**3GPP TSG-RAN5 Meeting #94-e R5-220622r2**

**Electronic Meeting, 21st Feb – 04th March 2022**

**3GPP TSG RAN Meeting #95-e RP-22xxxx**

**Electronic Meeting, 17 March – 23 March 2022**

**Source: Huawei, HiSilicon, CMCC**

**Title: New WID on: UE Conformance - NR Multicast and Broadcast Services including CT and SA aspects**

**Document for: Endorsement**

**Agenda Item: 4.1**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

# Title: UE Conformance - NR Multicast and Broadcast Services including CT and SA aspects

## Acronym: NR\_MBS\_5MBS\_5MBUSA-UEConTest

## Unique identifier:

|  |  |
| --- | --- |
| **This WID includes a Testing part** | **X** |
| **and it addresses the following 3GPP work area:** | **Radio Access** | **X** |
| **Core Network** | **X** |
| **Services** | **X** |

Potential target Release: Rel-17.

## 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Affects:** | UICC apps | ME | AN | CN | Others (specify) |
| **Yes** |  | X |  |  |  |
| **No** | X |  | X | X | X |
| **Don't know** |  |  |  |  |  |

## 2 Classification of the Work Item and linked work items

### 2.1 Primary classification

This work item is a …

|  |  |
| --- | --- |
|  | Feature |
| X | Building Block |
|  | *Work Task* |
|  | Study Item |

### 2.2 Parent Work Item

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| NR\_MBS | RAN2 | 860048 | NR multicast and broadcast services |
| NR\_MBS-Core | RAN2 | 860148 | Core part: NR multicast and broadcast services |
| 5MBS | SA WG2 | 900038 | Multicast-broadcast services in 5G |
| 5MBS | CT1 | 920043 | CT1 aspects of the architectural enhancements for 5G multicast-broadcast services |
| 5MBS | SA WG3 | 920023 | Security Aspects of Enhancements for 5G Multicast-Broadcast Services |
| 5MBUSA | SA WG4 | 920010 | 5G Multicast-Broadcast User Service Architecture and related 5GMS Extensions |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work Items (if any) |
| Unique ID | Title | Nature of relationship |
|  |  |  |
|  |  |  |

## 3 Justification

There is no broadcast/multicast feature support specified in the first two NR releases, i.e. Rel-15 and Rel-16. However, there are important use cases for which broadcast/multicast could provide substantial improvements, especially in regards to system efficiency and user experience.

3GPP Rel-17 has specified the feature support of multicast and broadcast services (MBS) over 5GS. This feature can provide substantial benefits for use cases such as (but not limited to) public safety and mission critical, V2X applications, transparent IPv4/IPv6 multicast delivery, IPTV, software delivery over wireless, group communications and IoT applications. Therefore, there is a strong industry need for this feature to be applicable in the real network scenario, so that variant applications as stated above can be available for customers to improve user experience.

The 3GPP CT WGs have completed 80% of the normative work for the core network aspects including the security of NR MBS. In the 3GPP RAN WGs, the plan is to complete the core part of the RAN specifications for NR MBS by RAN#95(March-21). Thus it’s time for the corresponding RAN5 specification updates to define conformance test part.

## 4 Objective

### 4.1 Objective of SI or Core part WI or Testing part WI

The objective of this work item is to provide conformance test specifications for the core requirements of Rel-17, including CT aspects of NR MBS, Security Aspects of NR MBS, and RAN aspects of NR MBS. This work item will cover Protocol conformance test specifications with NR-MBS operation.

## 5 Expected Output and Time scale

|  |
| --- |
| **New specifications**  |
| Type  | TS/TR number | Title | For info at TSG#  | For approval at TSG# | Remarks |
|  |  |  |  |  |  |

|  |
| --- |
| **Impacted existing TS/TR**  |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| TS 38.508-1 | Definition of common environment for NR 5MBS requirements tests | TSG RAN#100(June-23) |  |
| TS 38.508-2 | Introduction of common implementation conformance statements for NR 5MBS test cases. | TSG RAN#100(June-23) |  |
| TS 38.509 | Introduction of special conformance testing functions for NR 5MBS test cases. | TSG RAN#100(June-23) |  |
| TS 38.523-1 | Introduction of the SIG tests for NR 5MBS requirements | TSG RAN#100(June-23) |  |
| TS 38.523-2 | Introduction of test applicability for SIG tests for NR 5MBS requirements | TSG RAN#100(June-23) |  |
| TS 38.523-3 | Introduction of test model for NR 5MBS requirements | TSG RAN#100(June-23) | Note: Progress of TTCN development is tracked in MCC TF160 reports to RAN5/RAN. |

## 6 Work item Rapporteur(s)

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## 7 Work item leadership

RAN5

## 8 Aspects that involve other WGs

None

## 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Huawei |
| HiSilicon |
| CMCC |
| China Telecommunications |
| Lenovo |
| Motorola Mobility |
| Verizon |
| Ericsson |
| AT&T |
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