



## Comprehensive solution for mobile television via DVB-H.

High rates of growth are forecast for the reception of television, radio and multimedia on mobile receiving equipment in the years to come. MEDIA BROADCAST offers service providers involved in this future market an integrated technical solution based on the DVB-H standard recommended for use in the EU. This offering entails provision of the technology required to produce program content, together with planning, setup and operation of programming feed, the Payout Center, the distribution network, and the network of stations.

**The benefits that have made DVB-H the recognized mobile TV standard within Europe, and beyond that in more than 30 countries worldwide:**

- Long periods of use, thanks to low levels of current consumption by the mobile receiving equipment
- Reception characteristics optimized for mobile use
- Broad range of programming through sufficient frequency resources
- No capacity bottlenecks, in contrast to streaming via cellular-telephone networks
- Technical requirements for interactive program contents and applications are in place

### **A few facts about DVB-H:**

DVB-H technology permits energy-saving operation of mobile receiver equipment such as cell phones, PDAs and other handhelds. New coding procedures have made it possible to dramatically reduce the data rate compared to other forms of transmission such as DVB-T. This way, a data stream of 256 Kbit/s is adequate for reproducing most content at a resolution of roughly 320 x 240 pixels on monitors smaller than 8 inches in size. An additional error-protection feature optimizes reception for mobile and portable equipment. In a DVB-H Multiplex, depending on the operating mode, a transport stream of 5-7 Mbit/second is transmitted. This permits reception of up to 20 TV and radio programs per DVB-H channel.

### **Complete DVB-H service**

MEDIA BROADCAST assists customers every step of the way, from the initial planning stages through to operation of the complete network platform, providing single-source delivery of all components.

# MOBILE-TV SOLUTIONS

## The MEDIA BROADCAST portfolio, in detail

### The MEDIA BROADCAST portfolio, in detail Program content production

For live productions outside of the studio, live-broadcast vehicles equipped with the appropriate production technology are made available to customers. The picture quality this can deliver runs the gamut, from streaming applications to HDTV.

#### Programming feed

Whether direct from the studio, or from the great outdoors: via the broadcasting networks available nationwide, with several hundred access points, or by means of our mobile satellite-transmission vehicles, programs are either transmitted directly to the Play-out Center, or to the respective station's production center for further editing.

#### Playout Center

The heart of the DVB-H portfolio combines the following functions:

- Optimization and condensation of programs for broadcast to mobile receiving equipment (encoding, multiplexing)
- Encryption of programs (if desired)
- Insertion of an easy-to-understand "Electronic Service Guide" to facilitate users' navigation through the various program offerings
- Integration of interactive applications
- Network management

The Playout Center is set up in modular fashion, using select components provided by the leading companies in the industry, which MEDIA BROADCAST interlinks by means of open system architecture. Thanks to years of experience with system integration and involvement in developing and standardizing broadcasting standards, the result is a producer-independent solution that reflects the very latest technologies. Implementation of the latest specifications, such as OMA BCAST, is a matter of course.

### Program distribution and broadcasting network

Signals are distributed to broadcasting-station locations via cable and/or via satellite.

The broadcasting network is planned entirely in keeping with the customers' wishes. The goal is to optimize the number of broadcasting-station locations and the quality of reception required, while maximizing range at the same time.

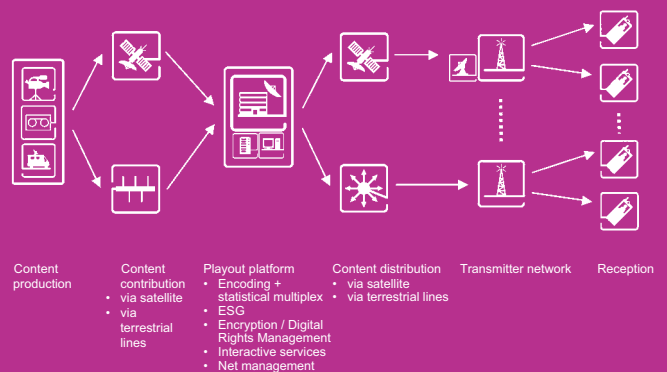
Here, too, customers enjoyed economic benefits of the experience that MEDIA BROADCAST has accumulated over the decades, in terms of the planning, setup and operation of broadcasting networks.

#### Reception

Thanks to close collaboration with many makers of mobile telephones, MEDIA BROADCAST can offer a system that is compatible with all name-brand receiving equipment.

### An overview of DVB-H services

#### Engineering, setup, operation and service provision.



### **Mobile TV via DVB-H – powerful references**

MEDIA BROADCAST has already proven its DVB-H competence on multiple occasions:

- At the 2006 FIFA World Cup™, which was held in Germany, public and private TV stations in Berlin, Munich, Hamburg and Hanover broadcast up to 20 programs.
- At the Asian Games in Doha, Qatar, in December 2006, it was possible to receive the signals of 13 TV stations throughout the city. Here, MEDIA BROADCAST implemented the stationing network and Playout Center in conjunction with Rohde&Schwarz, maker of broadcasting-technology equipment.
- In Dubai, MEDIA BROADCAST and Rohde&Schwarz joined up to create a cellular-telephone TV network under the DVB-H standard on behalf of Tecom Investments. During the test stage, which extended through the end of 2007, it was possible to receive 12 channels of TV. The network has since been expanded, and mobile TV is now offered there as a regular service.
- In Austria, in spring 2008, MEDIA BROADCAST won the call for tenders for the nationwide network license, in competition against a national provider. This enabled the commercial launch of mobile TV via DVB-H in the four largest cities in time for the UEFA EURO 2008, the European soccer championship. Work to expand the network is ongoing – and by the end of 2008, approx. 55 % of the residents of Austria will be able to receive 15 TV stations and 5 radio stations on their mobile phones.
- Also, in Germany, in October 2007, the license to set up and operate a DVB-H station network was awarded to MEDIA BROADCAST. Major factors in the decision included the criteria of experience, capabilities and business-model feasibility – all of them categories in which MEDIA BROADCAST enjoyed a clear lead over the competition. Currently, consultations are underway with potential platform operators to prepare for normal, commercial operation.

### **Ready for the future of television, with DVB-H**

Along with the classical media (satellite, cable, terrestrial signal) in the new medium of Internet television (IPTV), mobile TV via DVB-H is increasingly establishing itself as an additional broadcasting medium, paving the way for new media formats for mobile target groups. MEDIA BROADCAST provides support to service providers as a reliable partner in all matters relating to technical infrastructure. Come talk to us – we look forward to the dialogue with you.

**INNOVATION  
THAT  
WORKS**

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