bmcoforum **Recommendation for Implementation Profile**

OMA BCAST Distribution

Approved Version 2.0

30 June 2009

Based on OMA BCAST V1.0 Enabler Specification

Note:

Content:

Introduction

Scope

The "Broadcast Mobile Convergence Forum" (**bmco**forum) is an international organisation targeting to shape an open market environment (eco-system) for mobile broadcast services. This ranges from support of the various bearer technologies over application architecture to regulatory and business issues.

The Interoperability Work item (WI2) targets on enabling interoperability between back end systems and terminals of different vendors, even before standards are available or complete.

For this purposes and based on commercial requirements from our membership profiles of the standard specifications are developed. The profiles serve as a prioritization for implementers so that interoperability of the profile features can be maximised. The profiles are prepared as valid subsets of the standard.

The main objective of the recent activity is to facilitate and accelerate the development of OMA BCAST implementations by focussing implementations of **bmco**forum members who wish to launch mobile TV services to a subset of features which has been agreed between operators, system and handset vendors.

As the specifications **bmco**forum are profiling will evolve, the profiles are reviewed and enhanced. Still, the profiles may not include the entire specifications, since **bmco**forum works on the superset of commercial requirements of its members.

Implementers of the profiles may use other features of OMA BCAST, however with the caveat that they may not be supported by other **bmco**forum profile implementers.

This document includes **bmco**forum's implementation profile recommendation for the OMA BCAST 1.0 Distribution specification. It is intended to support industry players in developing interoperable OMA BCAST 1.0 standards-based solutions.

This document is intended to be used as a support and clarification when implementing the OMA BCAST Distribution specification.

The used reference OMA BCAST baseline document has been:

File and Stream Distribution for Mobile Broadcast Services, Open Mobile Alliance, [1].

The document contains the following information:

- A list of the OMA BCAST 1.0 Distribution features which are required by **bmco**forum members who wish to launch mobile TV.
- Implementation guidelines related to those features (where appropriate).

How to read this document

The chapter numbering of the original OMA specification is reflected in the numbering of this document. Therefore after this introduction the numbering jumps to '5'. This makes it easier to cross-reference against the original OMA items.

This document profiles a baseline of OMA BCAST features intended to promote interoperability between the service providers, mobile and broadcast operators and terminal vendors involved in a BCAST deployment. The phrases "part of this profile"/"not part of this profile" are used instead of "supported/not supported". This is because implementers may use other features of OMA BCAST, however with the caveat that they may not be supported by other **bmco**forum profile implementers. If a particular feature described in the referred BCAST specification(s) is not explicitly mentioned in this profile, it means that the feature is implicitly "not part of this profile".

Terminology

Please refer to File and Stream Distribution for Mobile Broadcast Services [1] for definitions and abbreviations.

References

[1] File and Stream Distribution for Mobile Broadcast Services, Open Mobile Alliance OMA-TS-BCAST_Distribution-V1_0, available from http://www.openmobilealliance.org

[2] OMA BCAST System Adaptation: IPDC over DVB-H, **bmco**forum recommendation for implementation profile, V2.0 20090630-A

[3] OMA BCAST System Adaptation: 3GPP/MBMS, **bmco**forum recommendation for implementation profile, V2.0 20090630-A

5 File Distribution

5.2 File Distribution over Terminal Network Interfaces

This is part of the profile with the following exceptions and restrictions (appropriate sub-sections are indicated):

The delivery of metadata associated with files in-band within the file delivery session by the FD-C (in which case the Transport Object Identifier 0 carries File Delivery Table, and the file delivery session is a FLUTE session as specified in [3GPP TS 26.346]), is part of the profile.

5.2.1 Content Encoding

This is part of this profile as defined in 5.2.1 of [1]

5.2.2 Forward Error Correction building block

FEC RAPTOR scheme (FEC encoding ID 1) is not part of this profile.

5.2.3 File descriptions

Only FLUTE sessions are part of this profile (ALC is not part of this profile)

5.2.4 File versioning

This is part of this profile as defined in 5.2.4 of [1]

5.2.5 Signalling End of File and End of Session

This is part of this profile as defined in 5.2.5 of [1]

5.2.6 Signalling of parameters with FLUTE

This is part of this profile, with the following restrictions:

5.2.6.5 Extensions to FLUTE FDT Instances

Split-TOI parameters (e.g., *Version-ID-Length)* are not part of this profile.

In case of DVB-H, MBMS –specific parameters are not part of this profile.

5.3 Associated Procedures for File Distribution

The associated procedure description as defined in 5.3 of [1] is not part of this profile.

The reception reporting for files is not part of this profile.

File Repair for files is not part of this profile.

5.4 File Distribution over Back-end interfaces

This is not part of this profile.

5.5 File Distribution over Interactive Channel

The Use of Flute for File Distribution over the Interactive Channel is not part of this profile.

The Use of HTTP for File Distribution over the Interactive Channel is part of this profile as defined in section 5.5.2 of [1]

6 Stream Distribution

6.2 RTP as Stream Transport protocol

This is part of this profile as defined in section 6.2 of [1], with the constraints indicated below.

6.2.1 RTP Payload Formats

This is part of this profile as defined in section 6.2 of [1].

6.2.2 Forward Error Correction

This is not part of this profile.

6.2.3 Buffer Control for Stream Distribution

This is part of this profile. For further details see the respective Adaptation profiles for broadcast delivery systems: **bmco**forum IPDC over DVB-H Adaptation profile document [2] and **bmco**forum MBMS Adaptation profile document [3].

6.3 Associated Procedures for Stream Distribution

6.3.1 Associated Procedure Description

This is not part of this profile.

6.3.2 Stream Reception report

This is not part of this profile.

6.4 Stream Distribution over Back-end Interfaces

This is not part of this profile.

6.5 Stream Distribution over interaction channel

This is part of this profile as defined in section 6.5 of [1], with the following restrictions:

- 3GPP 26.234 is part of this profile,
- but 3GPP2 C.S0046 is not part of this profile.

7 Media Codecs and Formats (Informative)

Media codecs and formats are part of this profile. For further details see respective Adaptation profiles for broadcast delivery systems: **bmco**forum IPDC over DVB-H Adaptation profile document [2] and **bmco**forum MBMS Adaptation profile document [3].

8 Internet protocol usage for file distribution function and stream distribution function

Stream distribution and file distribution over both Ipv4 and Ipv6 are part of the profile as specified by OMA BCAST in section 8 of [1].

9 Push delivery in broadcast

This is not part of this profile.

Change history

Version	Date / Status	Description of changes
1.0	20070930-A	Initial version of the Implementation Profile.
1.1	20080708-D	Aligned with bug fixes that have been applied to the referenced versions of the OMA BCAST specifications. No new functionality added. Modifications include: - Reference to OMA BCAST MBMS Adaptation specification added in Sect. 6.2.3 and 7. - New functionality in the OMA BCAST specification, "Fast Content Switching mechanism", profiled out in section 6.5.
1.1	20080709-V	
1.1	20080721-A	
1.2	20081111-D	Editorial changes. Updated references to Final Draft of OMA BCAST specs.
1.2	20081128-D	Editorial changes. Updated references to latest **bmco**forum profile docs.
1.2	20081209-D	Updated references to latest **bmco**forum profile docs.
1.2	20081211-V	
1.2	20090107-A	
2.0	20090618-D	Added following feature: - Support of Fast Content Switching mechanism
2.0	20090622-V	Reference update to the **bmco**forum profile documents V2.0
2.0	20090630-A	