KeyOS Content Security Platform

MultiKey - A DRM as a Service (DaaS) multi-DRM platform powered by Microsoft PlayReady, Google Widevine, and Apple FairPlay DRM. Including support for CMAF, HLS, MPEG-DASH and Microsoft Smooth Streaming.

MultiKey Server - An In-Network, On Premise, or In Your Cloud Multi-DRM Platform licensed as a Software Solution. Supporting Microsoft PlayReady, Google Widevine and Apple FairPlay DRM.

MultiMark Server - A Watermarking and DRM server for live and VOD content. More than just a Watermarking SDK, MultiMark is delivered as a fully functioning server that works for applying watermarks and just in time packaging for DRM.

BuyDRM

Consumer DRM has been a mainstay in content protection since the early days of the streaming industry, yet piracy continues to grow.

Why is that?
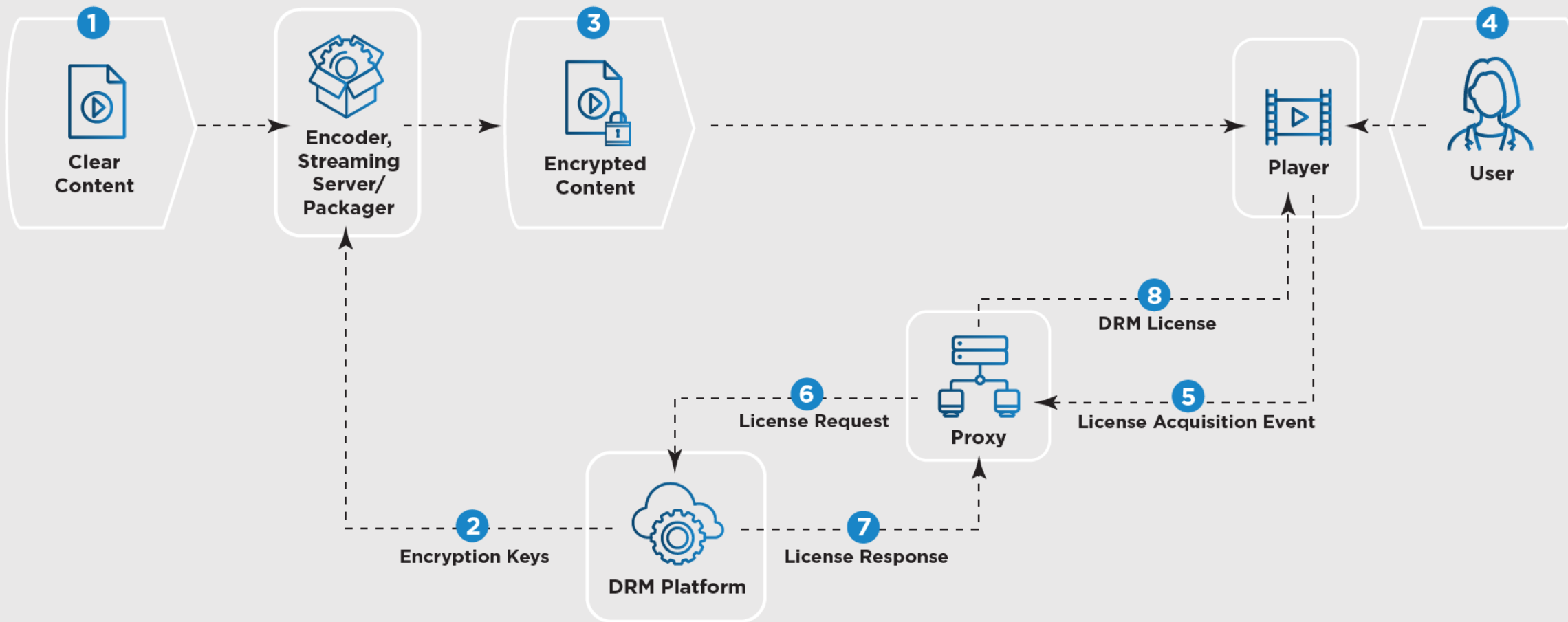
General DRM Workflow

How DRM Works

1 Clear Content

2 Encryption Keys

3 Encrypted Content

4 User

5 License Acquisition Event

6 License Request

7 License Response

8 DRM License

Encoder, Streaming Server/ Packager

Player

Proxy

DRM Platform

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Where are the Gaps? Screen Recording!

Screen recording is the most prevalent form of piracy in the world.

While DRM does a great job of only allowing authorized users access to content, in many cases it cannot prevent those users from using screen recording technology to pirate content.

Where are the Gaps? Screen Recording!

- **The prevention of screen recording using DRM is reliant on where the decryption takes place:**
  - Software based decryption happens in the Content Decryption Module of the browser.
  - Hardware based decryption happens in a Trusted Execution Environment.

- **In order to prevent screen recording the DRM and Browser in use must be native to the device – PlayReady + IE/Edge on PC's, Widevine + Chrome/Chromium on Android or Chromebook, FairPlay + Safari on Mac or iOS.**
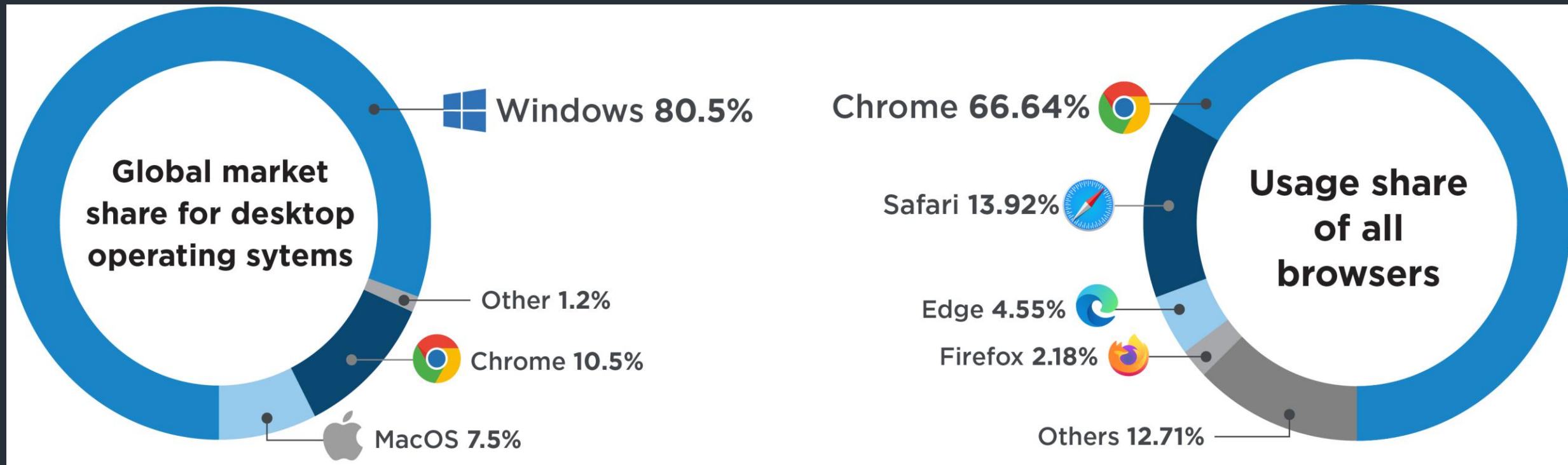
Stop Screen Recording Using Native DRM

HARDWARE (TEE) SUPPORT

	PlayReady	Widevine Modular	FairPlay
Android	✗	✓	✗
iOS	✗	✗	✓
Windows	✓	✗	✗
MacOS	✗	✗	✓

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Google Has No Home – Widevine is Easily Defeated

While PC's and Macs dominate the desktop operating system market, Google dominates the browser market. This means that on nearly 90% of desktops, more than 70% of those users' browser of choice is either Google Chrome or some other Chromium browser that does not have hardware access, and therefore, cannot prevent screen recording.

Global market share for desktop operating sytems

Windows **80.5%**

Other **1.2%**

Chrome **10.5%**

MacOS **7.5%**

Usage share of all browsers

Chrome **66.64%**

Safari **13.92%**

Edge **4.55%**

Firefox **2.18%**

Others **12.71%**

Google Chrome is Limited to 720p Content

The problem is so prevalent that studios limit the allowed resolution for streaming on Google Chrome and other Chromium based browsers to better protect their highest value content.

https://news.ycombinator.com › item

Most likely you're watching in 720p. In Chrome, Firefox and ...

In Chrome, Firefox and Opera you're getting **720p** max. To get 1080p you need to be watching in Internet Explorer, Safari or on a Chromebook.

Jul 24, 2020, 10:52am EDT | 188,827 views

What's The Best Browser For Netflix? (Clue: It's Not Google Chrome)

Barry Collins Contributor ⓘ

Consumer Tech

I am a consumer tech expert writing about Windows, PCs, laptops, Mac, broadband and more.

Follow

Microsoft and Google have come to an agreement that will allow Widevine access to the hardware environment on PC's.

One of the largest gaps in content security allowing piracy to flourish is about to be closed.
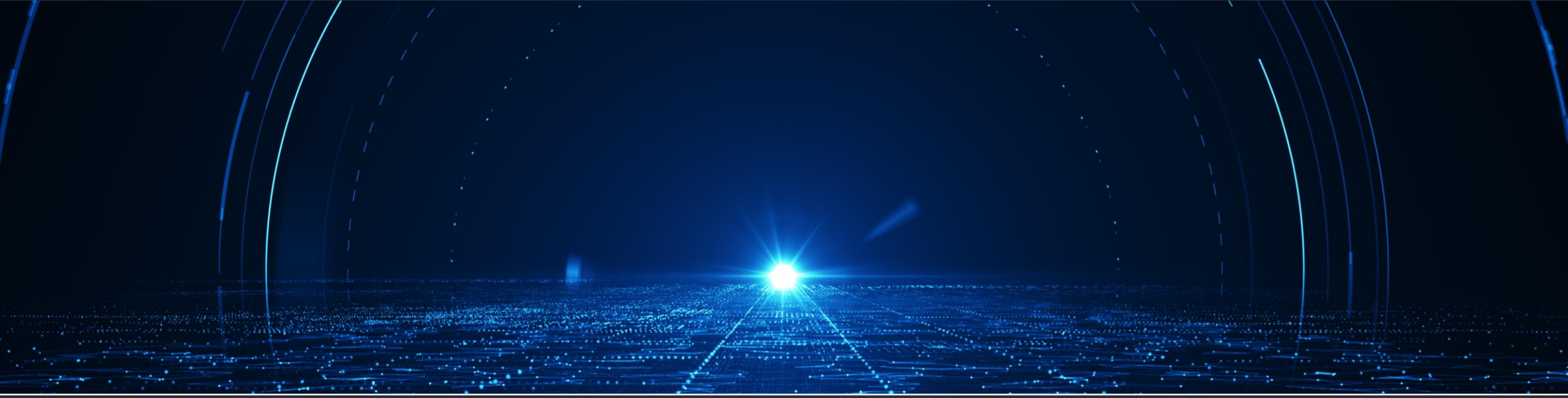
Microsoft PlayReady

WIDEVINE

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Gaps Still Remain

❖ **Widevine Still Does Not Have Hardware Access on Mac**

❖ **No DRM Technology Can Prevent Someone Setting Up an HD Camera in Front of the Screen**

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Recommendations – Closing the Gaps

Enforce Hardware DRM

When possible, always enforce the strictest level of DRM available.

Give Your Highest Value Content the Highest Level of Security

This may include forcing Mac users to only use Safari.

Compliment DRM with Forensic Watermarking

Forensic Watermarking is the only solution to deter pirates from setting up an HD Camera in front of a screen to record.

Five Important Considerations When Choosing a DRM Vendor

By Gabe Elton ⊙ January 27, 2022

🏷 DRM , 🏷 PIRACY , 🏷 OVHCLOUD , 🏷 ANTI-PIRACY , 🏷 ADDING DRM

When faced with a decision of what DRM vendor to choose, the landscape can prove to be a bit cloudy. While there aren't many companies to choose from, there are several important things that need to be considered.

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Deploying DRM Workflows with FFmpeg

By Romans K. ⊙ January 12, 2022

🏷 DRM , 🏷 PIRACY , 🏷 OVHCLOUD , 🏷 ANTI-PIRACY , 🏷 FFMPEG , 🏷 BENTO 4 , 🏷 SHAKA PLAYER ,

🏷 ADDING DRM

When people come to us asking for DRM integration advice, they usually already have a video workflow that includes content encoding and packaging. Customers mostly use different 3rd party vendors that are already integrated with BuyDRM like...

READ MORE

The Case for Robust Video Watermarking with DRM

By Christopher Levy ⊙ December 07, 2021

🏷 DRM , 🏷 WATERMARKING , 🏷 PIRACY , 🏷 OVHCLOUD , 🏷 ANTI-PIRACY

In this blog, we will be looking at video watermarking and answering some important questions. What is it? How is it done? What do I need to look for in a watermarking solution? How is it used to detect piracy?

READ MORE

BuyDRM in the News

Case Studies
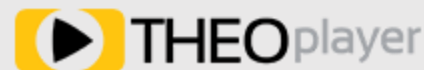
The Academy of Motion Picture Arts and Sciences Leverages BuyDRM's KeyOS Multi-DRM Platform for DRM Support on Forensically Watermarked Streams in its Academy Screening Room for The Oscars

November 2, 2020

BuyDRM Has Empowered Redbox to Distribute Premium Content Through its Over-The-Top Offering

November 1, 2020

BuyDRM Helps StreamOnline protect and Distribute Content to an Audience of 1.5 Million Across Europe

August 5, 2020

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