

A close-up photograph of green grass blades, heavily covered with small, clear water droplets. The lighting is bright, creating a vibrant green color and highlighting the texture of the grass and the glistening surface of the water.

VUALTO

VU DRM

THE SIMPLER APPROACH TO MULTI-DRM

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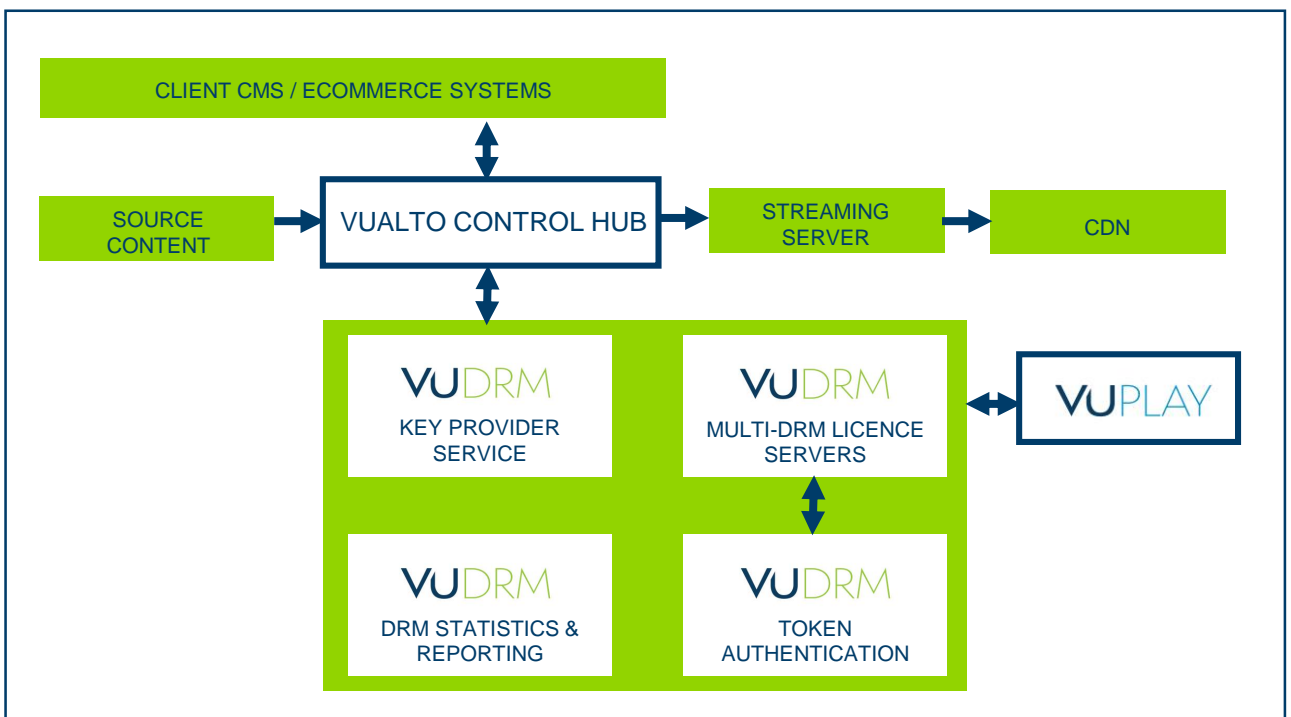
THE SIMPLER APPROACH TO MULTI-DRM

Digital rights management (VU DRM) has come a long way since the simple days of choosing one DRM provider to protect your browser- based content. The huge growth over the last 6 years in the number and type of connected devices meant that there was a period where broadcasters and content providers needed to implement different DRM workflows to successfully deliver to their target devices.

In the last two years, this situation has improved slightly with the introduction of Common Encryption, where some DRM vendors have agreed on a standard method of encryption and popular browsers have introduced built-in support for DRM rather than requiring a proprietary plugin to be installed. However, the picture is still far from crystal clear, and a multi-DRM, multi-player, multi- format approach is still required to be sure of supporting DRM across all connected devices and browsers. For example, there are circumstances today where to deliver across the most popular browsers (including older versions) will often require a combination of MPEG-DASH, HLS, and Smooth Streaming delivery formats combined with PlayReady,

Widevine DRM, and FairPlay Streaming to provide the content protection. Playback will require an MPEG-DASH player, HLS Player and Silverlight Player.

At VUALTO, we do not need our clients to be concerned about which DRM to use. We will deliver the one that works according to the browser/device/stream combination. VU DRM from VUALTO provides a clear and simple approach to multi-DRM whilst scaling to serve thousands of licence requests per minute. Combined with flexible and dynamic video delivery from Unified Streaming and VUPLAY from VUALTO, we can provide a complete solution for video delivery with DRM.



THE VUDRM PLATFORM – PROVIDING FLEXIBILITY AND SCALE

VUDRM is a hosted DRM platform providing PlayReady, Widevine, Primetime, and FairPlay Streaming with additional vendor support planned for the future. Our DRM works in conjunction with the client CMS that checks the user credentials and sends an encrypted token containing the DRM policy information to the player. The player then uses this token to request a licence to allow playback from the licence servers. To make it easy, we use one token format regardless of DRM type. At no time is the DRM policy burnt into the content. This DRM policy describes the business rules governing the playback of the content; for example, a VOD rental for 30 days, VOD buy to own, live streaming for 30 days, etc.

We can also provide a “no token” solution where broadcasters are forced to encrypt their streams but are not worried about monetisation or who is watching the content. This is particularly true of free-to-air content that may contain some studio content at certain times of the day.

The VUDRM ecosystem consists of a number of APIs and micro services deployed as separate Docker containers in AWS across multiple regions. This means that each part of the system can be scaled independently. Through our use of open source tools such as Rancher and SpotInst, we support both scheduled scaling to cope with predicted high audiences and automatic scaling based on latency metrics. Our VUDRM Administration system allows our clients to generate and test their DRM implementation settings, validate tokens, and see comprehensive stats on DRM licence issued based on DRM type, device, geographical location, etc. The flexibility of VUDRM allows our clients to mix and match their DRM technology providers. Our APIs provide easy integration options allowing clients, for example, to use their current supplier for PlayReady licenses and VUALTO for Widevine and FairPlay.



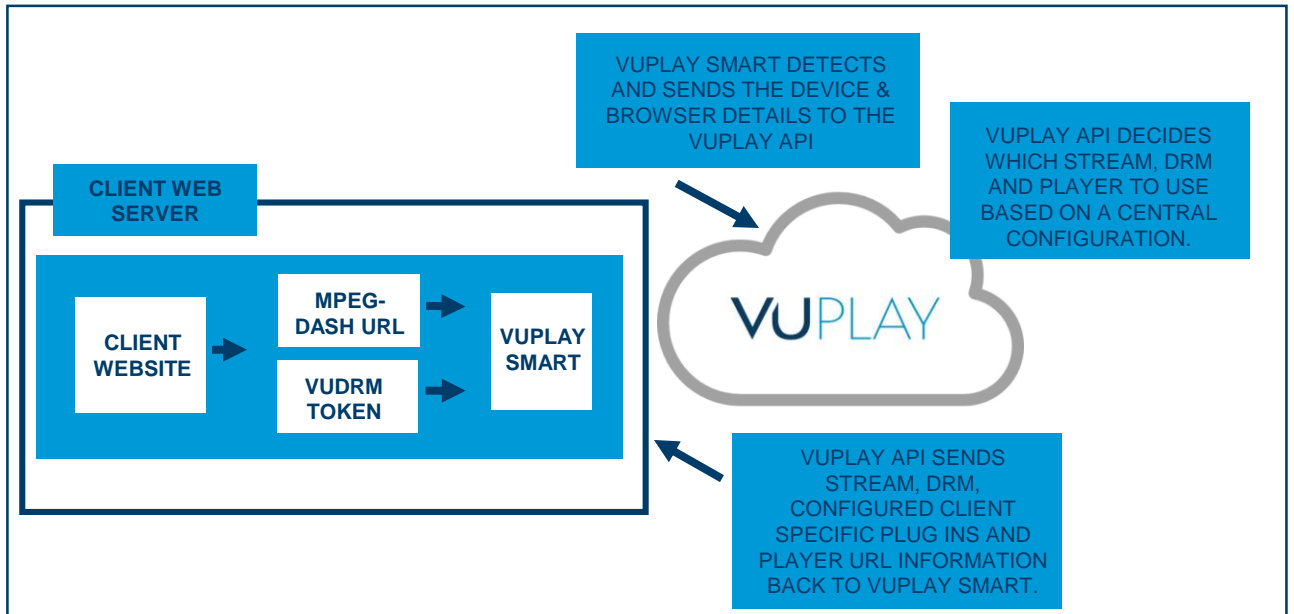
VUPLAY SMART – MULTIPLE PLAYER SUPPORT MADE EASY

Currently, delivering to multiple devices with DRM requires multiple players. Let's take the browser-based players first. A typical client scenario where we need to support both old and new versions of IE, Chrome, Firefox, and Safari with DRM could likely mean an MPEG-DASH player, an HLS player, and a Silverlight Player (for older browsers) are required. VUALTO provide their own set of DRM enabled players under VUPLAY and also integrate with other commercial players including JW Player and THEOPlayer from Open Telly. We also integrate with open source player projects such as dash.js and Google Shaka and are continually looking to expand our player compatibility.

Being able to provide and play back content with these players is one thing, but having to implement multiple players is complicated. Fortunately, VUALTO has VUPLAY SMART.

VUPLAY SMART is an intelligence layer that works in conjunction with other video players. VUPLAY SMART assesses the user's device, browser and requirements for video encryption and automatically serves up the most appropriate player to allow playback. This means that the client does not have to implement multiple players or write complex fallback code.

VUPLAY SMART is not in itself a player. It is a JavaScript component that is simply embedded into a website. Intelligence in VUPLAY SMART detects information about the user's environment, sends this back to our cloud hosted VUPLAY API which makes the decision on which player to render.



KEY FEATURES

- Supports playback in MPEG-DASH, Smooth Streaming, and HLS with a single JavaScript component.
- Supports PlayReady, Primetime, Widevine, FairPlay Streaming, and no DRM.
- Allows clients to set player preference Rules.
- Option to brand underlying players.
- Clients can make use of their existing JW Player or THEOPlayer.
- Integration with Google Analytics.

VUPLAY SMART stores individual client configuration settings in a central config. These settings control which of the underlying players are enabled and order of player preference, and it allows additional features like DRM to be configured. When the VUPLAY SMART JavaScript is invoked, a call is made back to the VUALTO VUPLAY API to retrieve the settings.

VUPLAY SMART will use Google Analytics or similar to provide information back to the client on the usage of the player. This will include

individual player type, browser, device etc.

MOBILE SDK'S – DRM EASILY INTEGRATED INTO EXISTING APPS

To deliver DRM-protected content to mobiles, a natively built app is usually required. There is some support on later versions of Android for playback of Widevine content in the Chrome browser, but this is early days and most clients choose to deliver via an app. For mobile devices that require DRM, VUALTO provides native player SDKs for iOS/tvOS (Apple TV) and Android. Our VUPLAY mobile SDKs provide a customizable player with support for live, VOD, and downloadable content with DRM. Fully documented and easily embedded into native apps, the mobile SDKs support multi-audio and subtitles as standard. VUALTO also provides DRM-enabled players and support for HbbTV, AndroidTV, Android Fire, and Samsung TV (Tizen SDK).

AIRPLAY AND CHROMECAST – DELIVERING THE BIGGER PICTURE

The casting facilities on mobiles and within browsers allow viewers to watch content on the big screen and take advantage of second screen functionality. VUALTO can support the delivery of DRM protected content from the casting device to Chromecast or Apple TV.

Our iOS SDK supports casting to the big screen via Airplay. FairPlay Streaming provides support for full Airplay.

For Chromecast, we provide a full VUALTO Chromecast SDK allowing easy development of custom Chromecast receivers with both DRM encrypted and no-DRM content. For video with DRM, you can cast from an iOS or Android app, the Chrome desktop browser or a button on the video player. Receiver apps provide a simple interface for a user to view their content. Once “cast” by clicking on a button in the Chrome browser, video will then be cast to the Chromecast device. The VUPLAY Receiver App provides a simple UI with a skinned player with metadata with remote control from the casting device.

CONTENT ENCRYPTION – RATIONALISE THE DELIVERY WORKFLOW

A crucial part of the DRM workflow is the encryption. VUALTO works with broadcast-grade streaming servers such as Unified Streaming in order to manage the encryption and packaging of both live and on-demand content, via the VUALTO CONTROL HUB.

The VUALTO CONTROL HUB provides a pick-and-mix selection of pre-built components that slot together to build video delivery workflows including live (VULIVE), live2VOD (VUREPLAY) and VOD (VUOD). These custom video delivery workflows can be created and hosted either by VUALTO or on the client’s own infrastructure.

This framework works in conjunction with third-party tool like the latest Unified Packager tool from the Unified Streaming Platform to configure and deliver end-to-end video streaming workflows with DRM.

Streamed on-demand content is taken in as a single source and can be transmuxed and encrypted on-the-fly as it is requested by the end user or pre-packaged.

EASILY SET UP – CONTACT US FOR A FREE DEMO

We can have our clients up and running on a demo VUDRM account within a couple of hours. Please visit the demo page on our website now, <https://www.vualto.com/services/demos/vudrm> to sign up for your free, no obligation trial.

