NAGRA
KUDELSKI

FACTSHEET
NEXGUARD STREAMING ON EDGE

PROTECT HIGH-VALUE LIVE & VOD OTT CONTENT

Streaming is now the dominant form of consumer video consumption.

To protect valuable content from piracy requires a forensic watermarking solution that offers enhanced scalability and optimization of network usage and resources.

The answer - placing the forensic watermarking function directly at the CDN Edge where individual consumer streaming sessions are delivered.

SOLUTION BENEFITS

✓ **Robust Protection:** Imperceptible video watermark protects against ripping, scaling, and transcoding, enabling traceability to each on-demand or linear streaming session.

✓ **Dynamic Deployment:** Protect content and deliver across multiple resolutions, including SD, legacy HD, 4K/UHD, and HDR, without impacting the viewer experience.

✓ **Flexible & Scalable:** Stream to any device type without having to change your application. Easily scale to millions of concurrent sessions with CDN Edge and caching.

✓ **Perfectly Combined:** Supported by the cloud-based NexGuard Detection Service provides automated, fast, blind detection of NexGuard forensic watermarks from pirate video acquired by anti-piracy services.

✓ **Edge Optimized:** Low latency, high scalability, and low-cost edge computation capability.

For over 15 years, major movie studios, content owners, and distributors worldwide have entrusted NexGuard Watermarking technology.

NexGuard Streaming on Edge

Key Piracy Fighting Use Cases

▲ PREMIUM CONTENT PROTECTION

Protect early release and 4K UHD/HDR content, helping pay-TV operators meet the MovieLabs enhanced content protection specification and the Hollywood studios' requirements.

▲ DIRECT TO CONSUMER

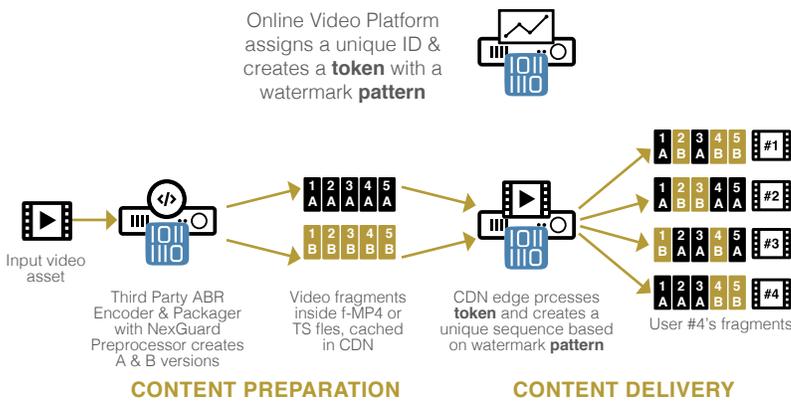Protect content delivered via linear services, PPV, VOD, virtual film festivals, and online screening.

▲ LIVE SPORTS & EVENTS

Enable service providers to actively tackle content theft quickly and efficiently for time critical live events.

▲ ORIGINAL CONTENT

Protect your in-house developed movies and episodic content .

QUICKLY IDENTIFY PIRACY & SHUT IT DOWN

Online Video Platform assigns a unique ID & creates a **token** with a watermark **pattern**

Input video asset

Third Party ABR Encoder & Packager with NexGuard Preprocessor creates A & B versions

Video fragments inside f-MP4 or TS fles, cached in CDN

CONTENT PREPARATION

CDN edge prcesses **token** and creates a unique sequence based on watermark **pattern**

User #4's fragments

CONTENT DELIVERY

Key Features:

- Lowest end-to-end latency
- Optimized content preparation and cache usage
- Delivers a uniquely traceable sequence to every end-user with detection from minutes of pirated video
- Detection is fully automated—no additional information required.
- Works with all standard codecs (including H.264, HEVC, AV1, VVC, VP9, AVS2), streaming formats (including HLS and DASH) and DRMs
- Pre-integrated with a range of partner streaming products to support the rapid deployment of forensic watermarking on CDN edge.

Partners:

Akamai

aws

Edgio

ELUV.IO

fastly

Media CDN

GLOBAL PAY-TV LEADER, $1B REVENUES, LONG-TERM STABILITY

WHO WE ARE

SUCCESSFUL PROJECTS

500+
TV Providers Globally

Focused on helping solution providers increase monetization and consumer reach through comprehensive security solutions.

SATISFIED CLIENTS

500m
Secured Devices Served Daily

Customer-focused. Delivering solutions as a service to optimize time to market and reduce operational overheads.

CUSTOMER PROTECTION

4000+
Patent Portfolio

Robust IP protection with over 500 patents attributable to a wide range of innovative technology solutions.

FULLY CHARGED AND READY

Consumers are the central focus of all NAGRA Kudelski solutions. Working worldwide with major pay-TV and streaming service providers, we continually incorporate learnings and investment to ensure our solutions are fit-for-purpose to face the demands of today's consumers.

From turnkey applications to custom application development, NAGRA Kudelski is here to support your business needs.

Contact us to learn more.

NAGRA KUDELSKI

NAGRA Kudelski is the world leader in the development and delivery of state-of-the-art technologies to secure the revenues of content owners and service providers for digital television and interactive applications across all network types.

anti-piracy.nagra.com
dtv.nagra.com