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Widevine

Widevine is a proprietary [digital rights management](#) (DRM) technology from [Google](#) used by the [Google Chrome](#) and [Firefox](#) web browsers (and some derivatives), [Android](#) MediaDRM, [Android TV](#), and other consumer electronics devices. Widevine technology supports various encryption schemes and hardware security to restrict consumer access to distributed video content according to rules defined by content owners. Widevine mainly provides a [Content Decryption Module](#) (CDM) as a client to Google Chrome and other browsers and devices. Widevine is free to use by content providers and as such does not charge any fees for license generation or device integration.[1][2]

Contents

Usage

Widevine DRM is used with the [Chromium](#)-based proprietary web browsers and on [Android](#).[3] It supports [MPEG-DASH](#) and [HLS](#).[4] [Google Chrome](#) and [Chrome OS](#) make use of [Encrypted Media Extensions](#) and [Media Source Extensions](#) with Widevine, where it is used to decrypt content.[5] Over thirty [chipsets](#), six major desktop and mobile [operating systems](#), and Google properties such as [Chromecast](#) and [Android TV](#) have adopted Widevine.[6]

Companies including Amazon [Prime Video](#), [BBC](#), [Hulu](#), [Netflix](#), [Spotify](#) and [Disney+](#) use Widevine DRM to manage the distribution of premium content.[7][8]

It is also used by [Firefox](#) since v47, released in 2016,[9] enabled by default on [Microsoft Windows](#) and optionally on [Linux](#); it can be disabled and uninstalled in the browser settings.[10] Prior to that, Mozilla used [Adobe](#)'s *Primetime DRM* library for some versions.[11]

Users

Open source projects

- Shaka Player – Google developed open-source [HTML5](#) web-based player available on [GitHub](#).[12]

- Shaka Packager – Google developed open-source content packaging solution available on GitHub. The packager supports MPEG-DASH and HLS for VOD or linear based content.[13]

- Shaka Streamer – Google developed simple configuration file based tool for preparing streaming media content.[14]

- Electron Framework – Widevine partnered with castLabs to integrate the Widevine client into the Electron framework for use with desktop application development.[15] The integration, however, still requires anyone who wants to distribute/use it in their application to sign a license agreement with Google.[16]

- Kodi - starting from version 18, the add-on InputStream Helper (https://kodi.wiki/view/Add-on:InputStream_Helper) installs Widevine automatically on supported platforms for DRM playback.[17]

Criticism

In 2019, a developer tried to bundle Widevine in an Electron/Chromium-based application for video playing and did not get any response from Google after asking for a license agreement, effectively blocking DRM usage in the project.[18][19] He later got the reply:

> I'm sorry but we're not supporting an open source solution like this
>
> — Google Widevine Support, https://blog.samuelmaddock.com/widevine/gmail-thread.html

The same happened to other Electron projects.[20]

Developers of a competing browser to Chrome, Brave (a fork of Chromium itself), also had issues during their integration due to Netflix authentication on the reliability of the Brave browser.[21]

History

Widevine Technologies was a vendor of digital rights management software. One of its early technologies included a software system that replaced smart cards that eliminated the cost and logistical complexity of the card's distribution and introduced the abilities to process more sophisticated rights.[22] It was purchased by Google in 2010 within an acquisition trend that represented the search company's development needs.[23]

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External links

- Official website (https://www.widevine.com/) ✏