



Consumer Technology Association, producer of CES®

CTA WAVE EME Testing

TPAC 2026 - MEIG Meeting
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(presenting on behalf of CTA WAVE)

WAVE Streaming Media Test Suite - Devices



Components Overview

1. Mezzanine Content

[\[GitHub\]](#)

2. CMAF Test Content

[\[GitHub\]](#)

3. Test Runner (TR)

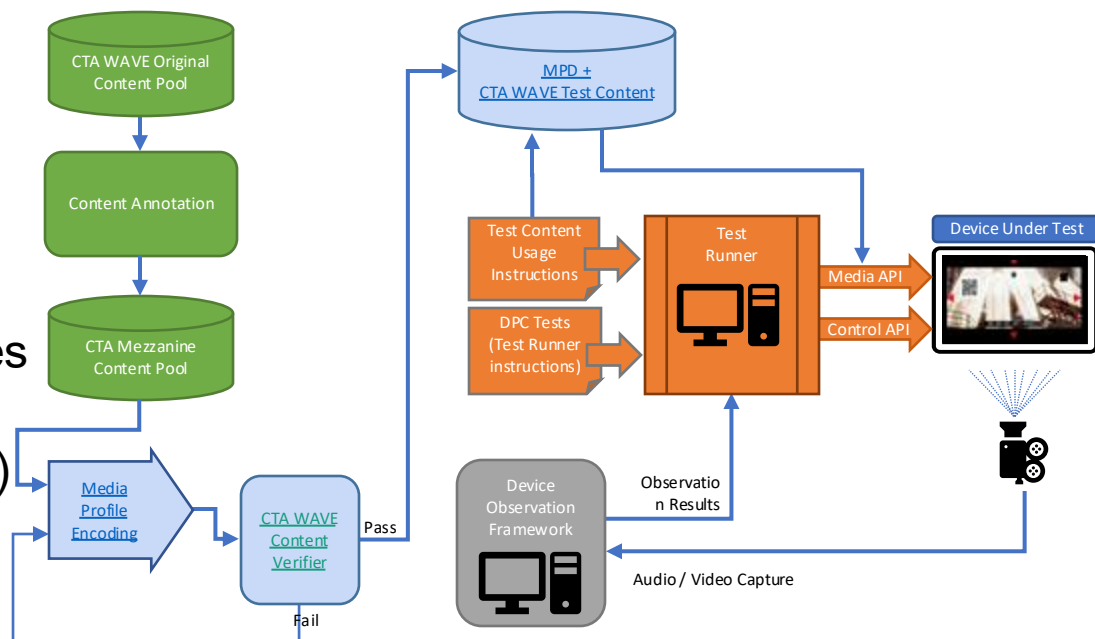
[\[GitHub\]](#)

4. HTML & JavaScript Templates

[\[GitHub\]](#)

5. Observation Framework (OF)

[\[GitHub\]](#)

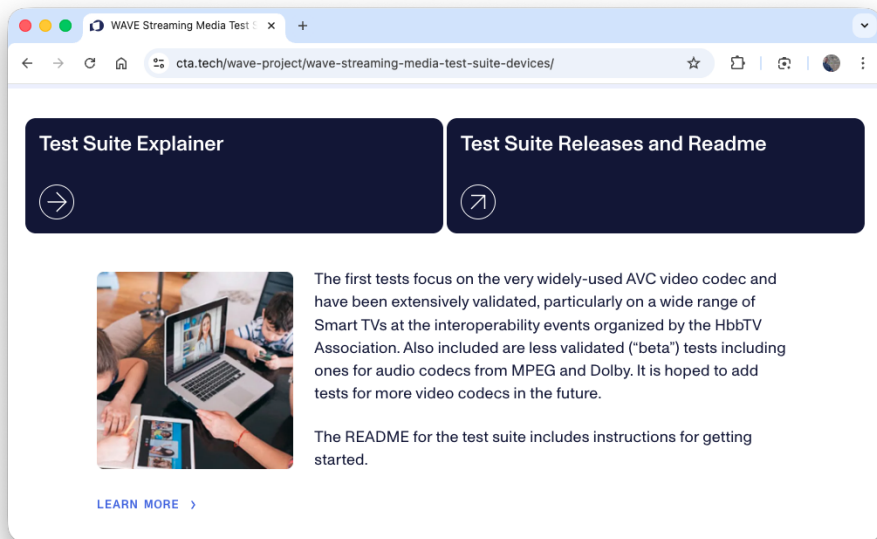


Demo



Where to start?

- Visit [Test Suite Landing Page](https://www.cta.tech/wave-project/wave-streaming-media-test-suite-devices/) (or scan QR code)



<https://www.cta.tech/wave-project/wave-streaming-media-test-suite-devices/>

- View and read the Test Suite Explorer carefully
- Visit the Test Suite main GitHub Repo: [dpctf-deploy](#) and follow the instructions in the README
- Latest release is v3.0.0: [DPCTF Deploy v3.0.0](#)



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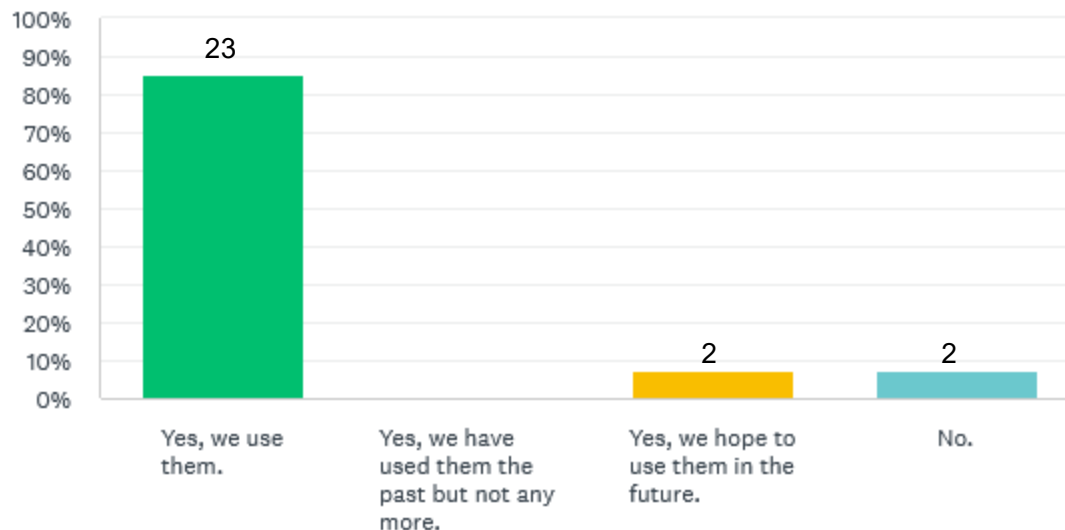
EME API Survey Results

May 2025

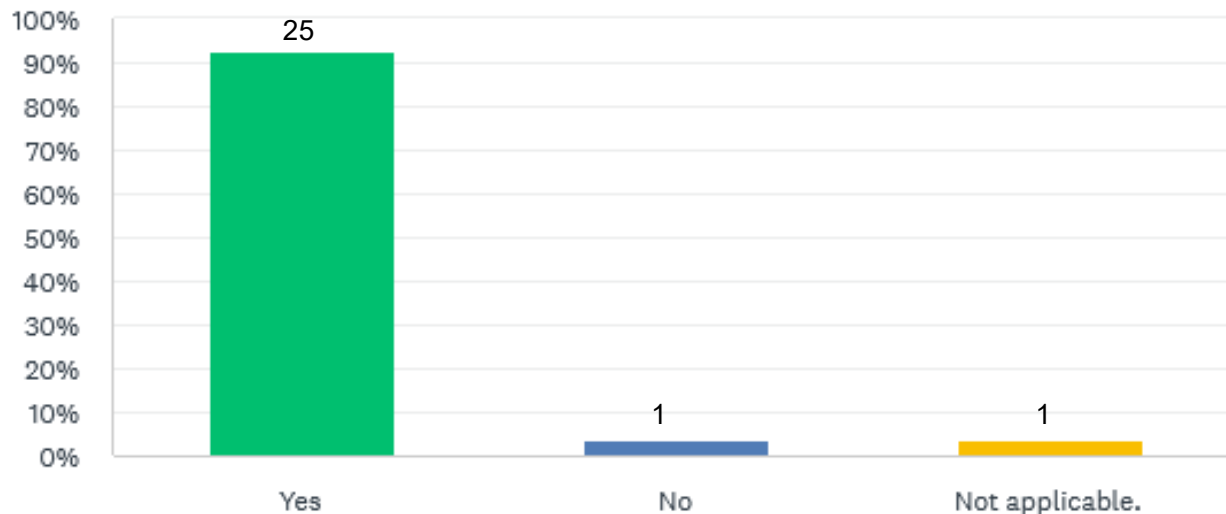
CTA WAVE Liaison on Commercial DRM Testing

- Background
 - CTA WAVE is looking to extend the coverage of EME testing to include content protected by commercial DRM systems such as Fairplay, PlayReady and Widevine.
 - Based on a recently completed survey, we identified needs of the industry for testing different commercial DRM features
- Survey Insights:
 - 25+ industry responses highlight:
 - FairPlay, PlayReady, and Widevine are dominant DRMs.
 - Both CBC and CENC encryption modes are widely used.
 - Most users encounter issues with EME and DRM integration.
 - Strong interest in developing and contributing to unit tests for browser-DRM integration.
- Next Steps:
 - CTA WAVE is committed to extending DRM test coverage but seeks financial & technical partners.
 - Looking for organizations interested in supporting development and providing license servers for testing.

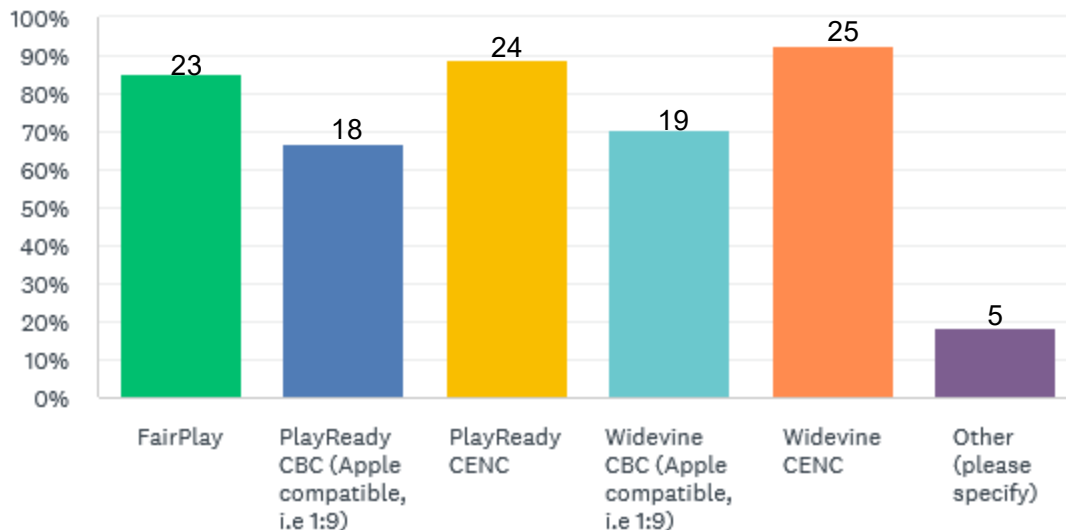
Q1 Do you use, have you used, or do you want to use Web APIs (EME, MSE) for playback of encrypted media?



Q2 Have you used these Web APIs or do you want to use them on media consumption devices (phones, tablets, sticks, Smart TVs...)?

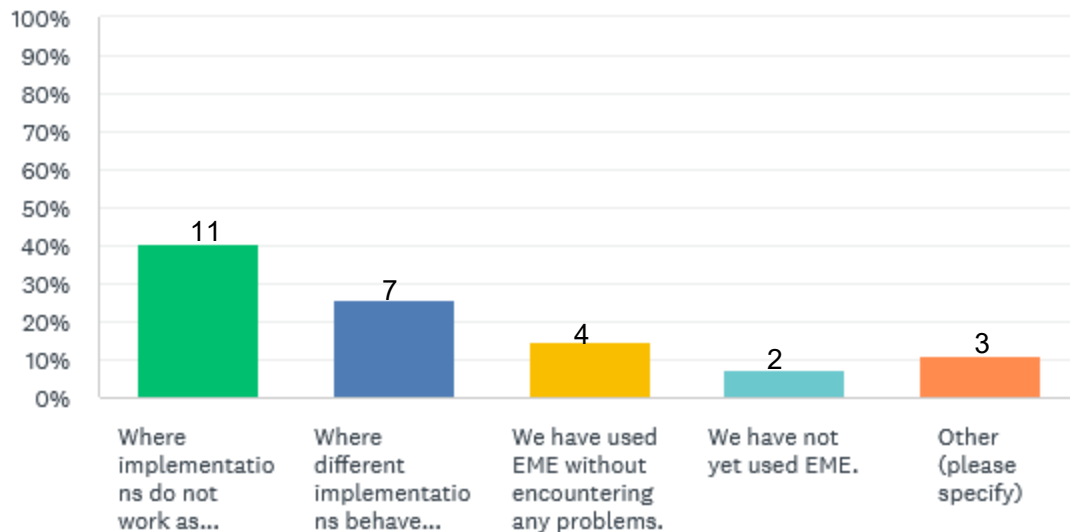


Q3 Which of the following DRM systems have you used (or do you hope to use) with EME?



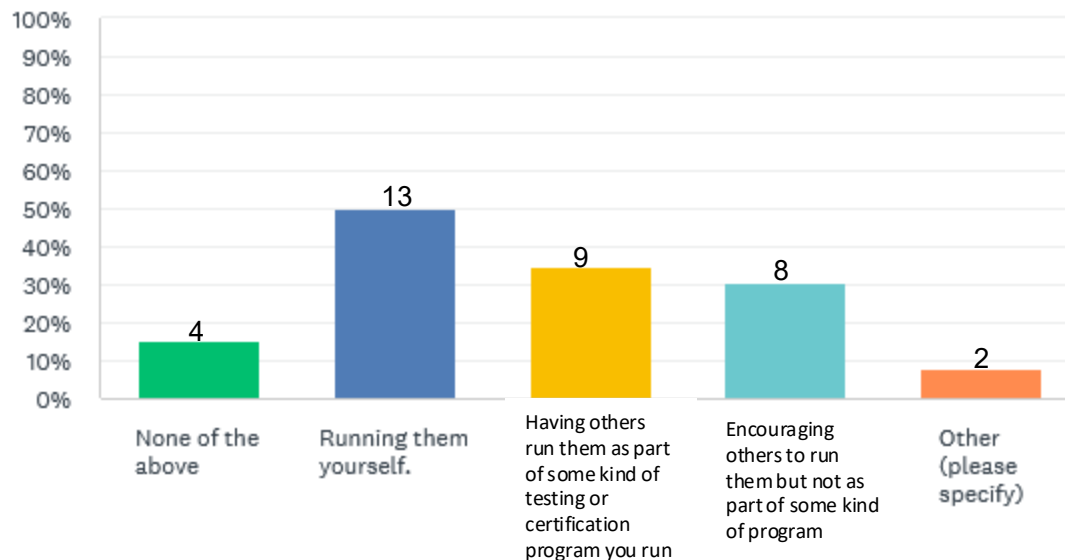
Other: ClearKey; have not used yet; Wiseplay

Q4 Have you encountered problems using EME either:



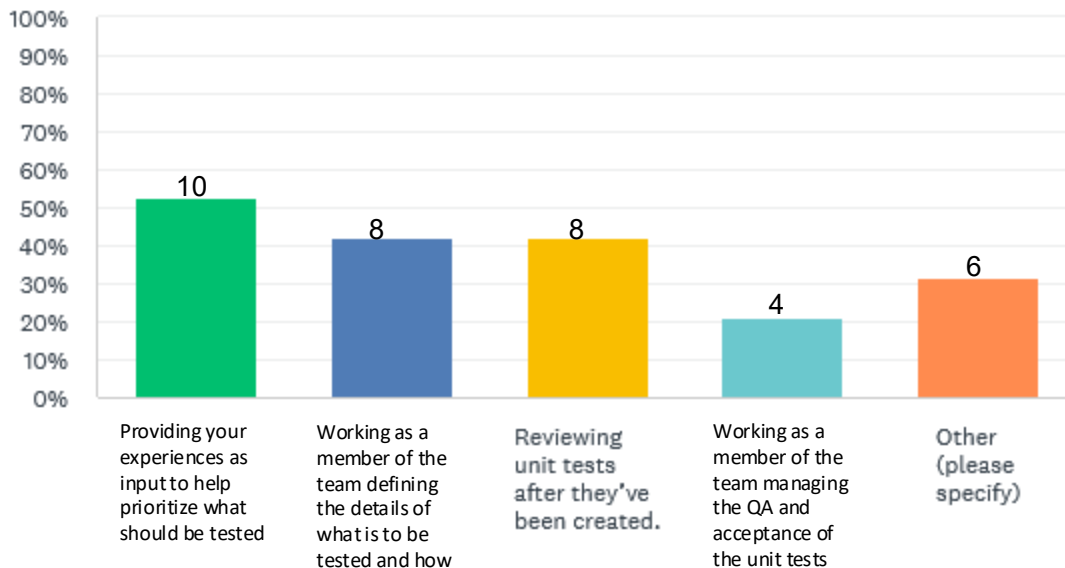
Other: have not used yet; WV + PR being hacked constantly, rights owners demand updates; FairPlay with EME is not directly supported in dash.js.

Q5 Would you have any interest in a set of unit tests for the integration of a web browser with DRM system(s) on media consumption devices?



Other: Already having some tests at <https://livesim2.dashif.org>, but FairPlay missing; I don't understand the question. Is it for the browser vendor? For the CDM vendor? For the app developer?

Q6 Would you have any interest in contributing to such a set of unit tests?



Q7 What are the key problems with DRMs in combination with EME on devices that would require consistent testing?

- Different codecs with the combination of DRMs and EME. Note that more complicated scenarios are emerging e.g. Multiperiod dash where the content may go in the clear and swap out to an external source.
- Distinguish if there is EME or native DRM playback from player side.
- When DRM causes a restriction on available codecs, outputs, performance that are not easily understood through the MSE/EME apis.
- It must be seamless to the user.
- In one word, transparent testing around 'decenc' type hacks
- Different DRMs support EME bit differently, from custom omissions to extensions, to slight modifications of behaviour of specific features.
- The combination of key systems with different codecs.
- Clear to Encrypted periods transitions.
- Persistence
- The main issue I see is lack of certificate server URL in DASH MPD, but that is being addressed in the DASH-IF content protection group.

Q7 continued

- Mixed clear and encrypted periods.
- APIs are not consistent. There are capabilities that are not covered by EME APIs on browsers. For example: query which keys are already available to the CDM, ability to return null for a license request where the requested key already exists.
- Interoperability with various use cases and stream formats.
- Regionally popular device support (Fetch in Australia, Sky in UK, HbbTV in places that support it) and aging hardware 2011-2017 that are still popular but not maintained.
- Implementations don't behave as expected.