

## Status of MBMS Enhancements

The latest version of 3GPP TR 23.741, generated after the recent Working Group SA2 meeting, focuses on studying four key areas for the enhancement of Multimedia Broadcast/Multicast Service to enable:

- Using fine granular target area information such as cell identities, provided in addition to MBMS Service Areas, when establishing MBMS bearers towards the RAN.
- Improvements to MBMS congestion handling, including notifications about MBMS resource utilization. This key issue depends on the solution specified in RAN3 during Release 12.
- The study of possible MBMS roaming scenarios and how to support them.
- The study of further aspects identified from Mission Critical Push To Talk (MCPTT) application work.

The Technical Report currently contains two potential solutions how to use a list of Cell Identities provided by the Application Server to the Broadcast-Multicast Service Centre (BM-SC) along with Service Area IDs to the RAN. The two solutions differ in the way how the network maps cell identities to MBMS service areas.

TR 23.741 is still work in progress, with evaluation work and conclusions still to be written. The Report is due for completion in Release 13, which is slated for its functional freeze in early 2016.

### Further Reading:

3GPP TS 23.246: "Multimedia Broadcast/Multicast Service (MBMS); Architecture and functional description".  
3GPP TS 23.468: "Group Communication System Enablers for LTE (GCSE\_LTE); Stage 2".  
3GPP TS 26.346: "Multimedia Broadcast/Multicast Service (MBMS); Protocols and codecs".  
3GPP TS 36.444: "Evolved Universal Terrestrial Radio Access Network (E-UTRAN); M3 Application Protocol (M3AP)".

## 3GPP Enhancements for TV video services (FS\_EnTV)

A new Technical report – TR 22.816 – will study scenarios, use cases and propose potential requirements for TV service enhancements in LTE. Work is starting now in the 3GPP SA1 Working Group, with the report due for publication in Release 14 (drafts available in 2016).

The objectives of the work on the “EnTV” feature include:

- Defining scenarios and use cases for 3GPP eMBMS enhancements to support TV service (including linear TV, Live, Video on Demand and also smart TV, and managed and OTT content) including:
  - Shared broadcast services amongst multiple MNOs
  - Subscription and reception for both managed content and OTT content
  - Provision of receive only UEs
- Identify the potential LTE eMBMS enhancement requirement – Including increasing capacity.
- Identify the potential Core Network enhancement requirements - to support services like smart TV and OTT Streaming.

### Further Reading:

SP-150052 - New WID on Study on 3GPP Enhancement for TV service (FS\_EnTV)

[\(http://www.3gpp.org/ftp/Meetings\\_3GPP\\_SYNC/SA/Docs/\)](http://www.3gpp.org/ftp/Meetings_3GPP_SYNC/SA/Docs/)

## Release 12/13 - 3GPP EMBS features:

MBMS Enhancements				Specifications/ Reports
MBMS Enhancements TR Phase	MBMS_enh	Rel-13	SA2	TR 23.741
Group Call eMBMS congestion management for LTE	GCSE_LTE-MBMS_CM	Rel-12	RAN3	LTE
Core part: Group Call eMBMS congestion management for LTE	GCSE_LTE-MBMS_CM-Core	Rel-12	RAN3	36.413
eMBMS restoration procedures				
CT4 part of eMBMS restoration procedures	eMBMS_Rest	Rel-12	CT4	23.007, 23.008, 29.274
CT3 part of eMBMS restoration procedures	eMBMS_Rest	Rel-12	CT3	29.061
Further MBMS operations support for E-UTRAN				
Core part: Further MBMS operations support for E-UTRAN	MBMS_LTE_OS-Core	Rel-12	RAN2,RAN1,RAN3,RAN4	36.133, 36.214, 36.300, 36.304, 36.306, 36.331, 36.413, 36.423, 37.320
Perf. part: Further MBMS operations support for E-UTRAN	MBMS_LTE_OS-Perf	Rel-12	RAN4	36.133

All Work Items, including Pre- Release 12 features, can be viewed at:

[http://www.3gpp.org/ftp/Information/WORK\\_PLAN/](http://www.3gpp.org/ftp/Information/WORK_PLAN/)

The details of the various Release Freeze dates are available at <https://portal.3gpp.org/> (select 'Releases');

	Status	Start date	End date
Release 14	Open	2013-03-01	
Release 13	Open	2012-12-30	2016-03-11 (SP-71)
Release 12	Frozen	2010-06-01	2015-03-13 (SP-67)

