



bugsnag
A SMARTBEAR COMPANY

BENCHMARKS

Application Stability Index: Characteristics of Leading Mobile Apps

Mobile apps are more important to business growth than ever before because they are powering an increasing number of customer interactions. Users have high expectations from their mobile apps, like stability, speed, and availability of new capabilities and content.

To help you understand how your app compares to other leading mobile apps, Bugsnag has compiled benchmarks including an analysis on how stability impacts app store ratings, and industry trends for stability and release frequency. We invite you to explore them.

App stability is a reflection of quality and quantity

Mobile app stability can be impacted by factors such as the value and volume of user interactions. As a key indicator of user experience, app stability is a vital business metric encompassing conversion, engagement, and retention, all of which are tied to revenue and business growth. That's why leading engineering organizations across industries are actively working to manage and improve their app stability.



Stability is a percentage of app sessions that are crash-free. Stability scores are used to gauge app health and user experience.



99.80%

OVERALL MEDIAN
OF APPS ANALYZED

What characterizes market leading apps?

For mobile apps to lead the market and stand at the forefront of business growth, companies should execute on the following insights.



The more 9s in an app's stability score, the higher the app store ratings.



There is a tradeoff between the value of the interaction, customer loyalty, and app stability. The value of the interaction may be the strongest predictor of app stability.



Weekly releases are replacing the bi-weekly norm as apps are being updated more frequently.



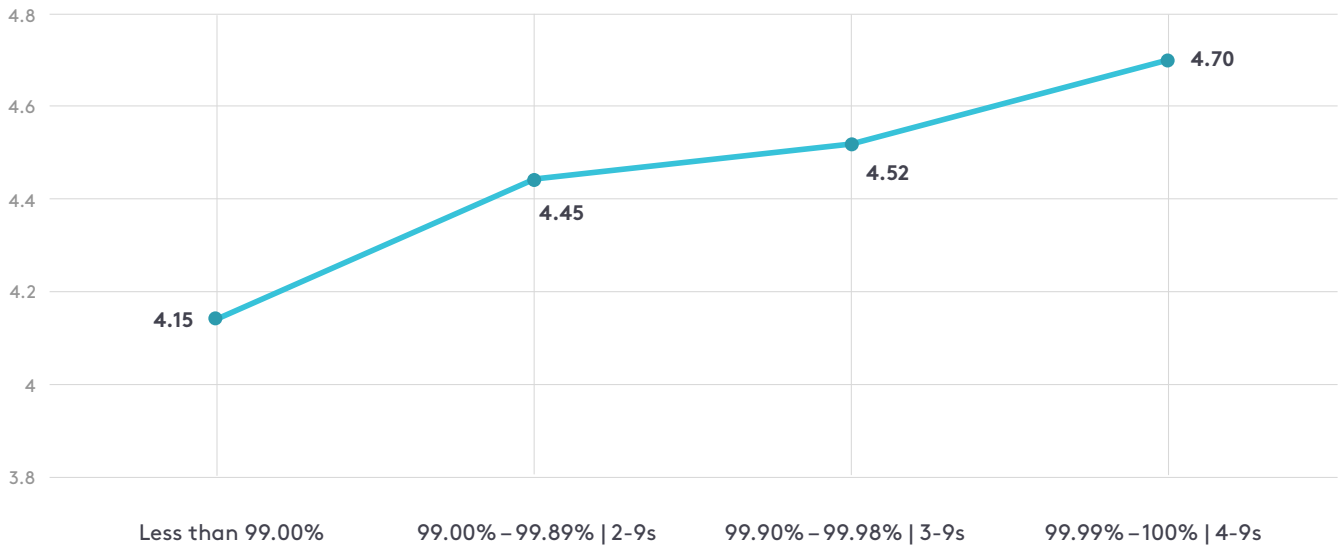
The nines of stability are similar to the five-nines that infrastructure and operational teams use to measure uptime and availability. More nines in a stability score indicate more stable app experiences.

Apps that achieve more 9s in their stability score achieve higher app store ratings

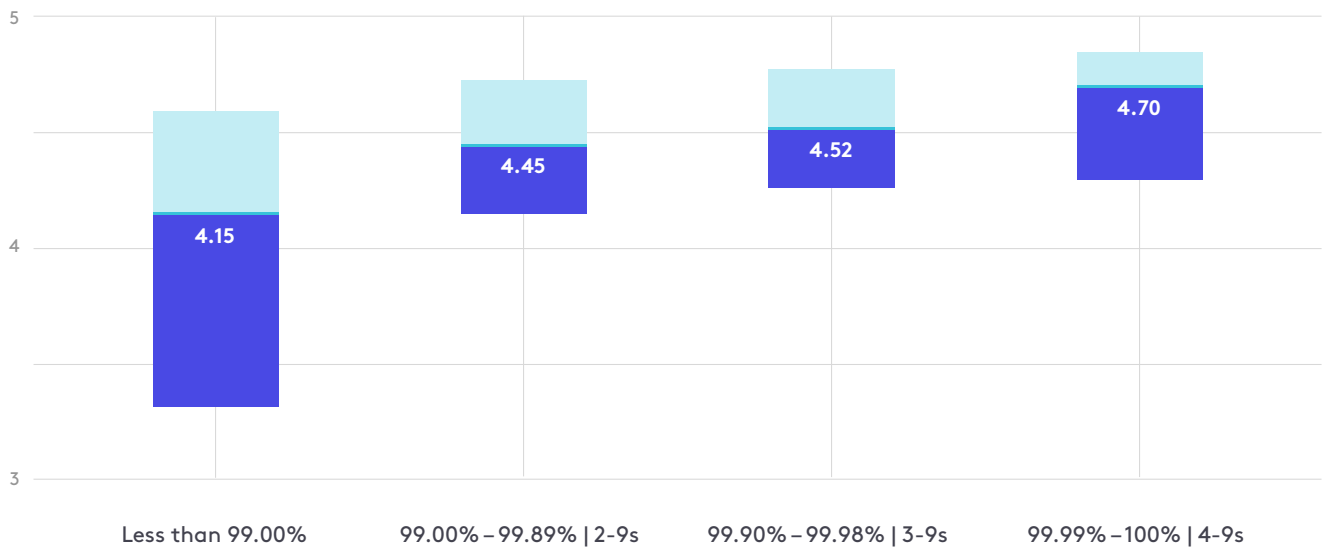
Users rate apps on the Google Play and Apple App Stores based on their overall experience. Depending on the type of app, some factors weigh heavier than others. Examples include usefulness, design, engagement, and stability. Analyzing app store ratings for different stability cohorts provides insight into how stability impacts user experience.

APP STORE RATINGS BY APP STABILITY

MEDIAN RATING



DISTRIBUTION



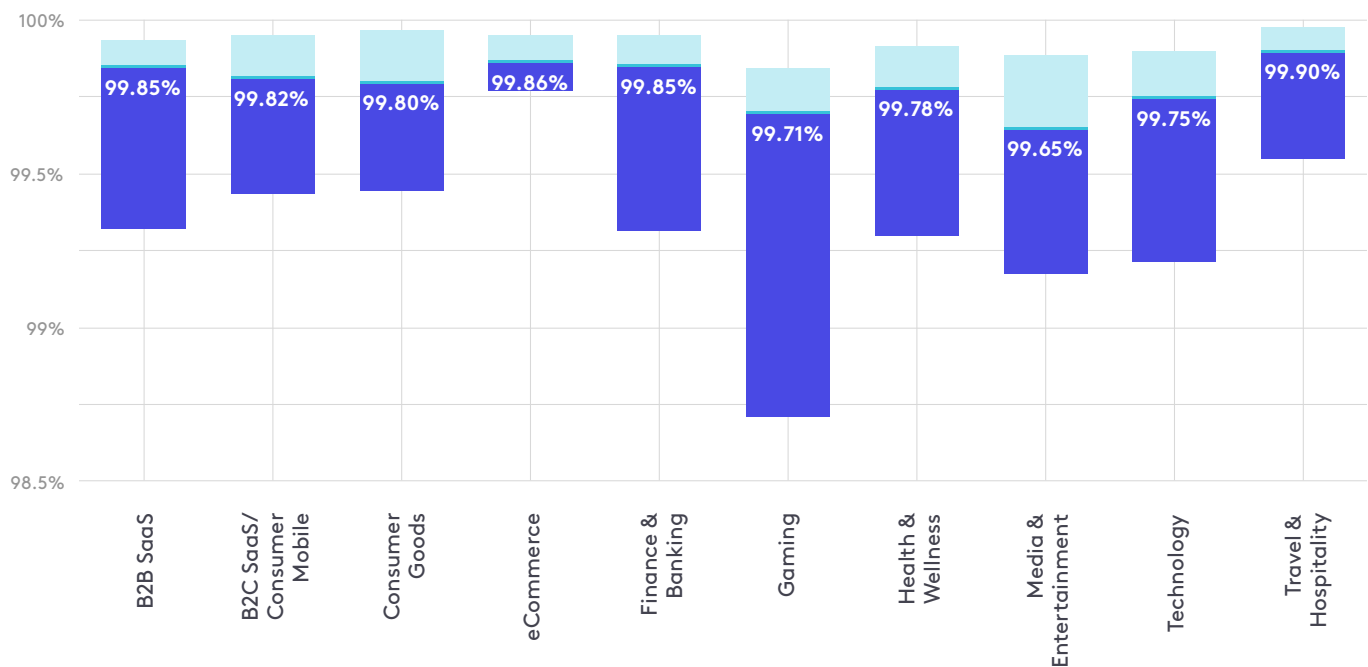
Apps that achieve more 9s in their stability score have higher app store ratings. This demonstrates how apps that are more stable drive more exceptional user experiences, maximize retention, and build competitive advantage.

Frequently occurring stability issues and bugs disrupt an app experience and can motivate users to submit a lower rating. This explains the wider spread of ratings and the lower median app store rating for apps with a stability of less than 99%.

The tradeoffs between value, loyalty, and stability

Depending on the industry, different factors have varying effects on stability. Understanding these factors will help engineering organizations develop effective strategies for delivering higher quality apps.

APP STABILITY BY INDUSTRY



This research cohort also shows that apps are falling short of the four 9s of stability.

› See [App Stability Index: How healthy are your apps?](#)

High Stability

Trailblazers: For just one important task, you need this app.

- B2B SaaS apps, which generally have fewer and higher paying users compared to B2C SaaS apps, have a higher median stability. It is costlier to attract customers and thus more important to retain them with stable app experiences.
- eCommerce, Travel & Hospitality, and Finance & Banking apps, whose users open the app with the intention to spend or manage money, need to maintain a higher stability because crashes directly impact revenue.

Medium Stability

Old Faithfuls: It does the job, but there's room for improvement.

- B2C SaaS/Consumer Mobile, Consumer Goods, and Health & Wellness apps have loyal users. When faced with app stability issues, they are slower to switch to a competitor. These apps can afford to balance stability initiatives with other customer-centric initiatives.

Low Stability

A Dime a Dozen: If you don't like it, there are plenty of others.

- Mobile games can attract millions of users, but these users can be less loyal, and retaining them requires consistent engagement like updating games frequently with new content and game modes. Frequent code changes can introduce more bugs, explaining the lower median stability score and wider spread of scores for the gaming industry.
- Media & Entertainment apps also serve a mass market and tend to have lower ARPU (Average Revenue Per User), making it essential to deliver new capabilities often. Many in the industry who have not historically been technology-driven are quickly building their mobile streaming initiatives in an attempt to remain competitive.

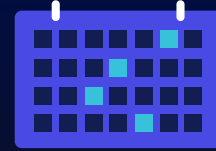
Weekly releases replace the bi-weekly norm

Developers update apps to deliver new features and address software bugs. Understanding how frequently high stability apps release a new version can help development teams benchmark their app's release cadence and decide if it needs to be adjusted to boost retention.

Our research shows that leading mobile apps have shifted to a 1x per week release cadence compared to a previously popular trend of 1x per two weeks.



Release frequency measures the number of times an app updates to a new version within a 30-day time span.



1x / week

MEDIAN

Based on 4x / 30 days

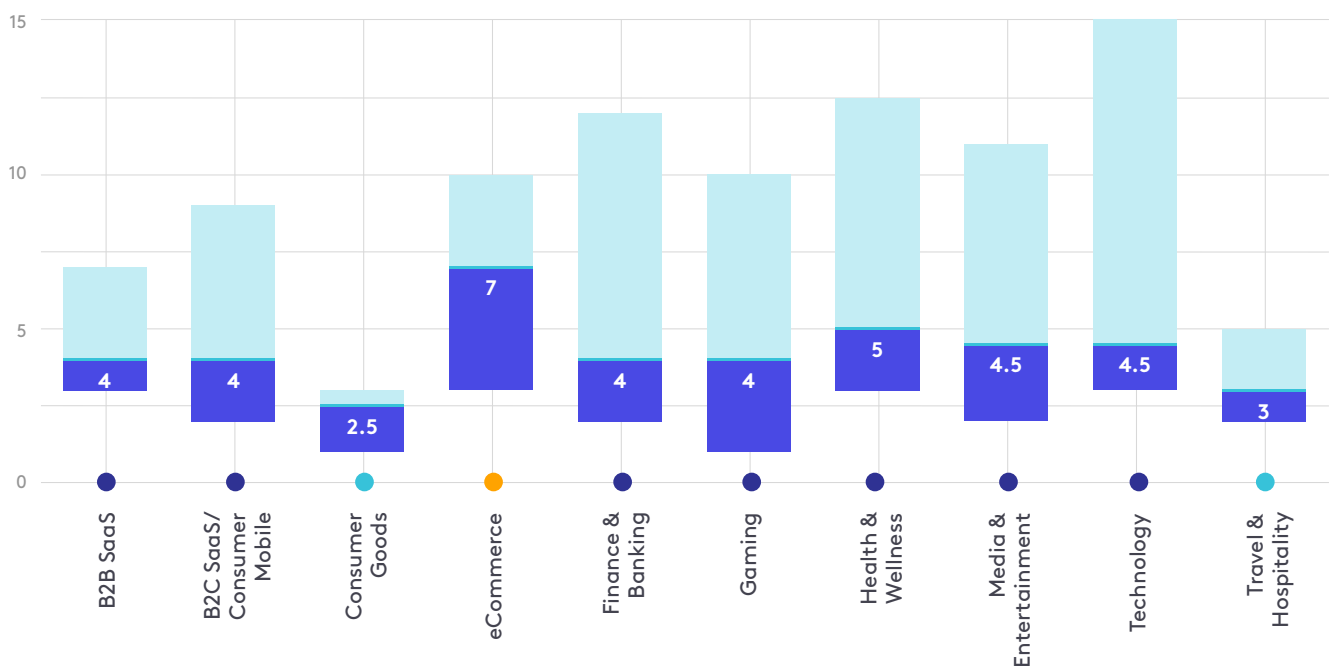
RELEASE FREQUENCY BY INDUSTRY

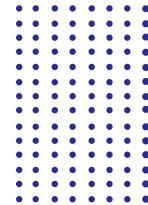
RELEASE FREQUENCIES:

● Weekly releases

● Multiple release per week

● Bi-weekly releases



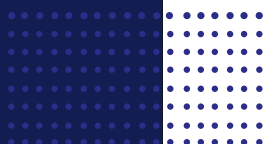
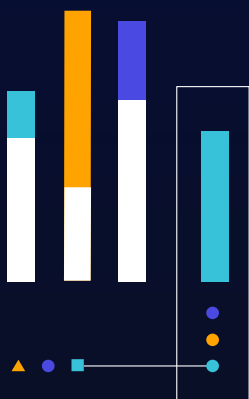


Bi-weekly releases were once the norm, but data across industries indicates that apps are being updated with a new version more frequently.

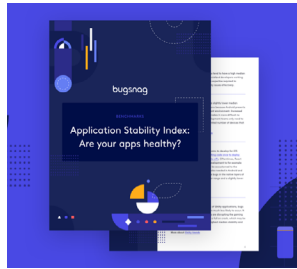
Data on more frequent releases proves that more and more engineering organizations have adopted CI/CD and automated their deployment pipelines to ship new versions faster.

Approaches like release progressions and [feature flags](#) are helping teams build more confidence in developing and shipping new features to users quickly.

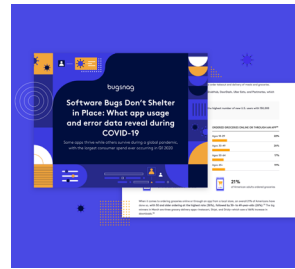
Usage of eCommerce apps surged during the [COVID-19 pandemic](#), and that may explain why they are updated more frequently with new capabilities and bug fixes



Additional resources



REPORT
App Stability Index
Report: Are Your
Apps Healthy?



REPORT
App Usage &
Popularity Statistics
During COVID-19



BLOG
Bugsnag Blog



WEBINAR
Building Mobile Apps
at Scale

Methodology

- The study examined 260 mobile apps using Bugsnag for error monitoring and stability management to measure and improve app stability and customer experience.
- The 260 mobile apps studied were the ones with the highest 30-day session volume, which is indicative of app usage, to include only the leading apps from each industry.
- Data used for the analysis included 30-day session-based stability scores, number of releases in 30-days, and publicly available Google Play and Apple App Store ratings.
- Data was aggregated and anonymized, eliminating any company identifiable data from the analysis.



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