



# Secure, Real-Time Watermark Detection For Effective Piracy Monitoring

**Graham Oakes**

CEO Media Science International, Chairman of the Digital Watermarking Alliance

**Lawrence Low**

VP Business Development, Irdeto

**Michael Gamble**

Product Manager, Media Science International



# OTT Video creates a Perfect Storm for Pirates

- Effectively monetizing streamed media is one of the biggest challenges facing content providers today.
- Streaming will continue its meteoric rise as one of the primary means of content consumption
- Monetization challenge: “you can’t monetize what you can’t identify”

**Content owners are now asking themselves how, not whether, they should be executing a strategy to mitigate the impact of Video Piracy**

# DMCA Notices: Necessary but not Sufficient

- Does issuing DMCA takedown notices alone constitute a “strategy”
- DMCA notices reduce the availability of pirated content
- Pirate content originates from multiple sources which cannot be identified
- Identifying where the leak came from is essential for any anti-piracy strategy

**Only comprehensive forensic watermarking can identify  
the source**

# Introduction to Digital Watermarking

- Digital Watermarking is a signal processing technique to embed a pattern of bits dispersed into the digital image, video or audio content
- Digital Watermarks are designed to be imperceptible to the human eye, or in the case of audio clips, to be inaudible to the human ear
- The main purpose of digital watermarks is to provide forensic track and trace capabilities to deter unauthorized distribution of high value digital content

**Digital Watermarking: The only proven method to effectively deter piracy**

# Digital Watermarking use cases

- MovieLabs Published the Enhanced Content Protection Guidelines document for 4K UHD Content mandating watermarking
- Watermarks are embedded by many different stake holders throughout the distribution chain
  - Pre-release Screeners
  - Digital Cinema
  - Set-Top Box
  - OTT

**With multiple sources and multiple watermarks  
how do we identify which watermarking  
technology has been used ?**

## What's needed: Identify the Source

- Create an open source watermark identifier standard.
- Integration into all distribution channels
- Detectable within a few seconds
- Embedded basic information
- A watermark “Heart Beat”

**How do we implement real-time watermark detection  
in our monitoring systems ?**

# How do we implement real-time watermark detection in our monitoring systems ?

## Panelist Q&A

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