![DVB Digital Video Broadcasting logo]

IP Datacast over DVB-H:
Set of Specifications for Phase 1

DVB Document A096

November 2005

Contents

Introduction

IP Datacast over DVB-H is an end-to-end broadcast system for delivery of any types of digital content and services using IP-based mechanisms optimized for devices with limitations on computational resources and battery. An inherent part of the IPDC system is that it comprises of a unidirectional DVB broadcast path that may be combined with a bi-directional mobile/cellular interactivity path. IPDC is thus a platform that can be used for enabling the convergence of services from broadcast/media and telecommunications domains (e.g., mobile / cellular).

1 Scope

The present document defines the set of specification documents applicable to IP Datacast services over DVB-H. The set of documents describes the IP Datacast over DVB-H air interface:

- DVB-H Radio Interface

- IP Datacast over DVB-H Service Layer

- IP Datacast Content Formats

The set of specifications also include the definition of the IP Datacast end-to-end system and use cases for phase 1.

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.

[1]

3 Definitions and abbreviations

3.1 Definitions

Broadcast: Unidirectional distribution to all receivers.

DVB network: A collection of MPEG-2 Transport Streams, each carrying a multiplex, and transmitted on a single delivery system. DVB network is identified by network_id.

IP Datacast Baseline: The minimum core protocol profile an IPDC DVB-T/H Receiver may expect to be available on IPDC DVB-T/H Bearer (data transmission baseband) and the IPDC DVB-T/H Network is expected to make available on the IPDC DVB-T/H Bearer. [4]

Protocol: It is a formal set of procedures that are adopted to ensure communication between two or more functions within the same layer of a hierarchy of functions (source: ITU-T I.112).

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

DVB-H	DVB-Handheld
ESG	Electronic Service Guide
PSI	Program Specific Information
SI	System Information

4   End-to-end System Description

The following documents describe in an informative way the end-to-end IP Datacast system:

The use cases applicable to phase 1 are described in:

- DVB BlueBook A097;
  Digital Video Broadcasting (DVB); IP Datacast over DVB-H: Use Cases and Services

The end-to-end system architecture for an IP Datacast over DVB-H system is described in:

- DVB BlueBook A098;
  Digital Video Broadcasting (DVB); IP Datacast over DVB-H: Architecture

5   DVB-H Radio Interface

The following documents define the DVB-H radio interface.

The DVB-H transmission SHALL be based on the following documents:

- ETSI EN 302 304 V1.1.1 (2004-11);
  Digital Video Broadcasting (DVB); Transmission System for Handheld Terminals (DVB-H)

The DVB-H –related system level signalling, applicable both to DVB-H transmitter and to DVB-H receiver SHALL be based on the following document:

- DVB BlueBook A079 Rev. 1
  Digital Video Broadcasting (DVB); IP Datacast over DVB-H: PSI/SI

6   IP Datacast Service Layer

The following documents define in a normative way the IP Datacast service layer over DVB-H.

The Electronic Service Guide for IP Datacast over DVB-H SHALL be based on the following document:

- DVB BlueBook A099
  Digital Video Broadcasting (DVB); IP Datacast over DVB-H: Electronic Service Guide

The content delivery protocols to use for IP Datacast over DVB-H SHALL be based on the following document:

- DVB BlueBook A101
  Digital Video Broadcasting (DVB); IP Datacast over DVB-H: Content Delivery Protocols

The ESG and CDP specification documents provide a mechanism for signaling the way a service purchase and protection system can be referred to. The service purchase and protection for IP Datacast over DVB-H SHALL be based on the following document:

- DVB BlueBook A100
  Digital Video Broadcasting (DVB); IP Datacast over DVB-H: Service Purchase and Protection

7   IP Datacast Codecs

The following document SHALL be used for the audio and video formats supported in IP Datacast systems over DVB-H:

- ETSI TS 102 005
  Digital Video Broadcasting (DVB); Specification for the use of video and audio coding in DVB services delivered directly over IP