

## Voice Authentication Solutions for TV & Entertainment

A smarter, more personalized way to engage your customers with entertainment content

How can the TV experience be elevated?

More Content Watched

More VOD Purchased

Higher Advertising CPMs



More Music Played

Easy Parental Controls

Higher User Retention

# CONSUMERS NEED A BETTER WAY

## Growing Complexity = Disengaged Users

The global Media Streaming & Smart TV Device market is growing dramatically. There are now more than 200 streaming services available offering close to 100,000 movies and TV shows for viewers to choose from.<sup>1</sup> However, with this surge in the quantity of new services and streaming content, consumers are drowning in options.

According to a Morning Consult study, 50% of streaming subscribers have difficulty deciding what to watch.<sup>1</sup> So, streaming services and device platforms are faced with a dilemma, continue with having many choices or provide less choices which is not a good option since “58% percent said there are the right amount of entertainment options available to watch on streaming services”.<sup>1</sup> In addition, 75% of streaming subscribers are interested in features that ease content discovery by grouping content based on viewing history.<sup>1</sup>

## Increasing Demands for Voice Control

2020 saw a rise in consumer demand for voice enabled solutions and this voice trend has extended to Smart TV and OTT devices, which now have voice-control as a feature. According to the 2020 Smart Audio Report, 63% of Americans currently use a voice-operated personal assistant on any device.<sup>2</sup> Also, a report by Juniper Research states that consumers will interact with voice assistants on 8.4 billion devices by 2024 compared to the 4.2 billion devices expected to be in use by year end 2020.<sup>3</sup> “The fastest growing category is connected TV-based voice assistants, as the category itself is an expanding one. Voice assistants have become a relatively standard feature in this category, while it remains either a premium feature or an unused one in many of the other categories.”<sup>3</sup>

Consumers continue to expect more from voice as their user interface of choice - it's time to embrace voice-enabled personalization.



## 50% OF STREAMING SUBSCRIBERS HAVE DIFFICULTY DECIDING WHAT TO WATCH

### Sources

<sup>1</sup> Sarah Shevenock. “Half of Streaming Subscribers...” Morning Consult, July 27, 2020  
<https://morningconsult.com/2020/07/27/half-of-streaming-subscribers-cant-decide-what-to-watch-but-just-one-third-would-use-a-feature-that-picks-a-program-for-them/>

<sup>2</sup> “The Smart Audio Report”, NPR and Edison Research, Spring 2020  
[https://www.nationalpublicmedia.com/uploads/2020/04/The-Smart-Audio-Report\\_Spring-2020.pdf](https://www.nationalpublicmedia.com/uploads/2020/04/The-Smart-Audio-Report_Spring-2020.pdf)

<sup>3</sup> James Moar & Meike Escherich, “Hey Siri, How Will You Make Money?”, Juniper Research, April 2020  
<https://www.juniperresearch.com/document-library/white-papers/hey-siri-how-will-you-make-money>



A photograph showing the back of a person's head and shoulders as they use a smartphone. In the background, a television displays a game, and another person is partially visible. The scene is set in a living room with warm lighting.

# PERSONALIZATION MADE EASY

**Pindrop's voice authentication solutions unlock the ability for partners to simplify content discovery for users, increase consumer engagement and retention.**

## THE SOLUTION

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Pindrop voice authentication solutions for Media Streaming & Smart TV gives streaming services, platforms, and devices the speaker recognition capabilities they need to develop smarter, more differentiated, experiences consumers are seeking to stay loyal and engaged.

### **Voice-Enabled Personalization**

Pindrop's technology provides the accuracy and reliability for OTT streaming devices, platforms and services, enabling users to have their own personalized experiences. Through normal interactions via voice, over time the device distinguishes between household members and changes its behavior accordingly - no overt action on the part of the end user is required. For example, a user can say, "What should I watch?" and the partner service can tailor an experience with personalized content they are most likely to want to watch. If another member of the household says the exact same thing, they'll get completely different results - no profile switching required. While Pindrop's solution is able to distinguish between different speakers, the technology doesn't know nor need to know the identity of who is speaking.

### **Proven Technology**

Pindrop is a leader in security for voice AI, currently delivering voice solutions to 8 of the top 10 banks in the world. Using patent-pending passive clustering technology, Pindrop can accurately recognize a speaker with less than 1 second of speech.

### **Easy to Integrate**

Pindrop has APIs that make it easy to integrate into a platform, service, or app. Pindrop's Voice Identity API facilitates user management, active enrollment, and voice analysis. Unlock even more capabilities with Pindrop's Passive Enrollment Identity API that facilitates group (household) management and supports passive clustering for highly accurate passive profile identification. With only 2 endpoints, configuration is quick and easy. After simple settings like device rules for the household, smart personalization is ready to go.

### **Independent & Platform-Agnostic**

Pindrop's voice authentication solutions are independent and platform agnostic which gives partners freedom and control over the integration. Create custom solutions to differentiate yourself in the market, and retain your brand and gain brand equity for the unique solutions you provide. Because Pindrop is platform agnostic, you own your own data so you can use it and monetize it in whatever way works best for your business model.

### **Partner-Friendly**

Built for partners. Work together with the Pindrop team to plan and create new, differentiated capabilities, and adapt the business model that is right to bring those capabilities to market.



# STATE OF THE ART TECHNOLOGY

**Pindrop recognizes the speaker's voice so you have the confidence you need to deliver the right content at the right time to the right user.**

## KEY FEATURES

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### Smart Personalization

Enable consumers to get the personalized recommendations they want, the way they want to get them—by simply speaking. With nothing more than a short voice command from the user, you can deliver content recommendations by distinguishing one user from another and knowing what their preferences are. Pindrop's technology analyzes more than 250 specific biological and behavioral voice characteristics, like the frequency and harmonics of speech as well as the patterns of intonation, rhythm, style, and even tone and emotions. Additionally, background noises or changes in a speaker's voice caused by sickness, aging or even mask wearing has a negligible impact on Pindrop's Voice Authentication accuracy.

### Passive Enrollment & Clustering

Increase enrollment and activation of voice-enabled personalization without the typical time-consuming voice profile creation process. Pindrop technology can passively create voice profiles using patent-pending passive enrollment and clustering technology. In a short time, users will have the voice-enabled personalization that you want to provide.

### Short-Speech Recognition

Users interacting with their TV typically use very short commands to direct what they want. Pindrop technology recognizes a speaker with less than 1 second of speech. So typical "short" commands like "what's on tonight," can still be used to recognize who is speaking so you can provide personalized recommendations.

### Seamless Profile & Pin Authorizations

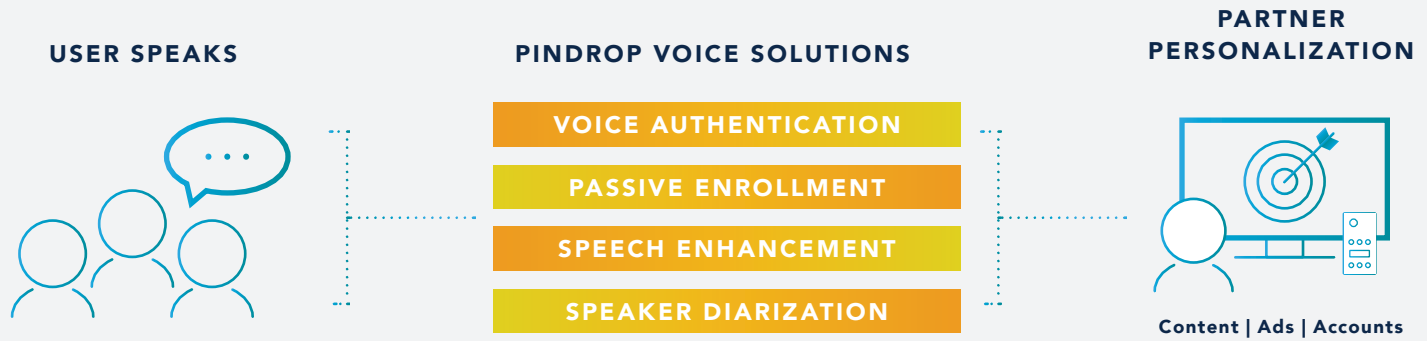
Users no longer need to worry about logging in to their profile to get the appropriate permissions applied. Pindrop technology uses voice authentication to distinguish one user from another, and if your platform or service knows what permissions they have, you can grant or deny access to appropriate content based on things like a Parental Advisory rating (e.g. PG, R, Explicit Lyrics) or other profile settings.

### Speaker Diarization

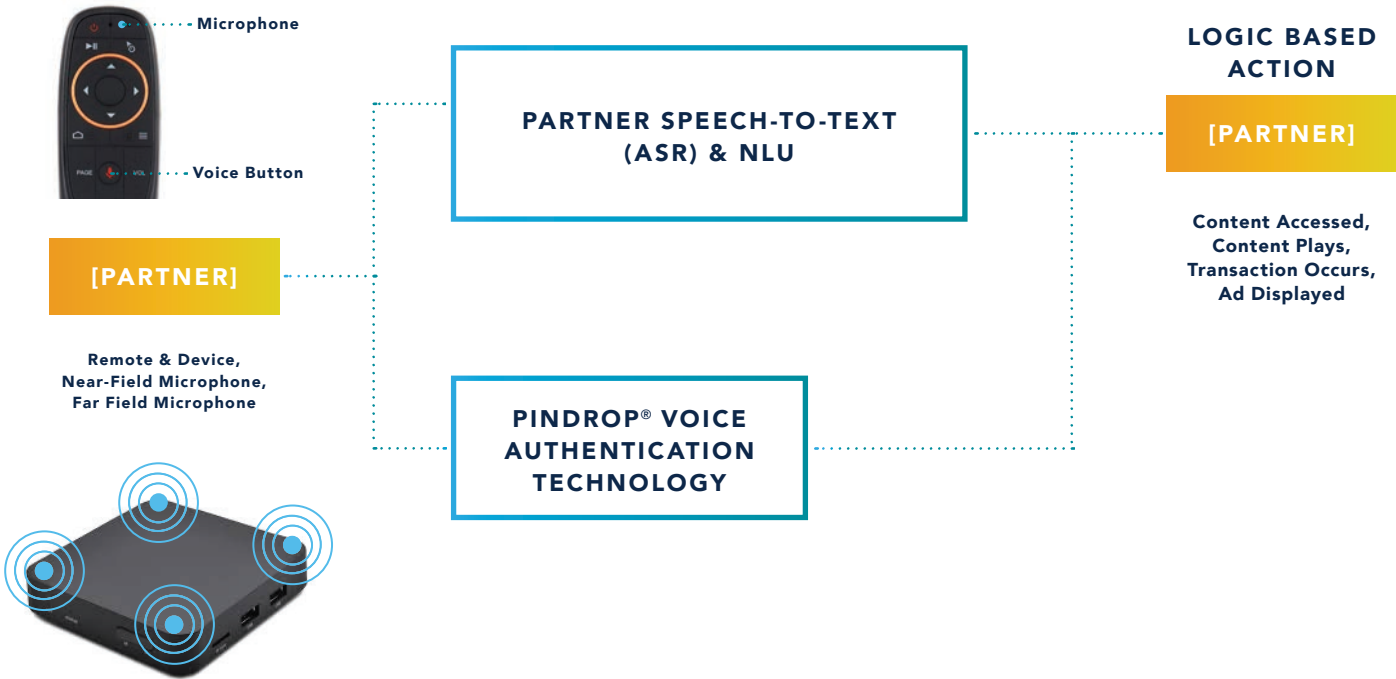
Enable smart personalization even when multiple people are speaking. Pindrop technology has the ability to recognize speakers in a living room setting, whether it's on a far-field microphone array in the TV, set top box, or game console. This Pindrop technology can help your platform or service unlock use cases for finding what to watch on family movie nights or to simplify multiplayer gaming with voice control. Unlock even more use cases with Pindrop's patent-pending diarization technology that not only identifies speakers, but also time-stamps the dialogue.

## HOW IT WORKS

When a user gives a voice command to their TV, Pindrop voice authentication starts working to conduct a deep analysis on the voice. Every voice has unique acoustic and behavioral features that Pindrop technology analyzes in a proprietary deep neural network speaker recognition system. Pindrop doesn't stop the first time a user speaks. As more speech is analyzed over time, matching grows stronger. The speaker identifier then passed to the Media Streaming & Smart TV Device partner to personalize the user's content experience, their ads, and the access to their accounts.



## PINDROP COMPATIBILITY & INTEGRATION FLEXIBILITY



## ABOUT PINDROP

Pindrop® Solutions are leading the way to the future of voice by establishing the standard for identity, security, and trust for voice interactions. Pindrop Solutions protect some of the biggest banks, insurers, and retailers in the world using patented technology that extracts intelligence from the calls and voices encountered. Pindrop Solutions help detect fraudsters and authenticate genuine customers, reducing fraud and operational costs, while improving customer experience and protecting brand reputation. Pindrop Security, Inc., a privately held company, headquartered in Atlanta, GA, was founded in 2011 by Dr. Vijay Balasubramanian, Dr. Paul Judge and Dr. Mustaque Ahamad. Pindrop is venture-backed by Andreessen Horowitz, Citi Ventures, Felicis Ventures, CapitalG, GV, IVP and Vitruvian Partners. For more information, please visit [pindrop.com](http://pindrop.com).

