STATE OF PLAY

2017 PLAY REPORT



INTRODUCTION

Google Play is a global online store offering one destination to find, enjoy, and share your favorite apps, games, movies, music, and books on all your favorite devices: Android phones, Chromebooks, the Daydream VR platform, Android TV, Android Wear, and more.



We launched Android to bring mobile computing to everyone, and we launched Google Play to bring Android devices to life—whether that's transforming the way we work, the way we play, or the way we live. Today, we can tap our phones to transport ourselves anywhere and stay connected to the ones we're closest to, even when they're far away.



1B+ USFRS

IN 190+ COUNTRIES

82 billion apps were downloaded from the Play Store in the last year and the number of developers with more than 1 million monthly installs grew by 35% year on year.

The number of buyers on Google Play grew by almost 30% in the last year.

In 2016, nearly 300 million new (30 day active) Android users came from emerging markets such as India, Brazil, and Indonesia.

In just five years, Google Play has become a trusted destination for Android mobile users, reaching over 1 billion people in more than 190 countries. We're also giving developers access to a distribution platform to reach a global audience and build their businesses.

The Play Store has also seen massive growth in global markets, and we have invested in making the store experience locally relevant for users in these markets. With Google Play, users around the world have access to apps, games and other digital entertainment experiences that are tailored for them and their region. Along with investments in our billing platform and security, our goal is to deliver safe, reliable experiences to our customers worldwide. As Google Play has grown, so has the success of Android developers and their businesses. The momentum of Google Play is fueled by the innovation and content that developers bring to the platform.

As Google Play continues to grow globally, we want customers, developers, policy-makers, and other stakeholders to stay informed about our business. This report, our first annual State of Play policy update, provides an overview of the Google Play platform and an update on our latest statistics.

A PLAY STORE FOR EVERYONE

Google Play is an international marketplace, connecting developers and content creators with customers globally. No matter where you are, we built this platform to provide a fun, safe, and reliable digital marketplace.

To ensure users and developers have the best experience possible, we're constantly improving and adding new features to Google Play, such as accepting multiple forms of payment, building tools to facilitate efficient refund processes, and displaying maturity ratings through our partnership with the International Age Rating Coalition.

Let's take a closer look at how Google Play works.



FINDING THE RIGHT APP

We know that people in different countries have different ideas about what's appropriate when it comes to content for kids, teens, or adults. To better assist users in finding the content that's right for them and their families, we work with the International Age Rating Coalition (IARC) to display a widely recognized and locally relevant rating and age classification system for apps and games in Google Play. The process is quick, automated, and free to developers.

The IARC rating system makes app ratings locally relevant and ensures Play Store visitors are well-informed. The partnership also helps developers better label their apps for discovery by the right audience. This establishes a greater consistency for developers when listing their apps in the Play Store for a global market.

Google Play features official ratings from IARC and its participating age-rating authorities, including the Entertainment Software Rating Board (ESRB), Pan-European Game Information (PEGI), Australian Classification Board, Unterhaltungssoftware Selbstkontrolle (USK) and Classificação Indicativa (ClassInd). Territories not covered by a specific ratings authority display an age-based, generic rating provided by IARC.

GREAT CONTENT FOR FAMILIES

The Google Play team works hard to ensure that our users have enjoyable experiences in the Play Store. With this in mind, we provide several features focused specifically on families.

Our Designed for Families program features best-in-class apps and games that have been designated by developers as family-friendly.

> These apps are identified by a Family Star Badge, which informs parents of the apps' intended age set by developers.

Developers whose apps or games are directed primarily to children under 13 years of age are required to submit their app to the Designed for Families program through the Google Play Console. Apps in this program must adhere to specific policy requirements, such as ad, rating, and content restrictions. Submissions are reviewed and verified by the Google Play team to confirm they meet all program requirements.

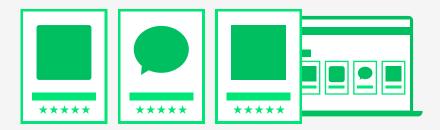
Last year we introduced **Family Library** as a way for up to six family members to share purchases on Google Play. Family Library is available in more than 12 countries globally. When users buy an eligible app. game, movie, TV show, or book in the Play Store, they can now share it with family members—across devices—with no additional sign-up fee. All purchases added to the Family Library are available across Android devices. Movies, TV shows, and books can even be enjoyed on iOS devices and the web. With Family Library, users can choose which items they want to share and which to keep to themselves.

RANKINGS AND DISCOVERABILITY

Search functionality is the most important tool for users to find their desired content. We want each user to have a unique, personalized Play Store experience every time they visit the store. When a keyword search term is entered, the apps that are returned are ranked by relevance to the information that the developer registered for the app in question. We also use a variety of signals, including number of installs, reviews and app quality, among other things, in deciding how apps are ranked.

Google considers app rankings and reviews to be key identifiers of app quality for users. Therefore, Google Play has a policy that prohibits manipulation of app rankings. Under our Developer Program Policies, developers "must not attempt to manipulate the placement of any apps in the Store. This includes inflating product ratings or reviews by

CONNECTING USERS AND DEVELOPERS



We offer users "Top Charts," which feature trending apps and games in the store. Top charts are constructed dynamically based on apps' number of installs and other key metrics taken into account over the previous seven days. This short timeline helps keep the charts fresh and interesting from week to week. Certain apps containing content that is unsuitable for general audiences and may not be promoted in these charts (e.g. apps that promote regulated goods like alcohol, or include crude content).



We want developers to reach the maximum number of customers intended for their app. We provide several tools, such as Play Store Experiments, to assist developers in testing their title, icon, and app descriptions to better understand how a global user base will respond. More than 70% of top developers use experiments to help get their apps discovered.

illegitimate means, such as fraudulent installs and incentivized, paid, or fake reviews and ratings."

We employ internal engineering resources and abuse specialists to tackle non-compliance, such as fake installs that attempt to manipulate app rankings. Violations of this policy can result in removal of the app from the Play Store and, in some cases, termination of individual developer accounts.

GOOGLE PLAY BILLING PAYMENT OPTIONS

At Google, we've invested heavily in building a best-in-class, secure and reliable commerce platform that helps developers build and run global businesses.

The Google Play billing platform was created to remove the burden faced by developers in creating their own billing interface and dealing with multiple payment providers. Google Play billing offers a better and more consistent user experience, and ensures a safe and secure transaction environment for everyone. Google Play billing covers paid apps (where users pay before installing an app), standard in-app product billing, and subscription billing. Providing a Play billing platform allows customers to save payment information once, eliminating the need to repeatedly enter and share payment information with multiple developers.

The Google Play billing service provides users with several methods to make purchases, including direct carrier billing, gift cards and more. There are over 201 local forms of payment available via the Google Play billing service.

We also understand the importance of providing a consistent, safe, and secure payment option for families in the Play Store. Users can sign up to be a family manager and select a credit card to share as the family payment method, but individual family members have the option of buying items with their personal credit cards or gift cards. For younger family members, family managers have the option to approve purchases made with the family payment method on file.

REFUNDS

Within the first 48 hours of purchasing an app or making an in-app purchase, a customer can request a refund through Google Play. For music, movies, books, or other content purchases, customers may request a refund within 7 days of purchase for most countries.

Protecting user accounts is a priority for Google Play. If, for whatever reason, a customer finds an unauthorized charge, our dedicated, on-call refund team works with the customer to fully understand the situation and provide a fast and thorough resolution. We also require developers on the Play platform to provide customers with refund options if they are not satisfied with an item purchased from the developer via the Play Store.

Google takes fraud seriously; this includes refund fraud. The Play team is focused on ensuring that developers are protected from fraudulent behavior. The Play Store provides several tools, including the Google Play Voided Purchases API, to assist developers in fighting fraud. The Voided Purchases API provides developers with insightful information to prevent users from accessing products from voided in-app orders and helps facilitate restitution from bad actors.

TRANSACTING ON GOOGLE PLAY



CREDIT AND DEBIT CARDS

Accepted in more than 135 countries. After adding card details to a Google account, customers can purchase paid apps and games, in-app products, and subscriptions seamlessly.



GOOGLE PLAY GIFT CARDS

Available in more than 700,000 retail stores in 31 countries.

Recipients simply load the card code to their account, and the funds can be used for Play purchases.



DIRECT CARRIER BILLING

With some mobile devices and service plans, customers have the option to add purchases to their mobile phone bill. This is currently available in more than 55 countries and we offer direct carrier billing with 140 operators, reaching 900M devices every month.



Provided in 21 countries. Both new and existing accounts can be used to make purchases directly from the Play Store.



Customers can load credit or debit cards from participating banks and financial institutions onto their phone. They can then use these cards wherever Android Pay is accepted, including for Play Store purchases, for physical goods and services from apps or the web, and to make purchases in bricks-and-mortar stores.

DEVELOPER SUCCESS

The Google Play Store is a destination for global audiences to discover and access exciting content and interactive experiences. We're inspired by the growth we've seen globally, but particularly in emerging markets, such as India, Brazil, Mexico, and Saudi Arabia. This growth would not be possible without the support of our users and developer communities. User trust is the foundation of everything we do. We understand that our users aren't only customers downloading apps, but also developers creating and submitting apps to the Play Store for distribution. We build trust with users by being responsible and accountable while we pursue our vision to build the most trusted digital content store.



One key aspect of trust is safety, and the safety of the Play Store is critical for our users. We want developers to have a great experience sharing their apps through Play. We also want consumers to trust that the apps they download from the Play Store are safe and reliable. To do so, we have tools that will automatically scan apps for malicious code and other elements that would have a negative impact on users.

Another key aspect of trust is ensuring that developers are able to be successful on the platform. As Google Play has grown, so has the success of Android developers. In fact, the number of developers with over 1 million downloads of their apps has grown 35% in the past year. And our distribution platform helps developers build their businesses by reaching a global audience.



Through the Google Play Console, we offer a set of advanced tools to help developers achieve a range of business objectives, including testing and analysing their app's performance, launching their app successfully, managing pricing and distribution, optimizing their Play Store listing, monetizing their app, and engaging with their audience.

We also make available the <u>Playbook app for developers</u>, a reading resource to help them understand the best practices needed to grow a successful business on Google Play. These and other tools and resources we offer help developers quickly get to market globally and see the fruits of their labor.

We'll continue to invest in our platform to ensure developers succeed through Google Play. Ongoing investments include expanding our global payments platform, Play Store Experiments, more featured apps and game collections, and tools to increase app discoverability.

GOOGLE PLAY _PS DEVELOPERS

For example, Musixmatch, developed by a very talented team in Italy, is available in 135 countries and 20% of its installs come from Indonesia.

WE'VE SEEN HUGE SUBSCRIPTIONS.

Over the last several years, users have embraced subscriptions as a way to pay for the content they love. In fact, both our subscriptions revenue and number of subscribers on Google Play have doubled in the past twelve months.

GOOGLE PLAY DEVELOPER SUCCESS STORIES

To learn more about the positive impact Google Play has on developers today, check out g.co/play/developerstories.

DIVMOB

Based in Ho Chi Minh City in Vietnam, games developer Divmob has grown quickly from an original team of five people to 40 employees since it was founded three years ago. Divmob now has over 40 million downloads across its various titles, including the popular game, Epic Heroes War. They recently introduced a sub-dollar pricing feature on Google Play in various markets, resulting in a 300% increase in daily transactions, and increasing the number of paying users threefold.

View blog post

ROGERVOICE

Based in Paris, France, RogerVoice enables people who are hard-of-hearing to make phone calls through voice recognition and text captions. The app is used by people in over 90 countries. The team—composed of 8 full-time employees—used several tools Google provides to developers, including beta testing to create an interface which is accessible and intuitive to navigate for users.

View developer story

STORYTOYS

A leading publisher of interactive books and games for children based in Dublin, StoryToys, like most kids' app developers, faced the challenges of engaging with the right audiences to get their content discovered. Since the launch of the Family section on Google Play, StoryToys has experienced an uplift of 270% in revenue, and an increase of 1300% in downloads.

View blog post

WALLAPOP

A commerce platform based in Barcelona, Spain, founded in 2013, Wallapop has now over 40 million global users, 70% of those users are Android users. Wallapop is a fast growing app in the Play Store and have used Google's store listing experiments to help increase organic downloads by 17%.

View developer story

KEEPING THE FCOSYSTEM HEALTHY

Offering users a positive experience is also at the heart of the Google Play mission. Our proactive review process helps us to achieve this goal: apps seeking distribution through the Play Store undergo automated checks before they are published in the Play Store.

From developer account verification to spam detection, we've put a number of safeguards in place to find and flag potentially hazardous apps. Play Protect is a key feature that was unveiled at Google I/O 2017. Play Protect is free and enabled by default on all devices with Google Play. Play Protect was created to show users the many security features Google has always built into Android devices to protect against malware. Play Protect will run over 400 million automatic scans a day to protect more than one billion devices globally. With Play Protect, users are able to access key security features such as: Find My Device, App Verification, Smart Lock, and Safe Browsing.



PRINCIPLES AND POLICIES TO **ENSURE DEVELOPER SUCCESS**

Our content policies cover a variety of topics, from impersonation, deception and sexual content, to malicious behavior, hate speech and other illegal activities. These policies set a standard designed to provide a safe and positive environment for users who access digital content from the Play Store.

When a new developer signs up for an account to distribute their app through the Play Store, that developer is held to the same standards and rules as every other developer, as outlined in our <u>Developer Distribution Agreement</u> and Developer Program Policies. The policies are organized broadly into nine categories:

- Restricted content
- Impersonation and intellectual property, deception, and spam
- Privacy, security, and deception
- Monetization and ads
- Store listing and promotions
- Spam and minimum functionality
- Other programs
- Families and COPPA
- Enforcement

Each category clearly communicates requirements and relevant examples to developers, and is available in 47 languages, making it easy for developers to find the information they need and inform themselves on how to achieve compliance. When our policies are updated, we notify developers in advance and before any changes are enforced.

REVIEW AND DETECTION

One of the greatest benefits Google Play has to offer developers is rapid publishing, which enables apps to go live in the Play Store within hours of being uploaded-not weeks or days. It's a feature our developers love, and one that's rare in the app world. Of course, this feature requires heavy investment in our internal app review process. Before developers can submit their app to the Play Store, they must go through an account verification process. We use their initial account information to verify the developer account, and perform an initial risk assessment. Once the account is verified, the developer's app is ready for review and, if approved, publication.

Our automatic systems inspect the app package to look for code that could harm users, such as hostile downloads, spyware, and ransomware. This process helps to keep apps that violate Google Play's policies out of the Store.

SAFEGUARDING PUBLISHED APPS

We monitor user engagement data and abuse signals to ensure that published apps remain safe and of high quality for all users. We continuously re-scan the millions of apps in the Play Store for additional threats, and offer users easy ways to report abuse when they find it.

POLICY ENFORCEMENT

The Google Play policy enforcement team works hard to identify app violations and bad actors throughout the Play Store. Violations can be identified in a number of ways, such as front-line reviews, user/developer reports, or post-review Play Store scans.

PLAY STORE SAFETY

Here's a peek at the process the Play Store implements to keep users safe.



FETCH

In addition to apps submitted by developers, we continually fetch new samples from diverse and numerous sources. Some apps are submitted by security researchers, reported by users, and others we find elsewhere on the internet. Thanks to these various sources, our security system processes over 400k apps each day.



ANALYZE FOR HARMFUL APPS

To process all of this information, our security detection system uses advanced techniques like machine learning to identify patterns and make connections that humans otherwise would not. These signals and results from the system are continuously monitored and refined to reduce error rate and improve precision. As our system learns new signals, it reevaluates previously scanned Android apps to make sure they are still safe. These signals are also reviewed alongside developers' information.



SCORER ENGINE

After we analyze the apps, they are classified on a scale of safe to harmful. Apps and app updates that are marked as safe go straight to Google Play. Apps that are marked as harmful are blocked. And apps that are somewhere in the middle are marked as potentially harmful. Potentially harmful applications are manually reviewed by members of the Android Security Team.

WHAT HAPPENS WHEN AN APP VIOLATES GOOGLE PLAY POLICY?



If a developer's app is flagged for a potential policy violation, we notify them to help quickly address the issue and keep users safe. We deliver alerts to the developer using both email and the Google Play Console, with links to a support page that includes details about how to improve the app.

Apps may be required to make security improvements before any other app updates can be published.



If a developer fails to comply with Play's content policies, we will either reject the app (which allows developers to correct minor instances of policy non-compliance), or suspend the app (for major violations) from the Play Store. To determine the most appropriate course of action, the Play policy and operations teams consider a number of factors, including the nature of the violation (e.g. does the app include restricted content, as defined by our Developer Program Policies?), potential for harm to users and the ecosystem, and the frequency of violations from the developer.

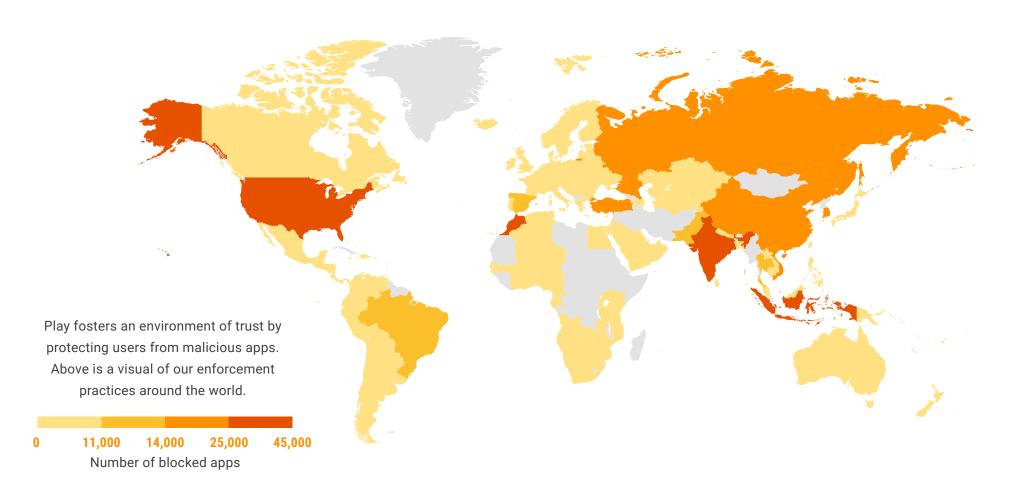
Multiple violations or a single major violation can result in the app being removed from the Play Store and/or the developer's account being terminated.



Play's policies provide developers with a clear understanding of the standards that we set for the store, along with details and examples that help to illustrate how to achieve and maintain compliance. And if it's an app update that's been rejected, the previous app version remains in the Play Store, creating a much more developer-friendly solution than full suspensions.

Ultimately, we want to foster an environment of trust. Our users should be confident, protected, and secure while using any product on any Google platform. Establishing and enforcing quality standards for Google Play enables us to provide the best possible experience for everyone.

PROTECTING USERS FROM MALICIOUS APPS



MOVING FORWARD

As our devices and their roles in our lives evolve, Google Play is committed to partnering with developers and content creators from around the world to provide users the very best content.



Together, we'll continue to find new ways to entertain, assist, and inspire customers, all while protecting their devices and the information they contain. We will continue to build out our tools and services to ensure Google Play continues to be a dynamic marketplace for customers around the world, and we look forward to bringing new platforms and devices to life.

Play Help Center