

NAGRA NexGuard Watermarking for Pre-release Content

Product presentation

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CONTENT VALUE PROTECTION FROM ORIGIN TO CONSUMPTION

CONFIDENTIAL

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AGENDA

Landscape

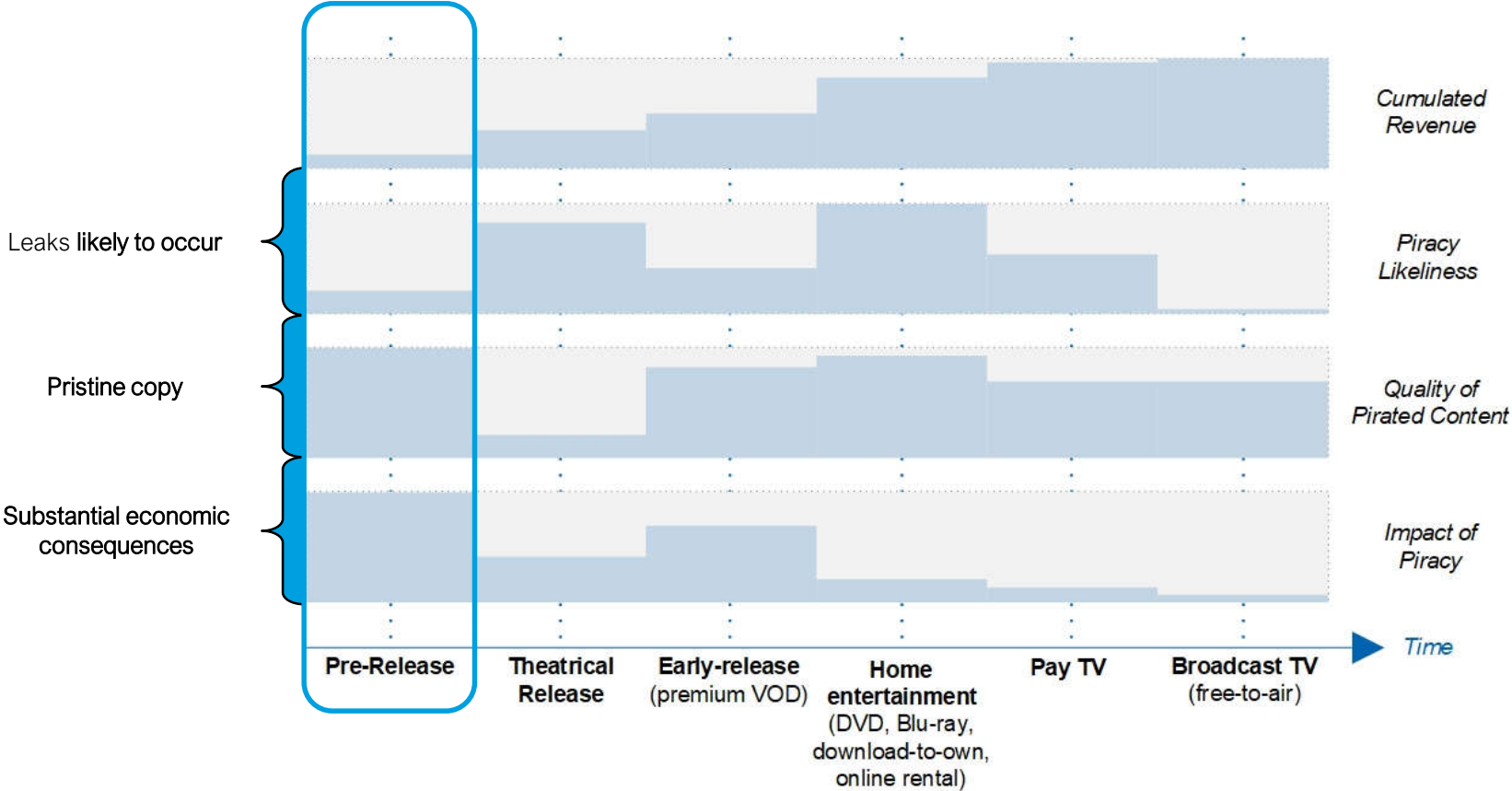
Background information on NexGuard watermarking

End-to-end watermarking solutions with Nagra

NexGuard for Pre-release content and eScreener

NexGuard Detection Service

Any leak has a significant impact on revenue



Leaks occur in pre-release workflows

- Pre-release leaks are mainly coming from insiders
- Capturing high-quality content is easy
- Distribution to millions of people is easy
 - Pirate websites offer a high-quality experience
 - Content delivered to small and big screens
 - Not restricted by release windows or geoblocking



A woman with long dark hair and blue eyes is holding a black clapperboard with white text and markings in front of her face. The clapperboard is partially obscuring her eyes. The background is a blurred green and grey. A semi-transparent white box with black text is overlaid on the bottom half of the image.

**Content protection is critical
to the creative industries**

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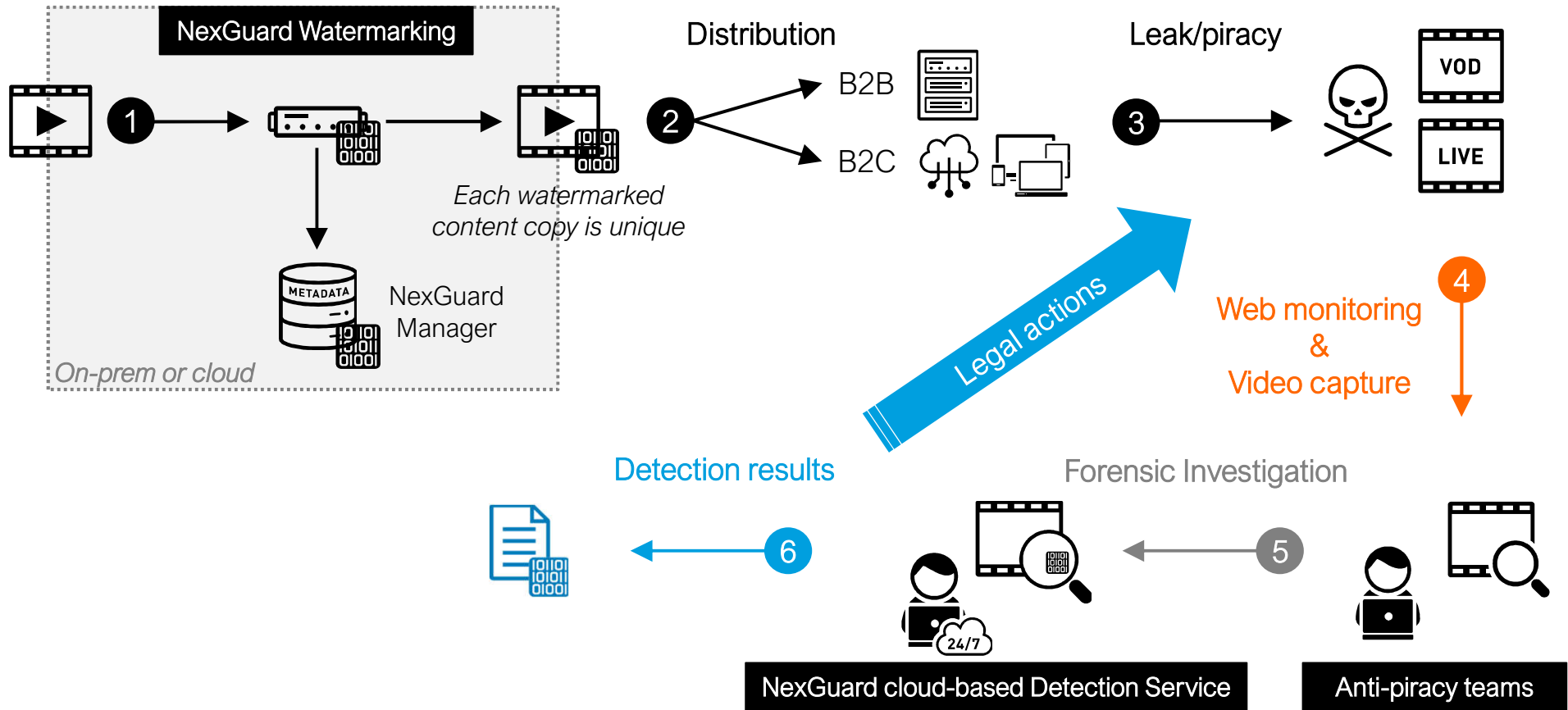
NexGuard Detection Service

NAGRA, your trusted partner



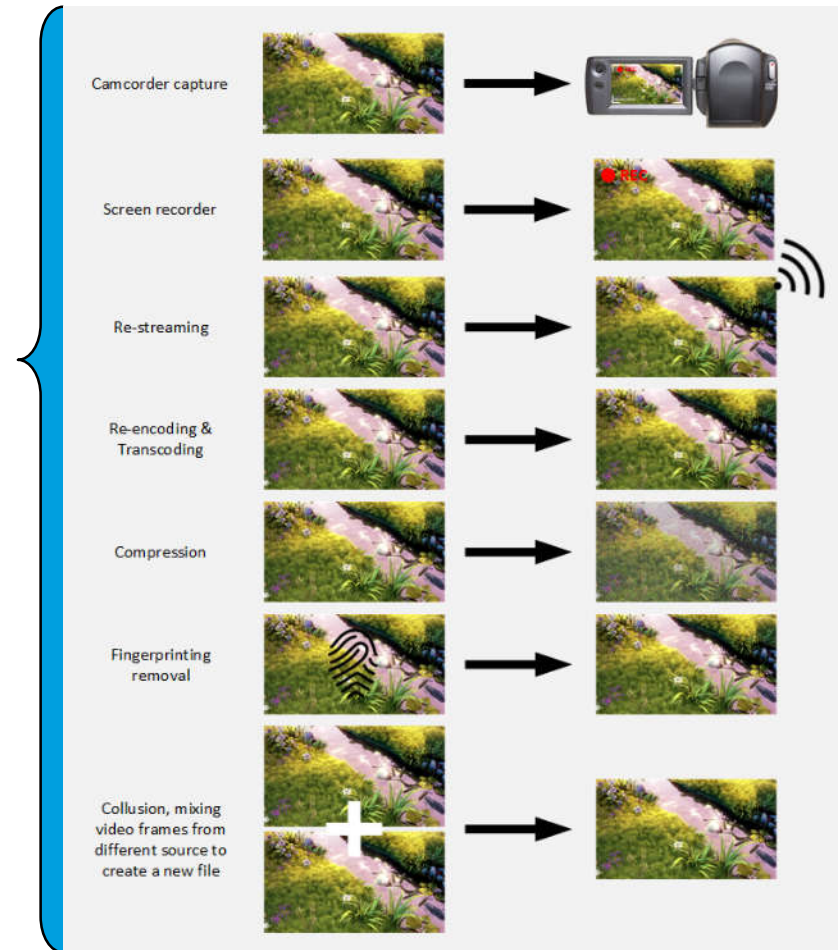
- Proven forensic watermarking technology (NexGuard)
- Deployed at Hollywood Studios, content owners and post-houses for the past 15+ years
- Strong roots in technology
 - More than 20 years of R&D in forensic watermarking
 - NexGuard watermarking technology originated from Philips and Thomson/Technicolor
 - NexGuard business acquired by Nagra in 2016
 - Thought leadership
 - Strong patent portfolio
 - Dedicated R&D with focus on forensic watermarking, anti-piracy services

The power of forensic watermarking



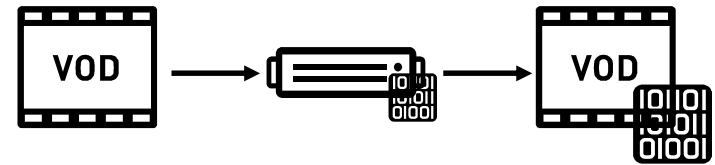
Key characteristics of NexGuard watermarking

- **Imperceptibility**
 - Validated by the Hollywood Studios
- **Large payload capacity**
 - Millions of unique Watermark IDs
- **Robustness against severe degradations/attacks** seen in the field, beyond the point that it has any commercial value
 - Camcording & screen recording
 - Box (low end pirate set-top-box)
 - Playlist (pirate service with subscription)
 - Web (free streaming of pirated content)
 - Social networks (e.g. Facebook) and Youtube

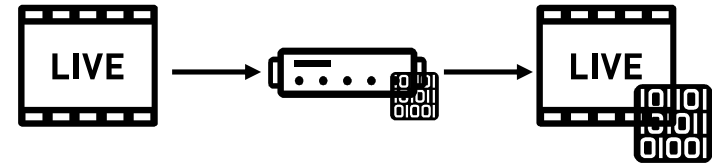


3 levels of granularity with NexGuard watermarking

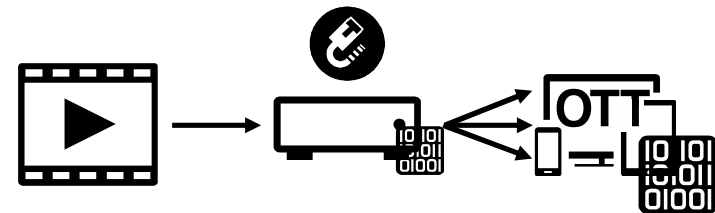
- **File distribution watermarking**
 - For studios, post-houses, VFX providers, etc.
 - To identify pre-release leaks on mezzanine files



- **Network-level watermarking**
 - For broadcasters and sports rights owners
 - To identify pirated licensee's TV channels or pirated distribution paths



- **Session-based watermarking**
 - For studios, broadcasters and PayTV operators
 - To identification pre-release leaks on B2B eScreener or early-release piracy on B2C OTT streaming



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Background information on NexGuard watermarking

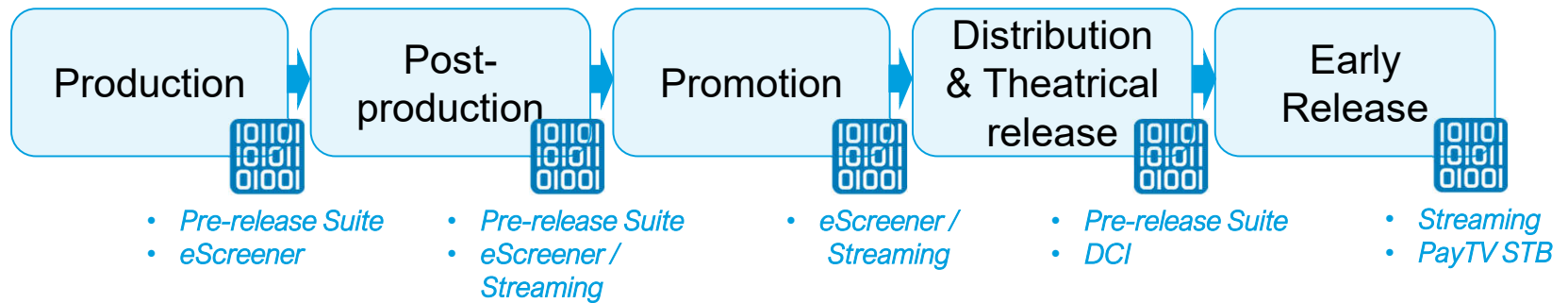
End-to-end watermarking solutions with Nagra

NexGuard for Pre-release content and eScreener

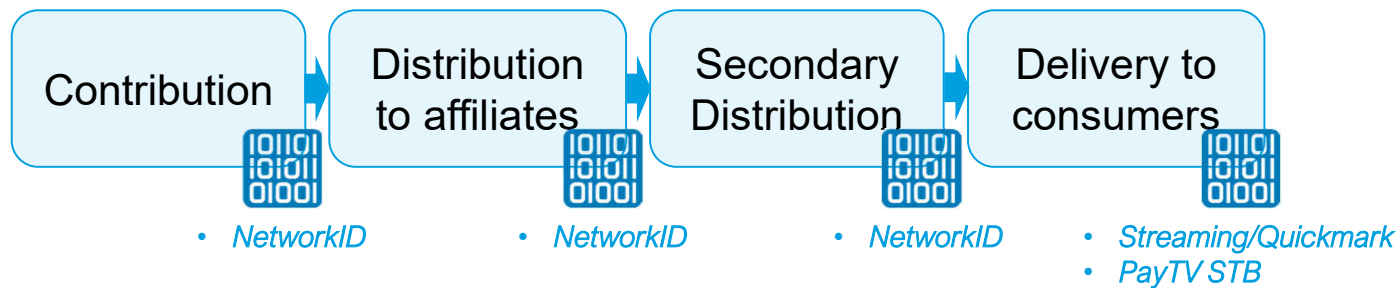
NexGuard Detection Service

NexGuard forensic watermarking solution at every stage

File workflow



Linear workflow



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Landscape

Background information on NexGuard watermarking

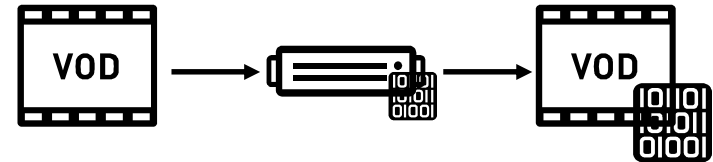
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NexGuard for Pre-release content and eScreener

NexGuard Detection Service

NexGuard for post-production and file distribution workflows

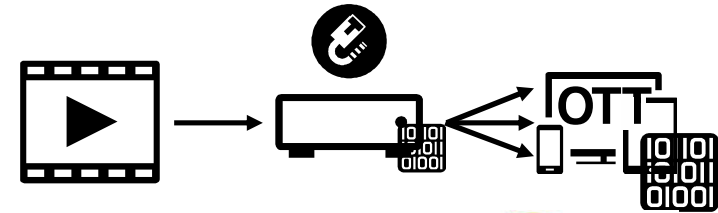
- Integrated into industry-leading transcoder vendors



- USPs
 - Seamless deployment into existing workflow, on prem or in the cloud
 - Flexibility on the licensing model (floating vs. fixed)
 - Watermarking technologies that meet content owners requirements
 - Single entry point for forensic detection

NexGuard for B2B eScreener

- Integrated into industry-leading encoders and CDNs



aws elemental

FFMPEG

WOWZA

Akamai

amazon cloudfront

Hybrik

telestream

KALTURA

Unified Streaming Platform

Limelight NETWORKS

CenturyLink®

- USPs

- Seamless deployment into existing workflow, on prem or in the cloud
- Choice of download-to-go or scalable streaming via CDNs (Akamai, CloudFront, LimeLight)
- Partnership PIX, 5th KIND, Labgency, Mediafly, Brightcove for turnkey solutions
- Watermarking technologies that meet content owners requirements
- Single entry point for forensic detection

Selected customers for pre-release content



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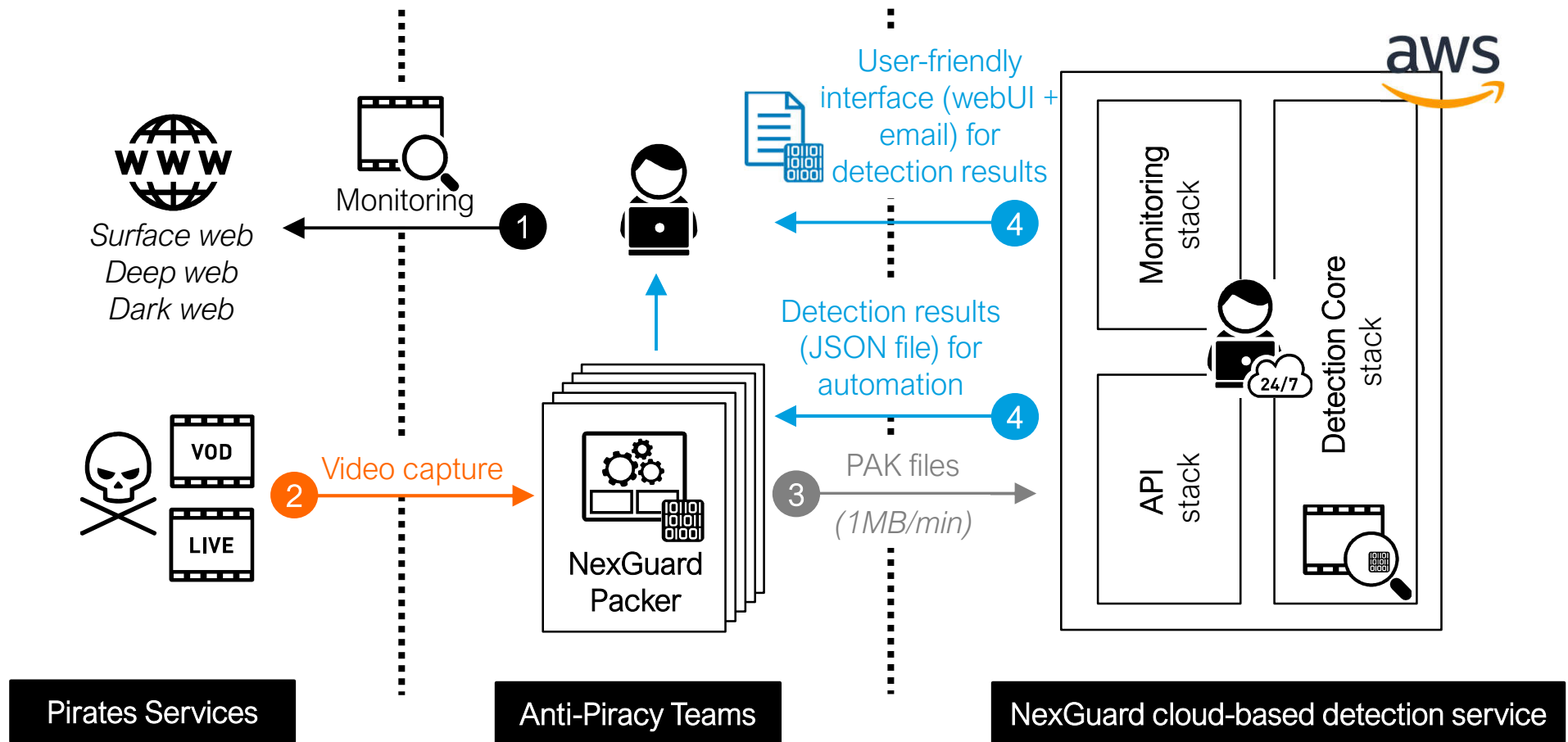
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NexGuard for Pre-release content

NexGuard Detection Service

How the NexGuard Detection Service works?



Key characteristics of the NexGuard Detection Service

- **Scalable**
 - Fully automated
 - For file & live content
- **Secure**
 - Blind detection
 - Running only on encrypted packed files
- **Fast**
 - Detection results within minutes
 - Running in parallel on all watermarking keys and technologies

Selected customers for the Detection Service

NBCUniversal



CANAL+

HBO

AMC NETWORKS™

beIN SPORTS

osn



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THANK YOU

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