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TV TechCheck



The Weekly NAB Newsletter for Television Broadcast Engineers

OMVC Issues ATSC Mobile DTV Receiver Profile Guidelines

On September 22, the Open Mobile Video Coalition (OMVC) released a set of comprehensive Device Profile guidelines to assist consumer electronics manufacturers in developing robust Mobile DTV products. The profiles are baseline technical guidelines that give manufacturers details about how broadcasters will implement new services and the details needed to build consumer products that receive Mobile DTV.

The Mobile DTV Device Profiles were developed jointly by the OMVC's Mobile DTV Forum, which represents consumer device and broadcast equipment manufacturers and software and middleware providers, and the OMVC's Technology Advisory Group, which is made up of broadcasters from member companies.

The Device Profile guidelines address elements that the OMVC believes are crucial to Mobile DTV success: the addition of conditional access, service/audience measurement and Internet Protocol (IP) connectivity.

- **Conditional Access.** The ATSC A/153 Mobile DTV standard incorporates a conditional access system that is based on the OMA-DRM standard. Because it is anticipated that some Mobile DTV services will use service protection, both profiles require support for conditional access. In both cases, registration with a Mobile DTV trust authority is required so that unique digital certificates can be issued to each Mobile DTV receiver. Details about the Mobile DTV Trust Authority can be found [here](#). Short term keys are sent over the broadcast channel. In order to provide a Mobile DTV system that can effectively handle a large volume of users, OMVC believes the Mobile DTV service protection system must incorporate the use of an interaction channel.
- **Service/Audience Measurement.** To date, broadcasters have only been able to make decisions using audience estimates based on sampling techniques. Mobile DTV's new service and audience measurement tools will enable broadcasters to identify which channels are viewed, the duration and time of viewing, and channel changing and video download activity from every viewer who agrees to share such information. This data allows broadcasters to provide a more effective advertising-supported Mobile DTV service.
- **IP Connectivity.** To facilitate the operation of the conditional access system and the transmission of service and audience data, the Mobile DTV receiver must offer IP connectivity at least once every seven days using, for example, an Internet, Wi-Fi, 2G, 3G, 4G, USB, or Bluetooth connection.

The ATSC Standard defines use of Scalable Video Coding at Level 3.1 for some higher resolution video formats; but both profiles show that the main video stream will be encoded using Main Profile and Level 3.1 when sending those formats.

The Device Profile guidelines also provide two product scenarios. The first profile represents a basic Mobile DTV receiver that can receive broadcast transmissions and is interoperable with real-time linear Mobile DTV broadcast services received by mobile devices. The second profile is more advanced, with an enhanced Mobile DTV receiver that includes all the basic elements plus many of the advanced features and functionalities that consumers are expected to embrace.

Later this fall the OMVC will initiate a model Conditional Access System in the Washington, D.C. market to help electronics companies test their receiver implementations to properly receive, decode and display Mobile DTV broadcast signals. Conditional Access is an essential element in Mobile DTV to facilitate both audience measurement and the deployment of paid programming.

The Mobile DTV Device Profile guidelines are available on the OMVC Web [site](#).

FEMA IPAWS Special Event - Prepared & Ready: The Final Stretch Before the Nationwide EAS Test

Save the Date for September 30, 2011 from 1:30 -- 3:30 p.m. ET

Please save the date for the final EAS Participant Virtual Roundtable discussion with government and industry leaders on September 30, from 1:30 – 3:30 p.m. ET. The discussion will involve a variety of topics and draft documents for feedback that will support updates to the EAS Best Practices Guide and Nationwide EAS Test Informational Toolkit.

Some examples include:

Television and Cable EAS Background Slate
Nationwide EAS Test Message Transcript Draft
Public Service Announcement Audio Sample
Nationwide EAS Test Data Reporting
Required Monthly Test Activities and Findings.

The meeting will be held on Microsoft Live Meeting 2007 (*This [link](#) will be active the morning of September 30*). Additional information is available [here](#).



Want to learn the "basics" of the organization? Want to be refreshed on the DTV Standard and our upcoming work? A refresher course sounds perfect for you. On **October 13, 2011**, the ATSC will host a one day **ATSC Boot Camp** at the Iowa Public Television Facilities in Johnston, Iowa.

Registration for this event is now open – please visit the [seminar website](#) to register and begin planning to join us in October!

VSF Measurements Seminar *plus* 8VSF Specialist Certification Exam Review

Friday, October 28 2011 6:00 – 9:00 p.m. (Exam Review)

Saturday, October 29, 2011 8:30 a.m. – 5:30 p.m. (Measurements Seminar)

KERA Studios, Dallas, Texas

This updated seminar presented by Gary Sgrignoli of Meintel, Sgrignoli and Wallace will help you develop an understanding of the 8-VSB transmission system basics as well as measurement techniques. Practical test equipment information will be covered. Also included is new information on mobile/handheld DTV, distributed transmission and recent information on DTV reception. The [seminar](#) is designed for broadcasters, consultants, equipment manufacturers (broadcast, consumer, and test), translator/LPTV operators and cable operators. Friday's special SBE 8-VSB specialist certification exam review session is free. If you have questions, contact [Tim Schuessler](#), (972) 313-1333 or [Gay Sgrignoli](#), (847) 259-3352.

61st Annual IEEE Broadcast Symposium Registration Open

The 61st Annual IEEE Broadcast Symposium is being held from October 19-21, 2011 at the Westin Alexandria Hotel in Arlington, VA. This year's Symposium will offer attendees an exciting, timely, and informative three-day program with tutorials on "Connected TV" and HD Radio in-band/on-channel digital radio technology, followed by technical sessions on Radio

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Engineering & RF Infrastructure, Network Distribution, Mobile DTV, DTV Implementation, and the Future of DTV. Broadcast engineering experts from around the world will be presenting at the Symposium. For additional information and to register visit the Symposium web site at <http://bts.ieee.org/broadcastsymposium/>.

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