



Open Mobile Alliance BCAST Candidate Enabler Release

Broadcast, Unicast and Multicast Services for Mobile TV and Video
OMA Release Date June 20, 2007

Introduction

OMA has specified a common upper level broadcast enabler that sits on top of various broadcast technologies including the DVB-H broadcast system, 3GPP's MBMS and 3GPP2's BCMCS cellular radio systems, as well as any IP bearer technology or P2P streaming service.

Why is this a significant breakthrough?

The regulatory, cultural and network barriers associated with the regional markets around the world have historically made the notion of TV without borders impossible to achieve. Handsets move from region to region, market to market and have multiple access methods to multiple networks. The ability to broadcast the same content to any device in the market, over broadcast spectra, through the operator network or event between and among devices is entirely new.

What do multiple access channels mean for businesses trying to reach consumers with mobile TV and video content?

Carriers, regulators, terminal vendors, content providers, broadcasters and broadcast network operators already bring multiple business models to the table. OMA has specified an upper layer of interoperability between all these different systems, transmission and reception protocols. The specification is entirely agnostic to business model, and caters equally to both broadcasters and operators.

How has OMA taken the consumer experience of mobile TV into its specification?

When you watch TV on your phone, it's not traditional TV. Consumers are specifically engaged in what they are doing on their handset. This is a very different user paradigm than the TV set that is constantly running in the living room at home. Users can now have interactive mobile TV, buffered infotainment sessions, non-interactive TV series and many new services yet to be developed or mandated by consumer demand.

What benefits will OMA BCAST offer traditional mobile network operators?

- Being network agnostic means that the same service offering can be delivered over the broadcast channel, interaction channel or both. Being network agnostic also allows service integration with the broadcaster or as a stand-alone offering.
- The specification enables adaptation of a common broadcast service layer to existing carrier/operator systems and thereby the reuse of those assets for a new revenue model.
- Interactive services are well specified for a broad range of services, potentially boosting the use of cellular return channel. This interactive channel allows for easy personalization of services and service guides and the customization of these offerings for consumers.
- The Service Guide specification enables both broadcast programming as well as on-demand content. It also supports both broadcast and on-demand delivery of the Service Guide itself.

What benefits will OMA BCAST offer broadcasters and broadcast network operators?

- The specification enables broadcast-only mode for delivering services. It also allows broadcast-only terminals and free-to-air content with service and content protection capability.
- The specification is agnostic to access network meaning that the same service offering can be delivered over broadcast channel, interaction channel or both. Being agnostic to underlying architecture allows integration of the broadcast offering with operators or independent delivery over the interaction channel, which is controlled by broadcaster.
- Service interactivity is well specified and caters for broad range of services including interactive and direct feedback from viewers. Also, the service interactivity is not bound to the cellular channel – WLAN or a similar network can also be used. The use of the interaction channel allows personalization of services and service guides.
- The Service Guide enables the broadcaster to associate broadcast programming with on-demand content. In addition, it supports both broadcast and on-demand delivery of the Service Guide itself.

What benefits will OMA BCAST offer terminal manufacturers?

- The Mobile TV Enabler specifies features for a common TV & video service layer that are currently not addressed by other specifications but still needed to ensure interoperability for large-scale terminal availability.
- Enables economies of scale by leveraging same technologies for both broadcast and interactive channels. This means vendors can build an economically viable terminal base that can be used by operators/carriers or broadcasters or jointly by both.

Features

Service Guide

- Generic data model enables wide variety of use cases and business models
- Delivery over broadcast and interactive channels
- Auxiliary data support (intro, outro, ads)
- Update and management of data

Stream and File Distribution

- Broadcast and interactive delivery of files
- Broadcast and interactive delivery of A/V streams
- Associated delivery procedures for file repair, reporting and maintenance
- Caters for media codecs that are compatible with underlying distribution systems

Notifications

- Enables alerts, general notifications, service-related notifications
- Delivery via broadcast and interactive channels

Terminal Provisioning

- Operator or network level management objects

Service and Content Protection

- Encryption layer including IPsec, SRTP and ISMACryp
- Key stream layer
- Two profiles
 - With USIM -- Smartcard Profile
 - Without USIM -- DRM Profile

Service Provisioning

- Service and content purchases and subscriptions

Interaction

- Interactive retrieval of Service Guide
- Interactive retrieval of further service information
- Interactive delivery of services and content
- Service related interactivity such as voting or buying ring tones

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