |

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|  |
| ***Title:***  | Alignment on support of MBS data reception for UEs using power saving functions |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | S4 |
|  |  |
| ***Work item code:*** | 5MBUSA |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** | F |  | ***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 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:*** | In Rel-18, SA2 5MBS\_Ph2 introduced the support of MBS data reception for UEs using power saving functions. The MBS User Service Announcement needs to be enhanced to further include a start time and/or a sequence of scheduled activation times (e.g. a first time and a periodicity) for corresponding MBS distribution session, which is to enable UEs to wake up at coordinated times for MBS data reception. |
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| ***Summary of change:*** | Add support of MBS data reception for UEs using power saving functions to align with other WGs. |
|  |  |
| ***Consequences if not approved:*** | Incomplete and misaligned designs among WGs.  |
|  |  |
| ***Clauses affected:*** | 4.5.5, 4.6.0 (new) |
|  |  |
|  | **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 \* \* \* \*

### 4.5.5 MBS User Data Ingest Session parameters

This entity models an MBS User Data Ingest Session, as provisioned by the MBS Application Provider and as managed by the MBSF. The baseline parameters for an MBS User Data Ingest Session are listed in table 4.5.5‑1 below.

NOTE: A linkage from the MBS User Data Ingest Session to its parent MBS User Service is additionally required at stage 3. The *User Service identifier* defined in table 4.5.3‑1 serves this purpose.

The set of active periods may be updated by the MBS Application Provider at any time. The state of constituent MBS Distribution Sessions (and their corresponding MBS Distribution Session Announcements) may need to change as a consequence.

Table 4.5.5‑1: Baseline parameters of MBS User Data Ingest Session entity

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | Cardinality | Assigner | Description |
| User Data Ingest Session Identifier | 1..1 | MBSF | An identifier for this MBS User Data Ingest Session that is unique in the scope of the parent MBS User Service (see clause 4.5.3). |
| MBS User Service Announcement | 0..1 |  | The MBS User Service Announcement (see clause 4.5.7) currently associated with this MBS User Data Ingest Session.Present only if all constituent MBS Distribution Sessions are in the ESTABLISHED or ACTIVE state. |
| Active periods | 0..\* | MBS Application Provider | Periods of time during which the MBS User Data Ingest Session and all its subordinate MBS Distribution Sessions are active in the MBS System.If omitted, the MBS User Data Ingest session and all its subordinate MBS Distribution Sessions are intended to be active until further notice. |

The MBS User Data Ingest Session is composed of one or more MBS Distribution Sessions (see clause 4.5.6 below) and these shall be provisioned in the same operation as the enclosing MBS User Data Ingest Session. It is not valid for an MBS User Data Ingest Session to have no MBS Distribution Sessions defined.

MBS Distribution Sessions may be added to or removed from an MBS User Data Ingest Session by the MBS Application Provider at any time, subject to the minimum number specified above. The MBS User Service Announcement may need to change as a consequence to refer to a revised set of corresponding MBS Distribution Session Announcements.

\* \* \* \* Second change \* \* \* \*(all new text)

### 4.6.0 Introduction

When provisioning an MBS User Data Ingest Session in the MBSF (directly, or indirectly via the NEF) the MBS Application Provider may specify a set of *Active periods* that apply to it and to all its subordinate MBS Distribution Sessions. Each Active period is described in terms of a start time and an end time or else a repetition rule that specifies a sequence of scheduled activation times (e.g. a first occurrence and a periodicity). The MBSF shall include the Active periods (if any) in the Service Announcement that it compiles and makes available to the MBS Client.

As described in clause 6.16 of TS 23.247 [5], advance knowledge of the scheduled activation times of an MBS Distribution Session is especially useful in waking up a UE that implements power saving functions, e.g. MICO (Mobile-Initiated Connection Only) mode with Active Time, or extended DRX (Discontinuous Reception) as defined in clause 5.31.7 of TS 23.501 [2].

\* \* \* \* End of changes \* \* \* \*