

The logo for DVB 2.0, featuring the letters 'DVB' in a bold, blue, sans-serif font, followed by '2.0' in a similar font. A thin horizontal line is positioned below the 'DVB' part of the logo.

DVB 2.0

Tune in to Digital Convergence

THE STANDARD FOR THE DIGITAL WORLD

Audio-Visual Content in DVB

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What is the DVB project?

DVB was formed in 1993 as a market-led initiative to establish the framework for digital broadcasting

- Cable
- Satellite
- Terrestrial, etc.

DVB has created the standards used for digital TV in Europe and most other parts of the world

DVB now has over 270 member organisations from about 40 countries:

- Broadcasters
- Manufacturers
- Network operators
- Regulatory bodies

Some Key Topics in the Future: DVB 3.0

Convergence of broadcast and mobile services

- e.g. WiFi, WiMax, 3G

Convergence of broadcast and fixed IP network services

- e.g. xDSL

Solutions to support interoperability across multiple networks and platforms

- Including in-home networking

Continuation of various existing work items

- Content Protection and Copy Management
- Audio and Video coding

Role of DVB in audio and video coding

DVB does NOT develop coding algorithms

DVB is a commercially driven activity that

- Defines commercial requirements
- Evaluates coding algorithms against the commercial requirements
- Selects appropriate trade-off between compression efficiency and implementation cost
- Publishes Implementation Guidelines that specify constraints on the encoded bitstream and the minimum capability of the decoder

DVB-AVC: Audio-Visual Content formats

- A/V coding for all DVB applications

Current Status of TM-AVC Deliverables

A/V coding for DVB services over TS

- TS 101 154 (broadcast services)
 - First edition published in 1995
 - Latest revision adds advanced A/V coding
- TS 102 154 (contribution services)

A/V coding for DVB services directly over IP

- TS 102 005

Multi-Codec World

If IPR costs could be ignored, it would be useful to have a baseline interoperability point

- MPEG-2 video
- MPEG-1 Layer II audio

Not commercially viable due to IPR costs

Specification adopts a “toolbox” approach

- No statement on mandatory codecs

Criteria for Codecs to be Considered

1. Documented in the public domain.
 - via publication by one of the standardisation bodies such as ISO/IEC, ETSI, ITU or SMPTE.
2. IPR available under fair, reasonable and non-discriminatory terms
3. Market demand attested by at least 5 DVB members from at least 2 constituencies
 - e.g. manufacturers and broadcasters
4. Performance verified by independent tests

Codecs with Market Demand Attested by CM-AVC

		Included in Revised TS 101 154
Audio	MPEG-1 Layer II	✓
	Dolby AC-3	✓
	DTS	✓
	MPEG-4 HE AAC	✓
	<i>Enhanced AC-3</i>	
Video	MPEG-2	✓
	H.264 / AVC	✓
	<i>WMV9/SMPTE VC-1</i>	

Note: Codecs listed in *italics* are not yet documented in the public domain