

M+E

JOURNAL

Risks & Rewards



The opportunities before media and entertainment are unprecedented. So too are the threats.

OUR CHANGING INDUSTRY

The roadmap to media and entertainment's future is paved with innovation

LOCALIZATION

Content localization is a worldwide, need-it-now business. Here's how to keep pace

WORKFLOWS AND THE CLOUD

Cloud workflows are proving crucial for media productions today

SMART CONTENT

It's a data-driven content reality, and all the tools are there to realize success

21.02

TACKLING OTT PIRACY HEAD ON

Disrupt the evolving pirate landscape and preserve revenue by protecting your service and content

ABSTRACT: As a result of the pandemic, the stakes are higher than ever due to the increased consumption of OTT streaming, further accelerating the industry's need to act. Looking to the future, a successful approach to fighting piracy starts at the architecture and user levels and adopting a tactical approach to monitoring and disruption activities.

**By Janice Pearson, Director,
Business Development,
Synamedia**

Piracy is thriving and has become a multi-billion-dollar industry. In fact, the value of pirated video services is predicted to exceed \$67 billion worldwide by 2023 according to Parks Associates.

Studios and sports rightsholders are increasingly frustrated by the amount of premium content being leaked from their services, and rightfully so. Content owners invest substantial resources into combatting piracy and implementing technical controls. Unfortunately, the pirates have developed tactics to circumvent these controls, which result in piracy miti-

IN THE WORLD OF FILMMAKERS and film festivals, the concern and the need for cohesive, careful practices permeates the film production and distribution hierarchy.

gation that treats the symptoms of these tactics. That's why Synamedia, the world's largest independent video software provider, created new technologies that address the root causes of piracy to help content owners protect their services and allow technical controls to work as intended.

PIRATING CONTENT IS EASIER THAN EVER BEFORE

Accessing video content has never been easier for pirates. While technology has evolved and made it easier for viewers to access their content anytime, anywhere, and on their device of choice; it's also inadvertently removed roadblocks that stopped pirates from accessing that same content. Long gone are the hardware and lab setups needed for pirates to tap into services to steal content.

New pirate scripts have emerged in the form of computer programs that access content directly from the service operator's CDN. As a result, pirates have created top quality services coming directly from the CDN of the legitimate service with low latency and even audio and subtitle selections. This damages the brand of the legitimate service, especially when illegitimate services can be so good that viewers think they're getting a deal on "real" content from a "real" service provider!

PIRATES ARE CONTINUALLY EVOLVING

Pirates are continually evolving, and the use of pirate scripts brings a new level of technical sophistication where these computer programs can easily bypass the security measures that content owners and service providers typically put in place. As a result, content owners are not sufficiently protected.

Concurrency mechanisms are a common point of OTT services' vulnerabilities. In theory, they should limit users from accessing content from more than a set number of accounts. An example of this is when you're watching content via a streaming service at the same time as three other viewers in your household, and a screen pops up

letting you know too many people are viewing content on that same service. However, pirates bypass this technology by "tricking it" to allow an unlimited number of streams to play concurrently — allowing hundreds of users access to premium content under one account with no limitations.

Pirate scripts provide bad actors with the capability to duplicate authorization and CDN access tokens, resulting in content being decrypted on the fly or client redirected to the CDN after obtaining the digital rights management (DRM) license. This allows pirates to host their services using the compromised service provider's infrastructure, and the service provider pays for the bandwidth and computing resources that the pirates use for free. Unfortunately, hardening the application does not prevent compromise from these pirate scripts.

Identifying users by their properties also proves a challenge for enforcement efforts, as it's impractical in many cases because there is no unique identifier such as an IP or MAC address for emulations or browsers. This makes it nearly impossible to track who is accessing the content.

WHAT'S THE SOLUTION?

There are several key concepts to keep in mind when building an effective solution. To prevent pirate scripts from duplicating identities, it's important to ensure services have a unique client ID that is secure and provides signed verification. Anti-tampering is also necessary to detect and prevent any type of tampering within the OTT service. Protection must also be extended to the CDN to avoid servicing unauthorized devices.

To raise the stakes in the fight against piracy and in response to pirate's sophisticated and continuously evolving tactics, our security practice launched Synamedia OTT ServiceGuard. This is the first solution on the market that will help the media and entertainment industry directly address the common vulnerabilities that allow pirates to not only steal content, but also to compete against their



Janice Pearson is director of business development at Synamedia. She is responsible for building the company's studio business in North America. She brings 18 years of media and entertainment experience to Synamedia and speaks regularly at industry events and serves on industry association committees. jpearson@synamedia.com @SynamediaVideo

legitimate OTT services. With OTT ServiceGuard, service providers can eliminate pirate access to their CDN and allow technical controls to work as intended.

As a result of the pandemic, the stakes are higher than ever due to the increased consumption of OTT streaming, further accelerating the industry's need to act. Looking to the future, a successful approach to

fighting piracy starts at the architecture and user levels and adopting a tactical approach to monitoring and disruption activities.

By tackling OTT piracy head on, operators, content owners and rights holders can protect their content investments, reduce infrastructure costs, and create opportunities to generate additional revenue. ■