

Text side: see the sound

Subtitles	Hearing, other language	Dialogue only - no sound FX. WebVTT / IMSC
Closed captions	Deaf / HoH, same language	Dialogue + FX + speaker cues. CEA-608/708, WebVTT
SDH	Deaf / HoH, translated	Translation + FX + speaker cues. WebVTT / IMSC
Open captions	Everyone (burned in)	Pixels in the video - cannot be turned off

Audio side: hear the picture (audio description)

Standard AD	Fits gaps in dialogue	Level AA. Separate audio track, not text
Extended AD	Pauses video to narrate	Level AAA. Rare in mainstream streaming

Caption formats

CEA-608 / 708	Broadcast, in MPEG-TS	708 decoders also decode embedded 608
WebVTT (wvtt)	Universal web caption	Apple requires it for HLS; plain .vtt text
IMSC (stpp)	Broadcast-grade TTML	Only TTML profile CMAF allows; positioned/colour

Signaling: tell the player which track is accessible

HLS audio description: CHARACTERISTICS="public.accessibility.describes-video" (set AUTOSELECT=YES).

HLS captions (deaf): describes-spoken-dialog, describes-music-and-sound.

DASH: Role + Accessibility descriptors; audio uses urn:tva:metadata:cs:AudioPurposeCS:2007; SDH text role = caption.

ISO/IEC 14496-30 defines wvtt / stpp carriage so one package feeds both HLS and DASH.

Who requires what in 2026

EU - European Accessibility Act in force 28 Jun 2025: captions/SDH + audio description on consumer streaming.

EU - existing back catalogue generally has until 2030; EN 301 549 is the technical standard.

US - FCC / CVAA: closed captioning + video-description hours for broadcast and large networks.

US - DOJ ADA Title II (web video): WCAG 2.1 AA; deadlines 26 Apr 2027 (pop >= 50k) / 26 Apr 2028 (smaller).

Baseline - WCAG 2.2: 1.2.2/1.2.4 captions; 1.2.3/1.2.5 audio description (AA); 1.2.7 extended AD (AAA).

Remember

- Two flows: sound -> on-screen text (captions/SDH); picture -> extra speech (audio description).
- Subtitles translate dialogue only; captions + SDH add sound effects and speaker cues. Subtitles != captions.
- Audio description is a SEPARATE AUDIO TRACK of narration mixed into the gaps - not a text track.
- Ship WebVTT as the universal caption; add IMSC only where typography or a platform contract demands it.
- Flag the track or it is invisible: HLS CHARACTERISTICS, DASH Role + Accessibility descriptors.
- Never set the audio-description track as the default audio, or every viewer hears the narrator.