
Source: SA1
Title: Various Rel-6 CRs to 22.146 on MBMS
Document for: Approval
Agenda Item: 7.1.3

SA Doc	Spec	CR	Rev	Phase	Cat	Subject	Old Vers	New Vers	SA1 Doc
SP-020257	22.146	031		Rel-6	C	Proposed CR on Multicast Joining Outside the Multicast Area	5.2.0	6.0.0	S1-020892
SP-020257	22.146	032		Rel-6	F	CR to 22.146: Clarification of requirement related to paging messages	5.2.0	6.0.0	S1-021180

- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.2.1 Home environment requirements

- Multicast areas

The PLMN operator shall be able to provision one or more multicast areas to support multicast services. It shall be possible to provision and transmit one or more multicast services for each multicast area.

It should be possible to deliver a multicast service across a number of multicast areas. Multicast areas may belong to several PLMNs and delivery of a multicast service across several PLMNs should be possible.

If a multicast service is transmitted to several multicast areas, it should be possible to transmit different data to each multicast area, for the same service. (e.g. a “nationwide traffic service” with localized traffic reports or service being delivered with different QoS levels to a UTRAN multicast area and a GERAN multicast area) If different data is transmitted for the same service, the different data transmissions shall be distinguishable by the UE.

[While multicast transmissions are limited to the operator defined multicast areas, a user shall be able to join or leave a multicast group either within or outside the multicast areas designated for the service.](#)

The size of the multicast area may be smaller than a cell.

An operator should also be able to control the size of Multicast Area e.g. according to the traffic congestion or radio resources in an individual cell, set of cells within the multicast area.

- Multicast subscription groups and multicast groups

The PLMN operator shall be able to provision one or more multicast subscription groups. The home environment shall be able to make a user a member of a multicast subscription group (subscription).

On receipt of a request to join a multicast group, the PLMN shall check that the user is a member of the applicable multicast subscription group. The home environment shall be able to join users to the multicast group e.g. at the request of the subscriber.

- Quality of service

The PLMN operator shall be able to configure the quality of service for individual multicast services. If transmitted to multiple multicast areas, a multicast service may be provided with different QoS parameters for each multicast area associated with the service.

As part of the same service, it should be possible for the operator to provide the UEs with multiple successive sessions with different quality-of-service for each session.

The home environment shall be able to set priority to select which simultaneous multicast services are supported when there is a limit on the resources available.

- Network and radio efficiency

The PLMN operator shall be able to use network and radio resources in an efficient manner.

Within the multicast area, the network may distribute the data across the whole multicast area or parts of the area. The decision to distribute to only parts of the multicast area may be based on: a) multicast group members are present in a given part of the multicast area b) resources are not available in parts of the multicast area.

The operator shall be able to schedule a certain multicast service at pre-determined times.

- Types of services

The multicast mode shall be independent of the type of service being transmitted, will support a number of services, and permit support of all data types e.g. Audio, Data, Video or combinations thereof. A minimum number of data types may need to be identified to enable interoperability

- Sources of services

In addition to supporting their own multicast services the PLMN shall as well support multicast services by third parties (i.e. HE-VASPs or VASPs).

- Multicast service announcements

The PLMN operators shall be able to activate service announcements within the multicast area about available multicasts in the multicast area.

CR-Form-v5.1

CHANGE REQUEST

⌘ **22.146** CR **032** ⌘ rev **-** ⌘ Current version: **5.2.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Clarification of requirement related to paging messages		
Source:	⌘ SA1		
Work item code:	⌘ MBMS	Date:	⌘ 16.05.2002
Category:	⌘ F Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction 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.	Release:	⌘ Rel-6 Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ 22.146 contains the requirement, that users shall be able to receive paging messages while receiving one or more broadcast services. However, it is nowhere explained what is meant with "paging messages".
Summary of change:	⌘ The change clarifies the appropriate requirement, by stating that the user shall be able to be informed about the availability of other services while receiving one or more broadcast services.
Consequences if not approved:	⌘ The requirement remains unclear, and may result in unintended Stage 2 and 3 functionality.

Clauses affected:	⌘ 5.1.2.
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/> <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications
Other comments:	⌘

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

Start of Section

5.1.2 User requirements for MBMS

- User mobility

The user shall be able to continue receiving broadcast vices throughout the broadcast area. For example, in case of handover and presuming that a certain broadcast service is offered in the target cell, it should be possible for the user to continue receiving the service in the target cell.

- User selectivity

The user shall be able to discover what broadcast services are available at the user's current location. The user shall be able to enable/disable the reception of specific broadcast services and can receive simultaneously more than one service.

The user may be able to define service preference for reception. A priority procedure may be implemented to allow the user to select between simultaneous broadcast services e.g. while receiving commercial broadcast service a new multicast service may interrupt this.

While receiving one or more broadcast services ~~the user shall be able to receive paging messages,~~ it shall be possible for the user to be informed about incoming voice calls or the availability of other MBMS services.

End of Section

Start of Section

5.2.2 User requirements for MBMS

- User mobility

The user shall be able to continue receiving multicast services throughout the multicast areas in which the service is provided. For example, in case of handover and presuming that a certain multicast service is offered in the target cell, it should be possible for the user to continue the session in the target cell. It is possible that data loss will occur due to user mobility.

- User selectivity

The user shall be able to discover what multicast services are available at the user's current location. The user shall be able to select between different multicast services provided to the user and can receive simultaneously more than one service.

The user may be able to define service preference for reception. A priority procedure may be implemented to allow the user to select between simultaneous broadcast/multicast services e.g. while receiving commercial broadcast service a new multicast service may interrupt this.

While receiving one or more multicast services ~~the user shall be able to receive paging messages,~~ it shall be possible for the user to be informed about incoming voice calls or the availability of other MBMS services.

- Multicast subscription groups and multicast groups

The subscriber shall be able to subscribe to or unsubscribe from a multicast subscription group. (The subscription mechanism is outside the scope of this TS.)

The user shall be able to join a multicast group only if he is a member of the applicable multicast subscription group. The user shall be able to leave a multicast group if he is a member of that group.

End of Section