

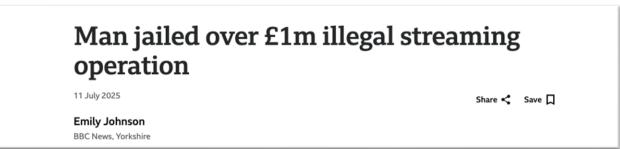
The Hidden War Against Illegal Streaming & Video Piracy



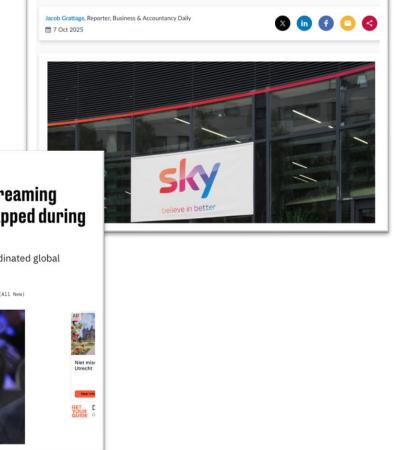
Telangana

Piracy is clearly on the rise.

Some of the news in the last months







Accountant who quit to run illegal streaming

service jailed





Scale of Video Piracy today:

- > 80% via Illegal Video Streaming
 - Live Sports
 - VOD (movies and series)
 - > IPTV (classical tv channels)
 - Music and others
- > 20% other methods
 - Social Media
 - direct downloads
 - > P2P Torrents

Only within EU the IPTV piracy market generates +1 billion EUR/year

Video Piracy damages:

Media businesses are fully aware of the damage caused by piracy:

- LaLiga: <u>US\$600 million</u> gone each year, with 3,000 illegal streams per match.
- > NFL, NBA, UFC: US\$28 billion in annual losses.
- MultiChoice: 233 court cases in six months, double from last year.
- Film industry: US\$97 billion lost annually.



Why Piracy is raising?

Easy to exploit:

- Legacy IPTV and DVB solutions exploits remain available.
- Online streaming allows access to unmanaged devices.
- Known exploits of most common used DRMs.

Attractive even for low entry-level pirates:

- Easy access to information and AI tools.
- Profitable advertising models.
- Low operating costs (CDN leeching).
- Cryptocurrency and Organized Crime involvement.





What is the actual impact of Piracy for an Operator?

- Decreases the ROI of content rights:
 - Why pay when free or cheaper is easy to access.
- Increases Operational Costs:
 - With CDN leeching pirates use operators' infrastructure for their service. Making the PaaS fully profitable.
 - Increases CDN and other back-end solutions load (e.g. Metadata extraction).
- Creates vulnerable end-users:
 - Phishing of personal data is enabled though trojans or illegal subscriptions.





Where are the risks and exposures?

Today's most vulnerable video consumption platftorms:

- 1. Web Browsers (most accessible, dev tools, extensions, MTM attacks)
- 2. Mobile Android (root access, app tampering, replay attacks, APK repackaging/resigning, memory dump, etc)
- 3. Set-Top-Boxes (HDMI capturing, unpatched firmware)
- 4. SmartTV (outdated OS, weak app sandboxing, MTM attacks)
- 5. iOS (jailbroken devices, replay attacks)





What are the pirates looking for and how are they obtaining them?

- > Token or Client ID Theft
- > Decryption Key Theft
- > Credentials Theft
- > Preventing/replacing adds



HOW: Player/app Tampering, Reverse engineering, overlay attacks, MTM attacks, etc





Cost of the Problem

for the Operator - Real Example

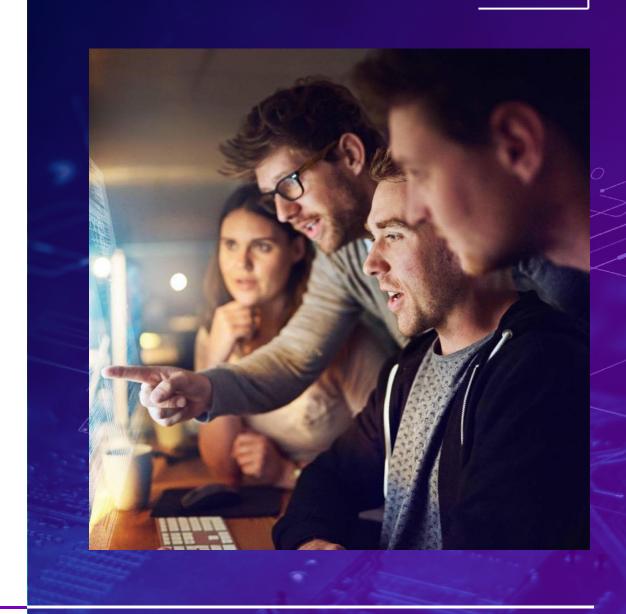
Business Type: PayTV Operator

Subscribers: **1.6M (2023)**

ARPU: \$30/month

Video Distribution: Managed STBs and OTT Apps

- Noticed increased CDN usage without special events or changes to the service offering. All traffic came from valid tokens and Client IDs
- Segmented CDN traffic into known and unknown Apps and Players
- Calculated \$300K / year additional CDN costs for traffic from unknown Clients and Players



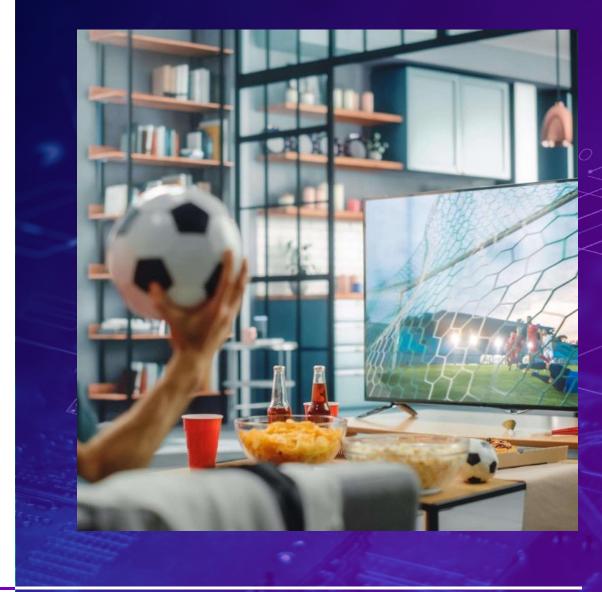


Additional Cost of Piracy

Real Example

During the time of **Piracy** occurring from this **customers CDN network** and high-quality premium content readily available in the region, this PayTV Operator realized net declines in subscribers.

- Trailing 4 year subscriber growth 100K net new subs / year
- Net subscriber loss during year of Piracy from own CDN – 60K subs
- Opportunity Cost of Piracy:
 \$ 1.8M per month subscription fees





The Solution: Verimatrix Streamkeeper Suite



Streamkeeper is the industry's first battle-ready cybersecurity solution engineered to hunt down & take out streaming video piracy.

- Single platform for antipiracy + cybersecurity
- Fast integration (from months to minutes)
- Beautifully designed, engineered to scale

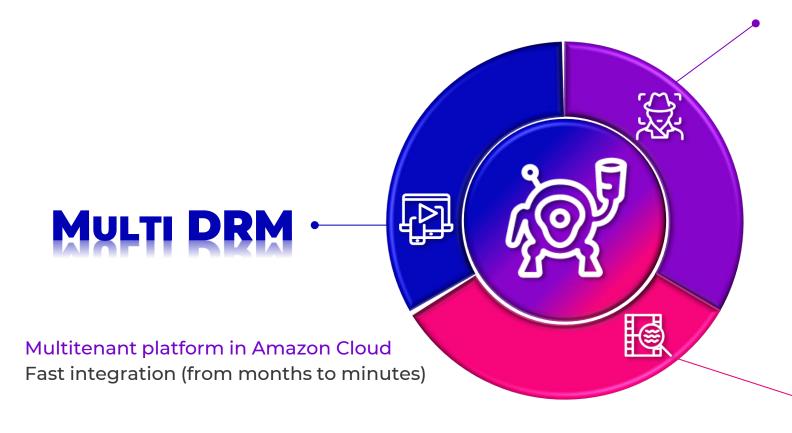
Deploy countermeasures at the user device-level

Attack pattern detection using data sets, AI/ML

Throttle the severity of anti-piracy response



Verimatrix Streamkeeper Anti-Piracy Suite



COUNTERSPY

Counterspy – Zero code injection technology for app protection & security monitoring

Anti-Piracy Countermeasures – Real-time actions to combat piracy and app shutdown

WATERMARKING

Forensic Watermarking

- Source-based
- Client-based





Our Secret Sauce: Zero-Code Injection Technology



Unprotected App

easily reverse engineered by attackers to become vehicle to attack

In-App Protection

defenses injected directly into the client app's logic as well as security agent to connect to Counterspy

Protected App

hardened against reverse engineering and tampering, and providing real-time telemetry to Verimatrix Counterspy service



Counterspy - Continuous, Real-time Threat Detection

Counterspy detects and collects over 50 elements of app, device and attack data to deliver total threat visibility

App Hardening and Anti-tampering









Threat Detection









One stop for your application protection needs

Verimatrix delivers the most comprehensive set of application shielding and threat detection offerings of any competing vendor





















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Mitigation of present risks

Raise the security bar

PROTECTION

Step 1: Take control

Prevent usage of emulation scripts and enforce usage of original apps.

Step 2: Protection

Protect all clients on iOS and Android HTML5 - initial protection.

Step 3: Monitoring & Shutdown

Permanent Monitoring, controlled Shutdown.

Step 4: Targeted Counter-measures

Device and App attestation, Watermarking and controlled Counter-measures.





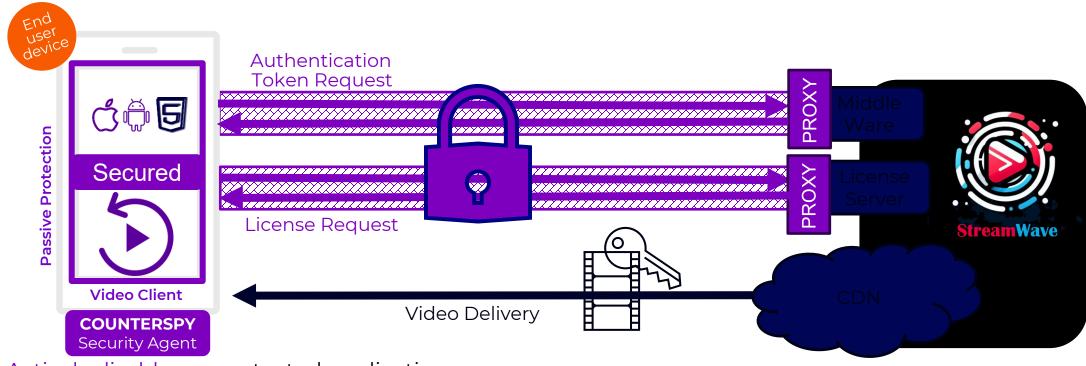






TRUST TUNNEL *NEW*

Simple design to ensure full control over access to your content.



Actively disables unprotected applications.

Prevents token interception across all platforms (including Web).

Where are you now?



Do your mobile and web apps comply with security regulations?



Do you have visibility to the risks posed by mobile and web apps?



How are you protecting OTT aps on unmanaged devices?



Thank You

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