

ETSI TS 102 542-5 V2.1.1 (2016-04)



**Digital Video Broadcasting (DVB);
Guidelines for the implementation of
DVB-IPTV Phase 1 specifications;
Part 5: Content Download Service (CDS)**

EBU
OPERATING EUROVISION

DVB[®]
Digital Video
Broadcasting

ReferenceRTS/JTC-DVB-360-5

Keywordsbroadcasting, digital, DVB, IP, TV, video

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Foreword

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

Please note that the present document is a revision to ETSI TR 102 542 [i.3], and has been converted to a TS because the language used in the document is akin to that of a TS.

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 fields. 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.

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The Digital Video Broadcasting Project (DVB) is an industry-led consortium of broadcasters, manufacturers, network operators, software developers, regulatory bodies, content owners and others committed to designing global standards for the delivery of digital television and data services. DVB fosters market driven solutions that meet the needs and economic circumstances of broadcast industry stakeholders and consumers. DVB standards cover all aspects of digital television from transmission through interfacing, conditional access and interactivity for digital video, audio and data. The consortium came together in 1993 to provide global standardization, interoperability and future proof specifications.

The present document is part 5 of a multi-part deliverable. Full details of the entire series can be found in part 1 [i.4].

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

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1 Scope

The present document is designed as a companion document to help implement the DVB-IPTV Phase 1 version 4 and later revisions: ETSI TS 102 034 [1], which is referred to as the DVB-IPTV Handbook. The present document is organized as part of a multi-part document on Guidelines for the implementation of DVB-IPTV Phase 1 specifications.

The present document deals with Content Download Service. Content Download Services describe the functionality to download content items to the local storage of the HNEC. The consumption is independent of the delivery.

The present document describes:

- an architectural overview how Content Download Services may be deployed;
- some use cases in the scope of Content Download Services;
- a summary of the system reference architecture and the system components;
- deployment examples for use cases based on CDS specification.

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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

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The following referenced documents are necessary for the application of the present document.

- [1] ETSI TS 102 034 (V1.4.1 and later revisions): "Digital Video Broadcasting (DVB); Transport of MPEG-2 TS Based DVB Services over IP Based Networks".
- [2] ETSI TS 101 154 (V1.8.1): "Digital Video Broadcasting (DVB); Specification for the use of Video and Audio Coding in Broadcasting Applications based on the MPEG-2 Transport Stream".
- [3] ETSI TS 102 539 (V1.2.1): "Digital Video Broadcasting (DVB); Carriage of Broadband Content Guide (BCG) information over Internet Protocol (IP)".
- [4] ETSI TS 102 822: "Broadcast and On-line Services: Search, select, and rightful use of content on personal storage systems ("TV-Anytime")".
- [5] ETSI TS 102 822-3-1 (V1.3.1): "Broadcast and On-line Services: Search, select, and rightful use of content on personal storage systems ("TV-Anytime"); Part 3: Metadata; Sub-part 1: Phase 1 - Metadata schemas".
- [6] IETF RFC 5053: "Raptor Forward Error Correction Scheme for Object Delivery".
- [7] ETSI TS 102 833: "Digital Video Broadcasting (DVB); File Format Specification for the Storage and Playback of DVB Services".
- [8] ETSI TS 102 824: "Digital Video Broadcasting (DVB); Remote Management and Firmware Update System for DVB IPTV Services (Phase 2)".
- [9] Broadband Forum TR-069 Amendment 4: "CPE WAN Management Protocol", July 2011.

NOTE: See http://www.broadband-forum.org/technical/download/TR-069_Amendment-4.pdf.