

ExpressPlay DRM Dashboard

Comprehensive real-time DRM analytics for streaming services



Introduction

When relying on a multi-DRM cloud service to protect OTT streaming services, being able to monitor and gather DRM usage analytics in real time is a critical feature. Large-scale OTT streaming platforms continuously monitor the health of the streaming services. Technical teams need to be able to monitor every aspect of the DRM operations and license management such as license requests, generation, and delivery to the subscribers.

ExpressPlay DRM

ExpressPlay DRM is an integrated and cloud-based media monetization service for OTT streaming operators and content distributors. The service supports all major DRMs including Apple FairPlay Streaming, Google Widevine, Microsoft PlayReady, and the open-standard Marlin DRM.

ExpressPlay DRM scales to protect hundreds of millions of concurrent global viewers for major live events with a cost-effective solution featuring geo-redundancy and automatic fail-over options. This ensures the lowest service latency wherever subscribers are located.

ExpressPlay DRM Dashboard

ExpressPlay DRM Dashboard offers unique snapshots for every streaming platform so all metrics related to the ExpressPlay multi-DRM service can be monitored in real time. The dashboard covers critical areas of DRM usage and operations, such as:

- Number of DRM license requests
- Number of DRM license redemptions
- Latency associated with DRM license requests and redemptions
- Total number of key creation requests from ExpressPlay Key Management System (KMS)
- Number and type of errors (if any) during DRM license requests or redemptions for each DRM
- Record/archiving APIs

The individual dashboards are interactive. The user can dynamically customize the parameters and instantly view different request types, time ranges, etc.

Data can be provided via a real-time API that operators can poll to ingest metrics into their operational workflows. Metrics are reported every 60 seconds.

Data can be filtered in real-time based on region, request type, and viewed in multiple resolutions. Low resolutions enable understanding of trends while high fidelity enables close monitoring of issues.



ExpressPlay DRM Dashboard use cases

There are two use-case scenarios that the ExpressPlay DRM Dashboard enables for OTT streaming service providers:

Diagnostics

ExpressPlay DRM Dashboard enables OTT service providers to monitor and gain critical real-time insights into playback issues related to DRM cloud services. Specifically, the dashboard allows the technical staff to determine if a playback issue is related to a particular DRM type or caused by other (non-DRM) components.

Operations

The OTT streaming service provider is able to monitor the multi-DRM services and be alerted on issues. Providers can leverage the ExpressPlay Metrics API to retrieve real-time metrics for ingestion into their operational systems and incorporate them into their QA workflows.

The dashboard will be helpful in detecting and diagnosing a multitude of issues, for example:

What kind of trends are observed?

- How has the service grown over time?
- Which DRM is used the most? The least?
- Which region is most active?
- What is the busiest time of day? What are the peak traffic characteristics?

What is the success and failure ratio?

What type of failures are observed?

Is there a need to adjust any DRM License Parameters such as:

- 4011 token expired errors:
Increase token validity period if using one, and ensure timely token refresh
- 6005 invalid key data specified:
May not be using the correct key

When was a failure first observed?

- This is useful in order to correlate a particular failure with a recent change in upstream/downstream systems: encoders and packagers, origin servers, etc.

Is observed streaming latency within the SLA?

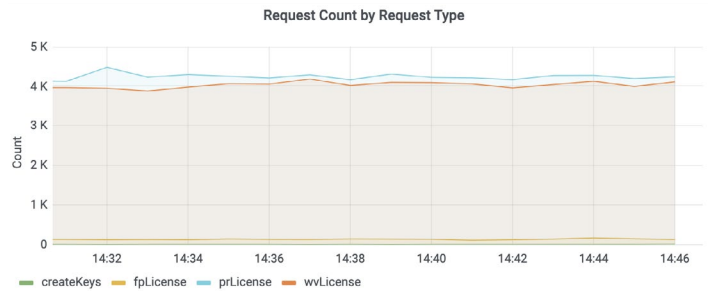
ExpressPlay DRM Dashboard metrics

This section shows the different DRM usage metrics and sample graphics that are provided as part of the ExpressPlay DRM Dashboard.

Number of DRM license requests

- For each DRM type including Widevine, PlayReady, and FairPlay Streaming

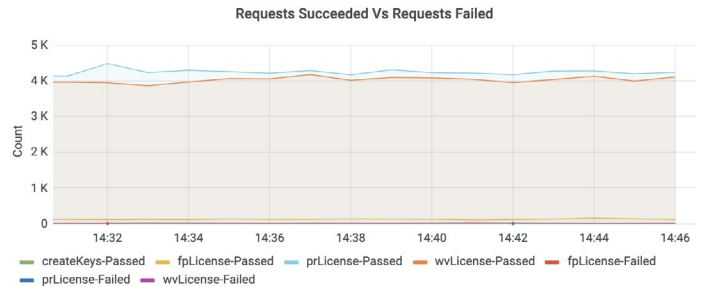
* Minimum granularity: 1 minute



Number of DRM license requests succeeded or failed

- For each DRM type including Widevine, PlayReady, and FairPlay Streaming

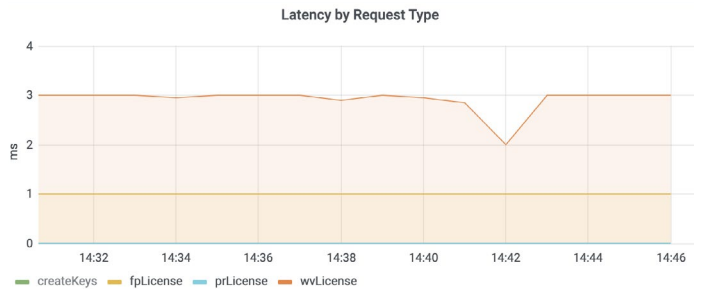
* Minimum granularity: 1 minute



Latency associated with DRM license requests

- For each DRM type including Widevine, PlayReady, and FairPlay Streaming

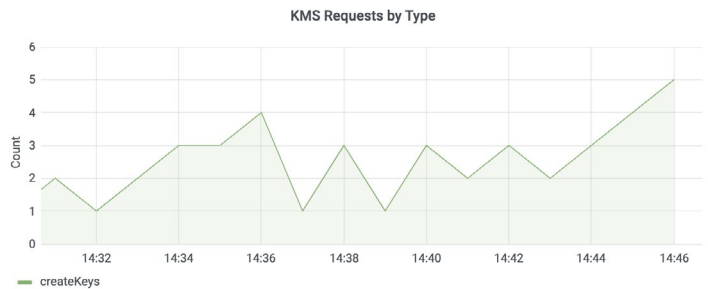
* Minimum granularity: 1 minute



Total number of key creation requests from KMS

- For each DRM type including Widevine, PlayReady, and FairPlay Streaming

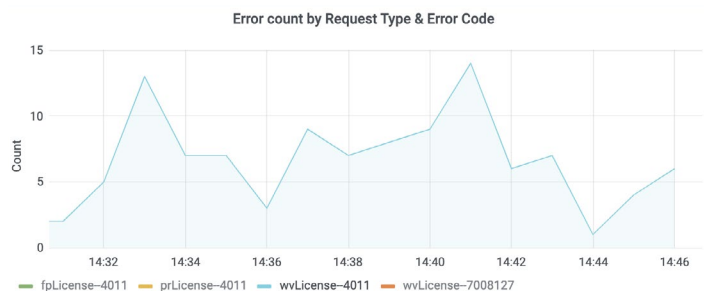
* Minimum granularity: 1 minute



Number of errors (if any) that has occurred during DRM license requests with error code

- For each DRM type including Widevine, PlayReady, and FairPlay Streaming

* Minimum granularity: 1 minute





ExpressPlay DRM Dashboard features

ExpressPlay DRM Dashboard offers several features, which are critical for monitoring the operations of the DRM specific aspects of any OTT streaming service platform, as well as aiding the diagnostics capability for the service provider. Such features include:

- Access to analytics in all regions that OTT streaming services providers are operating and protecting their services using ExpressPlay DRM
- All analytics data are collected and reported in real time within 1-minute intervals
- The provided analytics metrics in the dashboard are reliable and available for diagnostic purposes
- Secure and password protected access to the dashboard through ExpressPlay Portal
- Ability to view the ExpressPlay Dashboard in continuous mode through ExpressPlay Portal
- All data collection complies with the relevant privacy rules, such as the EU General Data Protection Regulation (GDPR), and California Consumer Privacy Act (CCPA).

Conclusion

Every OTT streamer needs access to real-time DRM usage metrics. ExpressPlay DRM Dashboard and Metrics API provides access to analytics data in all regions where the OTT operator provides streaming services, displayed in interactive charts. The data provides insights that allow the OTT operator to take appropriate actions. Ultimately this will help improve the subscriber experience and the OTT operator's competitiveness, and contribute to bottom line growth through more cost effective operations.

ExpressPlay DRM is a key component of the [ExpressPlay Media Security Suite](#), the one-stop shop for media and entertainment content protection and anti-piracy services.

intertrust®

Building trust for
the connected world.

Learn more at: intertrust.com/drm
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