intertrust ®

ExpressPlay
Media Security Suite

One-stop shop for media and entertainment content protection and anti-piracy services with global footprint and proven scalability

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Intertrust media and entertainment solutions

The emergence of over-the-top (OTT) video services as crucial components of pay-TV business models has spawned unprecedented online piracy, particularly impacting high-value live streaming services. Reversing this worrisome trend requires a new and innovative approach that goes well beyond legacy security platforms optimized for traditional broadcasting and streaming services.

Rights owners and service providers must exercise more vigilance than ever to protect their assets. To safeguard valuable media and service revenue in this new era, Intertrust media and entertainment solutions are a one-stop shop offering robust content protection and anti-piracy solutions for premium content providers, virtual Multichannel Video Programming Distributors (vMVPD) and direct-to-consumer (D2C) content providers, and broadcasters.

ExpressPlay Media Security Suite

The cloud-based ExpressPlay Media Security Suite enables multi-DRM protected content delivery for live and on-demand streaming platforms, complemented by forensic watermarking and anti-piracy services. The suite offers a unique approach for broadcast and hybrid TV service security based on the open-standard Marlin DRM, which lowers total cost of ownership (TCO) in conjunction with smart TVs by eliminating the need for set-top boxes (STBs) and other external security devices. The Media Security Suite also offers an offline multi-DRM solution to secure offline playback and content download, which is ideal for transportation and hospitality use cases where there is little or no internet connectivity.

The suite consists of the following solutions described further in the following:

- **ExpressPlay DRM**
- **ExpressPlay Anti-Piracy and Watermarking**
- **ExpressPlay XCA**
- **ExpressPlay DRM Offline**

ExpressPlay DRM—cloud-based multi-DRM service

ExpressPlay DRM is an integrated and cloud-based media monetization platform for SVOD, vMPVD, and D2C streaming services and content distributors. The ExpressPlay multi-DRM solution provides complete, end-to-end content protection for live and on-demand services that meets even the toughest Hollywood standards for secure OTT streaming, including UHD security, as laid down in MovieLabs' specification for Enhanced Content Protection. The service supports all major DRMs including Apple FairPlay Streaming, Google Widevine, Microsoft PlayReady, Adobe Primetime, and the open-standard Marlin DRM.

The ExpressPlay multi-DRM service scales to any operational requirement. Reliability and scalability has been proven in some of the largest OTT streaming platforms globally, protecting content delivered to 25+ million concurrent viewers for major live events, and 100+ million monthly active users (MAU). This is especially important during major live events for managing active user bursts and serving millions of license requests in a very short time period.

The ExpressPlay multi-DRM license delivery platform and secure key management service includes a rich API for managing encryption keys. The key service insulates ExpressPlay DRM customers from the complexities of managing content keys, while maintaining full control and ownership of the keys.

Working closely with AWS Media Services, ExpressPlay DRM provides a cost-effective, global footprint including geo-redundancy and automatic fail-over options, ensuring the lowest service latency wherever subscribers are located. It supports the SPEKE (Secure Packager and Encoder Key Exchange) API, enabling streamlined integration with AWS Media Services and other SPEKE-compliant providers.

Key features and advantages:

- Scales rapidly to support large audiences and concurrent license requests for live events
  – Proven in the world's largest live sports streaming platform

- Lower total cost of ownership (TCO)
  – Reduces CAPEX and OPEX through cloud-based multi-DRM service

- Complies with the highest security levels for each supported DRM
  – Supports Widevine Level 1, PlayReady SL3000 and Marlin UHD devices

- Studio-trusted content security with TEE support
  – Facilitates licensing of live sports, UHD 4K/HDR and on-demand premium content

ExpressPlay Anti-Piracy™

ExpressPlay Anti-Piracy and Watermarking–piracy monitoring and identification

ExpressPlay Anti-Piracy and Watermarking service incorporates content protection functionality that includes web piracy monitoring and legal enforcement for linear channels, live events and non-live VOD content. A choice is offered of client-side or server-side watermark insertion further described in the following.

Video distributors have access to a suite of managed services (powered by Friend MTS), based on Advanced Subscriber ID (ASiD) client-side watermarking. The ASiD approach uniquely leverages online piracy monitoring processes based on fingerprinting with watermarking technology that supports fast extraction of payloads in redistributed content. Fast extraction is crucial to allow rapid identification of a content leak and the ability to shut it down as early as possible, especially during a live event.

Server-side watermarking (powered by ContentArmor™) embeds watermarks directly in the encoded and encrypted video bitstream.

Key features and advantages:

- Comprehensive Anti-Piracy Service for linear, live and VOD content
  - Piracy monitoring, identification with legal enforcement options

- Unique online piracy monitoring processes leveraging fingerprinting with watermarking
  - Fast extraction of content payloads enables rapid shutdown of illicit redistribution

- Choice of client-side and server-side watermark insertion
  - Enables optimal forensic watermarking for both live and on-demand content

- Client-side watermarking option
  - Live broadcast and streaming forensic watermark insertion in the receiver devices and extraction services

- Server-side watermarking option
  - A/B forensic watermark insertion in encoded and encrypted content

ExpressPlay XCA™

ExpressPlay XCA–converged security for broadcasting and OTT streaming

ExpressPlay XCA, leveraging the open-standard Marlin DRM, is a cloud-based security service that frees pay-TV operators from the expensive and rigid conditional access system (CAS) approaches for protecting broadcast content. ExpressPlay XCA enables pay-TV operators and broadcasters to deliver premium/UHD content directly to smart TVs without set-top boxes or external security hardware thereby reducing TCO. The XCA client is pre-integrated into various chipsets and numerous TV manufacturer products, thus speeding time-to-market while reducing project risk. This DRM-based solution protects one-way broadcast as well as hybrid DVB and OTT services with a cardless and converged client security stack, preparing operators for the all-DRM future at a fraction of the cost of the legacy CAS approach.

Key features and advantages:

- Bridges the worlds of CAS and DRM
  - Leverages the best of DVB, HbbTV, and Marlin DRM standards for broadcasting and streaming
- Seamless switching between broadcast and OTT services
  - Significantly eases the transition from CAS to DRM with future-proof path
- Embraced by leading TV brands
  - Factory-embedded in smart TVs from Vestel, Sony, HiSense, and others
- Lower Total Cost of Ownership (TCO) with smart TVs
  - Reduces CAPEX by eliminating STBs and CAM modules
- Converged DVB-OTT client porting kit with TEE/UHD support
  - Eliminates need for separate CAS and DRM clients

ExpressPlay DRM Offline™

ExpressPlay DRM Offline–secure download and offline playback

ExpressPlay DRM Offline is a multi-DRM platform that features the studio trusted Marlin DRM along with Google Widevine Modular and Apple FairPlay Streaming. It is designed to secure content delivery and playback in offline environments. When combined with the Kiora content delivery platform and premium programming from Filmbankmedia, it enables a turn-key solution for premium entertainment.

Key features and advantages:

- Offline multi-DRM solution
  - Open-standard Marlin DRM plus Google Widevine and Apple FairPlay DRMs

- Secure content delivery with download and offline playback options
  - Ideal for travel and hospitality applications with limited internet access

- Hotspot approach
  - No internet connection available within the closed environment

- Gateway approach
  - Internet connection available through a dedicated proxy to operator-specific service

- Compatible with Intertrust's Kiora content delivery platform
  - Enables turnkey end-to-end solution for premium entertainment

Media and entertainment use cases

Securing high value streaming services

Multi-DRM solutions protect OTT streaming services such as vMVPD and D2C offerings, and for cable/satellite operators augments their broadcast services with OTT access, at home and on-the-go. A top-tier multi-DRM service is key to the secure delivery of premium live and on-demand services.

Next-generation security for broadcast content delivery

Today's smart TV vendors provide STB-level security, enabling content protection processing to shift from the STB to the rendering (display) device. Smart TV-centric content protection eliminates HDMI ripping and lowers TCO by retiring the STBs, thus maximizing overall security.

Secure offline streaming for transportation and hospitality

Today's on-the-go entertainment consumers expect uninterrupted content access on their mobile devices. DRM protected programming may be offered through caching servers in Wi-Fi hotspots, with secure on-demand streaming to authorized user devices.

Anti-piracy services for enhanced content protection

As online video viewing continues to surge at a global level, so too does a new breed of media piracy. It is now more important than ever to apply top-tier content protection and anti-piracy services to identify and shut down increasingly sophisticated media pirates and hackers.

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Building trust for the connected world.

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