Mobile App Push Notification Benchmarks for 2023

Actionable Insights to Assess and Elevate Your Mobile Strategy
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Introduction

Mobile apps have the inherent advantage of reaching people wherever they are, at the exact moment it matters most. That’s because mobile app push notifications arrive on smartphone lock screens, the most visible real estate in everyone’s pocket. That’s a huge benefit to brands. Notifications don’t get caught in spam filters or forgotten in an inbox. As a result, push direct open rates can be more than twice as high as email click throughs. App users benefit from more personalized service and convenience. They can share their preferences and affinities so brands can better meet their needs.

Past Airship research shows that 78% of users will churn in the first week after installing an app if brands do not have a clear engagement strategy. However, app users who receive any push notifications in their first 90-days have a 3X higher app retention rate when compared to those who received no push notifications. More frequent notifications correlate with higher retention rates as well.

Last year the Airship platform delivered more than 665 billion push notifications to more than 2.5 billion users, enabling us to offer the most robust benchmark data available anywhere. Here we share essential benchmarks across 13 verticals based on that data. These benchmarks will help you assess and refine your mobile engagement strategy and answer questions such as:

- How do my app’s mobile engagement rates compare to those of my industry competitors?
- What’s the delta between average and top performers across verticals?
- How has messaging and opt-in changed year over year?
- How does message response vary by mobile operating system?
- How many push notifications do my industry peers send their customers?

For each benchmark, we explain what it means, why it matters, how Android compares to iOS, and our overall analysis. Looking across all our benchmarks for push notifications, what we found was this: **segmentation and personalization drive more efficient use of push notification and result in higher open rates.**
### Industry Verticals

#### Charities, Foundations and Non-Profit
Apps that provide an interface between supporters and a nonprofit entity, charity, foundation, and/or apps whose purpose is to generate revenue for a cause.

| Total Apps in Vertical: 85 |

#### Education
Apps that provide training and learning opportunities including schools or learning institutions.

| Total Apps in Vertical: 335 |

#### Entertainment
Apps that provide entertainment in the form of video streaming, music, movies, TV, radio, as well as artist apps.

| Total Apps in Vertical: 262 |

#### Finance & Insurance
Apps to manage finances, banking, investment, insurance.

| Total Apps in Vertical: 501 |

#### Food & Beverage
Apps managed by restaurants and beverage companies as well as recipe/cooking content apps.

| Total Apps in Vertical: 187 |

#### Gaming & Gambling
Free and paid gaming apps and apps that allow you to place bets/gamble.

| Total Apps in Vertical: 252 |

#### Media
Apps that include national & breaking news, local news, newsstands, books, magazines and radio.

| Total Apps in Vertical: 752 |

#### Medical, Health & Fitness
Apps for fitness tracking, health management, pharmacy, health reference.

| Total Apps in Vertical: 310 |

#### Retail
Apps for groceries, discount/deals, specialty retail, fashion, big box/warehouse.

| Total Apps in Vertical: 573 |

#### Social
Apps for networking, messaging, dating, communication.

| Total Apps in Vertical: 216 |

#### Sports & Recreation
Team apps, sports news, recreation.

| Total Apps in Vertical: 491 |

#### Travel & Transportation
Apps for airlines, automotive, hotel, bookings, rail, vacation rental, public transportation.

| Total Apps in Vertical: 470 |

#### Utility & Productivity
Apps for navigation, reference, weather, other tools for productivity.

| Total Apps in Vertical: 394 |
How to Read the Data

The benchmarks were broken down into high (90th), medium (50th) and low percentiles (10th). The 50th percentile is the median for the vertical. The 10th percentile number means that 10% of the apps had a lower value, while the 90th percentile means 10% of the apps had a higher value.

Looking at the chart below showing notification opt-in rates, if you are a media brand with a 60% opt-in rate, you compare to the top 10% of apps in this study and can feel great that you have some of the highest opt-in rates within your vertical.

However, using that same chart below, if your opt-in rates are less than 29.8% or less, you’re in the bottom 10% for your vertical, so there’s significant room for improvement.

Benchmark for HIGH, MEDIUM & LOW Performers

To offer performance benchmarks, we reported results on the 90th, 50th and 10th percentiles for all apps and verticals.

**HIGH – 90th Percentile:**
10% of apps in this vertical have a higher value.

**MEDIUM – 50th Percentile:**
The medium value. 50% of apps in this vertical have a lower value, 50% have a higher value.

**LOW – 10th Percentile:**
10% of apps in this vertical have a lower value.

Questions about the data? Not sure where to find your own results? Feel free to get in touch and let someone from our team of industry experts help!
Push Notification Opt-In Rates

**What It Means**
The percentage of an app's audience that has opted in to receive push notifications. This benchmark is based on monthly opt-in rates averaged over 12 months.

**Why It Matters**
Push notification opt-ins are essential to deepening engagement with your customers. When app users opt in, brands can reach out beyond the confines of the app to engage people right on their device lock screens — the most visible real estate available! That creates a world of opportunities to be there for your customers in the moments that matter most, keeping them engaged and driving conversions.

**Android vs. iOS**
Historically, Android opt-in rates are significantly higher than iOS rates because iOS users had to opt in to receive push notifications. Now, apps targeting Android 13 or Android 12 are also required to obtain opt in to notifications, so we will see Android’s elevated opt-in rates decline over time.

When app users opt in, brands can reach out beyond the confines of the app to engage people right on their device lock screens — the most visible real estate available!
Android Opt-In Rates for Push Notifications

Charities, Foundations, and Non-Profit
Education
Entertainment
Finance & Insurance
Food & Drink
Gambling & Gaming
Media
Medical, Health & Fitness
Retail
Social
Sports & Recreation
Travel & Transportation
Utility & Productivity

90th Percentile
50th Percentile
10th Percentile

0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
iOS Opt-In Rates for Push Notifications

Charities, Foundations, and Non-Profit
Education
Entertainment
Finance & Insurance
Food & Drink
Gambling & Gaming
Media
Medical, Health & Fitness
Retail
Social
Sports & Recreation
Travel & Transportation
Utility & Productivity

90th Percentile
50th Percentile
10th Percentile
Year-Over-Year Comparisons: Opt-In Rates for Push Notifications

**2022 Performance**

<table>
<thead>
<tr>
<th>Platform</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Android</td>
<td>93.5%</td>
<td>79.5%</td>
<td>58.6%</td>
</tr>
<tr>
<td>Apple</td>
<td>76.4%</td>
<td>51.4%</td>
<td>30.7%</td>
</tr>
</tbody>
</table>

**2021 Performance**

<table>
<thead>
<tr>
<th>Platform</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Android</td>
<td>94.5%</td>
<td>81%</td>
<td>48.9%</td>
</tr>
<tr>
<td>Apple</td>
<td>73.3%</td>
<td>51.2%</td>
<td>29.2%</td>
</tr>
</tbody>
</table>
Our Analysis

Even with the changes to iOS and Android this past year, we didn’t see significant drops in notification opt-in rates across either platform. In fact, we saw slight increases in push opt-ins specifically on iOS devices.
Push Notification Direct Open Rates

What It Means
The percentage of total sends within a month that triggered an app open. For this benchmark, we looked at monthly direct open rates per app averaged over 12 months.

Why It Matters
Direct open rates are a key way of measuring your push notifications’ impact on app engagement. Keep an eye on this figure, while also monitoring conversions, active users, opt-outs, indirect opens and uninstalls to get a more granular understanding of how push messages are influencing engagement and retention.

Android vs. iOS
Across industry verticals, engagement with Android notifications maintains a wide lead over iOS. This is primarily due to differences in how notifications behave on iOS vs. Android devices. When you unlock the screen on an Android device, notifications persist on the lock screen, requiring you to swipe left or right to dismiss them. In iOS, the notification vanishes from the lock screen as soon as you unlock the device and are grouped with the app’s other messages in the notification center.
Android Push Notification Direct Open Rates

Charities, Foundations, and Non-Profit
Education
Entertainment
Finance & Insurance
Food & Drink
Gambling & Gaming
Media
Medical, Health & Fitness
Retail
Social
Sports & Recreation
Travel & Transportation
Utility & Productivity

0% 2% 4% 6% 8% 10% 12% 14% 16% 18% 20% 22% 24%

90th Percentile
50th Percentile
10th Percentile
iOS Push Notification Direct Open Rates

- Charities, Foundations, and Non-Profit
- Education
- Entertainment
- Finance & Insurance
- Food & Drink
- Gambling & Gaming
- Media
- Medical, Health & Fitness
- Retail
- Social
- Sports & Recreation
- Travel & Transportation
- Utility & Productivity

- 90th Percentile
- 50th Percentile
- 10th Percentile
Year-Over-Year Comparisons: Push Notification Direct Open Rates

### 2022 Performance

- **High:**
  - Android: 14%
  - Apple: 9.4%
- **Medium:**
  - Android: 5%
  - Apple: 3.5%
- **Low:**
  - Android: 1.4%
  - Apple: 1.2%

### 2021 Performance

- **High:**
  - Android: 16.8%
  - Apple: 10.2%
- **Medium:**
  - Android: 4.6%
  - Apple: 3.4%
- **Low:**
  - Android: 1.1%
  - Apple: 1.1%
Our Analysis

Direct open rates for push notifications saw a slight increase in the low and medium ranges from 2021. Brands that are leveraging better segmentation and personalization in their strategies are seeing better direct open rates than those that are not.
Average Monthly Push Notifications Per User

What It Means
The average number of push notifications an app sends to its users per month.

Why It Matters
This figure helps brands answer the question: how much is too much when it comes to push notifications? Overall, we know that more frequent push notifications increase app retention rates. However, too many notifications can erode trust and come off as spam. The key is to find the right balance to keep customers engaged without overwhelming them.

Variations In High vs. Medium & Low Performance
You'll notice that the high values for this benchmark are much greater than the medium and low figures. That's because our count includes both transactional and promotional push notifications, which vary widely depending on the vertical. Also, Sports and Media brands typically send far more notifications than those in other industries.

The key is to find the right balance to keep customers engaged without overwhelming them.
Android Average Monthly Push Notifications Per User

0 1 2 3 4 5 10 15 20 25 30 35 40 45 50 75 80 100 200 250 300

Charities, Foundations, and Non-Profit
Education
Entertainment
Finance & Insurance
Food & Drink
Gambling / Gaming
Media
Medical, Health & Fitness
Retail
Social
Sports & Recreation
Travel & Transportation
Utility & Productivity

High
Medium
Low

2023 Mobile App Push Notification Benchmarks
iOS Average Monthly Push Notifications Per User

- Charities, Foundations, and Non-Profit
- Education
- Entertainment
- Finance & Insurance
- Food & Drink
- Gambling / Gaming
- Media
- Medical, Health & Fitness
- Retail
- Social
- Sports & Recreation
- Travel & Transportation
- Utility & Productivity

High
Medium
Low
## Year-Over-Year Comparison: Average Monthly Push Notifications Per User

### 2022 Performance

<table>
<thead>
<tr>
<th>Platform</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Android</td>
<td>59.3</td>
<td>10.45</td>
<td>.7</td>
</tr>
<tr>
<td>Apple</td>
<td>74.5</td>
<td>1.1</td>
<td>.8</td>
</tr>
</tbody>
</table>

### 2021 Performance

<table>
<thead>
<tr>
<th>Platform</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Android</td>
<td>188.4</td>
<td>8.4</td>
<td>.5</td>
</tr>
<tr>
<td>Apple</td>
<td>202</td>
<td>8.8</td>
<td>.8</td>
</tr>
</tbody>
</table>
Our Analysis

When it comes to how many notifications brands sent each user, we saw a slight increase in the low and medium send percentiles. However, we saw a decrease in the high sends. **As brands begin leveraging better segmentation tools, targeting gets more precise.**

This shows us that top brands are driving higher direct open rates and delivering fewer broadcast notifications by leveraging more of the robust features within the Airship platform.
Methodology

Airship analyzed customer data in aggregate from January to December 2022 to identify apps with at least 1,000 active users that had sent at least 1,000 cumulative push notifications in one month. That group included more than 2.5 billion app users across thousands of apps, with figures broken out across 13 industry verticals. All of our benchmarks are based on monthly calculations, which are averaged over 12 months.

2.5 billion app users

Thousands of apps

13 vertical industries

12 months
Additional Resources

Want to learn more about how you can leverage Airship to increase your customer interactions at every stage of the customer journey? Check out the following resources and get in touch to request a demo.

- 2022 Mobile App Experience Gap Survey
- The Mobile Customer Imperative
- The Way to Master Mobile App Experiences
- 2023 Insights & Predictions

Let us know if you’d like to learn more about how Airship can help you assess and improve your mobile strategy.
About Airship

At the dawn of mobile apps, Airship powered the first commercial push notification messages and then expanded its data-led approach to all re-engagement channels (mobile wallet, SMS, email), app UX experimentation, no-code native app experience creation and App Store Optimization (ASO).

With the Airship App Experience Platform and Gummicube’s ASO technology and expertise, brands now have a complete set of solutions to optimize the entire mobile app customer journey — from the point of discovery to loyalty — driving greater value for everyone involved.

Having powered trillions of mobile app interactions for thousands of global brands, Airship is proud to be at the forefront of what has become the digital center of customer experience, loyalty and monetization – mobile app experience (MAX).

No one knows more, does more, or cares more than Airship when it comes to helping brands master MAX.