ETSI TS 101 812 V1.3.2 (2006-08)

Technical Specification

Digital Video Broadcasting (DVB); Multimedia Home Platform (MHP) Specification 1.0.3

Reference
RTS/JTC-DVB-203

Keywords
broadcasting, data, digital, DVB, MPEG,
terrestrial, TV, video

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Contents

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (http://webapp.etsi.org/IPR/home.asp).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This Technical Speci.cation (TS) has been produced by the Joint Technical Committee (JTC) Broadcast of the European Broadcasting Union (EBU), Comité Européen de Normalisation ELECtrotechnique (CENELEC) and the European Telecommunications Standards Institute (ETSI).

NOTE: The EBU/ETSI JTC Broadcast was established in 1990 to co-ordinate the drafting of standards in the specific field of broadcasting and related .elds. Since 1995 the JTC Broadcast became a tripartite body by including in the Memorandum of Understanding also CENELEC, which is responsible for the standardization of radio and television receivers. The EBU is a professional association of broadcasting organizations whose work includes the co-ordination of its members' activities in the technical, legal, programme-making and programme-exchange domains. The EBU has active members in about 60 countries in the European broadcasting area; its headquarters is in Geneva.

European Broadcasting Union
CH-1218 GRAND SACONNEX (Geneva)
Switzerland
Tel: +41 22 717 21 11
Fax: +41 22 717 24 81

Founded in September 1993, the DVB Project is a market-led consortium of public and private sector organizations in the television industry. Its aim is to establish the framework for the introduction of MPEG-2 based digital television services.

Now comprising over 200 organizations from more than 25 countries around the world, DVB fosters market-led systems, which meet the real needs, and economic circumstances, of the consumer electronics and the broadcast industry.

0 Introduction

0.1 Purpose

The DVB system already provides a comprehensive toolbox to enable interoperable digital video broadcasting systems based on MPEG-2 standards for various transmission media including satellite, cable, terrestrial and microwave. This toolbox also covers interactive services using different kinds of return channels and further supporting functionalities such as service information and many others.

The Multimedia Home Platform (MHP) adds a technical solution for the user terminal that enables the reception and presentation of applications in a vendor, author and broadcaster neutral framework. Here "neutral" includes scenarios that consider legacy infrastructure. Applications from various service providers will be interoperable with different MHP implementations in an horizontal market, where applications, networks, and MHP terminals can be made available by independent providers.

0.2 Application areas

At the beginning the following application areas are considered - Enhanced Broadcasting, Interactive Broadcasting and Internet Access. Enhanced Broadcasting combines digital broadcast of audio/video services with downloaded applications which can enable local interactivity. It does not need an interaction channel. The application area Interactive Broadcasting enables a range of interactive services associated or independent from broadcast services. This application area requires an interaction channel. The application area of Internet Access is intended for the provisioning of Internet services. It also includes links between those Internet services and broadcast services.

0.3 Profiles

As not all MHP implementations will be able to support all application areas and as there is a further evolution expected over time, different profiles of the MHP are considered. For the first release of the MHP specification, profiles are mapped to the above mentioned application areas.

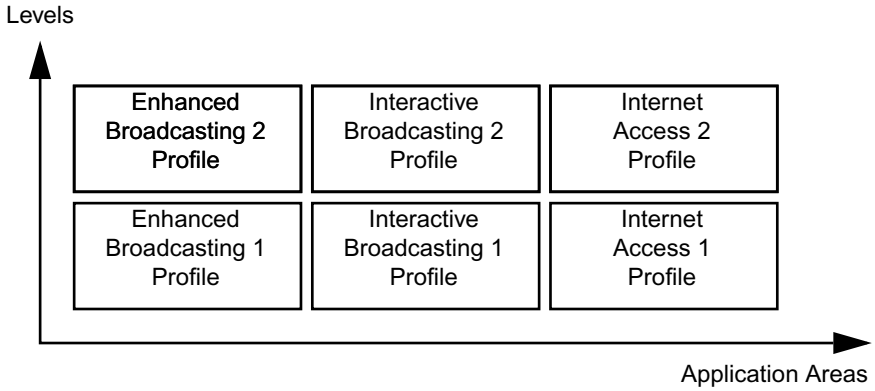

Figure 1 : Application areas and levels of profiles

Fig. 1 shows six example profiles, derived from two levels for each of the three application areas. The specific definition of the profiles and the particular backward and cross compatibility between profiles is provided in the detailed profile definition chapter of the MHP specification. The following initial definitions apply: <profile><n+1> shall be a strict superset of <profile><n>, and Interactive Broadcasting Profile 1is defined as a strict superset of Enhanced Broadcasting Profile 1. Other dependencies are left to the detailed definition of future profiles.

1 Scope

The present document defines the DVB solution for Multimedia Home Platforms (MHPs) that was developed to fulfil the related DVB commercial requirements MHP045 [A]. It relies on the use of appropriate DVB specifications for digital video broadcast and associated interactive services ETSI TR 101 200 [47]. The MHP is applicable to all DVB defined transmission media and networks such as satellite, cable, terrestrial, microwave.

The final DVB MHP solution is intended to cover the whole range of implementations including Integrated Receiver Decoders (IRDs), integrated TV sets, multimedia computers and local clusters of such devices connected via In-Home Digital Networks (IHDN). This first release focuses on single MHP terminals and does not include such local clusters. Chapters 1-14 specify the applicable technologies and technical definitions in a generic way. Chapter 15 provides detailed profile definitions for the initial profiles Enhanced Broadcasting 1 and Interactive Broadcasting 1, which can be extended with future additional profile definitions.

This specification is firstly intended for implementers of MHPs on various hardware and software platforms. Secondly it is intended for developers of applications that use the MHP functionality and APIs.

The MHP specification aims to ensure interoperability between MHP applications and different MHP implementations. Implementers should consult the publisher of this specification regarding conformance.

NOTE: This specification defines the interfaces visible to applications. Application developers should not assume that other related interfaces are available unless they are specifically listed.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

Some known errata in these references are identified in A, "(normative): External references; errata, clarifications and exemptions" on page 236. These errata take precedence over the published reference.

The following comments apply to particular sources of documents:

[1]	Where the reference is to an ISO specifications it is considered to be a "non-specific" reference additionally officially published amendments and corrigenda are considered to automatically update the referenced document.
[2]	Where an ISBN number is provided for a referenced document it is considered to be "specific reference".
[3]	References to RFCs are considered to be "specific references". An RFC being indicated obsoleted by another RFC is not considered significant.
[4]	URL references with note [4] are provided for convenience to access the document in electronic form.
[5]	URL references with note [5] are the normative method to access the reference