THE VIDEO EXPERTS BLOG

DRM Video Encryption: How Is Video DRM Making Your Content Safer Online?

By Frederik Nielsen | Posted on September 26, 2022 | 11 min Read

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Anyone who's ever enjoyed the famous Kentucky fried chicken is bound to ask, "what's in there?" after their first bite. What's in it exactly remains a secret to this day, though.

The secrecy around the notoriously well-guarded recipe is next level. According to urban legend, the founder of KFC, Harland Sanders, went to extreme lengths to keep the "eleven spices and herbs" used in making his trademark chicken a secret.

It's said that the original hand-written recipe is locked up in the KFC headquarter building. Why the secrecy? The answer is the basic rule behind trademarks. Coca-cola, IKEA, and many other big names in the retail industry also hide their trade-secret recipes with equal enthusiasm. Hiding content you've worked hard to develop is not a new phenomenon.

So what does fried chicken have to do with digital security? Everything. According to some experts, piracy losses will amount to more than $51.6 billion by the end of this year. Creative content and its security have always been intertwined together. Any content, recipe, or formula that can be easily replicated usually is.

In a fast-evolving world where everything is now online, locking information away in vaults isn't always the most practical solution. As a content creator who uses live streaming or video on demand as their medium, it's not always possible either.

The good news is that you no longer need to go to similar lengths as Harland Sanders to guard your business secrets. Along with communication and data sharing, progress has been linear on the security and copy-right protection frontiers.

So how do you magnetize viewers and increase your following while keeping your content safe from probing eyes? DRM software for videos is one technology making the digital scene safer for creative folks like you. So what is DRM, and how can you add DRM to the video content you put out? Let's start by trying to understand the technology itself.

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Understanding Digital Rights Management [DRM]

With DRM protection you can prevent your video content from unauthorized distribution and modification.

Every year, more than 127 billion episodes of US TV shows are viewed illegally. Digital right management or DRM is a protocol that safeguards all digital assets against piracy, plagiarism, and unauthorized usage.

If any income can be generated from digital content you've created or own, then DRM ensures only y get to benefit from that content. Sharing, redistribution, or making changes to online resources is mad that much harder by digital right management software.

With the increase in video sharing, live-streaming, and other means of online content delivery, DRM encryption is now a precondition for many online forums to ensure data security. Here are some types of digital resources DRM strives to protect online:

- Audio
- Video
- E-books
- Documents
- Live-streaming
- Research papers

What Is Video DRM?

Have you ever faced trouble sharing or copying a movie or video you bought online? That's video DRM in action. Most video content purchased from Google, Microsoft, or Apple comes encrypted because it's protected by DRM. That means you can view the video content but can't transfer it to other devices or share it with others.

Video sharing and live-streaming are hitting new levels of popularity. The industry is rising and is expected to hit an estimated global value of over $184.3 billion by 2027. So how do you keep video content that you've invested time, money, and energy into creating safe online?

Video content needs security that would keep the public from enjoying unlimited free access to it while still being available. Video DRM is the protocol that protects video content of all sorts by encrypting it. That way, only users granted access can view the protected content. That protects video content from piracy, illegal downloads, and editing.

The term "video DRM" is an umbrella term. Included under it are all authorizing and encrypting procedures set as standards against video piracy across all devices, such as smartphones, smart TVs, and browsers.

How does DRM for Video Streaming Work?

DRM encrypt its content so that only authorized users and devices can play it back.

The best analogy for understanding the inner workings of DRM for video streaming is to think of it as a 500-piece puzzle. Videos on-demand and live streams are not stored or transmitted as a whole. They are broken down by software into more manageable pieces depending on the quality of the internet connection available.

Similarly, DRM-protected videos are divided into bits that are then scrambled. The only way to reassemble the video files is through its specific decryption key. Meaning even if someone gets a hold of them, they can't put them back together unless they possess the decryption key. This virtual key is how any DRM platform keeps your content safe.

DRM video streaming boasts an additional layer of data safety because the decryption key is never really in possession of the user. As we know, people don't like to pay for things they can get for free. So by never making the key available, DRM-protected videos are virtually unreachable by everyone except t intended users and viewers.

access the media file.

After understanding the mechanisms involved in a DRM platform, let's take a look at what DRM can do for your video and live-streaming data:

- It disables users from taking screen recordings or screenshots of DRM-protected video content.
- Printing is either restricted or disabled. For some cases, a fixed number of prints are allowed.
- It adds watermarks to ensure piracy can't take place.
- Video content security is ensured by inactivating sharing, forwarding, and downloading features. Copying content onto other devices is often disabled as well.
- Access control is ensured by safeguarding editing access. Meaning no alterations can be made in your work by a viewer.
- Certain video DRM protocols only grant access to specific geographical locations, gadgets, and IP addresses.
- By building in over-use safeguards, DRM software can make audio or video files unavailable once a viewer has opened them a set number of times.

DRM Streaming Solutions: Types of DRM Software for Video Security

There are many versions of DRM online these days for securing video content. The most note-worthy among these are backed by the three tech powerhouses, Apple, Microsoft, and Google. Most types of devices, browsers, and applications are covered by one of the following video DRMs:

Microsoft's PlayReady

Microsoft's digital right management protocol is called Microsoft's PlayReady. Customers of PlayReady include major names in the streaming industry. Netflix, CNBC, Fox, Disney, Spotify, MTV, and Discovery networks are just a few.

Media content protected by play ready can be played on:

- IE11 browsers
- Edge browsers,

Apple's FairPlay

As the name suggests, FairPlay is a DRM streaming protocol designed to combat piracy and illegal download and sharing of Apple content. Files protected by FairPlay can be played on the Safari browser. The following Apple devices are also compatible with FairPlay DRM :

- iPhones
- iPads
- Apple TVs.

Google's Widevine

This DRM platform is owned and powered by Google. Google's DRM Widevine is compatible with a wide range of devices and browsers worldwide. Many are compatible exclusively with Widevine in the way of DRM streaming.

Widevine's video DRM comes pre-installed with most Android-powered devices and Chromium-based browsers. Here's a list of devices that support viewing of Widevine-protected content:

- Chrome browser
- Firefox web browsers
- Android devices
- Chromecast devices.

Benefits of DRM Protected Video Streaming

DRM helps to protect and preserve the value of on-demand content and service revenue.

Digital file sharing is of pivotal importance for every business and organization. DRM platforms such as Dacast allow you to share these media files carefree. Still need reasons for choosing video DRM for securing your data? Here are some benefits DRM platforms can leverage for your brand:

- **Maximizes Returns on Your Investment:** Creating video content takes days, if not weeks, of planning, recording, and editing. Even if you are live-streaming your content, it still takes a considerable investment to make it audience-ready. DRM streaming ensures that the one profiting from your work and investment is you.
- **Maintains Autonomy:** Remember back in high school when you didn't do your homework on time and copied it from your friend? When you add DRM to video files, you make it impossible for others to do that with your media content. Thanks to the internet, It's easy to re-brand someone's work and claim it as your intellectual property. Video DRM helps you retain ownership of your work.

particular content. That way, video DRM helps safeguard your revenue stream.

- **Makes AES Safer:** There are already many video encryption technologies out there that work in a similar fashion. Then what makes DRM ensure additional data protection? AES is an encryption method that bears a slight resemblance to DRM. The software encrypts videos by use of a 128-bit or 256-bit cryptographic key. Viewers then use this key to decrypt the media files and play the video. DRM is not a completely independent system but works in sync with AES's encryption mechanism. DRM provides additional security to ARS encryption against screen grabs, downloading, and copying. Another main area where DRM and AES diverge is the key's delivery and handling by browsers. That way, DRM augments the video security offered by AES software alone.

Offline Versus Online DRM

Media content needs protection against piracy, copying, and screen recording in offline modes as well as online. Media content is protected by DRM video streaming by surpassing storage of content and streaming directly. Meaning paid viewers can't download or share these DRM-protected videos. That's how online DRM works.

Always-on DRM or always-online DRM needs a consistent internet connection to be maintained to decrypt and play videos. Sometimes, viewers need certain content to be available to them in offline environments. To cater to that, many platforms allow downloads or offline viewing of movies, videos, or TV shows.

To ensure the security of copyright laws while video content is viewed offline, Offline DRM can be used. Offline DRM enables regulated playback and limited downloading of DRM-protected videos, regardless of internet availability. That enables paid users to access content in offline settings while still ensuring all the security benefits of Online DRM.

How to Add DRM to Videos on Dacast

Dacast now offers DRM-protected streaming for all customers of its Scale plan and all higher packages. The feature easily switches on or off for all existing videos and new uploads.

Impressed by all the advantages of DRM streaming and wondering how you can integrate video DRM to all your content on Dacast?

2. Enable the Digital Rights Management option
3. Save this new setting

That's it! Enjoy extra protection against screen recording for all your media content.

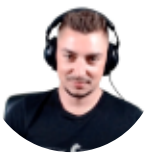
Conclusion

With all the advancements in digital security, it can seem like an overwhelming task to decide what type of security you need. Dacast takes away the guesswork and manages the technical side of video sharing and live-streaming.

Alongside guaranteeing exceptional security for all your content, Dacast also supports its members by providing glitch-free streaming and professional quality video-making tools. Freeing you up to focus on what you do best, making high-quality, engaging content that keeps bringing viewers back for more.

Don't just take our word for it, though. Dacast offers a **free 14-day trial**, so you can check out all the features we have to offer and more. So make an account now and see how far Dacast can take your video creation.

Get Started For Free



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