Tdoc NP-020094

3GPP TSG-CN Meeting #15 Jeju, Korea, 6th – 8th March 2002

Source: Hutchison 3G

Title: Proposed WI: MBMS

Agenda item: 9.14

Document for: APPROVAL

Introduction

MBMS work has been progressed in SA1 and SA2 in documents TS 22.146 and TR 23.846. It has also been agreed to start work on MBMS within the RAN groups.

Documentation

Within Core Networks this will require specification of new PDP Context types that support multi-cast/broadcast. This will affect layer 3 radio signalling defined in 24.008 and GTP protocol in 29.060.

The handover of terminals currently receiving a broadcast channel into an area that is a) already supporting the transmission, or b) where the transmission is not currently active needs to be supported. This will require changes to TS 29.002.

It is proposed that IETF multicast protocols can be used on Gi interface, and no specification of this is required within 3GPP. However, CN3 should at least study the need for this in case that something is required.

Proposals

The proposal is currently drafted as a WI for all the work in CN. It is proposed that CN1 take the lead role.

Work Item Description

Title

Support of the Multicast Broadcast Multimedia Service (MBMS) in CN protocols.

1 3GPP Work Area

| | Radio Access |
|---|--------------|
| X | Core Network |
| | Services |

2 Linked work items

Multimedia Broadcast Multicast Service Architecture – SA Enhancement of Broadcast and Introduction of Multicast Capabilities - RAN

3 Justification

The specification of MBMS stage 1 is complete and stage 2 is well advanced. The work should now be started in CN groups to support this functionality.

4 Objective

The objectives of this work item:-

- ?? To define and develop the Radio layer 3 and CN signalling protocols to support MBMS to facilitate broadcast of multimedia services in a wireless network
- ?? To allow handover between RNS's of terminals currently receiving an MBMS transmission.
- ?? To ensure efficient use of network resources when sending multimedia information to multiple users.

5 Service Aspects

MBMS should allow users to select one of a number of broadcast/multicast information sources, and to share with other users the network resources used to deliver that information.

Service level aspects are agreed in TS 22.146.

Architectural aspects are covered in TR 23.846.

6 MMI-Aspects

None – out of scope of this work item.

7 Charging Aspects

The ability to charge for access to, and use of, MBMS services shall be supported.

8 Security Aspects

Any MBMS solution must provide a secure procedure to gain access to MBMS information.

9 Impacts

| Affects: US | SIM ME | AN | CN | Others |
|-------------|--------|----|----|--------|
|-------------|--------|----|----|--------|

| Yes | X | X | X | X | |
|-------|---|---|---|---|---|
| No | | | | | X |
| Don't | | | | | |
| know | | | | | |

Expected Output and Time scale (to be updated at each plenary)

The results of this Work Item shall be provided in a Technical Standard or CRs to existing Technical Standards.

The following Work Plan is proposed.

| | | | • | New sp | pecifi | cations | • | |
|----------|-------|---------|------------------|-------------------------|---------------------------------------|----------------------|----------------------|----------|
| Spec No. | Title | | Prime rsp. WG | 2ndary rsp. WG(s) | Presented for information at plenary# | | Approved at plenary# | Comments |
| | | | Affe | cted exis | ting s | specification | ons . | |
| Spec No. | CR | Subject | | | | Approved at plenary# | | Comments |
| 24.008 | | | | | | CN #17 | | |
| 29.060 | | | | | | CN #17 | | |
| 29.002 | | | | | | CN #17 | | |
| | | | | | | | | |
| | | | Affected e | xisting or | r new | IETF spec | ifications | |
| Spec No. | CR | Subject | | | | Approved at | plenary # | Comments |

Work item rapporteurs

Kevan Hobbis

12 Work item leadership

CN1

13 Supporting Companies

Hutchison 3G

14 Classification of the WI (if known)

| | Feature (go to 14a) |
|---|----------------------------|
| | Building Block (go to 14b) |
| X | Work Task (go to 14c) |

14a The WI is a Feature: List of building blocks under this feature

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

14c The WI is a Work Task: parent Building Block

(one Work Item identified as a building block)