VIDEOMARK®

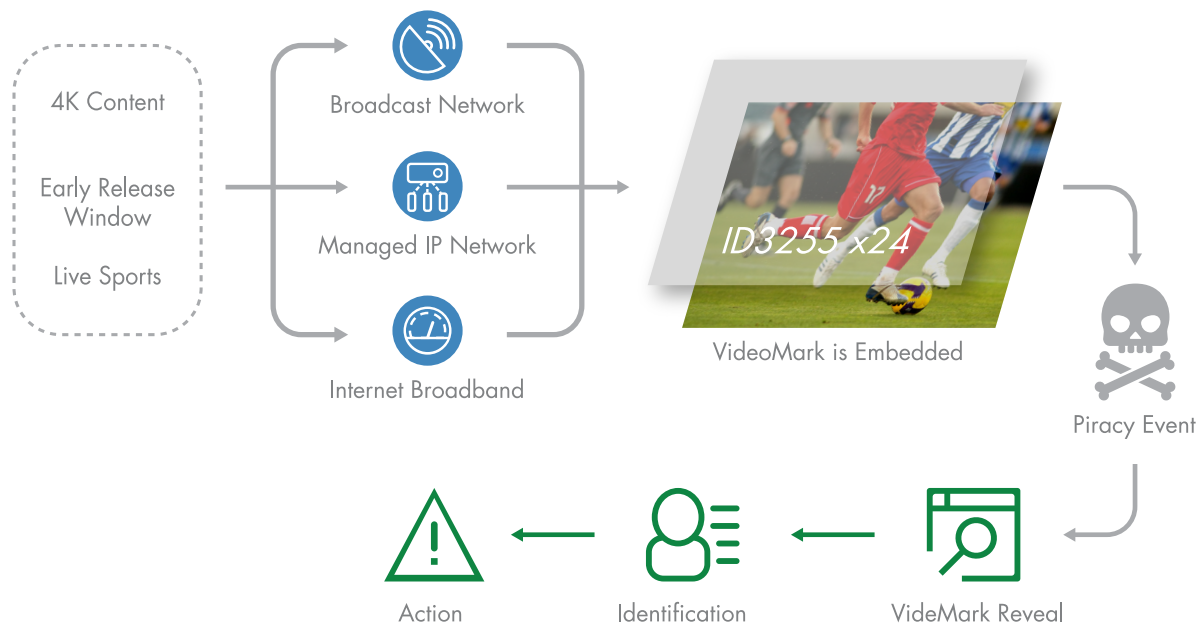## Session-Based Video Watermarking for Forensic Tracking

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PROTECT VALUABLE CONTENT OVER ITS FULL LIFECYCLE

THE CHALLENGE

The emergence of 4K/UHD content has come with a comprehensive set of new security requirements from MovieLabs. Standard conditional access systems are no longer deemed sufficient so operators must deploy a video watermarking solution to obtain valuable content such as:

- Premium 4K/UHD
- Live action sports
- Early release window/video on demand

Redistribution threat is curtailed using VideoMark for embedding and extraction.

THE SOLUTION

Verimatrix is the only company to offer a fully integrated watermarking solution with ultra security level alongside VCAS key management for UHD/4K content on both managed and unmanaged networks. The VideoMark® watermarking solution is comprised of time-proven technologies combined with innovative approaches. It enables rights owners and pay TV operators to directly address key challenges in maximizing the revenue potential of high value content such as live action sports, UHD/4K video and premium, early release video-on-demand.

WHY VERIMATRIX VIDEOMARK®

Verimatrix released the industry's first digital forensic watermark that can track piracy to the source in 2005. The company has invested more than 12 years of research and development into a robust watermarking solution. Verimatrix's focus on security specific solutions and seamless customer deployments has been further proven through industry validations:
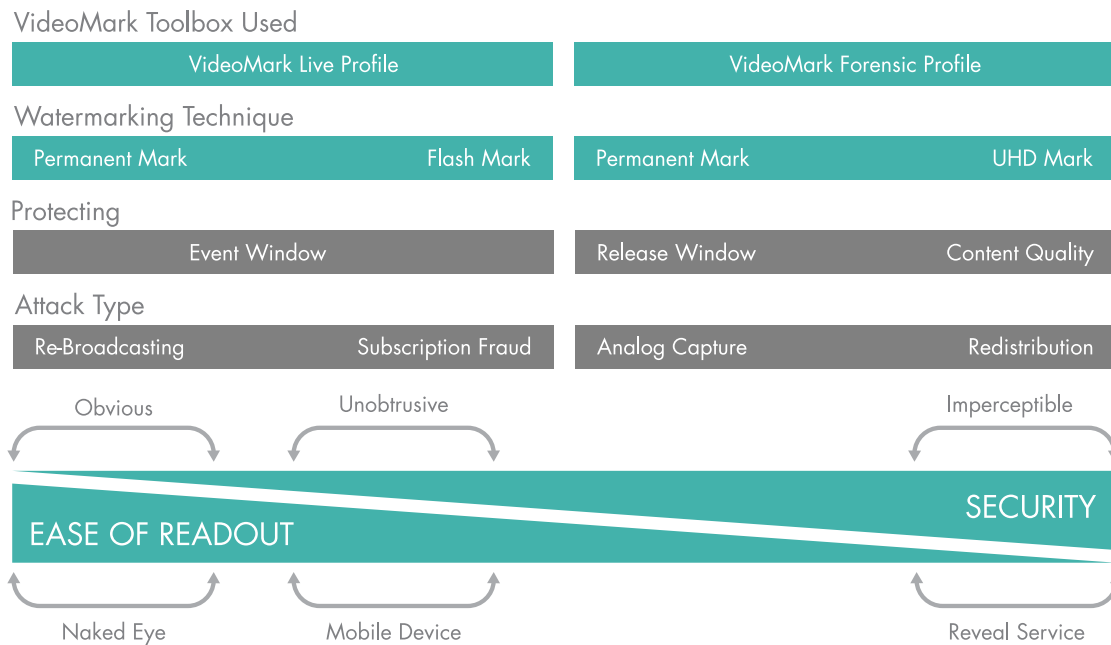
- The integration of VideoMark forensic watermarking with Samsung's next-generation smart TVs to establish a secure chain-of-custody across the UHD ecosystem
- An unmatched number of pre-integrated set-top box manufacturers and chipset vendors
- Four-time winner of the CSI award for best ultra HD TV technology

VIDEOMARK SOLUTION SET

Verimatrix VideoMark technology offers a set of tools that embed and extract watermarks in client devices, a more scalable approach than server-side watermarking. No pre-processing of the video content or specific headend integration is necessary to utilize these powerful tools:

- **VideoMark Forensic Profile:** session-based, user-specific tracking and source identification
- **VideoMark Live Profile:** real-time marking and blocking of live content leaks
- **VideoMark Reveal:** embedded payload extraction with tightly controlled cloud application

Deployment is streamlined through the pre-integration of our ViewRight® Secure Player on VideoMark OTT client devices (Android, iOS, PC, Mac, etc.).

VideoMark Toolbox Used

VideoMark Live Profile	VideoMark Forensic Profile

Watermarking Technique

Permanent Mark	Flash Mark	Permanent Mark	UHD Mark

Protecting

Event Window	Release Window	Content Quality

Attack Type

Re-Broadcasting	Subscription Fraud	Analog Capture	Redistribution

Obvious   Unobtrusive   Imperceptible

EASE OF READOUT   **SECURITY**

Naked Eye   Mobile Device   Reveal Service

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VIDEOMARK KEY PARTNERSHIPS

VideoMark is widely used and integrated by many state-of-the-art chipsets, devices and smart TVs. Verimatrix is focused on delivering seamless integration through the extended value of these pre-integrated offerings.

Samsung SMART TV · BROADCOM · MStar · HISILICON · MEDIATEK

TeleChips · MARVELL · Amlogic · REALTEK · ALi

ABOUT VERIMATRIX

Verimatrix specializes in securing and enhancing revenue for multi-network, multi-screen digital TV services and is recognized as the global number one in revenue security for connected video devices. Its award-winning Video Content Authority System (VCAS™) solutions enable video service providers to cost-effectively extend networks and enable new business models. www.verimatrix.com

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