

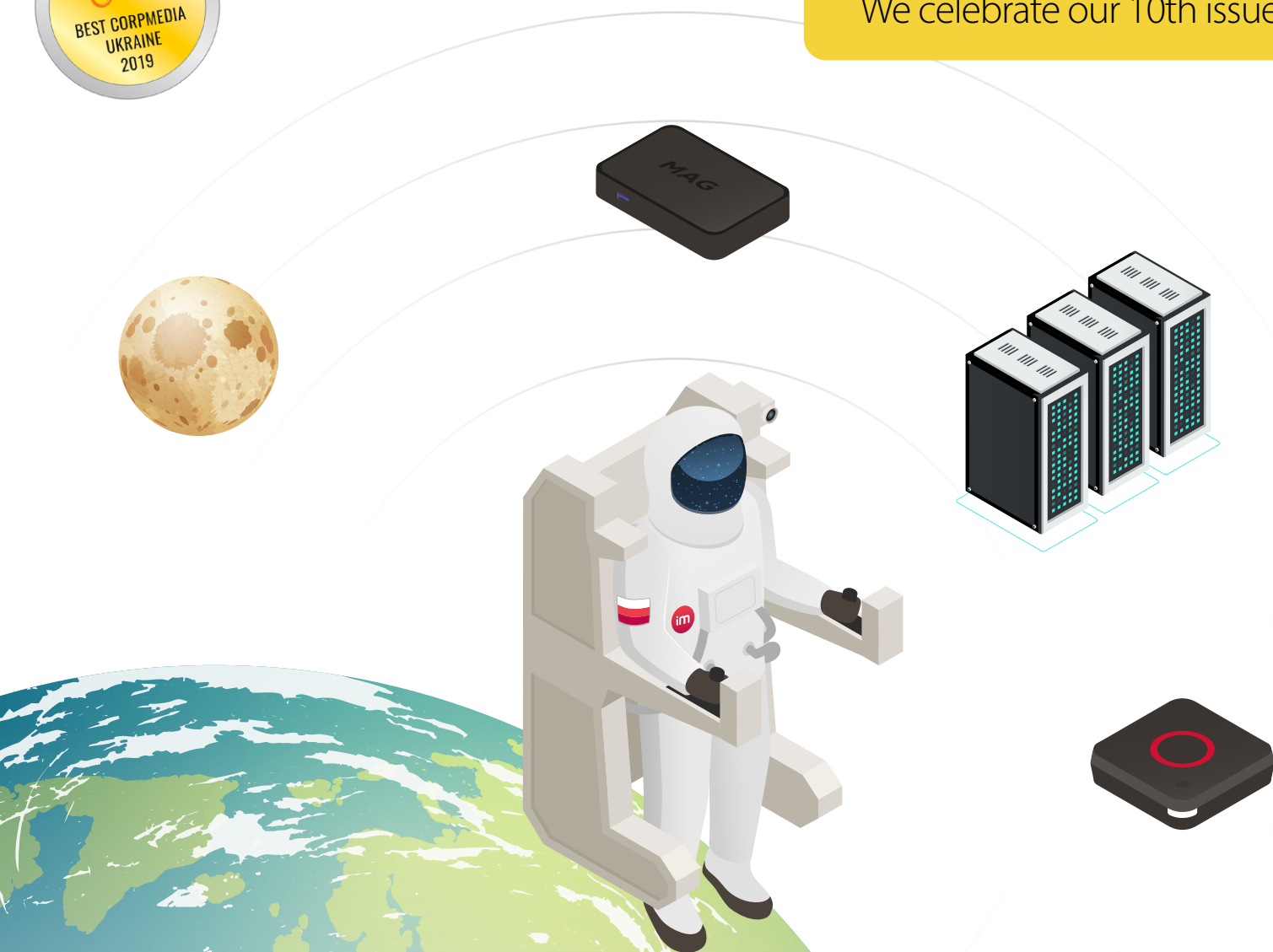
BROADVISION

Q4 (10)



Your personal IPTV/OTT business advisor

We celebrate our 10th issue!



HOW TO LAUNCH AN IPTV/OTT BUSINESS

WE TALKED TO STARNET'S FORMER VICE PRESIDENT ALEKSEI MUNTEANU ABOUT LAUNCHING AN IPTV/OTT PROJECT, WHAT OPERATORS ARE LIVING OFF, RETAINING VIEWERS, AND CHOOSING RELIABLE PARTNERS.

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Igor Oklander

Marketing Director at Infomir
and BROADIVISION Project Manager

Dear friends, welcome to the tenth edition of BROADVISION! Over the past three years, this magazine has become the best media outlet dedicated to the IPTV/OTT industry. And through this magazine, we strive to help readers develop their own businesses by sharing industry innovations, success stories, technologies, and trends.

Dear readers, we want to truly thank you for being with us throughout these past three years. Thanks to your support, in 2019, the Association of Corporate Media of Ukraine recognized BROADVISION as the country's best e-publication. We are very grateful to our partners for their inspiring success stories, and to our colleagues for sharing their valuable experience.

Since the very first issue, this magazine has been a very unique media outlet. IPTV/OTT is a complex field, but we always endeavor to write simply and cover only the subjects that are of interest to our readers. Pay-TV operators, technicians, and marketers from 150 different countries read BROADVISION. Over 50% of subscribers are CEOs and CTOs working in system integration, telecommunication, and distribution companies. Our readers include electronics manufacturers, streaming services, as well as leading companies in Europe, the USA, and the Middle East.

But this isn't all we do. In our upcoming issues, you will find even more useful experiences, analytics, forecasts, and interviews. Today, the BROADVISION team is preparing the next issue, where we'll explain how the pandemic has changed the industry, and why Netflix won't take over the world.

We will also share the success story of a Brazilian operator, tell you how to launch an IPTV/OTT business, why Android TV is the future of television, and how to launch your own successful hardware product. Enjoy!



ANDROID TV IS THE FUTURE: TOP 5 REASONS WHY

Smart home, app store, and voice assistant: BROADVISION experts share why Android TV may take over the television market.

Author: Hennadii Mitrov



According to Statcounter, Android™ accounted for 76.67% of the mobile operating systems market. Now that Google's platform has conquered the mobile sector, can Android TV do the same in the TV device market?



Android TV is designed for smart TVs, set-top boxes, and other multimedia devices. The system features Google's integrated services, a content-oriented launcher, voice interface, personalized recommendations, and app store, right out of the box.

Android TV Operator Tier is targeting operators. It supports interface customization, content promotion on the home screen as well as in search results and user accounts, billing, and analytics management. Furthermore, it enables operators to build services with unique UI/UX.

	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	✗	✓

The head of Android TV, Shalini Govil-Pai is convinced that it will help operators build better user experiences, maintaining existing audiences while attracting new ones. And it is this particular niche that the platform currently 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. We are also working on turnkey tools for faster time to market and offering more monetisation technologies.



Shalini Govil-Pai,
Head of Android TV

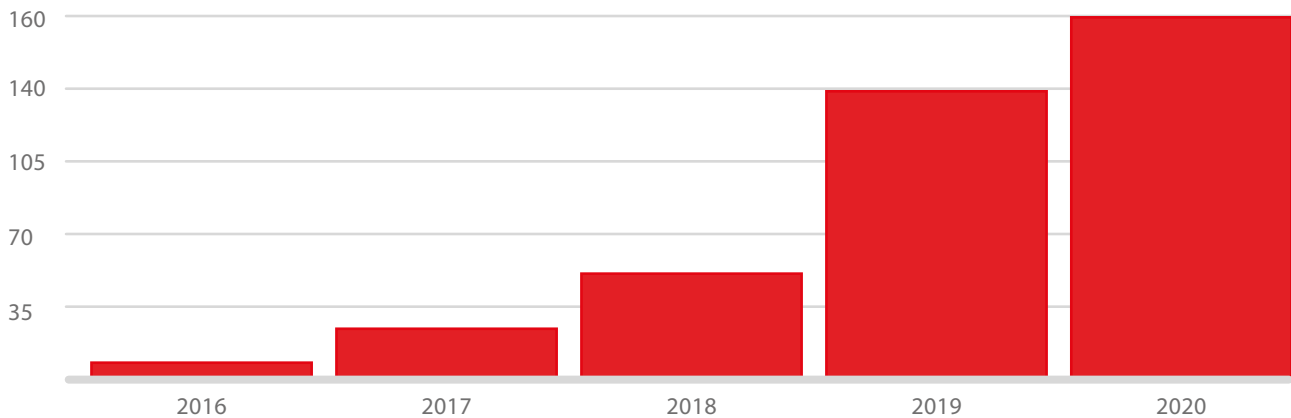
Google is committed to developing the retail set-top box and Smart TV sectors. Their Android TV's standard launcher is focused on content — linear programming, films, videos, and series are all accessible from the home screen. Then there is the Google Assistant which controls home devices, checks the weather, answers questions, and finds content.

So, here are the five reasons why Android TV is the future of television:

1. OPERATORS ARE EMBRACING THE PLATFORM

In 2016, only three operators used Android TV, that number grew to 100 by December 2018. At IBC2019, the Head of Android TV said that tens of millions of people globally own Android TV devices, most of them being in Europe and Asia. By April 2019, 140 operators in 60 countries were using the platform, and their numbers have grown even more recently.

The number of operators who selected Android TV



Source: 9to5Google, blog.google

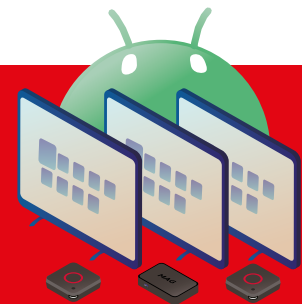
Over half of 2019's Android TV projects were launched in Asia-Pacific, and the platform also enjoys popularity in EMEA.

Despite the pushback from major cable operators, Android TV keeps expanding its market shares. In response, Liberty Global, Comcast, and Charter Communications have created Reference Design Kit (RDK)—an open-source solution for pay television providers.



By the end of 2022, over 99 million devices globally will be running Android TV.

Source: Rethink TV

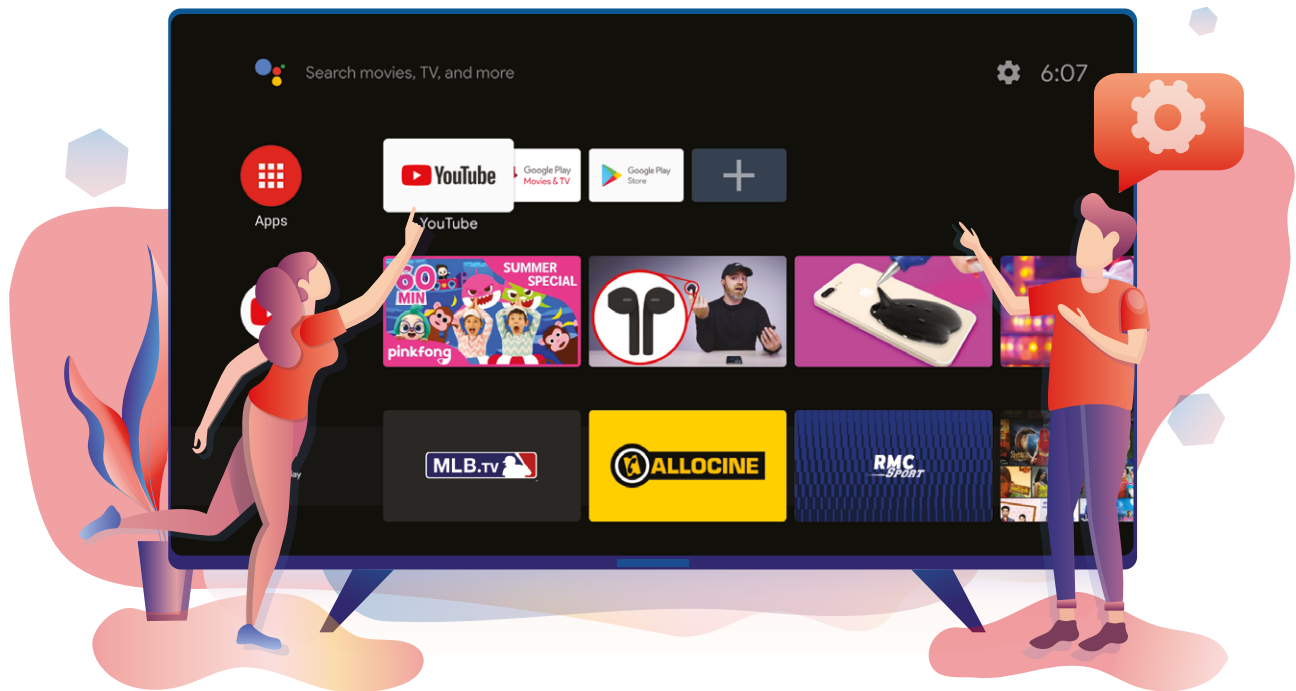


Even big brands have seen the potential of Android TV and are investing in it—seven out of ten leading smart TV producers have made it their platform of choice: Sony, NVIDIA, TCL, SHARP, Xiaomi, Hisense, and Funai (Philips). Besides smart TVs and set-top boxes, Android TV even powers laser projectors and soundbars.

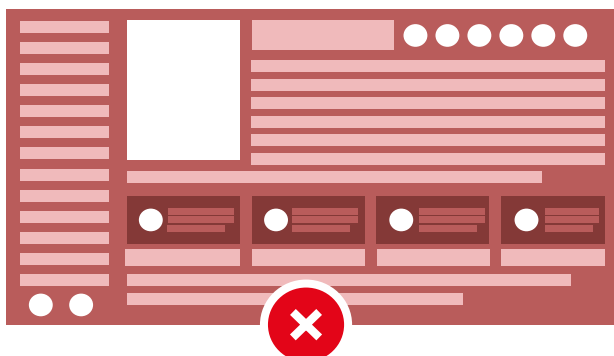
The popularity of Android TV is also boosted by operator solution suppliers like MobiTV, TiVo, Evolution Digital, and Amino. Compatibility with Android TV clients is a must for modern middleware, and certain platforms are embracing it, the Ministra TV platform being one of them.

2. EASILY CUSTOMIZABLE UI

Android TV provides the best big-screen user experience. The platform's Material Design is built on the 10-foot UI concept so that it remains easily readable from 2.5 to 3 meters away—the distance users usually watch their TVs from. The UI is designed to avoid straining users' eyes. Viewers want to relax in front of their TVs, and Android TV enables that. The most important thing is keeping it simple.



Within the standard launcher, every app promotes its content through a dedicated “channel” on the home screen. Over time, the system learns the users' preferences and starts showing only the things that might be interesting to them. The Operator Tier edition though, 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 resort to creating custom launchers. Google's design requirements still apply for apps, but it's generally up to providers to ensure the UI is laid out and branded the way they want while remaining user-friendly.





Android TV is simple and magical. It's all about finding and enjoying content and apps with the least amount of friction. Minimize the number of navigation steps required to perform actions. Build apps with the fewest screens possible between app entry and content immersion. Avoid making users enter text whenever possible, and use voice interfaces when you require text input.



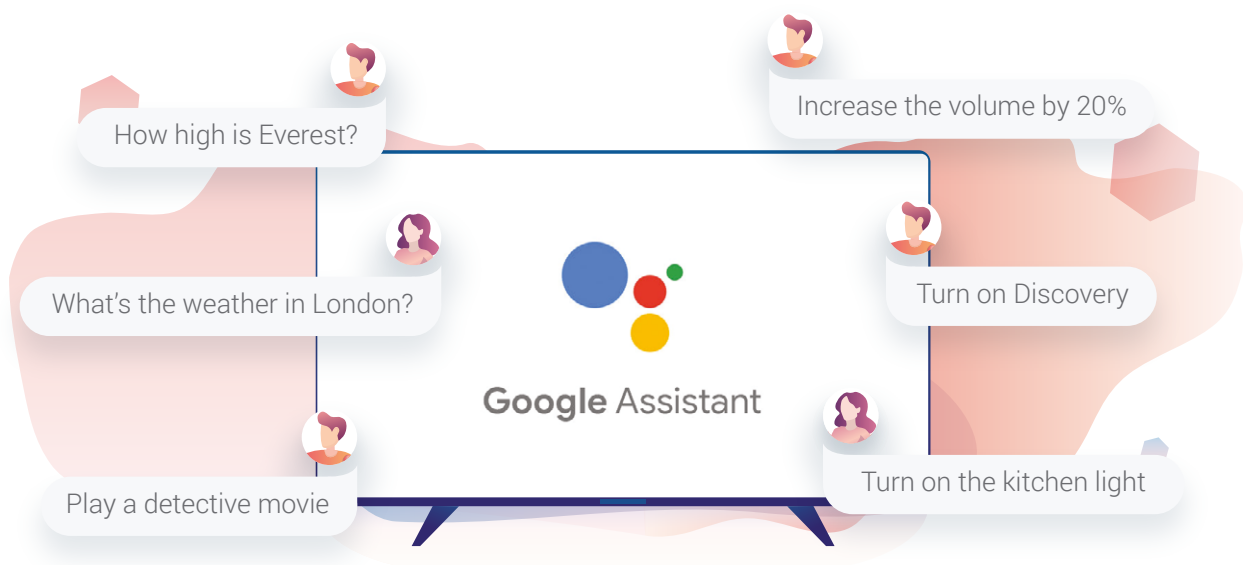
Android TV
design principles

At IBC 2019, Google Presented its joint project with AT&T—one of the largest American telecom operators. Their new streaming service will be launched in the USA in 2020. The AT&T service's UI is a departure from standard Android TV—the launcher is built around the operator's programming and streaming apps like DC Universe. The search results feature AT&T's content first.

Users are now at the center of the television ecosystem. Operators revamp UI/UX to engage their audience and reduce subscriber churn as much as possible. And Android TV has all the tools to help them do that.

3. GOOGLE ASSISTANT

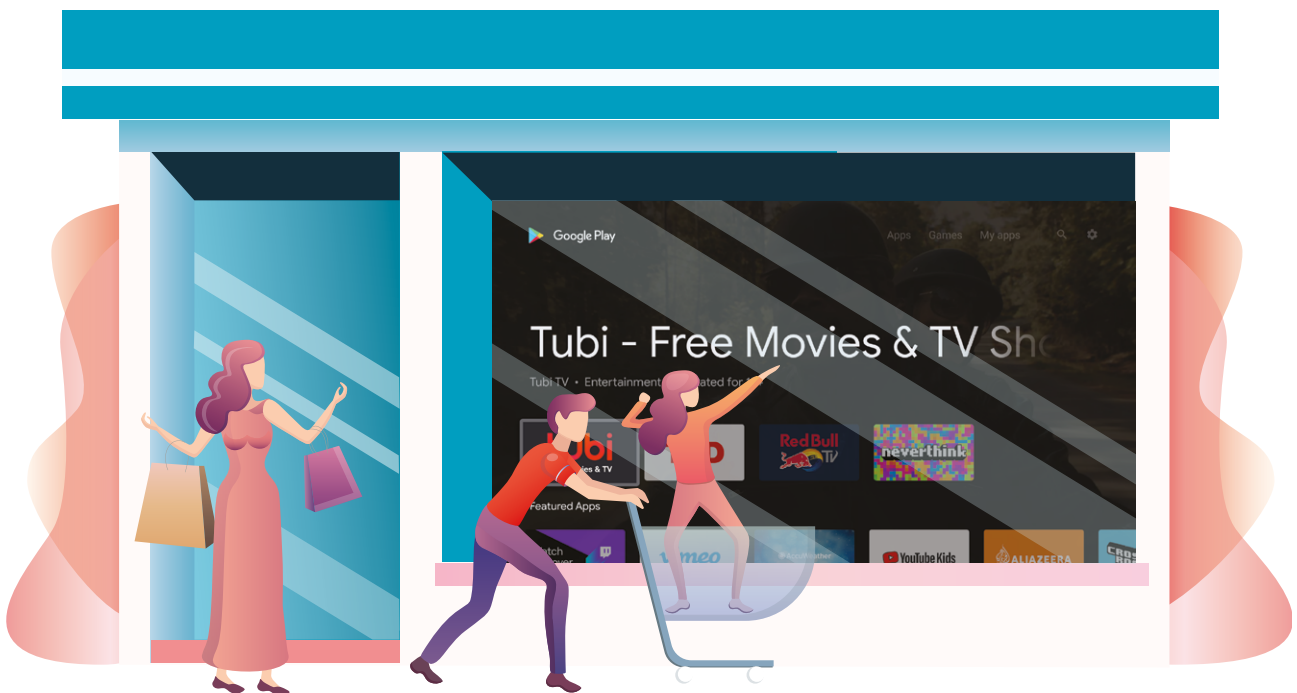
The current trend is to make it easier for us to interact with our devices, e.g. through voice control. And it's especially important for home appliances. AI helps home appliances actually hear us and understand what we say. This has greatly enhanced the diversity of commands available, improving the quality of life for regular users and people with disabilities.



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

4. GOOGLE PLAY STORE

One of Android TV's main advantages is its app ecosystem. Google Play Store's range of content for big screens has already exceeded 5,000 game and app titles. Android TV devices support games and Bluetooth gamepads — giving this platform big gaming potential.



Most operators see the app store as a big advantage of Android TV. Out of 300 pay-TV professionals surveyed, 84% did not consider access to an app store a factor of subscriber churn.

Source: Rethink TV

Operators can't disable the installation of competing apps. They need to promote their own content to fight competition. For this, Android TV Operator Tier enables them to feature it on the home screen and in search results.

5. SMART HOME SOLUTION

OTT operators compete for users that don't require them to set up a separate network. Competition like that is loss-making for traditional IPTV services. Providers cut subscription fees, but viewers still expect more features from their services.

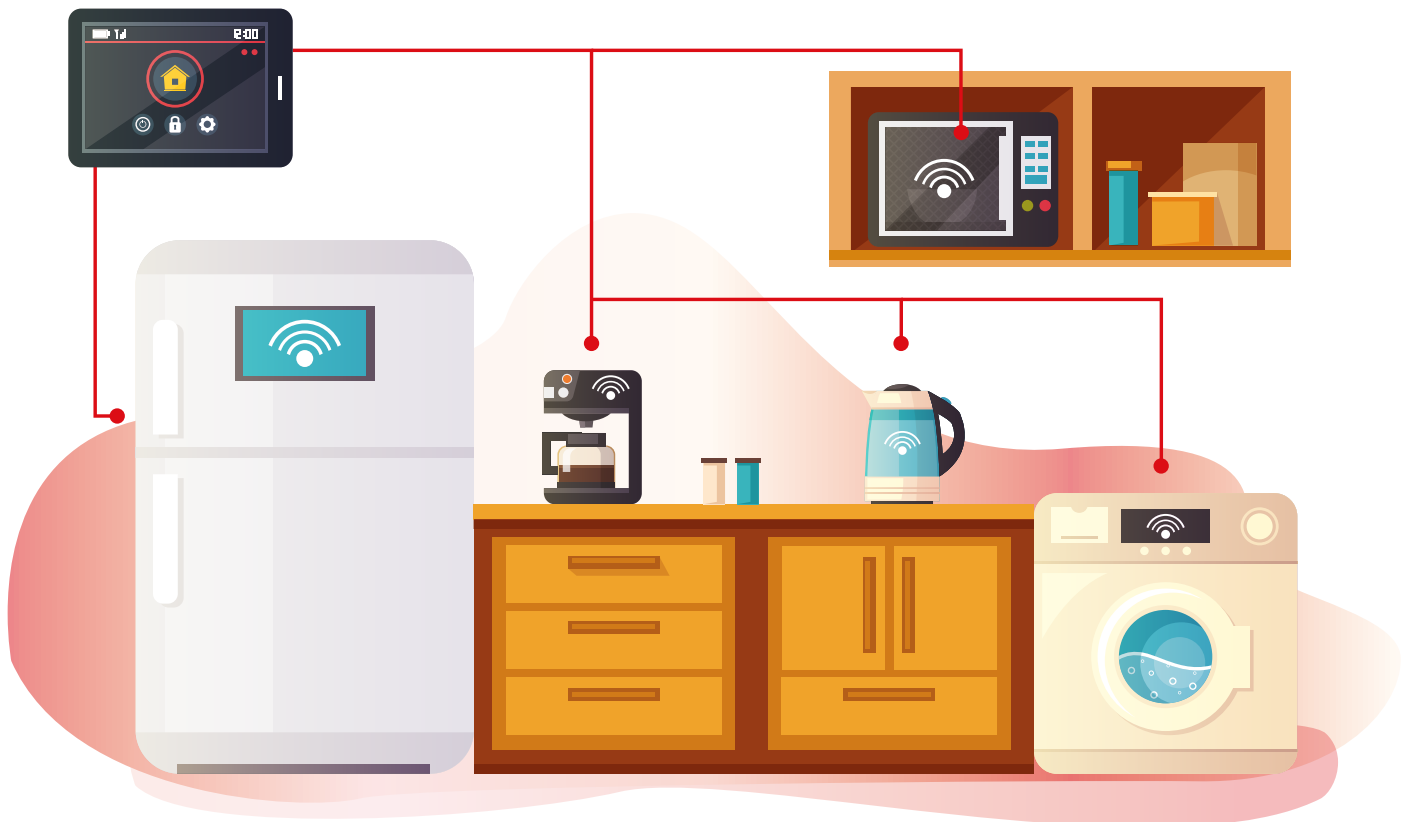
Operators need a new way to boost revenue, reduce subscriber churn, and attract new audiences. This is where smart home services can help.



There are over 26.6 billion IoT devices running worldwide. By 2025, the figure will rise to 75.4 billion, up fivefold from 2015.

Source: Statista

Hubs, sensors, and other smart devices help people remotely control their door and window locks, provide surveillance, notify about smoke conditions and water or gas leakages, control air conditioners and heaters, etc. Smart home services open wide monetization opportunities for operators.



There are multiple reasons why it is multiplay operators that deploy smart home solutions. Their audience is paying for television, telephony, and the internet already and may very well take an interest in the new service. Besides, smart home solutions are best integrated as a part of the existing infrastructure—operators have a network of their own, as well as a sales department, customer support, billing, etc.

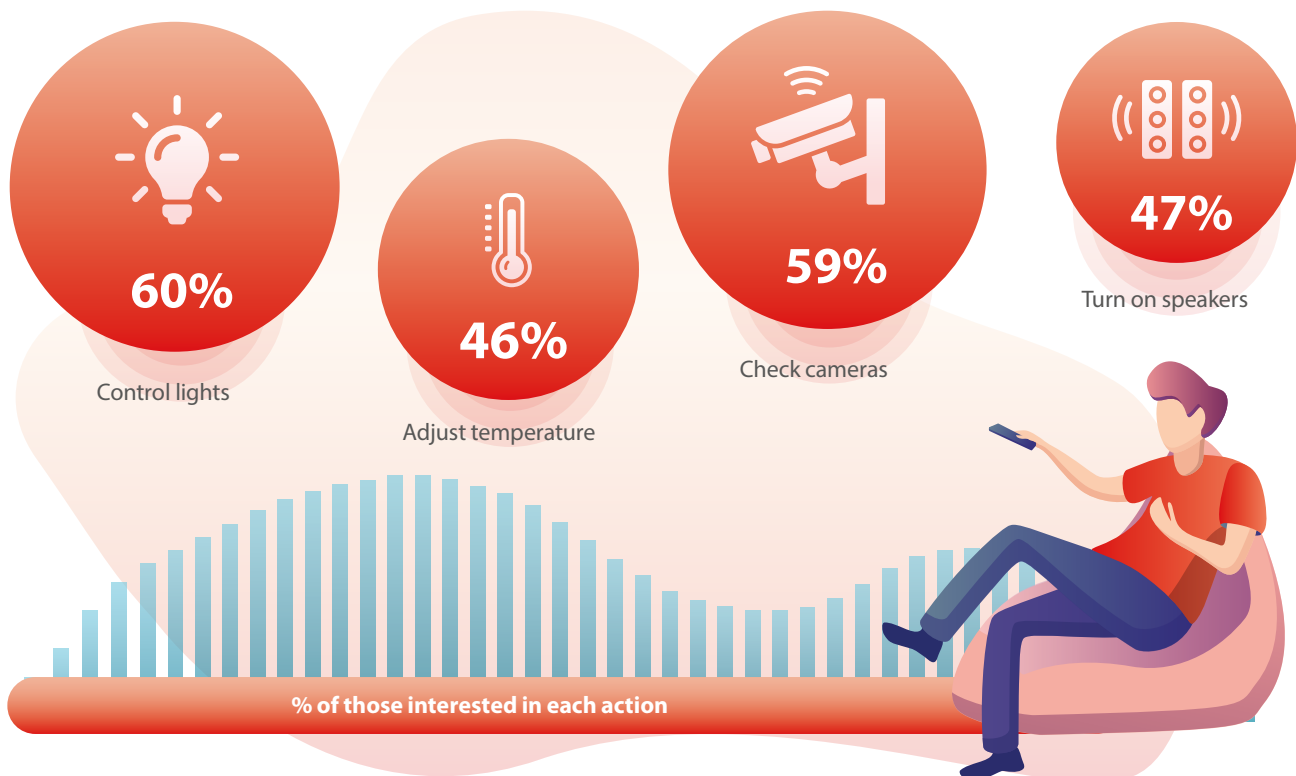


If the user has an Android TV with his favorite content, a set-top box can easily become a smart home hub.

In partnership with Google, YouGov surveyed 2,000 internet users about their viewing habits. 79% of respondents said they would like to control their smart homes from the TV, primarily adjusting lighting and air temperature as well as controlling video surveillance and audio systems.

8 out of 10

users would like to control their smart homes from the TV



Source: www.blog.google



WHAT FUTURE HOLDS FOR ANDROID TV



We'll continue to bring innovations to the platform and improve the quality and reliability of the Android TV experience. We also strive to make the overall user experience better, including on the home screen and the Play Store, and make it easier for users to find and purchase content. We believe that providing the best smart TV experience possible, and working closely with our operator and OEM partners to offer more choice, will lead to more users choosing the Android TV ecosystem. This will ultimately help our partners build successful businesses and developers reach a new audience.



Shalini Govil-Pai,
Head of Android TV



Infomir has embraced the platform's potential. In June 2019, the company launched its first Android TV device—MAG425A, a 4K set-top box. It also released the Ministra client app the same year. Operators are provided with branded Android TV apps that have a customizable color scheme, background, logo, and user greeting.

In December, Infomir's logo appeared in the Android TV Global Partners list on the platform's official website. The company is currently hard at work, creating a new generation of set-top boxes powered by this platform.

Android TV tackles the operators' primary problems. A universal platform, it enables them to launch projects fast and on a moderate budget. Even local providers can leverage this solution to provide their audience with the best user experience with thousands of apps, advanced voice control, and personalized recommendations—things that used to be available only to telecom behemoths. Android TV does have every chance to become the future of television.



MAG500A

Flagship Android TV™ device

with Google Assistant, Google Play Store and Chromecast built-in



4K and
HEVC support



Quad-core ARM
Cortex-A53 CPU



16 GB
eMMC



2 GB
RAM



Voice-controlled
remote



Android™
9.0



Dual-band Wi-Fi
(2.4 and 5 GHz)

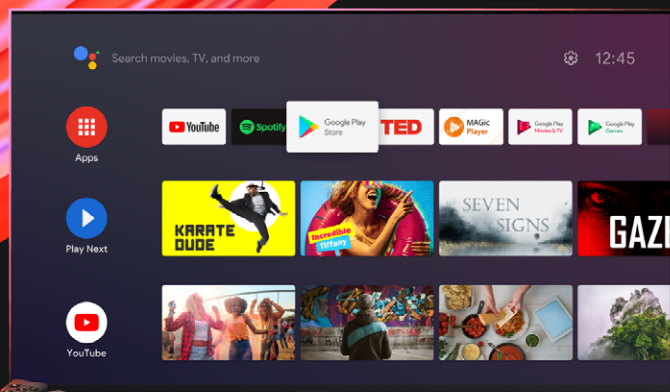


Qubic
design

Meet a high-performance Android TV media player supporting 4K 60 fps playback, HDR, HEVC, and eight-channel Dolby Digital Plus™ sound.

The device features Integrated Widevine L1 and Microsoft PlayReady SL2000 DRM systems, Wi-Fi and Ethernet connectivity for accessing the internet, and 16 GB of internal storage for additional apps.

With MAG500A, even local providers can offer top of the line user experience complete with a catalog of over 7,000 apps and games, advanced voice control, and personalized recommendations.



Android TV capabilities

Android TV offers a better user experience, integrated Google services, a modern launcher, voice-controlled remote, personalized recommendations, and an app store.



Google Assistant

The voice assistant that controls playback, finds answers to your questions, fetches weather forecasts, looks up content across all apps, and finds channels, films, and TV shows on your users' favorite subscription services. All easily accessible with just a push of a button on the included voice-enabled Bluetooth remote.



Widevine L1 and Microsoft PlayReady SL2000

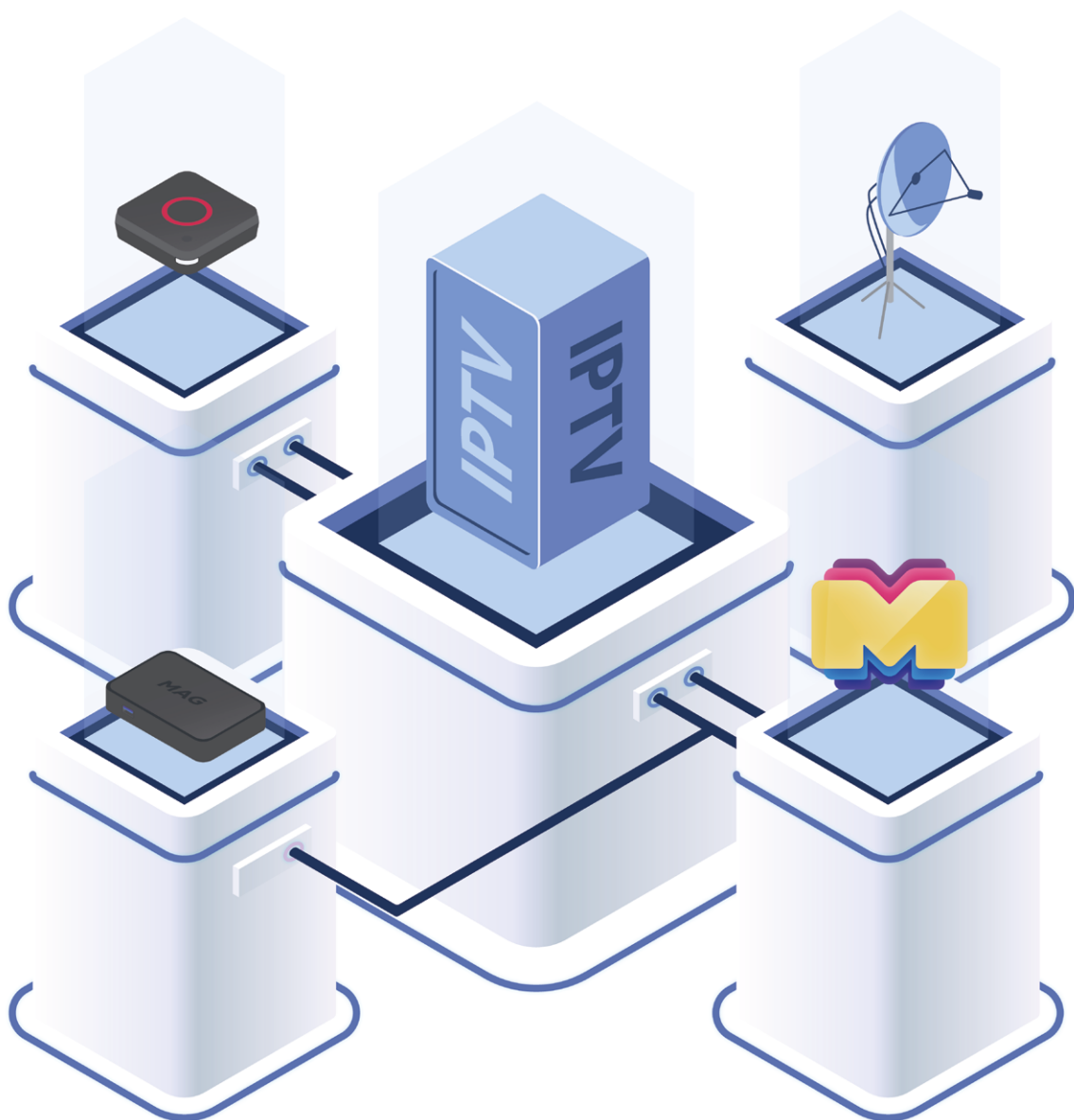
Widevine L1 and Microsoft PlayReady SL2000 DRM systems enable operators to protect their content and have an easier time negotiating with copyright holders.

[Learn more](#)

HOW TO LAUNCH AN IPTV/OTT BUSINESS

We talked to Starnet's former vice president Aleksei Munteanu about launching an IPTV/OTT project, what operators are living off, retaining viewers, and choosing reliable partners.

Interviewer: Hennadii Mitrov



WHO LAUNCHES IPTV BUSINESSES NOW? AND WHY?

1. IPTV is a part of the natural evolution from broadcasting to multiplay.

Internet providers, cable and satellite companies—they all have their reasons to migrate.

2. Just offering a service is not enough to attract subscribers anymore, so companies started moving toward bundles 15–16 years ago.

Cable providers migrate to IPTV, and internet providers are integrating television. Double Play included internet and TV, and Triple Play added telephony into the mix. Mobile operators are starting to adopt Quadro Play with voice communication, TV, cable internet and mobile internet.

3. Amid tough competition, they have to combine services and become multiservice operators.

As soon as one of the players starts offering multiple services, the offer with the best value gets him all the audience. A company like that has lower infrastructure amortization costs, as well as, costs of every service in the existing OPEX model since less staff is required to support a new service.



“To ensure the timely launch of an IPTV/OTT project, it is important that you choose a comprehensive solution from a reliable partner. The main criteria here are whether the solution meets the market demand, will be profitable and will enable a service with high enough SLA. It’s all true for middleware, set-top boxes, and apps alike.

What makes an operator stand out is the quality of their services and client satisfaction, the technological head start is a very short-lived thing. You are better off launching MVPs. Imperfect as they are, they will still capture a market share.”

Alexei Munteanu,
former Vice President, Starnet

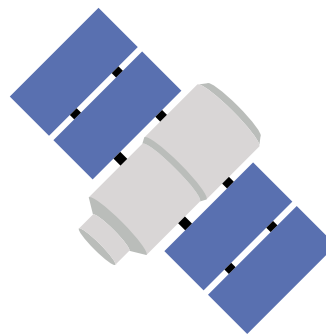
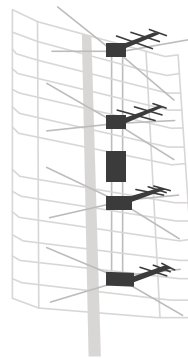
WHO HAS AN EASIER TIME INTEGRATING IPTV?

It's easiest for internet providers. They will need a head-end station, an antenna field, servers, and transcoders, and then there's the billing system that needs to be integrated and middleware to be deployed. The operator's LAN cable is in every household already, and chances are there's a Wi-Fi router there, too. So, subscribers purchase a set-top box or a service accessed through their Smart TV.

Cable operators can't transition to IPTV because their network does not support IP packets. The technology has already reached its ceiling—although one indeed can bring the cable services to a new level, it's just an imitation of IPTV. It's just a short-term strategy. In the age of personalized content and increasing customer expectations regarding quality, it's bound to reach another ceiling, and then there's no way through it. As Craig Charles once said, cable operators need to "evolve or die". It's all up to them. The only happy ending here is through a merger or takeover.

The situation with HFC networks is somewhat more optimistic. The signal between large neighborhoods is transferred via fiber-optic cables, and digital is converted to analog once it enters the household. Operators like these have an easier time transitioning to IPTV. DOCSIS technology is optimal for them—in revision 4.0 it supports symmetrical channels with speeds up to 10 GBit/s, and it's just what you need for IPTV.

There is no market where cable would maintain presence after a multiplay operator has entered. Often, major players just take over these companies.

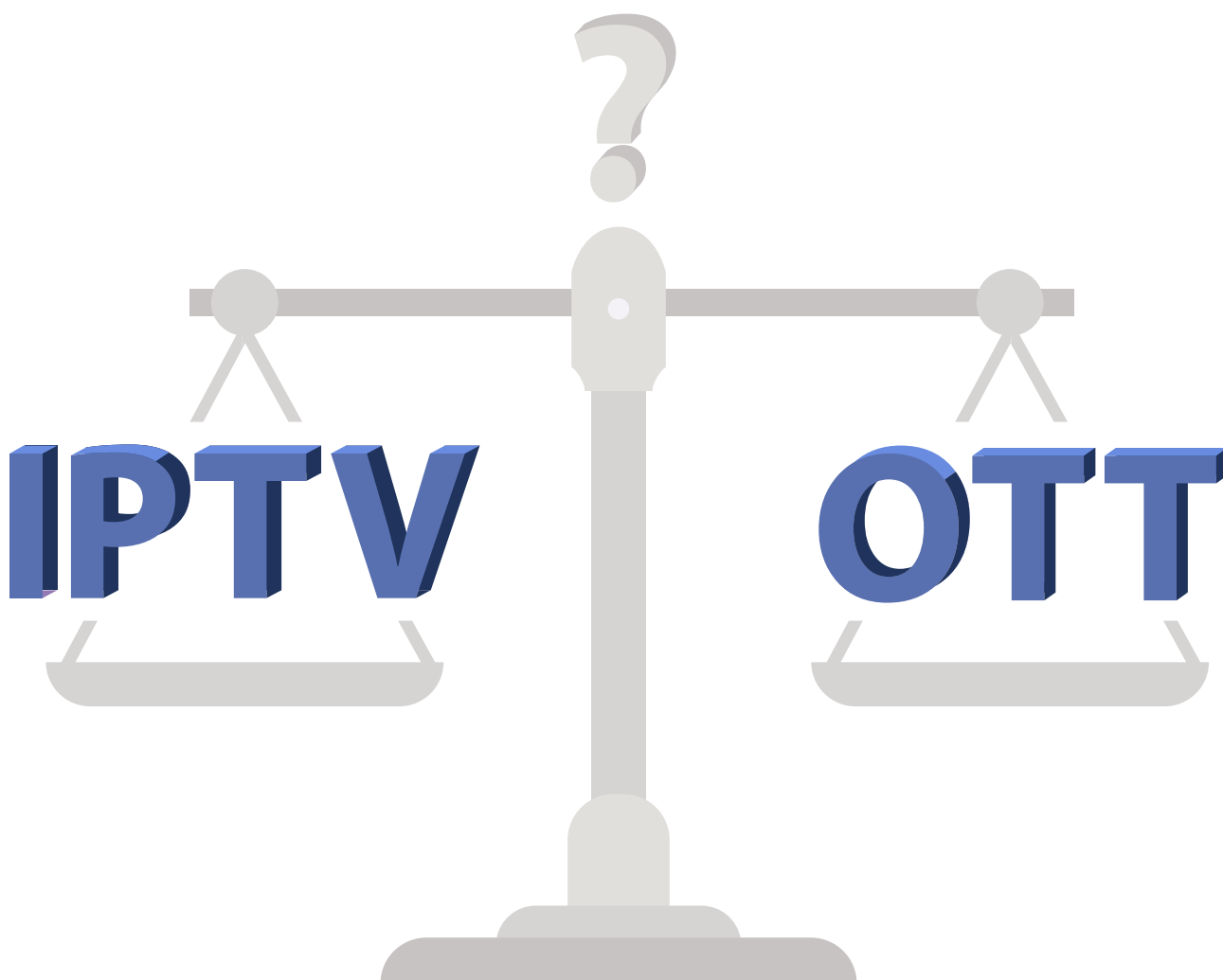


DO IPTV OPERATORS NEED TO MIGRATE TO OTT?

To broadcast to mobile devices and smart TVs, IPTV operators need a hybrid platform and branded apps. The last mile between the device and the network has physically changed. Before, set-top boxes were connected to the network with a physical cable. Users were willing to lay cables all around the house, fixed to the walls, and hide wires under the skirting boards. Now they buy smart TVs with Wi-Fi, Netflix, YouTube, Amazon, and Hulu. The question is, why would you need a separate set-top box in this case? Content delivery methods are changing, so regular operators are getting closer to “over the top”.

In cities with high-rise buildings, there’s a router in every flat. Some people keep their routers in wardrobes, on the floor or near the flat entrance and get a weak signal when they want to connect. But even if this problem is solved, you can’t have clients on separate channels like 1, 6, and 11, or at least 1, 5, 9, 13. There’s also interference with other routers and Bluetooth devices to consider. It’s extremely difficult to manage wireless networks.

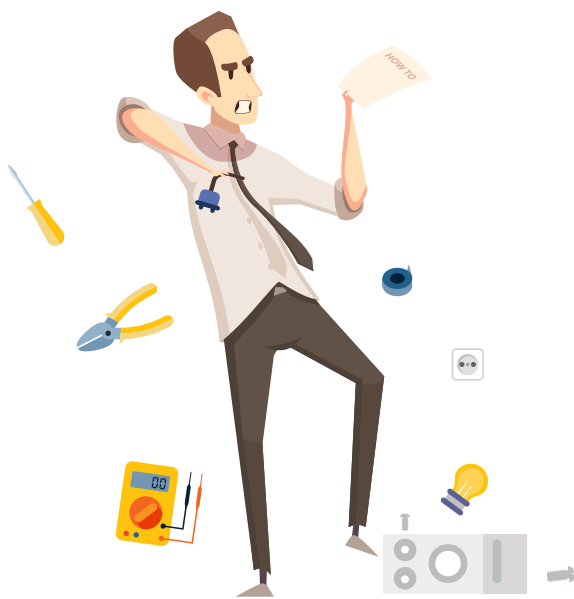
Operators can’t guarantee that the last mile will be obstacle-free. Therefore, OTT is the last link in the chain, and you need new data management systems for access quality management.



HOW DO YOU CHOOSE A SOLUTION AND LAUNCH A PROJECT?

You need to go for what will help you make money. Multiscreen capabilities and support for a wide array of devices are also important—you need an open platform, wherein you can integrate different client devices.

Ask your solution supplier for a product roadmap. If there is none, the company just doesn't know where the market is moving and how its solution can be further developed. The sales-driven development may not necessarily fit your company—especially if you have no influence on developers. If the operator knows nothing about middleware, it's their supplier who needs to have that expertise. If the supplier has a vision, the operator will remain competitive, too.



WHICH IS BETTER: A COMPREHENSIVE SOLUTION OR MIXED-AND- MATCHED SERVICES FROM DIFFERENT SUPPLIERS?

Most often, operators have a CTO, but no CIO. The former is responsible for hardware and cables, and the latter for software. Without a CIO, companies can't develop their own solutions or improve on others' work. They want something that works out of the box. You are much better off trusting your middleware supplier or hiring an expert. There's no use in starting from scratch.

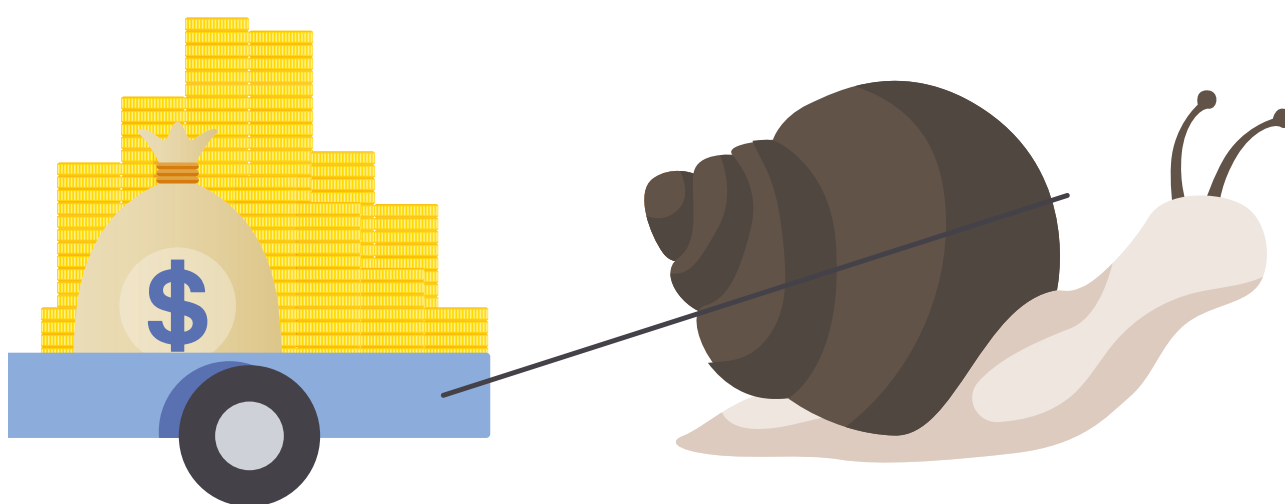
Operators rarely approach suppliers with a precise request. You need to educate such clients. A good middleware supplier will explain: “We work with transcoders of X brand, recommend affordable servers for storage and streaming from Y brand, and support billing and DRM solutions from brand Z.”

This is what integration companies are living off—they take the first company’s middleware, streaming solutions from the second, servers from the third, and use them to build a complete solution for their client.

WHAT EARNS OPERATORS MONEY?

It’s subscriptions. On average, the first 6–12 months’ worth of subscription fees go to recoup the last mile’s cost. In Ukraine, where triple-play services are priced at about \$8/month, a set-top box will cost you \$50, a Wi-Fi router—\$20, and a cheap cable—\$6. Then add in the wiring technician wages and marketing costs—and you spend \$100 just to attract a client. And we don’t take into account the cost of content, interconnection (procuring internet), and network amortization.

Over the first year, operators recoup the cost of terminal and network equipment and don’t make any profit until 6–12 months later. The net income margin under the obligatory contract period is around 10–20% and all the profits come from the next one, where you don’t need to invest in the client (apart from marketing investments to extend the contract). This kind of model is healthy for telecom, there’s no quick money here.





There are some limitations, too. Like, you can't sign a contract for a period of over 2 years in the EU. Similar legislation is also in place in the USA and some other countries. In Arab countries, you can't oblige anyone to use your services. It is frowned upon as promotion of debt, so it's consumption-based billing all the way.

If you do everything right, you'll have a client lifespan of 36–38 months in your prediction model. Then you use it to calculate your business model, keeping in mind that the market is not endless, and sifting through all the possible customers is not the right thing to do. It is important that you ensure a positive experience for your customers, strive to maximize the quality of service and to achieve higher NPS in the industry. In this case, the operator's business will show continuous growth.

Whether the client extends the contract will depend on the retention techniques you use. For instance, if someone signs a contract for two years with an operator, no one bothers them, but as soon as the expiration date approaches, the call center chimes in: "Hi, we have a special offer for you—we can offer you even better terms for the same price or even cheaper. All you have to do is extend your contract. Please, pay us a visit to sign the papers". This is how competition often snatches your viewers, and so you need to build relationships with customers during those two years instead of leaving them alone until the contract expiration looms.

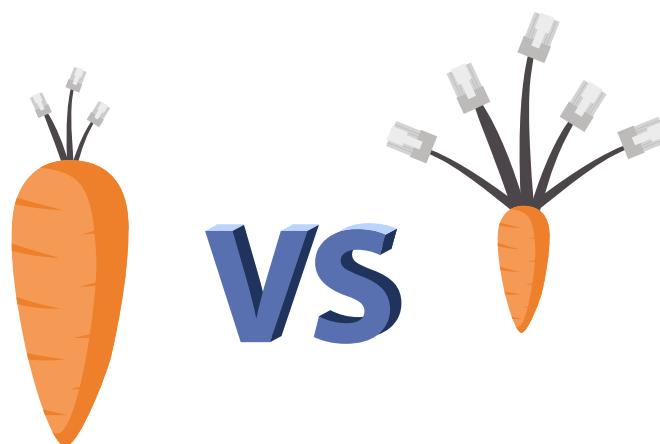
The relationship between companies and customers is akin to friendship. Hardly anyone would throw away a stable relationship and rush head-first into the unknown. We prefer to deal with those we know and those who are loyal to us. Imagine yourself in your customer's shoes: how disappointed would you be to have to replace all the cables in your home again?

HOW DO YOU CHOOSE SOFTWARE AND HARDWARE PROVIDERS?

You need to go by your business needs. How much money it will earn you? Does the system suit your business model? There are no fancy analysis techniques, "choose the best" is not always the best approach. Advanced solutions are for countries like Germany where 20 Mbit/s internet over ADSL 2+ costs EUR 17 per month. Triple Play is priced at EUR 40 or above there. If a viewer generates for you EUR 480 annually, you may want to spare no expense and even present them with a TV. You will recoup the price of your TV—EUR 360 and connection cost—EUR 100 over the first 12 months and reap profits over the following year.

It's for markets like these that middleware suppliers create high-end solutions.

Choosing one for yourself, you need to think if it can help you run a competitive service with the SLA you need, if it will fit the market on the technical side of things, and if it will generate profit. If it won't, you'll have to look elsewhere. All those things are true for apps, middleware, and set-top boxes alike. Selling their business, operators tend to forget about the capital cost and infrastructure quality. Expensive servers, antenna fields, and state-of-the-art network mean nothing for buyers, all they want to know is how much the business earns. No one says: "This company is making a loss, but they have one heck of a great piece of tech! We need to buy it." All they are concerned about is money.



SHOULD WE PAY EXTRA FOR FUNCTIONALITY?

It depends on how unique the functionality is. If it's easy to replicate, there's no need to pay for it. As I said, check the vendor's roadmap: chances are, someone's unique service is being replicated somewhere else already. There are no unique technologies, only temporary advantages. And it's a whole different question if you will be able to capitalize on them.



Implementing innovation in telecom, you need to make an effort and sway the market. It takes a lot of money to make a new service known to everyone. Being a runner-up pays off in telecom. Only leaders are forced to experiment.

You will get a few new clients right off the bat, but others will come only in eight months or so. Your competition will use this time to launch something similar, but without having to educate the market.

Leaders have the hardest time. Businesses divide the year into classic seasons. Christmas and Easter sales, summer special offers, and the back-to-school season. Leaders need to come up with a great value offer for consumers for every occasion. Often, we are talking about global operators, which have the resources it takes to create something unique.

The runner-up waits until their marketing department gets some kind of reference material in the form of a complete advertising campaign. When leaders launch a promotion, their sales department under the disguise of a buyer finds out its terms and prepares a commercial order. Marketing prepares a campaign, and in two weeks, a more attractive offer is launched. It's the typical behavior of runners-up.

HOW DO YOU RETAIN YOUR AUDIENCE AND DEVELOP IT TOO?

What makes an operator stand out is the quality of its services and client satisfaction, the technological head start is a very short-lived thing. Also, viewers need exciting content.

Open-access channels account for 50% (or even 70% in some countries) of TV viewership — it's national news-and-talk-show channels. Even in Moldova, just one channel has a share of 15%. Of 150 channels, only 30 are regularly watched. An average male watches local news, sports, films, fishing, and hunting. Adult content is also up there. In my experience, I saw multiple occasions where 70% of households switched to those particular channels' viewership peaked in the evening. Adult content is a taboo—no one talks or asks about it, but it's popular, people are willing to pay for it.

Netflix showed growth when it started shooting original shows. Want to shoot something cool — shoot it yourself. One of Bulgaria's national operators broadcasts 13 channels of its own, offering sports and local news coverage, as well as films. The company broadcasts all football, basketball, and volleyball matches—this is what sets it apart from the competition.



HOW TO CREATE AN IN-DEMAND PRODUCT

BROADVISION experts explain how Infomir created Whooshi, a portable Bluetooth amp with sound personalization.

Author: Darya Pozharskaya



Money is not all it takes to create a new product—the market, consumer needs, as well as technological and design trends, all need to be thoroughly studied. So, what problems do start-ups have to overcome and how do you create a product that’s popular right from the get-go? Let’s discover how Whooshi did it.

In September 2017, Infomir came up with the idea of Whooshi, a portable Bluetooth headphone amp with sound personalization. In just two years, the product went all the way from idea to serial manufacturing, propelled forward by its success on Kickstarter and participation in CES 2019.



HOW IT ALL BEGAN

Whooshi originates from a simple, spontaneous idea. Some professional musicians asked Infomir employees to recommend a device that would enable them to listen to lossless music recordings. The amp they needed had to be able to personalize sound and transmit a Hi-Fi signal to wireless headsets. But there was no device capable of all that on the market at the time.

Besides, 3.5 mm headphone jacks are less and less common in modern smartphones, forcing consumers to switch to Bluetooth headsets. While very handy, the sound quality that these headsets produce is inferior to those of wired ones. Transmission of Hi-Fi signals can easily be hampered by a physical obstacle or other signals transferred on the same frequency.

HOW WHOOSHI WAS DEVELOPED

Infomir's employees set out to create a device that could enhance the sound quality and transfer it to any headset via Bluetooth. Whooshi was created by the joint efforts of Infomir engineers, professional musicians, sound engineers, an audiologist and an expert in psychoacoustics. The name for the device was chosen spontaneously during a brainstorming session.

These days, it's nearly impossible to come up with a brief unique name, that captures the essence of the product. We held several hour-long sessions in search of a name that would sound right, and then someone came up with "В уши" (Russian for "in ears"). We laughed it off at first but then decided to write it down in Latin. Having googled it, we saw that it was unique. That's how we decided on Whooshi.



Denys Popov,
Whooshi Product Manager

It took just one year to complete the project, developing the software and hardware in parallel. Although it took 15 variants to nail the design of the amp's body.



Whooshi designs

The work didn't end with the team selecting the optimal design, though. While engineers were busy developing the amp's board, the designer perfected the device's body.

To develop a project like this, you need to get together an engineer, a designer, a marketing specialist, an ergonomics specialist, and other experts. The earlier you do it, the easier it is to create a good product. It is also important that everyone involved in the project understands their area of responsibility, is open to dialogue, and respects the other specialists' ideas.



Ivan Shmatko,
Whooshi Industrial Designer



red^{dot} award
product design 2019

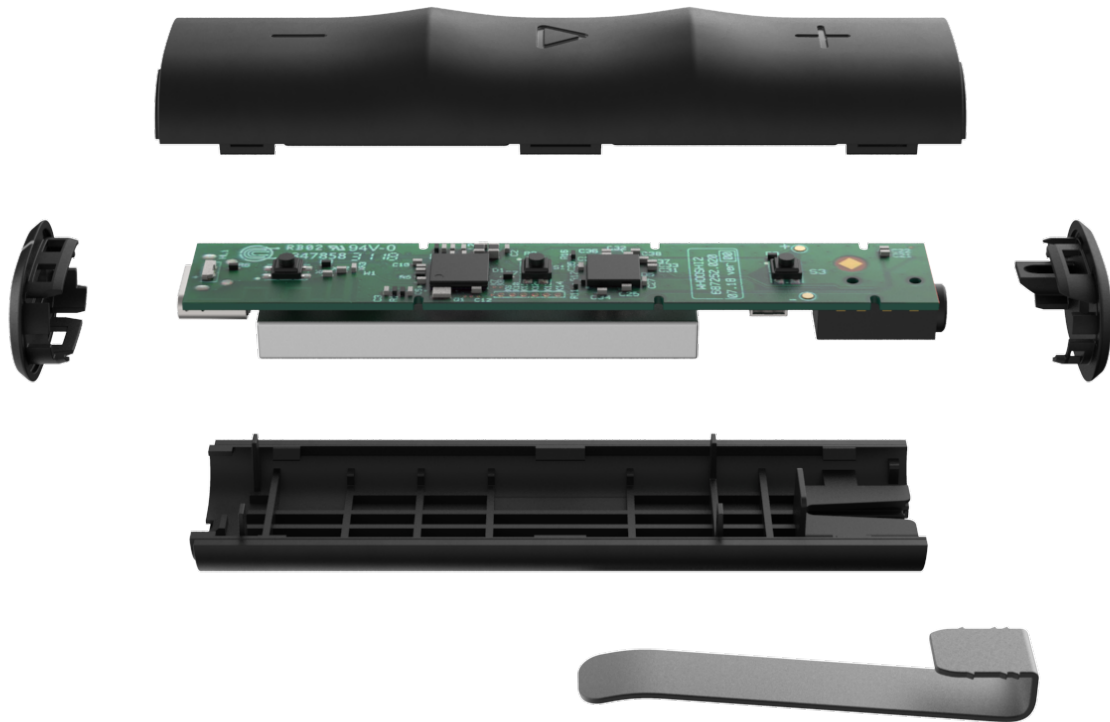
In 2019, Whooshi snatched a prize in the Industrial Design category at Red Dot Design Awards—one of the highest-profile designer competitions, that brings together the world's leading designers and producers every year.



Ivan Shmatko at Red Dot Design Award 2019

HOW IT WORKS

Whooshi transmits Hi-Fi audio—to maintain its quality, the device is equipped with a powerful Bluetooth codec Qualcomm® aptX™ HD that supports 24-bit audio, has noise-reduction capabilities, and ensures the transmission of studio-quality sound.



Whooshi carries just the essentials —
the device is nothing more than an amp board in a body.

The device works in conjunction with a mobile app for audio personalization. It takes mere minutes to run a special hearing test to create a personalized audio profile. Test results are then stored in the user's audio profile, and the app can be used as a player custom-tailored for your ears.



The ear is truly a unique organ. We all hear sounds differently. If glasses or lenses are selected individually, why not apply the same approach to sound? Whooshi is like glasses for your ears.

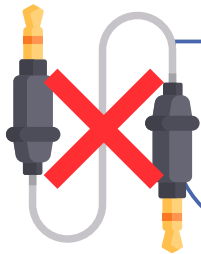
Denys Popov, Whooshi Product Manager



WHO WHOOSHI IS FOR



- Audiophiles
- Musicians, sound engineers
- Owners of jack-less smartphones
- Athletes
- Drivers
- People with hearing loss
- Office workers, gamers, cinephiles

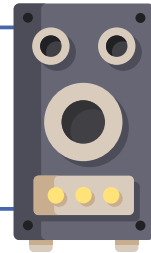


Free yourself from wires

Whooshi connects to your smartphone, laptop, or tablet via Bluetooth, turning your favorite headset wireless.

Hi-Fi audio

Qualcomm® aptX™ HD Bluetooth codec supports 24-bit audio and has noise-reduction capabilities.

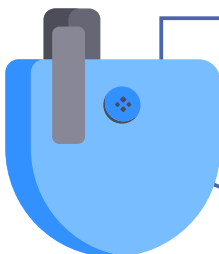


8 hours of music

The amp has a battery life of 8 hours.

Audio personalization

The Whooshi Player adapts all audio to your specific hearing. The app is available on Android and iOS.



Conveniently wearable

A metallic clip helps reliably attach Whooshi to clothing.

Hands-Free

Whooshi puts music right at your fingertips, operating as a hands-free wireless headset.



WHOOSHI USER FEEDBACK

In November 2018, Infomir launched Whooshi's crowdfunding campaign on Kickstarter. The company aimed to collect \$10,000 over 35 days, but the project garnered a sum thrice as large. However, it wasn't all about the money—the producer needed feedback from end-users to understand if there is demand for a product like this.

Crowdfunding involves constant live communication with backers. Those who pledge their support for the project generally want to know everything about the product's functionality, design, and shipment.

Kickstarter gave us valuable customer feedback and our first global shipping experience. I handled all the communication with backers, and it was brutal: some of the investors had a plethora of questions, and I had to patiently explain to them time and time again what stage the production was at. The feedback we got enabled the Whooshi team to get a detailed insight into its target audience and improve the device's functionality.



Christina Florya,
Whooshi Marketing Specialist



The Whooshi mobile app creates a personalized audio profile

Even if a project reaches its Kickstarter target, there is no guarantee that it will be able to go all the way to manufacturing. Based on backer feedback, you can often see if the idea is a flop. Thankfully, Whooshi's campaign proved to be a success: the product found its audience and the feedback was positive.

The Whooshi team is currently working on making personalized audio profiles operate independently from the mobile app. Whooshi users will thus be able to listen to music on the service of their choice.

COOPERATING WITH DISTRIBUTORS

In January 2019, Infomir presented Whooshi at CES 2019 in Las Vegas — the largest consumer electronics exhibition.



For four days, The Whooshi team was meeting media representatives, producers, and distributors in the Ukrainian pavilion at CES.

The event became a milestone for the project. Exhibitions like this are a great opportunity to put one's product in the spotlight, get inspired by new trends, and find future partners.



Whooshi booth in the Ukrainian pavilion of CES 2019

At CES, the Whooshi team established new partnerships with 60 distributors. The exhibition showed us in what regions there could be demand for Whooshi: the main regions being the USA, Canada, the UK, South Korea, Thailand, Japan, and Europe. It's in these countries that gadget culture is well developed. Their inhabitants love music and high-quality sound.



Igor Oklander,
Infomir Marketing Director

The manufacturing of Whooshi has already been launched, and customer support channels are up and running. Infomir is ready to ship the amps anywhere in the world, and buyers can rest assured about its quality: all our devices undergo rigorous testing before being shipped.

Successfully bringing sought-after products to the market can be made possible thanks to team solidarity: this is how hot ideas and concepts are born. Consumer feedback is truly key to creating viable products.

INFOMIR AND MULTTV: THE SUCCESS STORY

Find out how the solution by Infomir helps bring together thirteen different operators and what is unusual about the past and future of Brazilian TV.

Author: Dariya Pozharskaya



In 2015, thirteen Brazilian entrepreneurs founded the MultTV telecommunication company. The members of the media conglomerate use a common head-end station and infrastructure—this model allows local operators to launch IPTV/OTT projects quickly and at a minimal cost. Soon, thirty more companies will join MultTV and their number is increasing every week.



- 1** million subscribers throughout Brazil
- 13** operators
- 4** years on the market

EFFECTIVE BUSINESS MODEL

To launch an IPTV/OTT project, you need content, transcoding and data delivery solutions, storage, middleware, network infrastructure, as well as, client devices. It is a complex system that takes a lot of time and resources to launch. Brazilian operators have teamed up to make things simple.

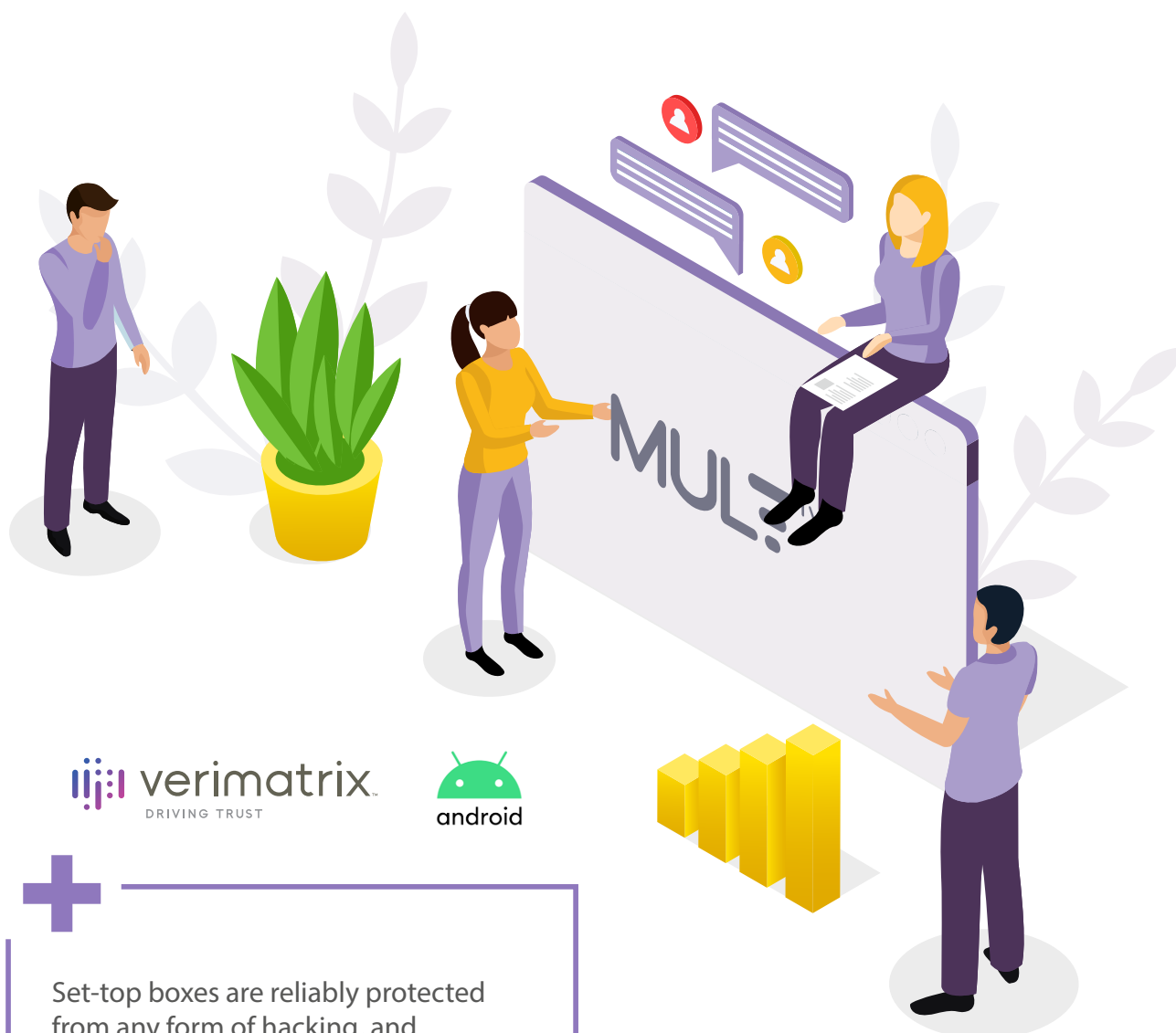
MultTV, together with the SES satellite company and the NEOTV Association, has shown how a launch model with minimal risks and investments actually works. The solution is designed for Internet providers aiming to move to the next level and become pay-TV operators. It includes content, branded Android set-top boxes and legal support. Operators offer viewers a TV archive, TimeShift, nPVR, and video on demand.



COLLABORATION WITH INFOMIR

In 2019, the MultTV conglomerate implemented an Android™ solution by Infomir. Android 7.0 OS and 2 GB RAM were the main requirements for the set-top boxes to integrate with Verimatrix VCAS™ Ultra media content protection system.

In order to meet this project's requirements, Infomir specialists customized the solution, integrated it with third-party middleware and provided support for VCAS Ultra, which, along with firmware branding for every service provider, allowed MultTV members to take full control of their environment. Infomir integrated the MultTV proprietary launcher and app store, limiting the installation of third-party applications.



 verimatrix.
DRIVING TRUST


android



Set-top boxes are reliably protected from any form of hacking, and advanced Android settings are not available to users: the device cannot be disabled or bound to a third-party provider.



"The fast deployment of this project was its key to success. MultTV strived and succeeded in building a cutting-edge service from different components that required a lot of integration. We needed customized Android-based STBs that were integrated with third-party middleware and the VCAS Ultra security system. In the shortest time possible, we got a fully customized solution that put us in control of our set-top box management. Infomir performed the task just great. On top of that, their Brazilian-based manufacturing facility was a major plus".

Luiz Gewers,
CTO of MultTV

The MultTV model for launching IPTV/OTT-business has proved to be successful. Soon, thirty more operators will join the conglomerate, and each week their number is increasing.

IN 2019, INFOMIR LAUNCHED A SET-TOP BOX MANUFACTURING FACILITY IN MANAUS, BRAZIL.

This greatly simplified collaboration with MultTV and other Latin American partners.

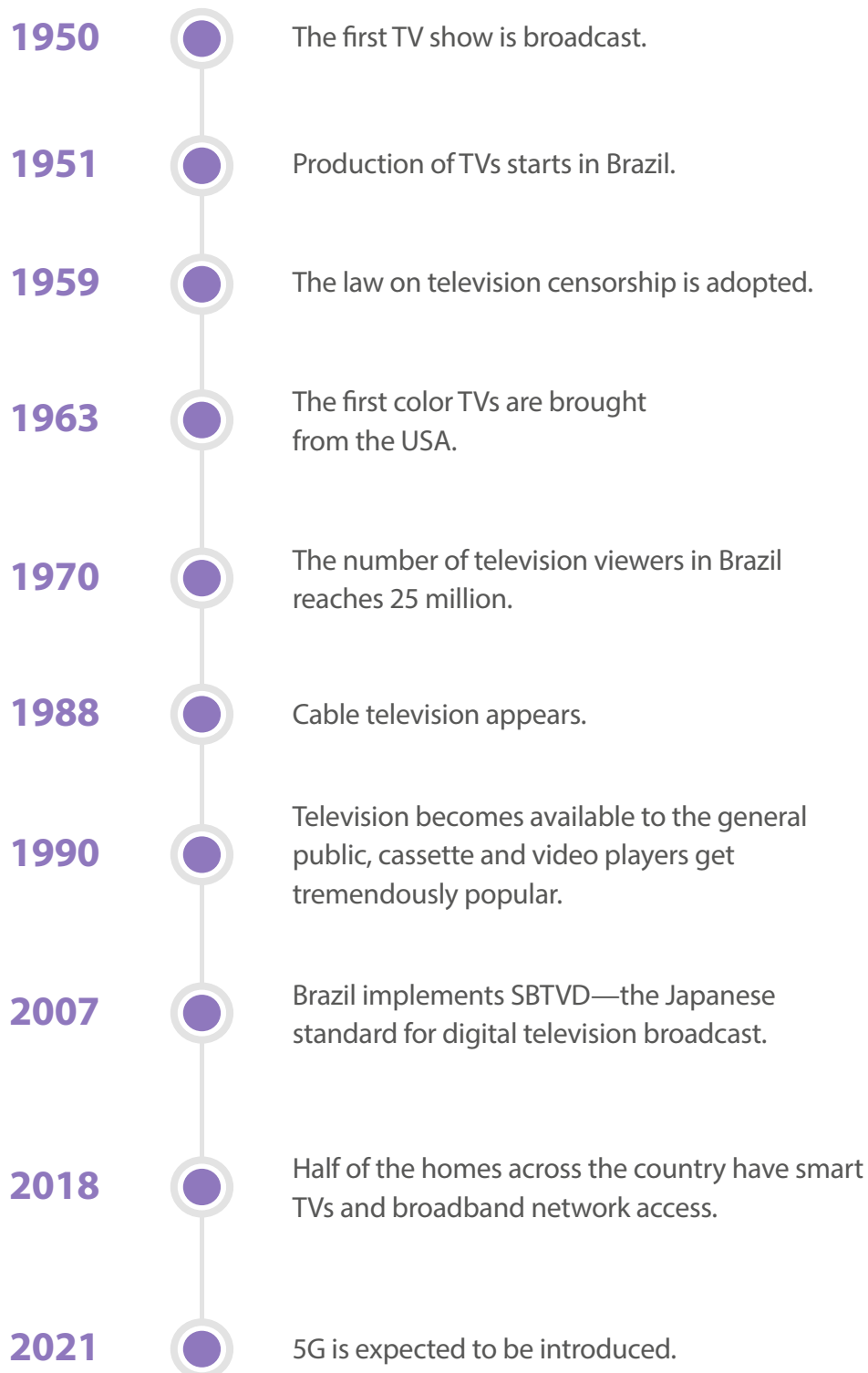


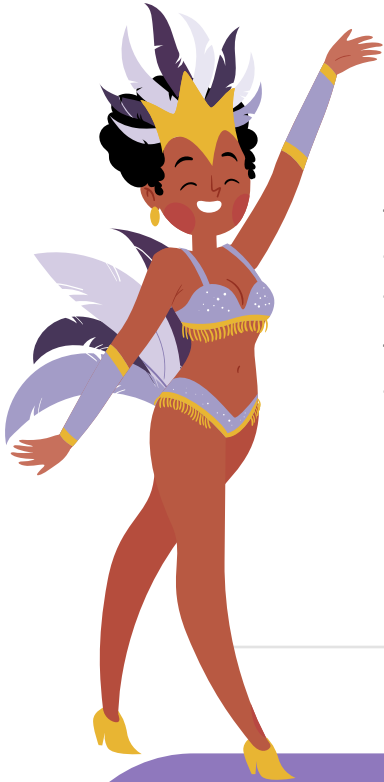
"It's been a huge success for us—we helped MultTV launch its service while at the same time expanding into the Latin American market. This major project involving firmware customization and integration with VCAS Ultra and third-party middleware is an important step for expanding into new regions. The new solution will help MultTV operators build an even more modern and easy-to-use service. Having a manufacturing facility in Manaus and a regional sales department, we have been able to offer the best terms to our client".

Traian Triboi, CEO of Infomir



THE EVOLUTION OF BRAZILIAN TV





The history of Brazilian television began 70 years ago. Following the United States, Great Britain, and France, Brazil became the fourth country where television broadcasting started.

The first TV-show was aired in São Paulo in 1950: viewers heard the song *Beija-me beija-me até a loucura* ("Kiss me, kiss me madly"). It was broadcast by Francisco de Assis Chateaubriand Bandeira de Melo, the founder of Brazilian TV, owner of the radio network and the Associated Newspapers editorial offices.

To promote television, Francisco purchased for his first viewers, studio equipment and 200 TV-sets in the United States.

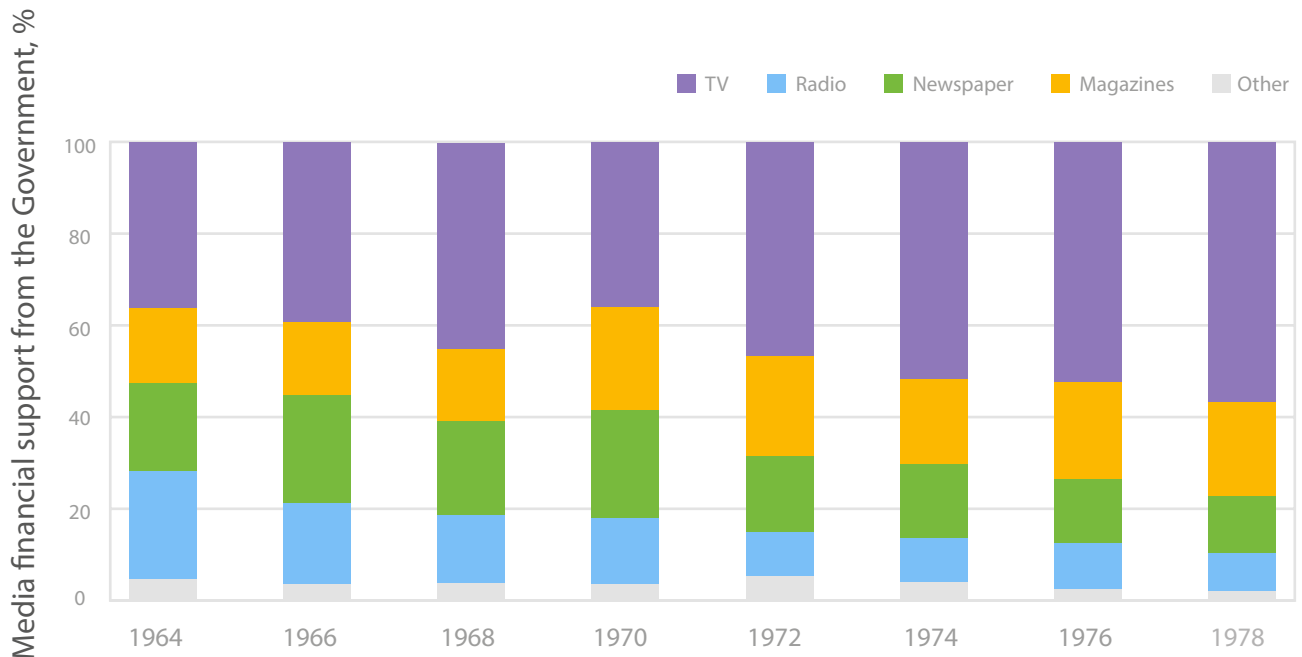


Brazilian television steadily grew in enthusiasm and improvisation: in the early years, it was totally free of advertising and politics. There were no professional presenters, actors, or journalists—creative people independently mastered the new industry and experimented a lot.

In the beginning, television's mission was to inform and entertain the audience. Newscasts, telenovelas and talk shows were the most popular TV genres. But in time, TV began to shape the worldview, tastes, and needs of its audience. And the state support for the industry was increasingly growing.



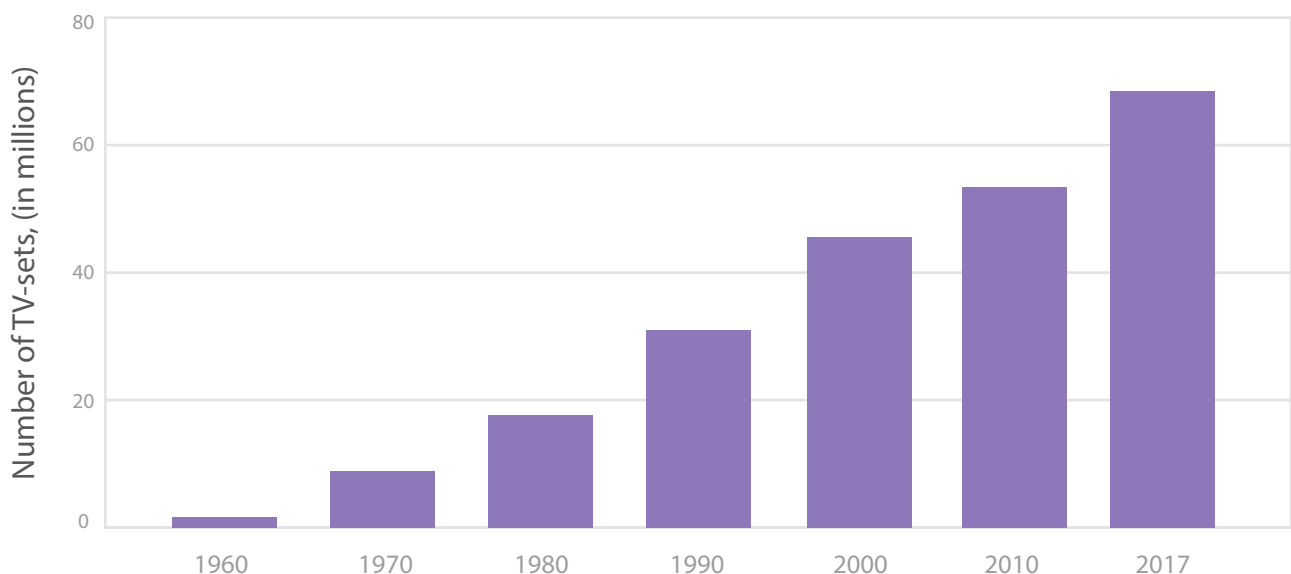
BRAZILIAN MEDIA FINANCIAL SUPPORT FROM THE GOVERNMENT



Until the 1980s, TV-sets remained a privilege of the rich, but over time they became affordable to everyone.

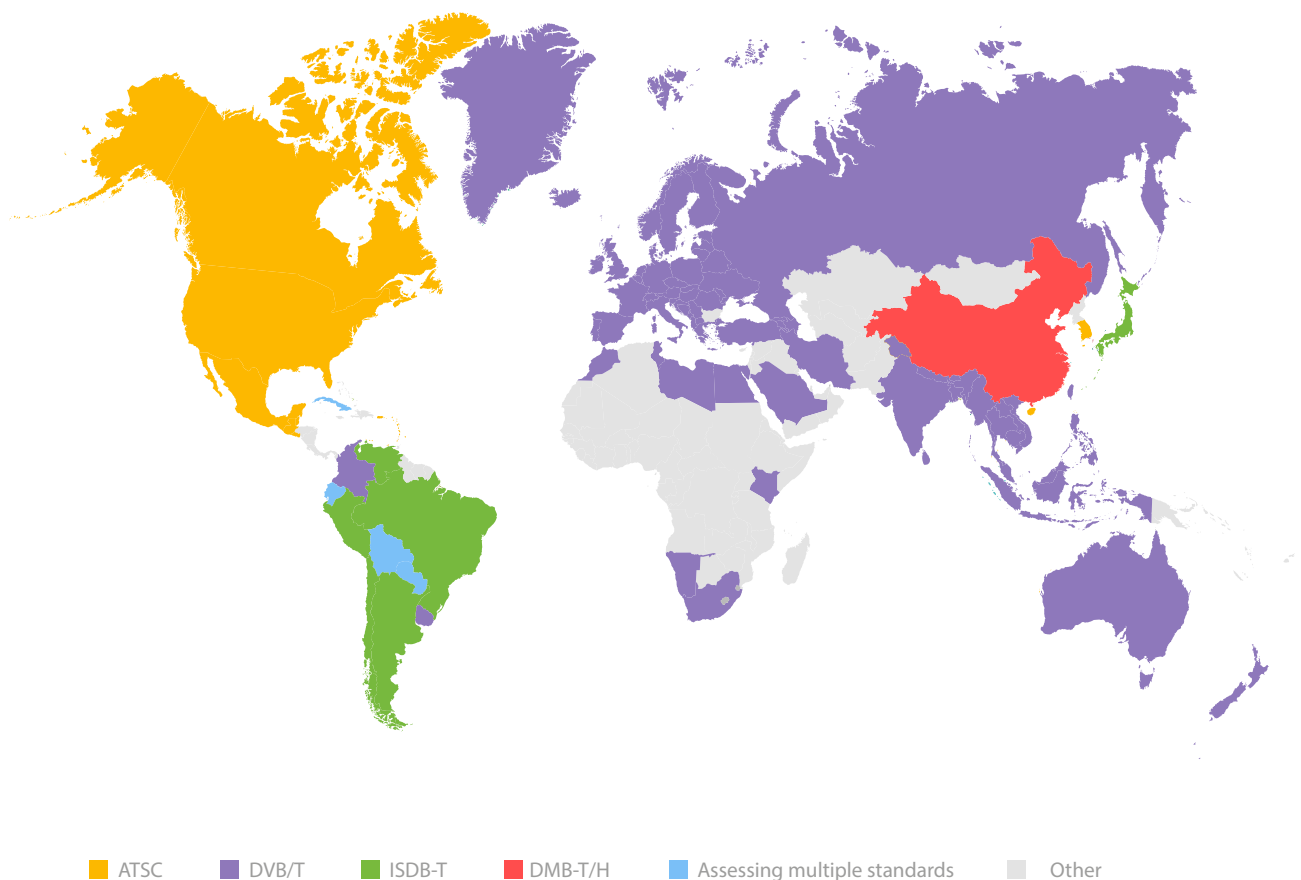
NUMBER OF TV-SETS IN BRAZIL

Source: Statista, Nationmaster, IBGE



In 2007, Brazil became the first country in Latin America to switch to digital broadcasting and implement the Japanese SBTVD standard (ISDB-T International). Hot on the heels, in 2009, the SBTVD was implemented by Peru, Argentina, Chile, and Venezuela.

WORLDWIDE DIGITAL TERRESTRIAL TV DEPLOYMENT



FORECASTS

IPTV certainly has a future in the country. According to the National Telecommunications Agency of Brazil, in September 2019, 754 thousand pay-TV subscribers received the service through fiber-optics.

In 2018, half of all Brazilian households had smart TVs and broadband network access.

By 2022, broadband Internet will be available in 6 out of 10 homes, helping IPTV/OTT services compete with cable and satellite television.

The country is currently experimenting with 5G. In 2019, the Grupo Globo company first used 5G Broadcast technology to broadcast the Rock in Rio festival.



MAG520 MAG520W3

4K and HEVC-enabled Linux set-top boxes

Fast integration with your middleware



4K and
HEVC support



Quad-core ARM
Cortex-A53 CPU



4 GB
eMMC



1 GB
RAM



User-friendly
IR remote



Linux
4.9



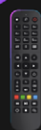
Dual-band Wi-Fi
2.4 and 5 GHz
(MAG520w3 only)



Qubic
design

MAG520 and MAG520w3 are high-performance Linux set-top boxes that feature an Amlogic S905X2 chipset, a 25% more powerful ARM Cortex-A53 CPU, and a better GPU. It enables smooth 4K 60fps content playback.

With MAG520, operators can guarantee uninterrupted service. Infomir's API ensures easy integration of the device into any project already using MAG set-top boxes. The integration of MAG520 and MAG520w3 with third-party middlewares and DRM/CAS is available upon request.



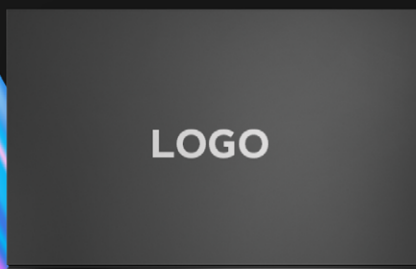
The best user experience on Linux 4.9

MAG520 is a reliable high-performance device designed to run for months on end without rebooting. Operators can easily customize its UI and develop apps for it.



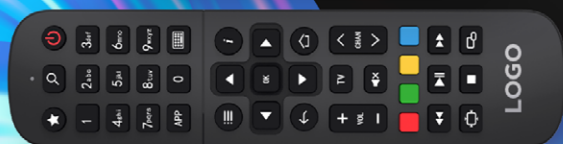
Application and integration API

Infomir has created an API to facilitate integration with CAS/DRM and app development. The apps for the Linux-based MAG Linux set-top boxes are developed using HTML, CSS, and JavaScript. Infomir provides extensive documentation for developers' convenience.



White-label UI, body, packaging, and remote control

We can customize the interface and software, and apply your branding to the set-top box body, remote control, and packaging. Companies can get UI with their logo and brand colors or even create a unique one.



[Learn more](#)

EDITORIAL

BROADVISION magazine is a quarterly online magazine devoted to the IPTV/OTT industry and modern technologies produced by Infomir's marketing specialists. We're happy to present our 10th issue.

We hope you'll enjoy reading our magazine as much as we enjoy working on it. Sign up for our newsletter and share this issue on social media. It's the best way to show us that you like what we're doing.

And feel free to let us know what you would like to see on the pages of BROADVISION next year. E-mail your ideas and suggestions to us at broadvision@infomir.com.

Let's grow together!

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As always, it's thanks to your collaborative efforts that we're able to get this issue out to our readers.

BROADVISION by  **infomir**



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