

# Go big or stay small?

WHY THE SMART TV EXPERIENCE IS ESSENTIAL  
FOR ONLINE STREAMING SERVICES

# Intro

Today, online video streaming services are an essential part of all our lives. Access to vast libraries of movies and TV series is available and expected at the touch of a button, and whilst many viewers may watch on mobile devices, it doesn't match the big-screen TV experience for most.

In this white paper, we explore why native smart TV apps are essential for online streaming services, providing customers with the flexibility to access content on all major devices. We also dive into the complexities of building TV apps, including how we at Magine Pro enable big screen for our partners and their end users. Passionflix founder Tosca Musk also shares insights on the realities of running a specialist streaming service on multiple devices, including the big screen.

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# The Future

Komedi, Drama, Science F

Miranda July tar en t  
ambitiös uppföljning  
Everyone We Know.



## Fortsätt titta



## Kärlek på italiener



# The rise in big screen streaming

Why Smart TV is essential for online streaming services



Online video streaming services have revolutionised how we all watch TV series and movies. In the early days, marketing around these services focused heavily on the idea of cord-cutting, the freedom to watch what you want, when you want and wherever you are. You were no longer tied to the TV or house; you could catch up and stream your TV shows and movies on mobile devices anywhere. And although we all can watch 'on the go' (and most do), it hasn't changed the fact we still enjoy the traditional TV experience.

## TV reclaiming its spot at the centre of home entertainment

Since its creation, the TV has been at the centre of home entertainment and content discovery. However, when streaming services first launched, consuming video via TV was limited. As such, secondary streaming devices, including gaming consoles, Chromecast, set-top boxes etc., were a necessary

add-on for consumers to access the latest content and apps. In the beginning, however, as the technology was still developing, the user experience had friction, which ultimately made the TV the secondary interface to content discovery; the TV was there purely to display the streaming video.

In answer to this, major TV manufacturers have focused their efforts in recent years on advancements that enable them to take back ownership of home entertainment, with Samsung and LG leading the market share with the next generation of Connected TVs. Connected TVs (CTVs), also known as Smart TVs, enable the viewer to stream directly through the TV via an internet connection

and apps without needing secondary devices. According to [Conviva's State of Streaming 2022 report](#), Smart TVs are the fastest-growing screen type for all regions of the world, up 31.4% globally year over year. The report also states that big-screen viewing remains the streaming device of choice, capturing nearly 77% of all streaming viewers' hours worldwide. And highlights a noticeable decrease in viewing from secondary streaming devices such as game consoles, confirming a change in behaviour as viewers opt for built-in capabilities.

“Major TV manufacturers have focused their efforts in recent years on advancements that enable them to take back ownership of home entertainment”



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Smart TVs are the fastest-growing screen type for all regions of the world, **up 31.4%** globally year over year.

-Conviva's State of Streaming 2022 report

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## Content release windows & convenience

The demand to stream high-quality content at home was amplified, particularly between 2020 and 2021, by the COVID-19 pandemic. In fact, a 2021 report by Omdia, which looked closely at key trends across online video consumer behaviour, found that during 2020, online video streaming overtook pay-TV subscriptions on a global level for the first time. This boom in online streaming subscriptions coincided with continued lockdowns and the closure of entertainment venues such as cinemas.

The pandemic profoundly affected the film and entertainment industry. Uncertainty led many within the industry to shift the theatrical exclusivity window. Previously in the U.S, for example, films would need to play in theatres for 90 days before becoming available to U.S home audiences through streaming providers. However, during the summer of 2021 AMC theatres and Universal were the first to reach an agreement

to reduce this to only 17 days, enabling Universal to partner with online streaming services sooner for home distribution and better monetization.

Today, the theatrical release window remains shorter (around 45 days) in most parts of the world than it was pre-pandemic. And although cinema is recovering and undoubtedly set to stay, the changes to the exclusivity window will continue to impact online streaming positively. For film studios and distributors, this shift is likely to increase revenue as they're able to capitalise quicker on new movies in the home market while they are still trending and in high demand. As a result, there are potentially better partnership opportunities for streaming operators that enable big-screen viewing and secure payment gateways for viewers.

As TV technology and content convenience collide, we expect to see more significant growth in the Smart TV market, alongside an increase in audience reach and viewing shares for big-screen as Smart TVs become de-facto TVs in the home.

## Connected TV applications changing consumer behaviour

Expanding a streaming service's availability to Connected TVs can impact users' engagement with the service and its available content. At Magine Pro, we enable our partners to expand to the big screen with native streaming applications for LG, Samsung and Vizio devices. A recent review of our partner data highlights how Connected TV applications impact end-user behaviour:



TOTAL VIEWED HOURS

**+7%**

The overall data also shows that total viewed hours across all users on LG & Samsung devices also increased by +7%.



WATCHED UP TO

**54%**

MORE HOURS OF VIDEO

Analysis of a Magine Pro's partner 2021 data shows that users with an LG/Samsung TV watched on average between 19% and 54% more hours of video, compared to users that didn't watch on those devices (*this range is likely affected to type of service, some seasonality impacts and other factors*).



UP TO

**14%**

INCREASE IN THE CUSTOMER LIFETIME

It's not surprising that with an increase in user engagement and viewed hours per user, we're also seeing a 12%-14% increase in the customer lifetime of the same user cohort that views content on LG & Samsung devices.



# TV app development

How TV apps are developed to deliver an optimal user experience

Building a streaming service that's accessible on multiple devices, including big-screen TV, can have its challenges. In OTT, no two apps are created equal. In fact, one single streaming service requires separately built apps for each platform it's available on. The cost and practicalities associated with this alone can be reason enough for service operators to outsource their streaming tech requirements.

At Magine Pro, we've invested our resources and experience into providing a fully flexible OTT platform for our partners that streamlines the build process and simplifies expansion onto other platforms and devices, including Connected TVs.

## Native TV app builds vs apps for secondary devices

When it comes to streaming content via the television, viewers have two distinct options: TV streaming apps that are built for particular Smart TV brands (such as Samsung, LG, or Vizio) and streaming apps that require the use of a secondary device such as Apple tvOS, Android TV, Amazon FireTV Stick, Roku or set-top Movistar+. However, Android TV is a little more unique and can be both, as it's compatible for use in Sony, Philips and Hisense televisions as well as secondary set-top devices.

Native Smart TV apps are tailored specifically to a television brand and are downloadable directly onto the TV via the appropriate app store. Creating apps for multiple smart TV platforms can be a tricky task, however, as although the underlying technologies are very similar across Smart TV platforms, it requires building and releasing separate apps for each manufacturer, which all have different guidelines and requirements to adhere to.

Building Smart TV apps also requires a formal partnership with the TV manufacturer in order to access a developer account in their respective portals. Most Smart TV apps are built using web technology standards such as HTML, CSS, and JavaScript. And each TV brand and model will use a special embedded version of Linux that can sometimes result in small but noticeable differences in behaviour. Each platform also requires a custom SDK (Software Development Kit). For example, the Samsung Tizen-SDK, the LG webOS-SDK and the Vizio-SDK must be implemented for each platform but will come with different compatibility matrices that can be tricky to navigate. An experienced team of web developers who are knowledgeable and understand the nuances are therefore essential to building and maintaining reliable, high-quality Smart TV apps.

For Smart TV apps, the release process can also be slower than expected. In most cases, the manufacturer's QA team will need to check and approve each app, which can take up to a month. It's therefore essential to ensure apps are stable and free of bugs before submission. This involves running through a series of tests and ironing out problems that may arise. Although this may add a delay to intended app launch timings, thorough testing saves significant amounts of time in the long run and helps guarantee a smooth launch and user experience.

We support big-screen streaming via all major platforms

Roku firetv apple tv androidtv

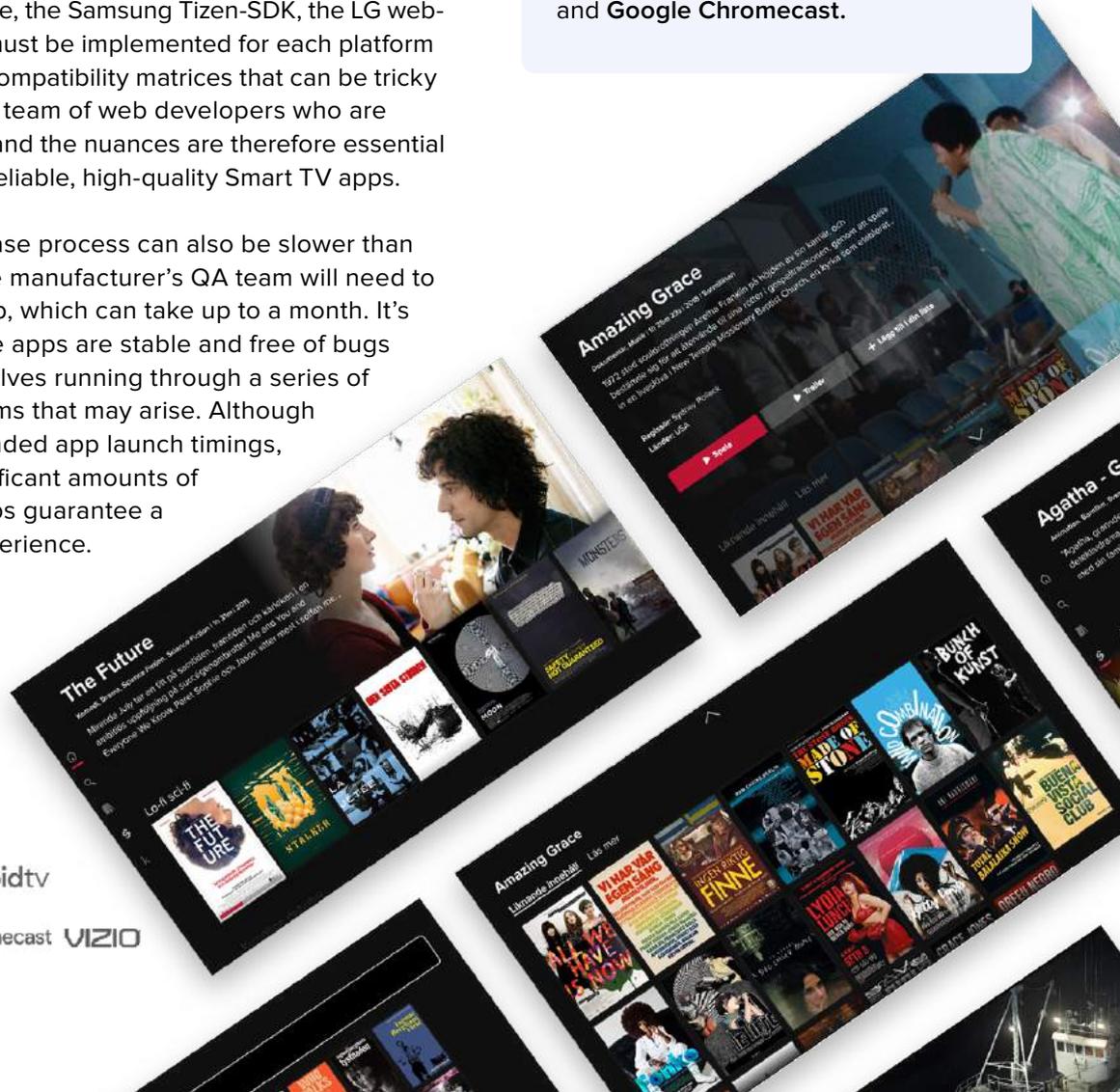
LG SAMSUNG chromecast VIZIO

MaginePro

## Casting to the big screen

Casting technology lets users view content on one device via another using a single stream. For example, content can be shared between mobile devices and televisions, providing viewers a more convenient way to share what they are watching without having to pass around a device.

Today, most modern TVs and devices feature mirroring technology. In fact, Magine Pro-powered streaming services all offer casting capabilities as standard, enabling our partner's end users to cast seamlessly from mobile devices via **Apple Airplay** and **Google Chromecast**.



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mirror_object = mirror_ob  
... == "MIRROR_X":  
use_x = True  
use_y = False  
use_z = False  
... == "MIRROR_Y":  
use_x = False  
use_y = True  
use_z = False  
... == "MIRROR_Z":  
use_x = False  
use_y = False  
use_z = True
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...ct= 1  
...lect=1  
...ne.objects.active = modifier_ob  
... + str(modifier_ob)) # modifier  
...select = 0  
...ext.selected_objects[0]  
...ts[one.name].select = 1
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...se select exactly two objects,

...OR CLASSES -----

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...ive_object is not None
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Alternatively, users may opt to stream content on their TV via a secondary device such as a set-top box (e.g. Apple tvOS, Android TV or Movistar+) or a streaming stick (e.g. Amazon Fire TV, Roku etc). For end-users, a secondary device comes at an additional cost though and typically requires them to connect the hardware to their TV via a HDMI port.

Developing TV apps for secondary devices can be similar to building native Smart TV apps. Some set-top boxes, Movistar+ for example, utilise the same web-based technologies (JavaScript, HTML, CSS) to build as native Smart TV apps. For secondary devices like AndroidTV, Apple tvOS and Roku, however, an entirely different approach is needed. These devices require separate programming environments and expertise such as Brightscript, Kotlin or Swift. It may sound more complex but compared to building a native Smart TV app, they offer more mature development frameworks and consistency across device models. For developers, this means a more streamlined build with fewer possibilities for mistakes.

The app release process for Android TV and Apple tvOS is also the same as for mobile Android and iOS, with apps expected to go through within a couple of days after submission to the store. Similarly, it can take just a few days for releases relating to Amazon Fire TV and Amazon Appstore and Roku app store to be approved. A stark difference in time to the approval and release process of native Smart TV apps as previously mentioned.

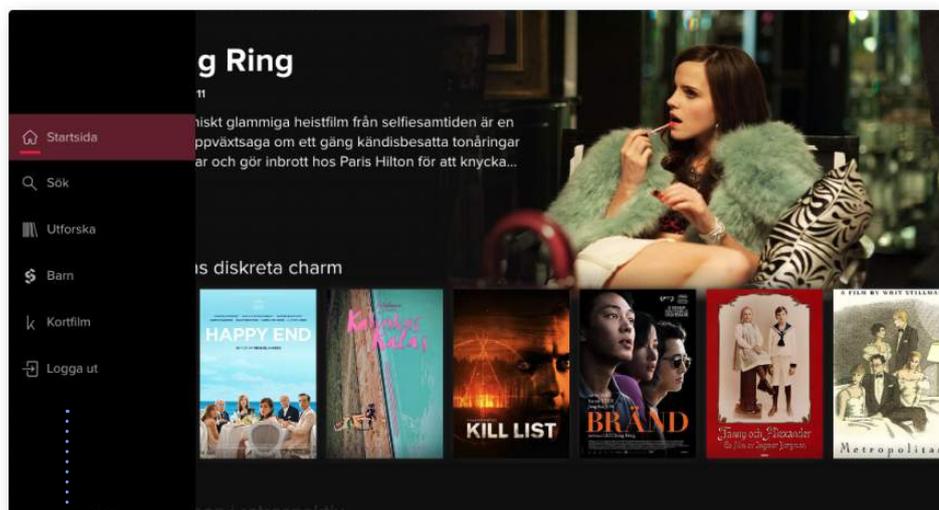
For service operators to successfully deliver cost-efficient and scalable TV streaming apps, both native Smart TV and those accessible via secondary devices, they require an experienced team of developers. At Magine Pro, we understand how important it is to prioritise development updates alongside the latest industry standards and trends. Our experienced team ensure the continued development of all our existing and new apps, to guarantee our partners remain up-to-date with the latest features and platforms.

Our appreciation for good design also ensures we meet each platform's requirements whilst optimising for the best user experience. We focus on building similarities in fundamental elements such as navigation hierarchy and layout structures. And platform-agnostic frameworks are adopted where possible to streamline the build process and maintain the same user experience across multiple TV app platforms.

## The UX & UI considerations for big screen

### The Magine Pro TV Interface:

We leverage important design principles to create user experiences that ensure content is easily accessible and discoverable.



In particular, expectations regarding quality and user experience when streaming on larger devices such as TVs versus smaller mobile devices.

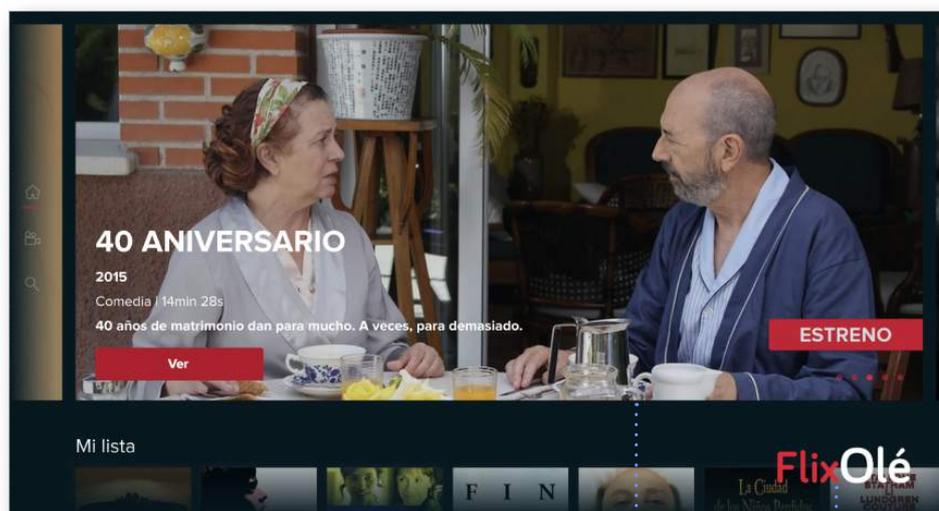
In the context of a single streaming service, it is important to consider how user behaviours are shaped by and differ across various devices. For example, user interfaces designed for mobile devices often feature more visible signposts than those designed for TVs, as navigating on mobile is primarily driven by user gestures and touch-based

### Clear & Concise Menu

Left-hand side menus are familiar to app users. Simplified menu options also make navigation easier when using Television remotes or gaming controllers. All menus can be customised using the Magine Pro CMS console.

interfaces. Mobile device users are also used to having much quicker access to content and expect app user interfaces to enable that.

In contrast, consuming content via the TV can allow for slightly more complex interfaces as users are more tolerant of navigating via remote or gaming controllers. To ease the user experience, additional UI elements, such as a focus state, are incorporated within the TV app, which essentially signifies to users what interactions are currently occurring or possible.



At Magine Pro, we understand the importance of delivering a quality user experience and ensure our big-screen applications are constantly adapting so that our partners can guarantee their viewers an enjoyable, rich and immersive experience. From providing peak performance with quick streaming times and a high-quality picture to simplifying the onboarding process with a QR code sign-up system to simplify the user registration process.

### Featured Content

A large format carousel enables service providers to hero select content and enhances discoverability for users. The carousel can display several assets with customisable editorial content.

### Professional Branding

Clear, professional branding builds trust with subscribers. Configure branding within the streaming service via the Magine Pro CMS Console including, logos, colour pallettes and font styles.

FlixOlé



Tu dispositivo es un Google Chrome

# QR codes & the Smart TV experience

How Magine Pro incorporated QR technology to enhance the Smart TV streaming experience.



## Motive

To simplify the signup and login process on native Smart TV streaming apps for end users, eliminating the need to manually input details using the TV remote.

### End User Benefits

- A seamless sign-in experience for registered users.
- Quicker and more convenient than typing in details with a TV remote to sign in or for new users to sign up.
- Effortless way for users to connect their TV to their streaming service account.

## Approach

The QR code project was conceptualised during a Magine Pro engineering Hackday and began development in Q2 2022. Our engineers focused on front-end changes and took a Backend For Frontend (BFF) approach to development to avoid impacting the platform's existing end-user login flow. In order to successfully deploy QR sign-up and sign-in, the decision to utilise Long Polling over WebSockets was made for backward compatibility reasons that could impact ongoing engineering projects.

## Findings

1. Simplify the engineering process. We found following the standards as much as possible, and in this case, the Device Authorization Flow (ratified by OAuth 2) essential to streamline the feature build and deployment.
2. TV screen design principles can be restrictive in the UX/UI process. During design and testing for QR functionality, positioning and visibility proved most important to consider as the viewer distance from the screen (typically 8-10 feet) and focus states could impact performance.

## The End User Journey

The steps to sign in to the TV app using a QR code

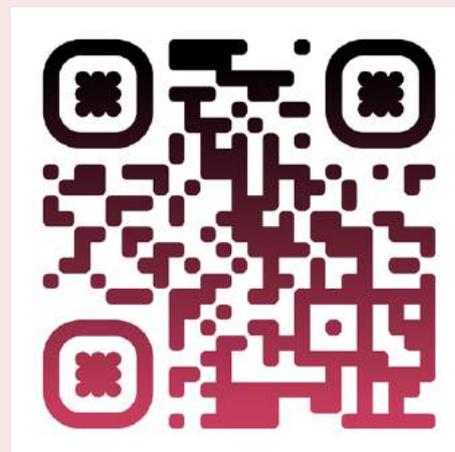


1. The user downloads the compatible native app onto their Vizio, LG or Samsung Smart TV.

2. Once loaded, users will be asked to scan the QR code for convenience or manually enter a sign-in code via their mobile device to connect their account to their Smart TV.



3. Users can then confirm the linkage and immediately begin streaming through the TV app.



### What is a QR code?

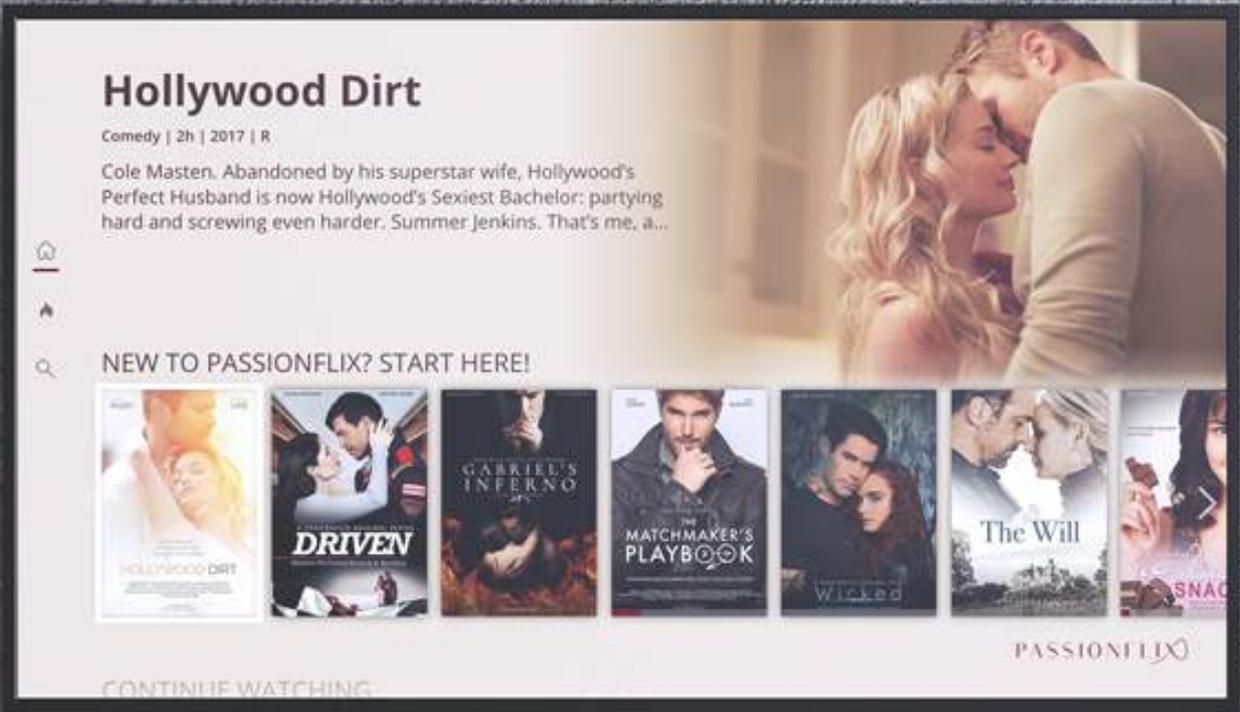
Quick Response (QR) codes are two-dimensional barcodes that are readable by smartphones and tablet devices.

QR codes contain information in the form of text, hyperlinks, and images, which are designed to be scanned and accessed quickly. This makes them ideal for streaming operators who want to provide their users with quick access to important information, including sign-up and sign-in forms, without needing to type into their devices.

QR codes are convenient, easy to use and unique for each task, service or landing page required.

# Meet Passionflix

Tosca Musk, founder of Passionflix shares her insights into the specialist romance-themed streaming service





We spoke with founder Tosca Musk about the realities of launching a video streaming service, strategies to aid discovery and reduce churn and the importance of expanding onto multiple devices, including big-screen today.

*What inspired the creation of Passionflix? And what did you set out to achieve in the beginning?*

We wanted to turn best-selling romance novels into movies and series but there was nowhere to release them because they were considered too risqué, so we created our own platform.

*Who are your target audience, and what do you consider your key marketing strategies?*

Our target audience is romance readers from ages 18-99. And social media marketing has been one of the most powerful tools for Passionflix when it comes to brand awareness and growth.

In addition to creating engaging content that highlights our original films and series, we also create and participate in conversations among the romance reader community. The authors of our adaptations also play a significant role in our marketing efforts, introducing Passionflix to the fanbase they've already established. We also run advertising campaigns throughout the year to build brand awareness and drive potential subscribers to specific titles.

*How important is it to Passionflix to be available to audiences through big-screen?*

As we want Passionflix to become a household name, it's important to be available on as many devices as possible. Anytime Passionflix becomes available on a new device like Roku or Vizio, we see an increase in subscribers.

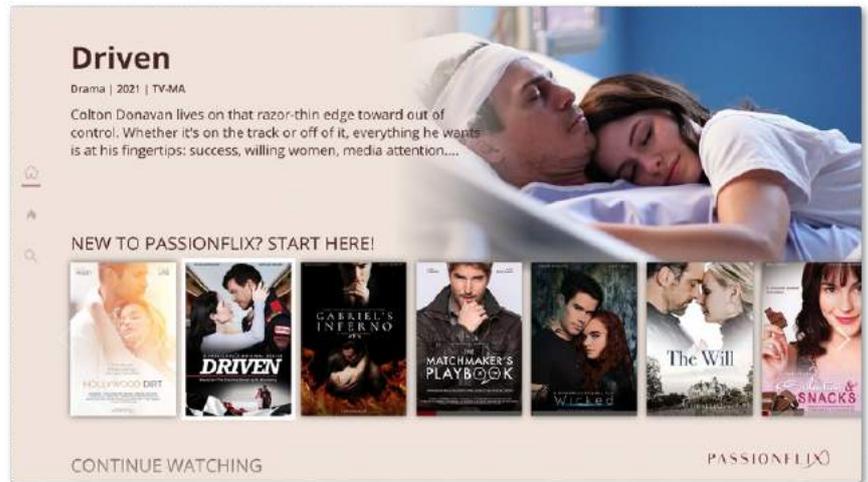
*What advice would you give others considering launching a video streaming service? And what are your long-term growth plans?*

Find a great white-label streaming platform like Magine Pro to support your specific vision. Also, understand your niche and remain laser-focused on that.

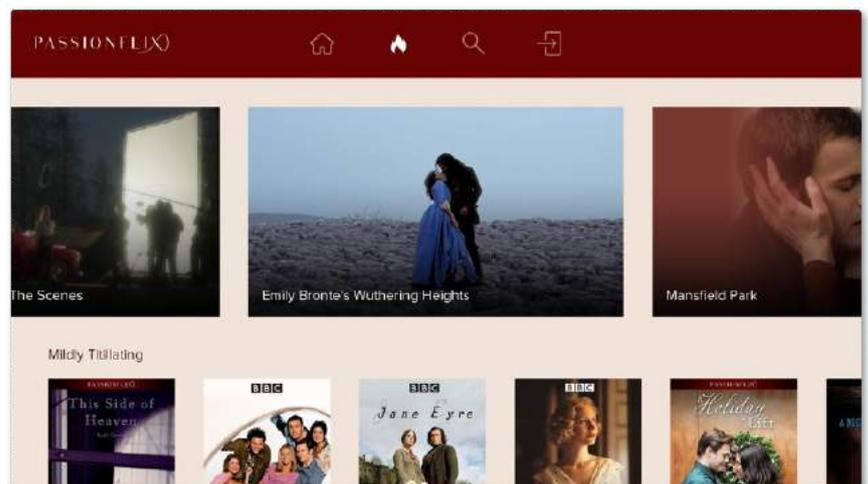
Our goal is for Passionflix to become a household name. I want to see it in every home worldwide, and Magine Pro will be key in helping us secure the distribution.

## PASSIONFLIX

Passionflix is a premium romance-on-demand streaming service home to a library of classic romantic content, and original movies and series adapted from bestselling romance books. The unique service was founded in 2017 by film director and producer Tosca Musk and launched worldwide via the Magine Pro platform.



Passionflix Samsung/LG TV app interface

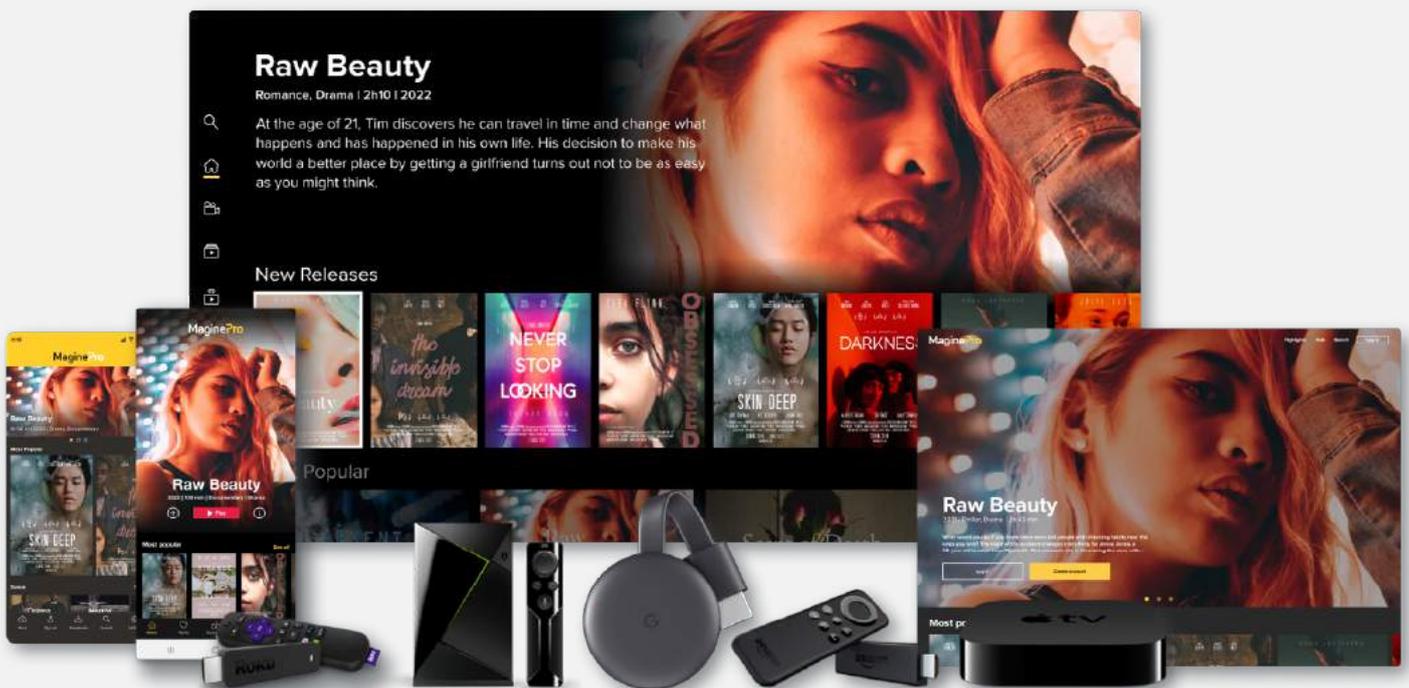


Passionflix Roku TV app interface



# Flexible video streaming services & apps

Create an end-to-end OTT service that delivers your Live, Linear & VOD content to audiences everywhere.



**Your Brand. Your Content. Your OTT Business.**

iPhone android LG SAMSUNG chromecast AirPlay Roku firetv apple tv androidtv VIZIO

[maginepro.com](http://maginepro.com)

# MaginePro

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## **About Magine Pro**

We provide all the tech, tools and insight you need to build a successful OTT business.

Our multiscreen OTT services and solutions are trusted and proven, enabling you to successfully monetize your content and securely distribute to audiences around the world.

### **For more information please get in touch**

**Phone:** +46 (0) 8-400 286 00

**Email:** [business@magine.com](mailto:business@magine.com)

**Press:** [press@magine.com](mailto:press@magine.com)

**[maginepro.com](http://maginepro.com)**