



Irdeto App Watch

Super aggregator solutions

Open-source platforms (e.g., Android TV and RDK-Video Accelerator) allow pay-TV operators to expedite the deployment of their next generation of hybrid platforms and offer their subscribers the best of broadcast TV and OTT streaming by aggregating a comprehensive selection of local and international channels and premium apps through a single branded video platform. These open-source platforms make available tools, resources, developer communities, and third-party app stores (e.g. Google Play, Metrological, Foxxum). App stores offer the subscribers of pay-TV operator immediate access to leading OTT services (e.g. Netflix, YouTube, Disney+)

Open app stores' challenges

While open app stores provide subscribers with access to thousands of applications, they also come with a range of challenges. Many of these apps may contain pirated content or malicious software, exposing both the subscriber and the operator to various risks such as phishing attacks, sideloaded playlists, DDoS attacks, and data snooping. Therefore, it's crucial for operators to maintain control of their viewers' usage on third-party app stores.

Keep watch and retain control

Irdeto App Watch is an essential solution for pay-TV operators deploying a hybrid or pure OTT video platform, including Android TV and RDK-VA. This industry award-winning solution enables you to control the usage of third-party app stores and leverage the power of data to create new business opportunities, fight piracy, protect your subscribers from malware and reduce your total cost of ownership.



DEALING WITH THIRD PARTY APP STORES

Why you must retain control over your video platform

The existence of an open app store on STBs marks a new era for pay-TV operators, presenting numerous advantages alongside substantial risks. The constant threat of piracy, malicious software, and unstable apps that can compromise the quality of service is an ongoing concern. A “once and done” test cannot mitigate this, but rather consistent vigilance and targeted action are necessary. Irdeto is equipped to assist operators as they adjust to this new environment, providing support to safeguard their business and subscribers from harm.

Non-performing or malicious apps have a significant impact on operators’ expenses, as frustrated consumers result in a surge of support calls. Operators face difficulty identifying and resolving the root cause of the issue without visibility into third-party apps.

Here are 5 reasons why you must retain control over the usage of third-party app stores on your video platform:



Secure your viewers, revenue and your platform’s integrity

In this new environment, it is crucial to have the ability to monitor and regulate your subscribers’ utilization of third-party app stores in real-time. In order to address potentially problematic or undesired apps, operators should have the ability to send notifications to individual consumers who attempt to install or use these apps. Operators should also be able to block or remove such apps from the platform if they pose a threat.

- **Pirated content apps:** Apps that offer illegal content.
- **Unstable apps:** Certain apps can cause STB issues, impacting user experience.
- **Malicious apps:** Some apps contain malware, posing a cyber-attack risk.



Leverage actionable consumer insights to develop new business strategies:

Operators can utilize the capabilities of hybrid platforms to gather insights on how viewers are consuming content across their own and third-party apps. These insights can help operators develop content acquisition and marketing strategies to drive growth.



Optimize your platform’s performance with real Quality of Service (QoS) insights

By utilizing Quality of Service (QoS) insights, operators can assess and contrast the efficacy of various chipsets and OEMs in their set-top box (STB) fleet, which can result in enhanced optimization and an overall improvement of the platform.



Meet content and app requirements for premium access:

Operators must meet certain content protection requirements mandated by Hollywood studios and premium sports providers to ensure the security of their premium content. Similarly, premium apps like Netflix, Disney+, and YouTube require operators to meet specific security and performance standards before granting access.



Ensure compliance with governmental regulations

In some regions, authorities have banned specific apps that may still be available in the app store. Operators could face legal issues if they fail to block access to such content for specific territories, making compliance with government regulations crucial.



IRDETO APP WATCH

Succeed as a super aggregator. All the benefits. No regrets.

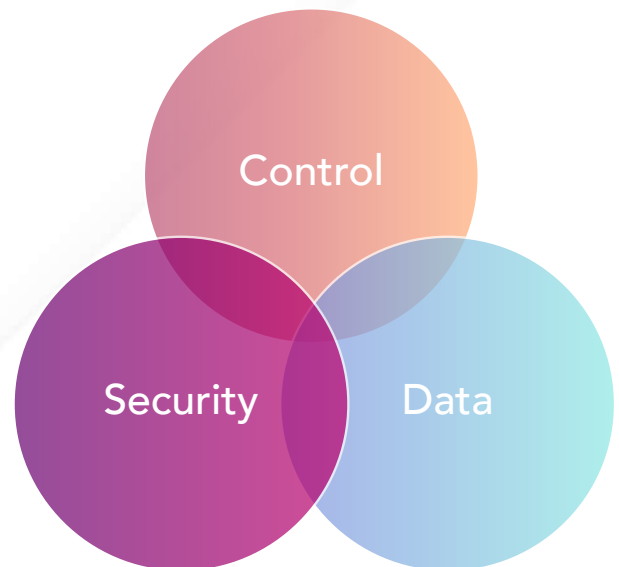
Irdeto App Watch is an essential service for pay-TV operators deploying and managing a hybrid or pure OTT video platform. It is targeted to operators deploying a STB-based open-source platform like Android TV or RDK-VA, offering unmatched visibility and control over subscriber's usage of third party app stores (e.g., Google Play, Metrological, Foxxum).

Being developed to meet the specific needs of operators, Irdeto App Watch covers crucial aspects to manage the usage of third party app stores including security requirements (against piracy and malware threats), consumer insights (to develop new business strategies) and platform performance (to guarantee the quality of service and reduce operational costs), while securing a premium UX.

A lightweight Irdeto App Watch software agent gathers anonymous data from each STB about the apps installed, how they are being used and what impact they have on the STB performance. These insights are sent to the operator's back-end and displayed on online dashboards providing the operator with full access to this data, plus the ability to determine what action should be taken for each app. The operator has a high level of flexibility when deciding whether to show groups of subscribers a warning about an app, block them from installing it, or remove the app from STBs where it's already installed.

Enhanced security, control and data management:

- Secure the integrity and performance of your video platform (UX)
- Provide high granular control over the usage of the app store
- Protect your subscribers from malicious apps
- Collect customer insights to feed your content and marketing strategies
- Collect performance data to secure best quality of service
- Comply with regulations regarding illegal apps or content





A SOLUTION TAILORED FOR PAY-TV SUPER AGGREGATORS

Operator tier level

Google takes Android TV security very seriously, but this doesn't mean that it will be able to solve all pay-TV operators' specific needs. It is well known that Google's Android TV business model revolves around the app store and revenue from advertising, therefore Google's security mechanisms are very efficient on that front:

- Google Safety Net helps app developers to know whether an individual device that's running their app has been compromised (but it won't always protect the device from a malicious app)
- Google Play Protect provides anti-virus style protection for the Android TV device Play Store (but it doesn't always detect issues with stability, piracy or malicious behavior targeted at a specific operator)
- Google can remove apps from the Play Store if they are found to be malicious (but this process might take time and removing apps retroactively is challenging)

Based on this, Google will typically offer no SLAs to Android TV Operator Tier customers for dealing with such operator-specific issues. Google policy is to never block legitimate apps, even if it's possible to also use them for piracy or if they are causing instability on an individual operator's STB platform.

A key differentiator for Irdeto App Watch is its capability to provide Pay TV operators with "operational control" over the deployed STBs on the field, reaching the "last mile" and offering the required Operator Tier Level of control over the usage on of third-party app stores, efficiently and timely.

Keep the balance

Irdeto App Watch gives operators back the kind of control they were used to on proprietary STB platforms, including the ability to monitor usage of all apps and block activity that threatens their subscribers or business. But operators must also take care to act fairly, and in the spirit of openness that underpins the Android TV platform. Irdeto's expertise bridges the gap between Silicon Valley and the pay TV industry. Our advice and guidance help operators to use the power of Irdeto App Watch wisely, to meet operator business needs without straying into restrictive territory that could damage their relationship with subscribers or breach their Google licensing agreements.

Agnostic Trusted Partner

Irdeto understands how critical the security and performance factors are for operators' business and is willing to offer an SLA to match. Some OEMs and SoC manufacturers provide solutions for monitoring app usage on their own hardware, but this might also represent "lock-in" risks for operators. Even if every OEM in the operator's ecosystem provides app monitoring solutions, the operator is left to aggregate data from all these systems to get a true picture of their full STB population. Irdeto App Watch offers a flexible SoC and OEM agnostic alternative to address this challenge.



IRDETO APP WATCH BENEFITS

Take back control

Off-set the downsides of an open app store and sideloaded content or apps with the ability to manage problematic apps installed on your STB environment. Irdeto App Watch restores to operators a level of control over their STB environment that was familiar on proprietary STB platforms. It allows them to protect their revenue at the same time as accommodating apps that are associated with content piracy and protecting their subscribers from apps that put their personal data at risk.

Fight piracy and protect your revenue

Protect ARPU and encourage purchase of your premium content packages by preventing users from accessing pirate content via apps.

Protect subscribers from malicious behavior

Prevent damaging privacy breaches and build your brand's reputation for security by warning consumers of the risk they face when installing apps with malicious software.

Limit impact on user experience (UX)

Blocking installations or removing already-installed apps is not a step that any operator will take lightly as it will have an impact on the end user's perceived freedom to choose how they use their STB. Excessive blocking can also jeopardize the operator's Android TV licensing agreement. That's why Irdeto App Watch offers operators a high degree of granularity when it comes to configuring rules for each app. They can decide that some instances warrant a simple warning to subscribers that their personal data may be at risk if they proceed to download or use the app. Where an app itself is legitimate, the operator can decide to disable specific features associated with piracy while leaving all subscribers free to enjoy the app's main functionality. And if a specific app has been banned by authorities in one country, the operator can choose to maintain access for subscribers elsewhere.

Meet licensing agreements

Act with a high level of granularity (per app, per subscriber type, per chipset) where appropriate, rather than taking a "blanket" approach that affects all users. Rely on Irdeto's experience to ensure you uphold the open spirit of the Android TV platform and Google's licensing agreement.

Develop new business opportunities

Use real consumer insights on app usage and piracy trends to devise strategies that more effectively align your services and marketing to proven consumer needs. With Irdeto App Watch, operators can inform their content acquisition and promotional strategies with hard data on how subscribers are using the full range of apps on their STB, including those of competitors. From OTT streaming to games and utilities, find out what apps are most popular, when users are most likely to interact with them, how long they stick with an app, and what the average user journey is to get there. This information can be used to determine whether it's worth developing similar functionality, acquiring competitive content, or targeting promotions and marketing to highlight the operator's own offerings.

Ease content rights negotiations

Demonstrate to rights holders that your platform includes protection for their high value content. Getting the best content for your subscribers is always a top priority, but convincing rights holders that your STB platform is a safe environment for their premium live sports, movies and TV shows can be an uphill task. Operators can demonstrate a proactive approach to security by deploying Irdeto App Watch to reduce the risks introduced by the presence of piracy-related apps in third-party app stores.

Reduce support costs

Identify and remove problematic apps before they trigger a surge in support calls. With the Quality of Service (QoS) metrics from Irdeto App Watch Insights, operators can identify and manage apps that are impacting performance across the STB population. This may include notifying STB users of the potential impact to QoS if they proceed with using a specific app. Taking this approach will head-off many problems before they trigger high volumes of support calls or truck rolls. It's a much more cost-effective approach than relying on call center teams to troubleshoot issues on an individual subscriber basis.

Low latency notifications

Regardless of subscribers' volumes, send notifications to viewers efficiently and in real-time without impacting your network's bandwidth, performance or incurring on high costs.

Reach your entire STB installed base

The Irdeto App Watch agent is chipset-agnostic, so it can collect data and enforce actions across a diverse STB population sourced from different OEMs and chipset vendors. This leaves operators free to procure hardware as best fits their business needs.

Simple and fast deployment

Irdeto App Watch is rolled-out as a just-in-time deployment, so it can be installed on in-field and new STBs via a simple OEM software update. It can be rapidly put to work across your in-field STBs and will have no impact on manufacturing schedules for future boxes.



HOW IRDETO APP WATCH WORKS

Piracy Intelligence

Data base of tagged pirate and/or malicious apps identified by Irdeto Online Piracy Detection Services.

Online Documentation

Available for our customers with guidelines and useful information

STB Management

Identify and take actions on STB fleet based on STB IDs

- Ability to identify STB's that have an uncommon usage profile
- Take actions on the STB (e.g. reboot the STB)

Audit Trail

Keep track and traceability of all actions (What, who, when, why)

Operational Overview Dashboard

Real time monitoring and reporting display for Operators

- Security Status (Piracy and Malware threats)
- Consumer Insights (Anonymized, GDPR compliant)
- Platform performance (Quality of Service)

Management Dashboard (manage apps)

Prevent access to pirate content and warn/protect viewers from malicious apps:

- Notify subscribers about problematic apps
- Suspend apps
- Remove apps

Rules Management

Implement higher level of granularity to target and control specific apps based on store origin, operators' metrics, specific version and more.

App Watch Agent (in the STB)

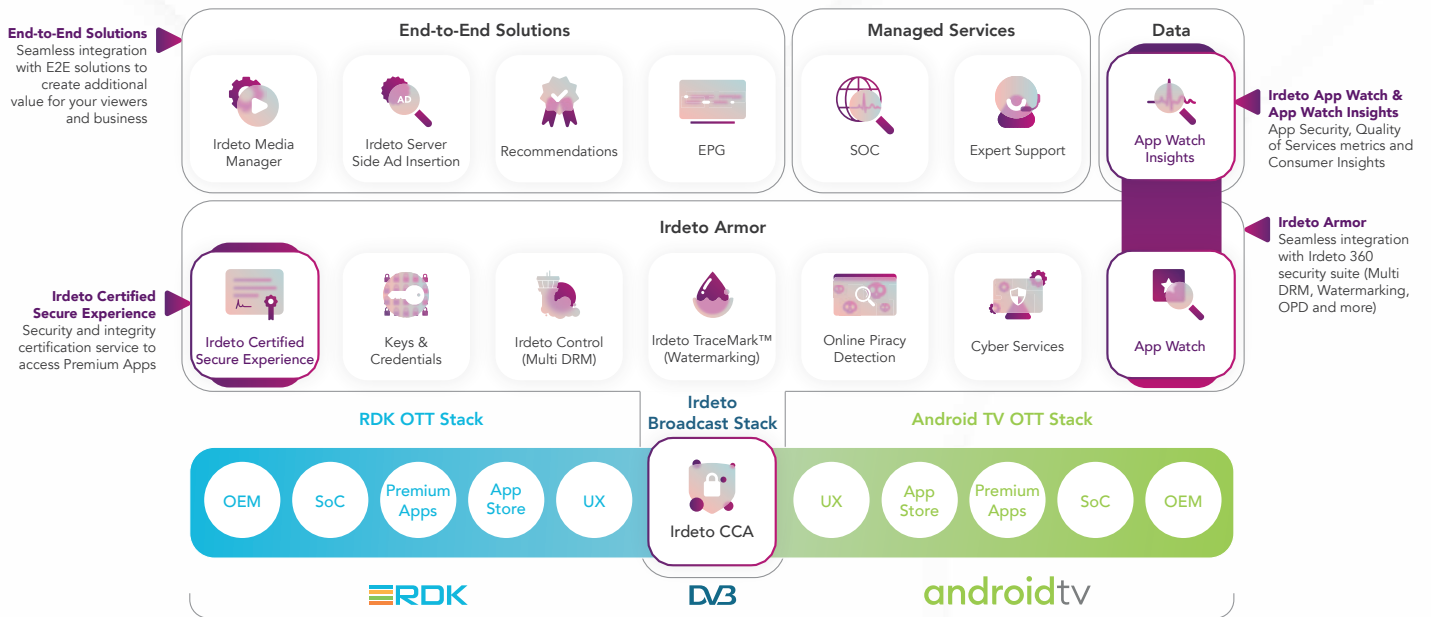
- Monitors apps on the app store
- Send information to Operators back-end
- Execute actions defined by Operator

1. The lightweight **App Watch Agent** in the STB monitors the subscriber's usage on the third party app store and sends this anonymized information to the back-end.
2. The **Operational Overview Dashboard** displays the collected data offering visibility on top apps, including security/piracy status, consumer's usage and performance on the STB.
3. The data is then cross-check with Irdeto's **Piracy Intelligence** database nurturing the display with frequently updated information on top pirated apps.
4. Based on the assessments, Operators take actions using the **Management Dashboard** to send notifications to users, suspending or removing app. Using the **Rules Management**, operators can add granularity to the actions. Using the **STB Management Module** operators can identify and take actions on STB fleet based on STB IDs.
5. All actions are recoded on an **Audit Trail** for transparency and traceability.

IRDETO SUPER AGGREGATOR SOLUTIONS

Irdeto App Watch is part of our portfolio of super aggregator solutions supporting the leading platforms Android TV and RDK-VA. As a full-service cybersecurity partner, Irdeto offers pay-TV operators a complete suite of content protection solutions, including pre-integrated Irdeto Cloaked CA and Watermarking, multi-DRM solutions, as well as Anti-Piracy, Cybersecurity and Managed Services.

Irdeto Super Aggregator Portfolio



Irdeto Hybrid Stacks (RDK-VA and/or Android TV)
Pre-integrated with Irdeto CCA and ecosystem partners

[Contact us](#) to learn more about Irdeto App Watch solution

Irdeto is the world leader in digital platform security, offering solutions and services that enable customers to protect their revenue, create new offerings and fight cybercrime effectively. With more than 50 years of experience, Irdeto is the leading solutions and services provider for content, video broadcast and streaming services, partnering with movie studios, sports rights holders, and OTT and broadcast operators across the content value chain. With a unique pay-TV operator heritage, Irdeto is the preferred partner to empower a secure world where people can connect with confidence.