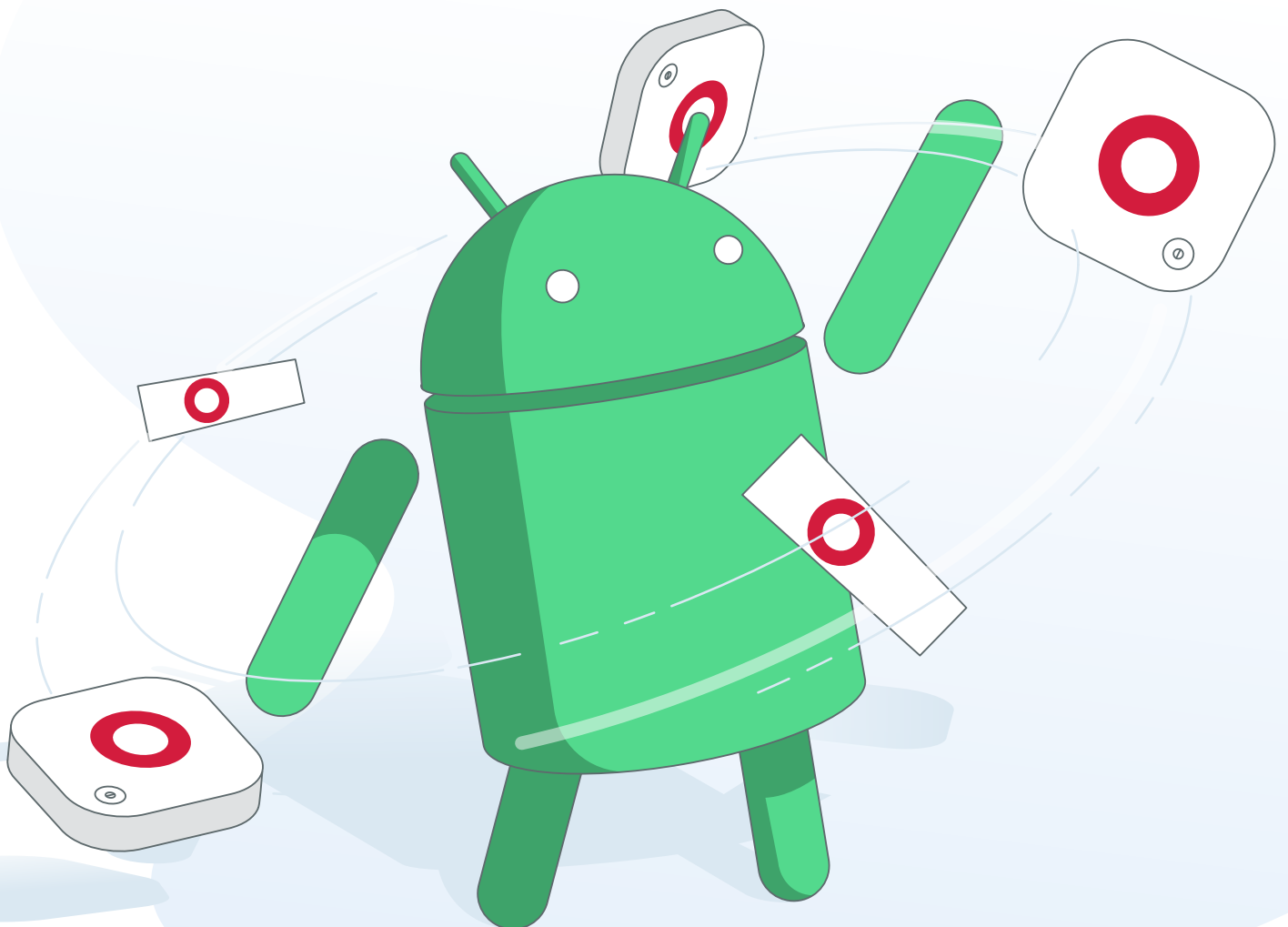


# Why operators should migrate to Android TV™

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Discover why Android TV is a solution for modern operators, and how to transition to the new platform.



# Contents

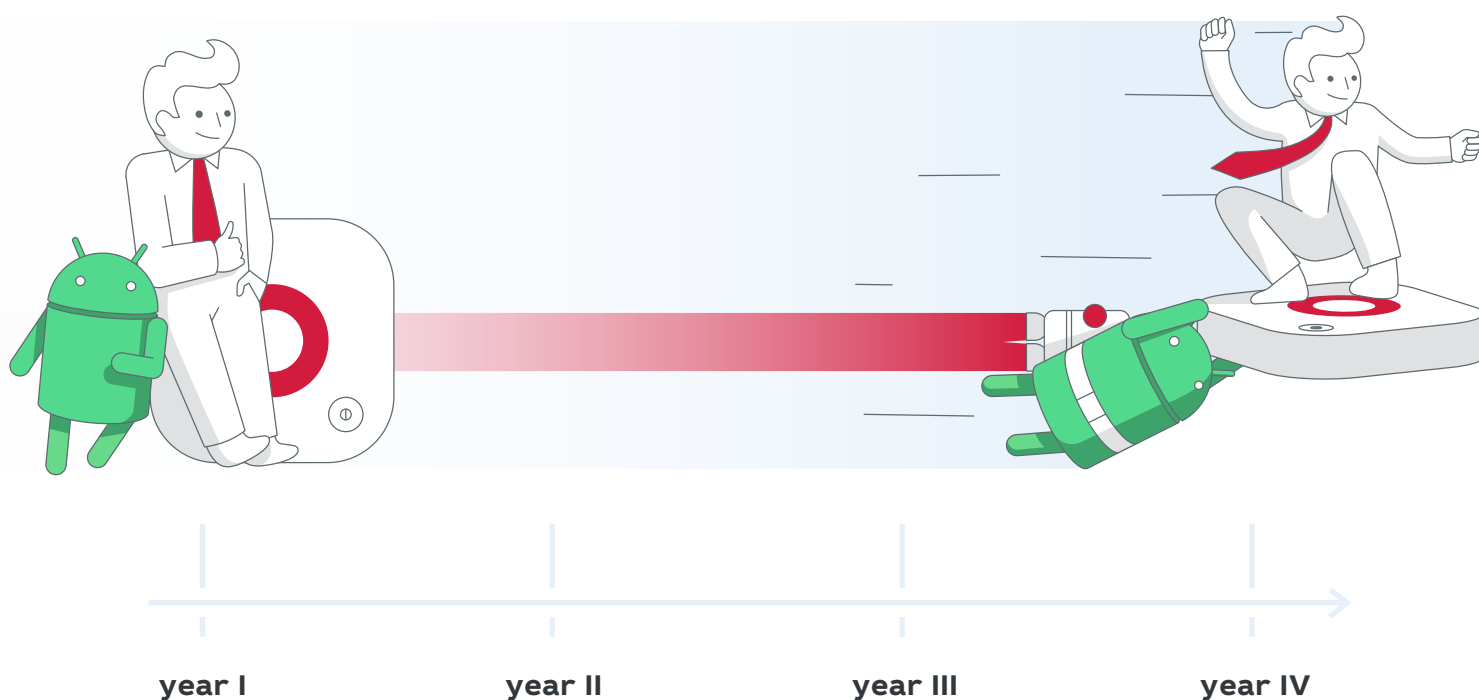
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Why legacy set-top boxes limit operators	3
What Android TV is	4
Why Android TV is the solution for modern operators	6
How to migrate to Android TV	9
About Infomir	11

# Why legacy set-top boxes limit operators

The TV market is evolving, and modern users want voice controls, personalized recommendations, and app stores. A lot of operators develop this functionality by themselves or seek help from the manufacturers of clients' devices. Of course, when no resources can be spared for that, the service becomes obsolete and starts losing subscribers.

To integrate an app store, manufacturers and operators have to develop in-house solutions or outsource their development to third parties. But it's much harder to implement voice search. For it to work with set-top boxes you need a cloud-based speech recognition and content suggestion system, as well as a mic-enabled Bluetooth remote for voice input. Device manufacturers never bother to integrate voice search just for small clients.



Even if the operator's set-top boxes indeed enable a unique user experience, it takes resources to implement it, too. Therefore, the operators have to make do with what the supplier of the solution has to offer or pay a fortune every time they need to make modifications, like integrating a new app or feature, etc.

But there is another way of going about service upgrades and integrating voice search, app stores, or other features. And it involves bare minimum investment.

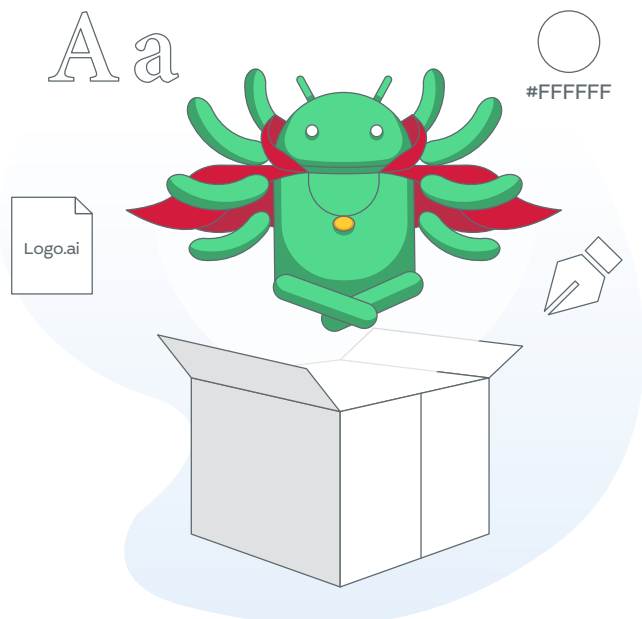
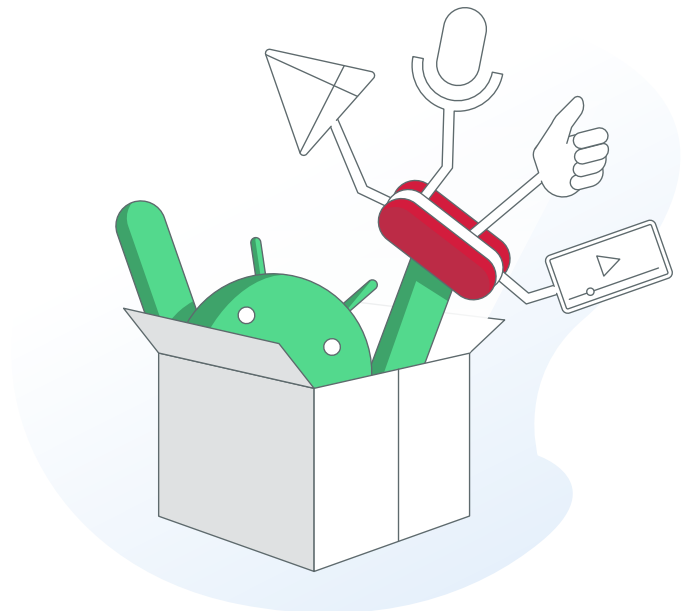
# What Android TV is

In 2010, Google partnered with Intel, Sony, and Logitech to release Google TV, an interactive smart television platform. The solution was based on the Android™ OS with the built-in Chrome browser. In 2014, the Android 5.0 Lollipop successor, Android TV, appeared.

Unlike the Android Open Source Project (AOSP), Android TV comes with all Google services preinstalled. And the suppliers who want to release an Android TV device need to meet stringent hardware, software, and content protection standards. Therefore, there are many AOSP-based set-top boxes on the market and few Android TV devices. With this platform, operators can be confident that the STBs and apps work properly.

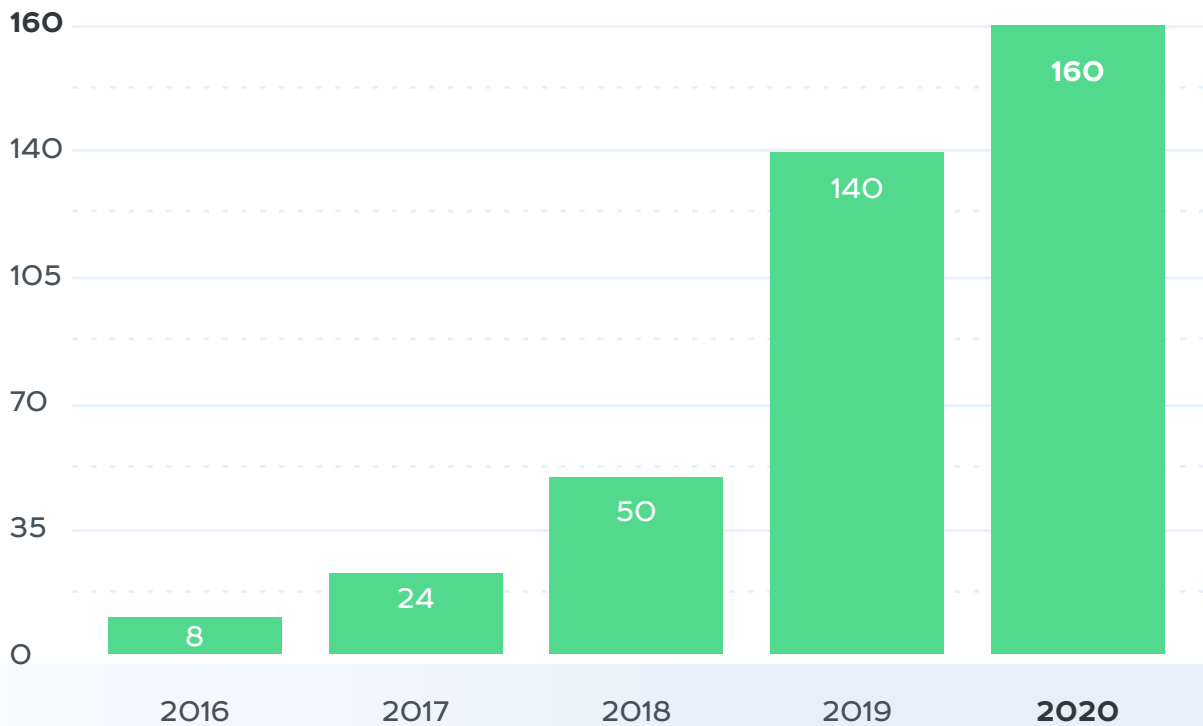
In addition to the standard edition, Google also offers a solution specifically for operators.

**Android TV** is a platform for smart TVs and premium set-top boxes. Out of the box, it comes complete with an app store, voice control, personalized recommendations, and a UI that puts content first.



**Android TV Operator Tier** is a solution for operators that allows them to integrate their brand identity into the user interface, change the boot screen, and manage user accounts, security, analytics, and billing. It's a fast and cost-effective way of building state-of-the-art services with custom UI/UX.

## The number of operators using Android TV Operator Tier



Sources: 9to5Google, blog.google

As of 2016, only 8 operators used Android TV Operator Tier, and there were as many as 100 by December 2018. Google’s CEO announced at IBC 2019 that Android TV had tens of millions of users residing mainly in Europe and Asia. As of early 2020, 160 companies in 60 countries embraced the platform, and their numbers have grown even more since then.

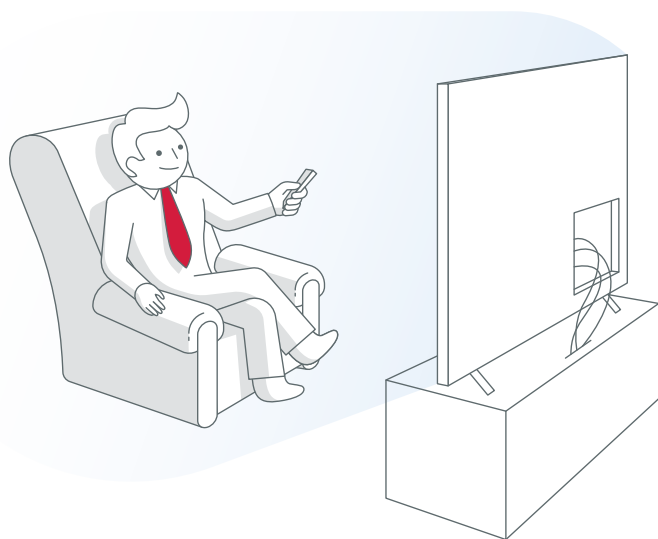
Vendors see the potential of Android TV and put their bets on it. Seven out of ten leading smart TV producers have already made it their platform of choice: Sony, NVIDIA, TCL, SHARP, Xiaomi, Hisense, and Funai (Philips). Besides smart TVs and set-top boxes, Android TV powers even laser projectors and soundbars.

# Why Android TV is the solution for modern operators

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With Android TV, operators don't need to craft a user-friendly UI and integrate voice search, personalized recommendations, app stores, or even CAS/DRM. Google has invested years in the development of a convenient UI/UX, making it accessible to both local and major operators alike.

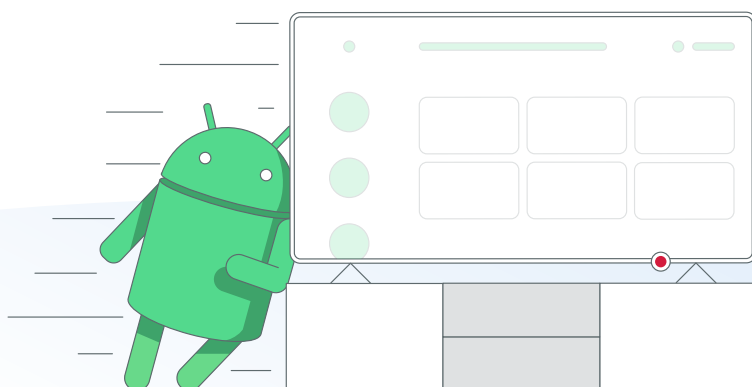
The solution provides the best big-screen user experience out there. The platform's material design is rooted in the 10-foot UI concept and therefore remains easily readable from 2.5 to 3 meters away (the distance users usually watch their TVs from).



The UI is designed to minimize eye strain. Viewers naturally want to relax in front of their TVs, and Android TV helps them in every way possible. The most important thing is simplicity.

In the standard launcher, every app promotes its content through a dedicated “channel” on the home screen. The system learns the users' preferences over time and starts showing only the content that might be of interest to them.

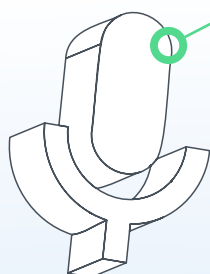
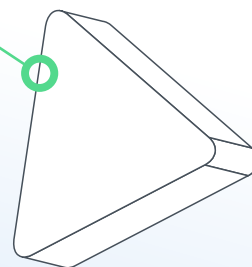
Android TV Operator Tier enables operators to promote their content, allocating space for it in recommendations, and search results. To keep the look & feel consistent between their apps and the home screen, operators can create custom launchers. For the apps, Google's design requirements still apply, but it's generally up to providers to ensure the UI is laid out and branded the way they want, while staying user-friendly.



# Advantages of Android TV

## Google Play Store

Google Play Store places a catalog of over 7,000 apps at your fingertips. Android TV devices support games and Bluetooth gamepads – this platform has a big gaming potential. Developing apps for the Android TV ecosystem is cheaper than for other proprietary operating systems.

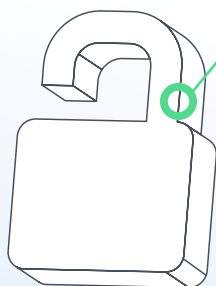
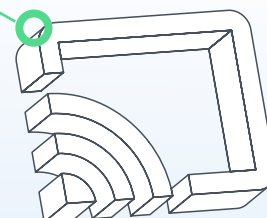


## Voice search out of the box

Google Assistant looks up content in all apps, answers questions, controls smart home devices, plays music, and retrieves weather forecasts. Android TV takes interaction with video services to an entirely new level, dramatically changing the way users find and consume content.

## Chromecast built-in

With Chromecast built-in, you can cast music, films, videos, and even games from your mobile devices right onto the big screen. No need to buy additional devices. All you have to do is have the set-top box and the smartphone connected to the same network.



## Widevine and PlayReady support

Stock Android TV supports Widevine and PlayReady DRM technologies. No additional integration is required if these are the only ones the operator uses. However, Android TV Operator Tier can be integrated with other CAS/DRM solutions, too.



Android TV won't let operators restrict access to Google Play, so their competitors' apps will also be available. The only way to compete for viewers is therefore to promote content. With Android TV Operator Tier, operators can feature their content on the home screen and in search results.

Android TV is a solution for state-of-the-art projects. In [her IBC interview](#), Head of Android TV Shalini Govil-Pai said she was convinced it would help operators build better user experiences, retain existing audiences, and attract more people. Such is the niche the platform occupies in the smart TV market.

« For operator partners, in particular, we learned early on that flexibility and customisation are key components for our engagements. Our operator tier has allowed our partners to customise the launcher user experience with their branding and content. Since then, we have seen extraordinary momentum due to offering a unique, differentiated solution in the marketplace.»

**Shalini Govil-Pai**  
Head of Android TV





# How to migrate to Android TV

To make the transition to Android TV, the operator needs to know if any customization is required and if the new devices are compatible with their service. This will determine if the standard edition of the platform will suffice or if Android TV Operator Tier and middleware modifications are necessary.

## Android TV or Android TV Operator Tier?

If the operator is fine with the stock UI and features of Android TV, there is no need for customization. Client devices can be purchased from any certified manufacturer, and viewers can even use the service on their own Android TV devices.

	Android TV	Android TV Operator Tier
Google services	✓	✓
A feature-rich launcher	✓	✓
Voice interface	✓	✓
Personalized recommendations	✓	✓
Access to Google Play	✓	✓
Interface customization	✗	✓
Content promotion	✗	✓
Billing and analytics	✗	✓

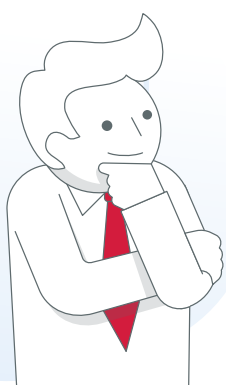
If the operator decides that they need a customizable solution, the best choice would be Android TV Operator Tier. In this case, they will also need to find a partner to carry out the customization and provide support services. It can be a system integrator or a set-top box manufacturer. Despite being more time consuming and resource-intensive, this option enables operators to build a one-of-a-kind service.

## Migration and middleware

If the operator's middleware is compatible with Android TV, they will only need to install their app on client devices.

Otherwise, they will have to integrate support for it or switch to another solution. Google's platform is compatible with most current middlewares.

No need to replace all set-top boxes at once. IPTV/OTT operators often launch a separate service for new subscribers, and the integration of Android TV is completely seamless for the existing audience.



The switch to Android TV pays off thanks to all the new features that are virtually impossible to implement on legacy set-top boxes. With this platform, even local services can get better user experience, thousands of apps, advanced voice control, and personalized recommendations which were only available to telecom behemoths previously. Major operators have also appreciated the system's advantages. They need solutions with a high potential in their struggle for the viewer's attention on the international market, and Android TV has become just that.

\* Google, Android, Google Play, Android TV and other marks are trademarks of Google LLC.

# About Infomir

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**Infomir** is a European IPTV/OTT set-top box manufacturer famous for its MAG-series devices. The company helps operators build unique projects based on Android TV Operator Tier.

In June 2019, Infomir launched its first Android TV device – the **MAG425A** 4K set-top box. Infomir has already become a major Android TV global partner, and its logo is now featured on the Android TV official website.

The producer customizes set-top box software and provides the branding of interfaces, device cases, and packaging. The API enables integration of the device with most middlewares and CAS. Tech support in English and knowledge base are also available.

Infomir's production facilities are located in Ukraine, but it has offices and distribution centers in the UAE, Germany, and Switzerland which help ensure effective worldwide logistics.

The company also publishes the **BROADVISION** magazine and maintains its own educational platform – Infomir Academy. It has also forged partnerships with over 50 companies: chipset producers, middleware vendors, CAS, DRM, and other technology solutions suppliers.

## Feedback

As a manufacturer and systems integrator, Infomir always forecasts the set-top box market development. Android TV's global operator and user bases are rapidly growing. We believe that Google has enough resources to make the solution a new standard for launching IPTV/OTT projects.

We want to enable companies to integrate solutions of the future right now. And we hope that operators and providers worldwide will find our experience helpful.

If you have any questions or comments, we can help you find out if Android TV would suit your project. Just drop us an e-mail at [marketing@infomir.com](mailto:marketing@infomir.com)

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