Hotstar scales with Firebase and increases engagement by 38%

Introduction
Hotstar, India’s largest entertainment app with over 150 million monthly active users around the world, provides live streaming of TV shows, movies, sports, and news on the go. In May 2018, Hotstar set a world record in online streaming when 10.3 million users simultaneously tuned into its Android, iOS and web apps to watch a nail-biting cricket match in the VIVO Indian Premier League. The company’s mission is to offer fast, high-quality entertainment on-demand as an alternative to TV.

Challenge
Looking to scale, the Hotstar team developed a brand new version of its app with better architecture and more robust features that would increase watch time, its key performance metric. However, they wanted to test each new feature and safely roll out the most engaging ones without disrupting users. Initially, they were using in-house APIs to configure these experiments, but found that they were not flexible enough. They also wanted to move to a comprehensive platform with established solutions.

Solution
The Hotstar team used Firebase A/B Testing to test different onboarding UIs. The results revealed that watch time increased when users were asked to select a language vs. a country during onboarding.

Hotstar also used Firebase Remote Config, Google Analytics for Firebase, and Firebase Crashlytics to add gamification and a new emoji feature to its watch screen, without sacrificing stability. First, the team rolled out these changes to a subset of users through Remote Config. Then, they tracked issues in Crashlytics, which showed a high number of crashes on low-end devices. The team sprung into action. They created a Firebase ‘audience’ of users on low-end devices and turned off the new feature for this group using conditional targeting in Remote Config. Impressively, Hotstar was able to do all of this without releasing a new build.

With experiments and controlled feature rollouts, Hotstar was able to update its watch screen, shield users from a buggy experience, and also reduce the burden on their APIs. According to their data, these changes increased daily watch time by 38% and greatly improved app startup time from 8s to 3s.

“Moving to Firebase was one of the best decisions we ever made. Firebase helps us safely, easily, and quickly run experiments and roll out new features to enhance our user experience. We’re excited to continue growing with Firebase!”

Kshitij, VP of Engineering, Hotstar