Web**Engage**

Push To Pull



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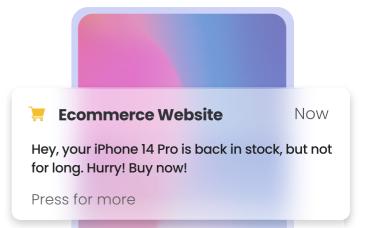
Notification Center

Push To Pull

Check out the all-in-one guide to mobile push notifications

Scroll for more

It's 4 AM on a Monday and you get woken up by a chiming sound from your smartphone. You glance at the alert which reads –



Without resisting the mounting temptation or any regard for your sleep, you spring out of bed and tap that 'Buy now!' button like a cocky hacker pressing the 'enter' key in a Hollywood thriller from the 90s.

Pathetic, right? Wrong.

Don't blame yourself for what happened. It's not your fault.

You know why?

A reaaaallllly great push notification can reaaaallllly pull you in.

According to our studies, businesses use push notifications to increase their conversion rate by as much as 7X.



Too good to be true? Well, it isn't.

Since its introduction in 2009, push notifications have evolved from text-based pop-ups on smartphones into a multi-platform channel with support for rich dynamic content, geofencing capabilities, engagement options, and much more. The democratization of mobile computing solidified push notifications as a leading channel for user interaction.



Have you wondered what makes someone click on a push notification?

That's why we created this ebook so it may serve you as an all-in-one guide to all things push notifications, along with a meticulous walkthrough of how to smartly build, design, deliver and measure push campaigns.

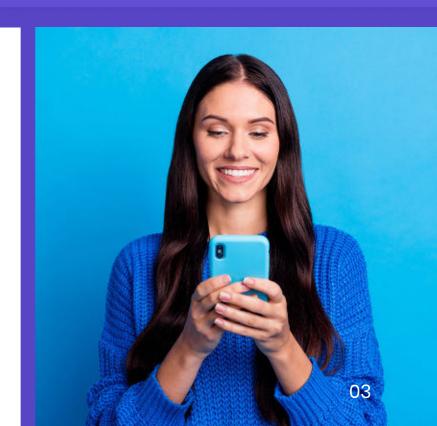
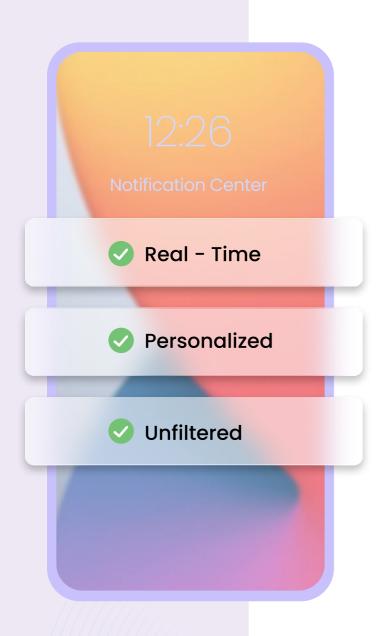


Table of contents

Introduction		\I\
What are push notifications?		5
How push notifications have evolved over the years		7
Anatomy of a mobile push notification		8
Why should you care?		9
Importance		10
Advantages & disadvantages of push notifications		12
Types of Push Notifications		13
By Platform		15
By Intent		17
By Format		20
How Do Push Notifications Work?		22
Campaign Creation & Strategy		25
Setting up Push Notifications		26
Defining objectives		28
Defining the target audience		30
Hyper-personalization		33
Crafting the message		38
Setting up conversion tracking and defining success metrics	1	44
Common A/B Tests for your PN Campaigns		48
Campaign Delivery		54
Auto-triggered campaigns with Send-time optimization		56
Frequency Capping		58
DND		58
Throttling		59
Measuring effectiveness with Control Group		60
Advanced Push - What is it, and why do you need it?		63
Campaign Performance		67
Metrics that define the success of your Push campaigns		68
Engagement Score		68
Dos and Don'ts of Push Notifications		69
'Push'ing The Envelope		71
Use cases		72
Case studies		78
Idea push times		84
Key Stats		85
Summary		86

What Are PUSH NOTIFICATIONS?





- Push notifications are real-time clickable nudges that appear on a user's device.
- Remember, your users are as human as you are and, by virtue, forgetful. With innumerable apps and websites in the market, your distracted users may not always hear what you have to say. This is where push notifications come into play
- Push notifications can be a great way to communicate and remind your users that the t-shirt they always wanted is still lying in their cart, that the latest smartphone they were eyeing just launched, or that their favorite YouTuber just dropped a new video.
- For marketers, push notifications are one of the most effective ways of communicating with users. Unlike email, they do not get caught in a web of spam, and unlike in-app notifications, they can be sent to a user even when they aren't using the app.

How Push Notifications have evolved over the years

2009 - Apple

- Apple successfully launched the Apple Push Notification Service with its iOS 3.3.
- Apple's notification feature was unique in a way that it allowed users to subscribe to third-party notifications.

2013 - Google

- Google came up with the concept of rich notifications.
 - Rich notifications were different for they could contain both images and action buttons.

2015 - Microsoft

 Windows launched a few updates that enabled push notifications on their platforms, such as Xbox, Windows for desktop, and Windows for mobile.

2003 - Blackberry

- Research in Motion (RIM) Limited developed the concept of push emails.
- Blackberry primarily used push emails to inform users instantly about a new email.
- Blackberry developed Push Emails to enhance their device's connectivity and efficiency.

2010 - Google

- Google launched its Google Cloud to Device Messaging Service now Firebase Cloud Messaging.
- Google further expanded the functionality of Push messages by enabling images and action buttons.

2014 - Apple

- Apple came up with the concept of interactive buttons.
- After this innovation, Apple also introduced push notifications to the Apple Watch

Push notifications are on-screen snippets of information delivered by an app or a website publisher to a smartphone user. They are called mobile push notifications because the updates are initiated by the publisher, not the user.

Push notifications allow businesses to interact with users after downloading the app.

Anatomy of a push notification



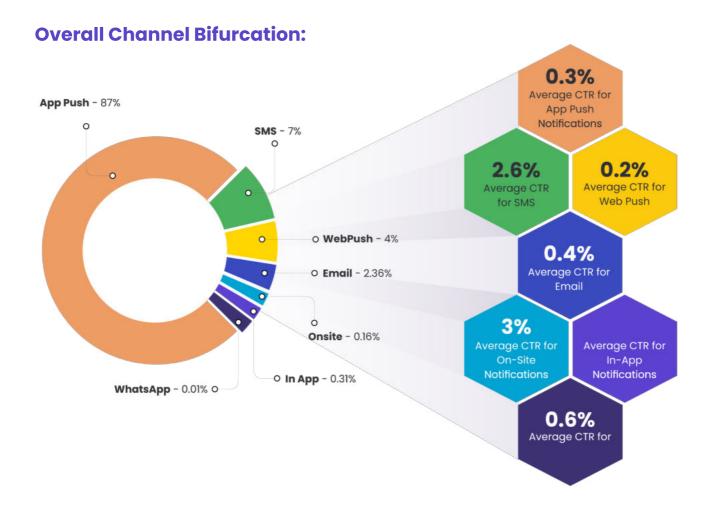
WHY SHOULD YOU CARE?



2 Billion

According to our study, enterprise businesses sent over 2 Billion messages in the last 9 quarters.

Besides B2C, push notifications also emerged as the widely used channel in the B2B market.



of this traffic was via push notifications.

We live in an era of contextualization.

Every user wants to feel special.

Marketing without context or a personal touch is lost on users.

The same aforementioned survey also reveals the impact of blast promotional campaigns versus personal contextual campaigns.

Channel Performance: **App Push Notification**

Blast Promotional Campaign

Push notification sent out of context/with over optimistic wittiness can lead to app unistalls







Contextual & Personalized Campaigns

Contextual push notifications through lifecycle campaigns results in higher conversion rates and higher retention rates.



1.5%
Average
Conversion
Rate

Sending contextual & personalized push notifications over promotional mass-spread campaigns can result in:

17 X
Growth in Open
Rate

4.2 X
Growth in
Clickthrough Rate

9.5 X
Growth in
Conversion Rate

Advantages & Disadvantages of Using Push Notifications

Advantages

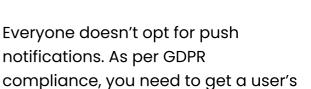
You can reach users even when they aren't actively engaging on their phones. Since people are usually on their phones, it's highly likely that your push notifications might be seen, as opposed to getting ghosted.

It is a great channel to nudge customers to engage and reengage. Push notifications make an effective channel of communication for app publishers since the messages delivered do not get caught in the web of spam and instead reach the customer directly.

Push increases app open rate -They can increase a mobile app's open rate by almost 26% and scale up your retention rate by a whopping 92%.

Disadvantages

notifications.



permission before sending them browser push notifications. So, if your users don't opt-in, you won't be able to send this group of people any

Not everyone who opts into push will engage with your notifications. Some people don't check their email often, some click past in-app messages, and some ignore push. To engage your customers, you need to find channels that speak to each user and use them to communicate effectively.

Sending too many push notifications can trigger uninstalls. Push works best in moderation — and 78% of customers will opt out of push notifications or uninstall an app entirely if they get notifications they're unhappy with. Show customers a personalized push optin that tells them what to expect if they enable push, to reduce the risk that they'll opt out.



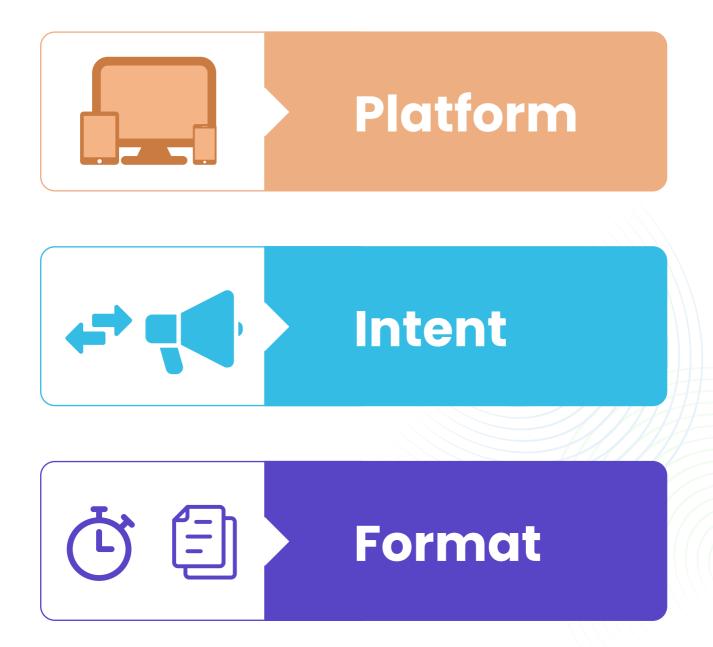


Types of PUSH NOTIFICATIONS?



Push notifications sprouted as a mobile-native messaging channel so when we think of 'push,' we instantly think of text-based dropdowns. However, push notifications have seen sweeping changes with every technological wave.

Based on how they are viewed, Push Notifications can be categorized by:

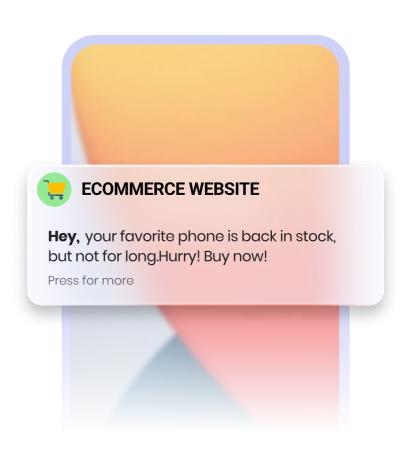


By Platform

Let's take a look at the two most popular push notification platforms.

Mobile Push Notifications

Since mobile devices are used frequently and easily accessible, mobile push notifications allow brands to reach people anywhere and anytime. Like all other marketing channels, marketers need to strike a good balance when it comes to sending push notifications – the right circumstances can be quite effective but infuriating in the wrong ones. The key is to understand your users and then decide the time and content of the push.

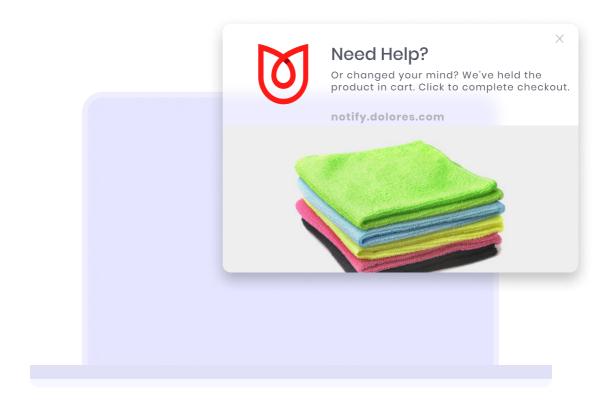


Here's what you need to know about mobile push notifications. They:

- Contain images, GIFs, text, icons, and Call-To-Actions,
- Are information alerts on smartphones and tablets
- Can be sent even when the device is idle or locked,
- Require app installations and permissions from users to receive notifications.

Web/Browser Push Notifications

With this newest breed of push notifications, marketers can broaden their communication strategy to target website visitors through urgent messages delivered via web browsers. A point to note, web-browsers are an emerging channel for push notifications and are yet to gain widespread acquaintance.



Here's what you need to know about web push notifications. They:

- Contain images, text, icons, and Call-To-Actions,
- · Can be sent to any device that supports web browsers,
- · Can be sent even when the user is not active on the device,
- Do not require any installation but requires user permission.

By Intent

Based on intent and behavior, push notifications can be bucketed into three categories:

Triggered Messages

These are notifications that are used to re-engage with your users. Such campaigns are event-based, meaning they are sent to users when they complete a certain action like signing up for a service.

Once users are in a conversion funnel, they get a series of automated messages triggered by predefined rules to move them down the funnel to the next stage. It is possible to transmit multiple messages in a single campaign that a user will continue to receive until they complete the desired action before moving to the next stage

Defining the entry points (when someone would receive what message) will be very crucial here, for while you do want to convert your users who're stuck at different stages in your funnel, bombarding them with messages might cause them to churn, not stay.

Remember that there are users in your conversion funnel, ready to convert, all with just a nudge, and the best way to nudge is through Triggered Push Campaigns.

Triggered push campaigns could be about:

User lifecycle

- Signups
- Onboarding
- Milestones
- Churn reactivation

Remarketing

- Cart Abandonment
- Category browse
- Dropouts from the signup flow

State change-based updates

- Geo-fencing or location-based triggers
- Weather API-based triggers
- · Loyalty points expiration

Transactional messages

There are notifications whose job is to deliver critical time-sensitive updates to the user. Such messages are called transactional notifications due to their transactional nature. They could be about:

Shipping status

Order confirmation

Account update

Billing update/upgrade/downgrade confirmation

Return/Refund

Signup Confirmation

Account quota limit reached

Promotional messages

Before you work yourself up, you should know that people do like to receive promotional texts – in fact, as much as 54% of them, according to this study, and this data is just about SMS. Imagine the reception to a more popular channel like push notifications.

Notifications that promote a product or service's offerings to get users to take the desired action are called promotional notifications.

Suppose you're an e-commerce company running a two-day sale on your app. How'd your consumers know about it? You don't expect them to just be there on your app at the right time, do you?

If your customers don't know about such promotions, no matter how well-planned or thoughtfully targeted they are, they're just not going to act like you want them to.

For all your new offerings, sales, giveaways, and exclusive offers, you've got to notify users and remind them (to create a sense of urgency & FOMO) to open your app at the right time to take the desired action.

When browsing through your platform, your users give you a lot of behavioral data. This is called first-party data, which includes product preferences, purchasing power, browsing duration, etc.

You can build immersive tailor-made promotional messages that resonate with your customers by leveraging this data. Promotional messages could be about:



By Format

Let's take a look at the most popular push notification formats.

Text Banner Sticky Dynamic Includes text along Includes text, one Notifications that can't Includes real-time with one or more image, and one or be swiped away or interactive content like Calls-To-Action more CTA buttons. dismissed. Like music Carousel, Rating & Timer (CTA) buttons. Used Banners are visually players or emergency notifications. to display weather rich and used by OTT alerts. These updates. platforms to highlight notifications can only Carousel: Includes text, new movies or shows. be dismissed if you tap multiple swipeable to engage with the images, and one or more push notification. CTA buttons. Carousels are typically used by ecommerce brands to showcase similar **ECOMMERCE WEBSITE** products. Hey, your favorite phone is back in stock, but not for long.Hurry! Buy now! Rating: Notifications with a Press for more product/service rating CTA on the dropdown SHOPPING STORE itself. Typically used to rate food or product deliveries. Timer: Notifications with a Forgot to checkout? Roy, you left items in your cart. Checkout today for a 15% off! countdown timer and/or a progress bar. Typically used for flash sales to **↑** EMERGENCY ALERT create a sense of urgency. Flash Flood Warning this area till 7:00 PM EDT. Avoid flood areas. Check local media. -NWS Such notifications need to be manually dismissed. MOGANI · 1m Get 30% OFF sitewide just for today! Don't miss this opportunity, click here to avail the offer **NOW** 09 h 21 m 03 s

RECAP:

Here's what you should know about the types of push notifications.

Platform

Choose based on your product/service

- Mobile
- Web

Intent

Choose based on your campaign objectives.

- Triggered
- Transactional
- Promotional

Format

Choose based on the nature of your message.

- Text
- Banner
- Dynamic
 - Carousel
 - Rating
 - Timer
- Sticky

How do PUSH NOTIFICATIONS

Work?



How do push notifications work?

With a fair understanding of push notifications, it's time to see them in action. For starters, let's learn about the five moving parts:



Client App

The app which is installed on a user's phone that receives notifications.



App Publisher

Integrates client app with one or more OSPNS and publishes the app on the Google Play Store or/and the AppStore.



Campaign Management Platform

Used by the publisher to build, design, deliver and measure push notifications and campaigns.



User

Users who receive the push notifications.



Operating System Push Notification Service (OSPNS)

To send push notifications, there are services for each OS. Android has FCM/GCM (Firebase/Google Cloud Messaging) and Apple has APNS (Apple Push Notifications Service).

Lifecycle of a push notification

That being said, let's see how these moving parts come together.

Publication of the app

- The app publisher integrates with the OSPNS.
- The OS service shares an application programming interface (API) with the app publisher. The API is a way for the app to talk to the service.
- The app publisher embeds a software development kit (SDK) to the app. The SDK is a code library native to the OSPNS.
- The app publisher publishes the app on the Google Play Store or/and the AppStore.

Installation of the app

- User downloads the client app from an app store.
- When user opens the app, unique identifiers for both the device and the app are tagged to the OSPNS.
- The unique IDs are passed back to the app from the OSPNS and sent to the app publisher.
- The app publisher receives and stores these IDs along with other registration details.

Transmission of the notification

- The app publisher uses a campaign management platform to craft a message and set up an automated message to be sent via the API.
- The publisher then uses the platform to define a target audience to whom the push notification will be sent.
- The publisher determines whether the message should be sent now or scheduled for later.

CAMPAIGN CREATION & STRATEGY



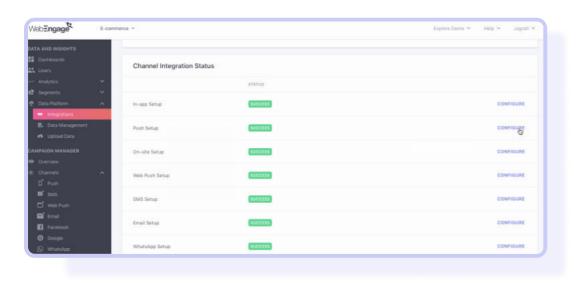
To give you a heuristic experience, let's use a real platform like WebEngage as an example. Here's how you go about it.

Setting Up Push Notifications

Your first step is to set up and configure push notifications on your platform.

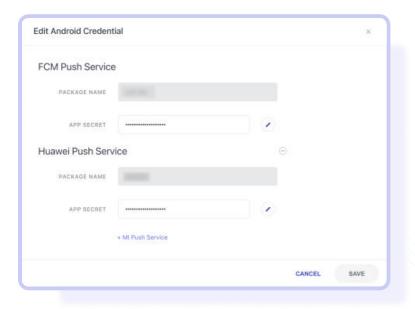
Step 1: Configuration

Data Platform > Integrations > Channel Integration Status > Push Setup (Configure)

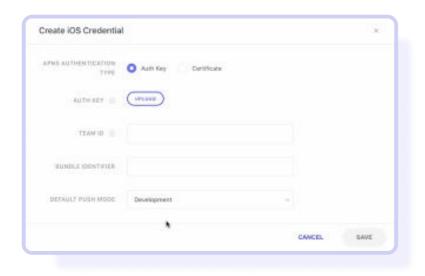


Step 2: Select OS

Pick an OS between iOS or Android



For Android, pick a push service between FCM, Huawei, and Mi. For iOS, pick an authentication type.

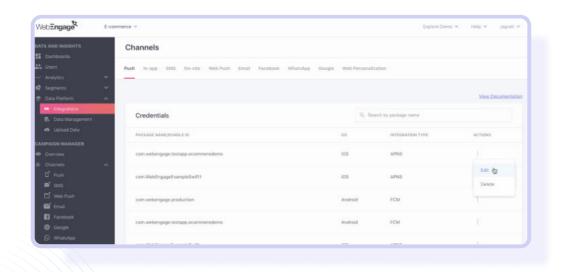


Step 3: Test the setup

Test your integration by sending a dummy notification to internal audiences.

Step 4: Manage Credentials

Once you're integrated, edit or delete configurations using this step.



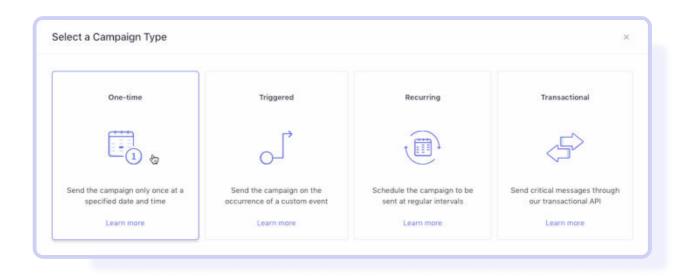
Voila! You are ready to build your campaign.

Defining objectives

Before you proceed, define an end goal for your push notification campaign to clearly know the why.

Select Campaign Type

Pick a suitable campaign that best fits your end goal.

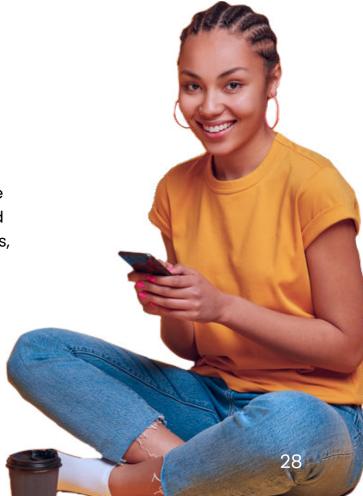




One-time

These are stand-alone messages that are sent to your users only once and generally comprise time-bound offers, festive deals, product updates, and so on. Such campaigns end as soon as they're delivered to the target audience.

When: Launch immediately or schedule for later
How Often: Once only





Triggered

These are ongoing cycles of communication that are sent to only those users of your target audience, who perform a particular event on your app/website.

When: Launch immediately or schedule for later
How Often: Whenever the specified event is performed by a
user or a few minutes/ hours/ days after the event occurs



Recurring

These are ongoing cycles of communication that are scheduled to be sent periodically to its target audience. Such campaigns help you automate communication for several recurring events in your user's lifecycle like subscription renewals, policy renewals, bill payments, recurring investments, and so on or you could leverage these campaigns to engage all new users who have recently signed up, users who performed a certain action on your app but left without transacting or proceeding to the next stage.

When: Launch immediately or schedule for later
How Often: Daily, weekly, or monthly





Transactional

These are highly contextual messages that your users expect to receive while interacting with your brand through your app, website, or offline. This could be acknowledging user interactions like, sign up (welcome newsletter), password reset, payment confirmation (invoice), order confirmation or conveying payment reminders, account statements, and so on.

When: Launch immediately

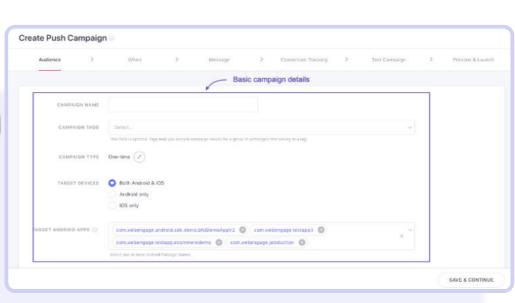
How Often: Whenever a specific event occurs in your

backend



Once you know why you're building a campaign, figure out who you are building it for. Your campaign is going to be consumed by end users and as a marketer, it is your responsibility to make sure the campaign reaches the right audience.

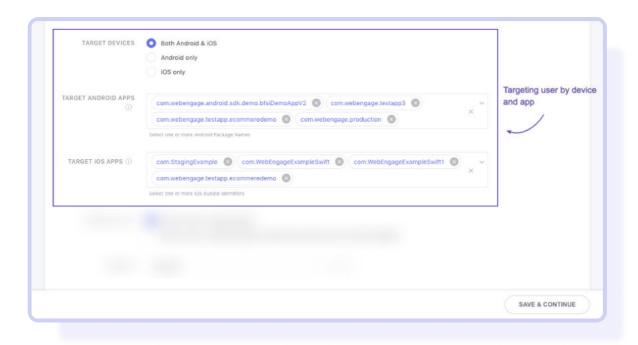
Step 1: Name your campaignGive it a unique name that reflects its purpose.





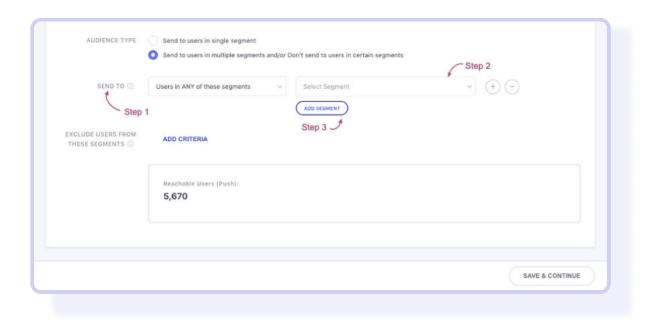
Step 2: Choose a target device

You could either target iOS, Android, or both. If the region you are operating in doesn't have a substantial amount of iOS/Android users, then you might only want to optimize for one of them.



Step 3: Select an audience type

Here's where you get to pick the people you want to target. You could either target one segment or many.



Step 4: Choose a segment

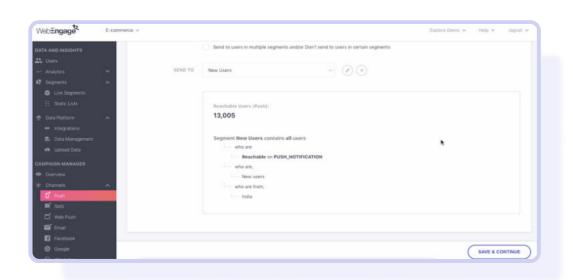
You could choose from existing segments or create a new one but before you segment, bear in mind the following:

Reachability

- Check if users in your segment are reachable on app push. If they aren't, they won't receive your notifications.
- For example, your target segment could include 10,000 users, but only 7,000 of those users could be reachable through Push. This could happen if:
 - A user has disabled notifications on their registered device.
 - A user has uninstalled your app.
 - A user is not reachable on the Android/iOS devices selected under the target device.
 - A user is not reachable on the Android/iOS apps selected by you under Target Android Apps and Target iOS Apps, respectively.'

Rules of segmentation

- You can choose to segment your entire user base by 3 broad parameters
 - User (attributes)
 - Behavior
 - Technology



The mark of any successful campaign is personalization.

The segment/segments you choose will receive communications based on their tastes and preferences. Get it right and your conversions spike; Get it wrong and you're toast.

Personalization is both exciting and error-prone so choose wisely.

Hyper-personalizing your campaign

Gone are those days when marketers would rely on the good ol' spray and pray for conversions.

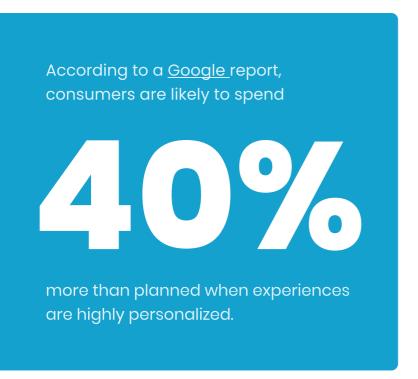
Today, customers expect brands to know what they want, and when they want it.

Enter, hyper-personalization which is a form of 1:1 bespoke experience for each customer. No two users have the same wants.

How would you feel if, for Christmas, you hoped for a new gadget and got a vacuum cleaner in its stead?

That's how users feel when they are shown the same notification without any context. Don't believe us?

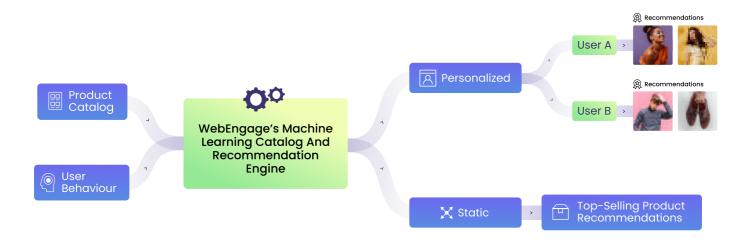




To deliver these experiences in real-time across channels, 1:1 personalization requires rapid data aggregation and analysis, cross-channel deployment, and machine learning built on complex neural networks.

So what makes such intimate interactions possible?

Such experiences are powered by sophisticated algorithms hardcoded into smart engines. Although there are many engines on the market, allow us to illustrate with the help of the <u>catalog and recommendation</u> engine by WebEngage.



This engine has two moving parts: a catalog and a recommendation engine.

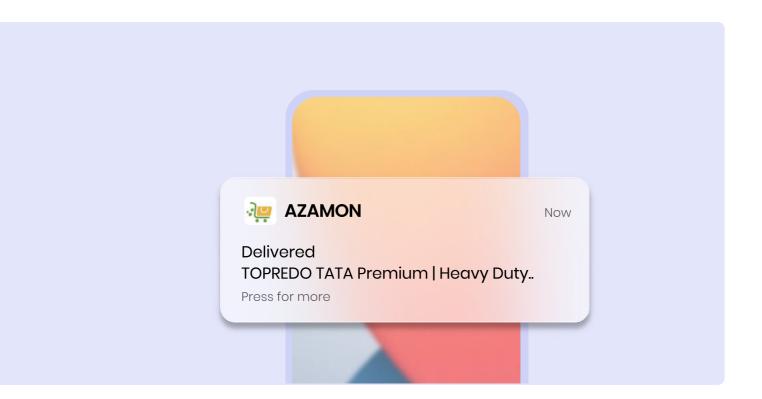
Catalog

Keep all your product info in one place and leverage that info to send communications only to the user. An example would be getting the latest discounted price for a product from a Catalog instead of the old retail price.

Recommendation Engine

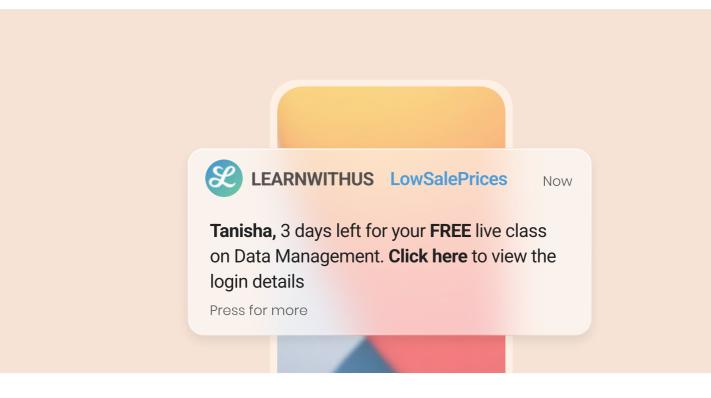
Personalize your messaging with recommendations based on your users' actions. For example, if a user purchases shorts, you can use our recommendation engine to suggest other products that the user might be interested in purchasing.

Thanks to such engines, hyper-personalization has made its mark on several industries.



In e-commerce, it is used to:

- Fetch updated product information such as price and quantity in stock with the help of Catalog
- Suggest similar products based on any custom event such as items added to a cart



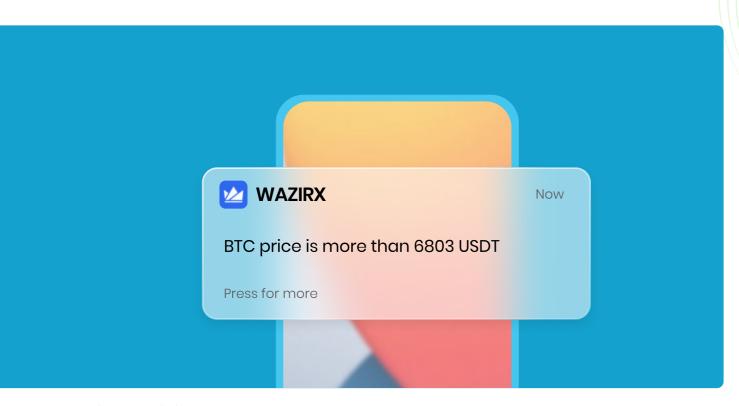
In EdTech, it is used to:

- Fetch updated course information such as price, course instructor and more through Catalog
- Recommend new courses based on the ones taken by a user.



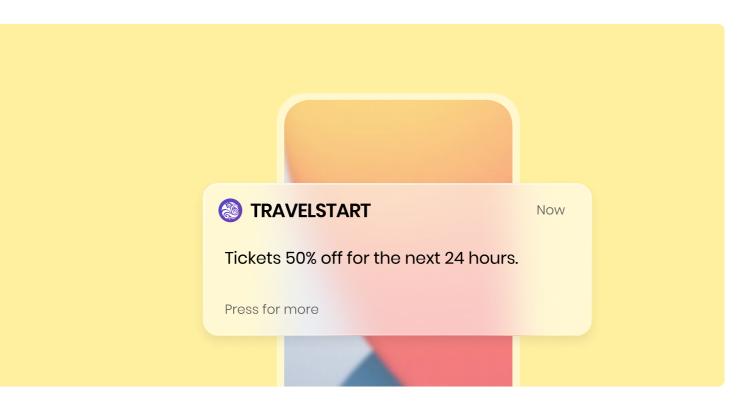
In Media & Entertainment, it is used to:

- Fetch updated ratings and reviews for a movie or tv show using Catalog
- Recommend movies & shows based on a user's wishlist.



In FinTech, it is used to:

- Fetch a user's investment portfolio or market analysis with real-time updates,
- Give advice on investment options based on a user's portfolio.



In Travel, it is used to:

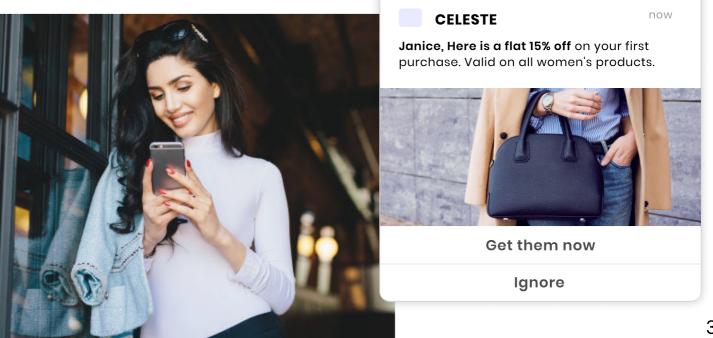
- Provide top travel destinations recommendations
- · Recommend destinations based on a user's wishlist.

Once you've drummed up a hyper-personalized strategy and your desired campaign, sit back, relax, and let the catalog & recommendation engine do its job!

Hyper-personalization with the catalog & recommendation engine is basically like a Tesla on autopilot.

Crafting the notification

It's time to walk the talk and dazzle your users with a captivating push notification. Crafting a message can be like walking a tightrope - looks straightforward but is nigh impossible to perfect. But worry not, for there are only three basic rules to create an eye-catching notification.



Nail your messaging

The main text and subtext in your push notification constitute your message. Your message must reflect two things:



Pulse

Your brand's pulse must be evident in the message. Your brand's pulse could be funny, sassy, cerebral, hospitable, enthusiastic, serious, or many other things. What it shouldn't be is dull and disconnected from your brand's values.



Purpose

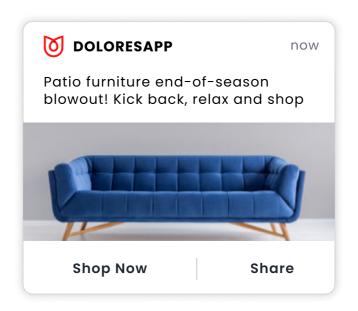
If your brand's objective is to goad users into a sale then your message must invoke a sense of urgency. If it's to get them to revisit their abandoned cart and make a purchase, then it should captivate and reel them in.

Your message strategy is more about the user than it is about the brand.

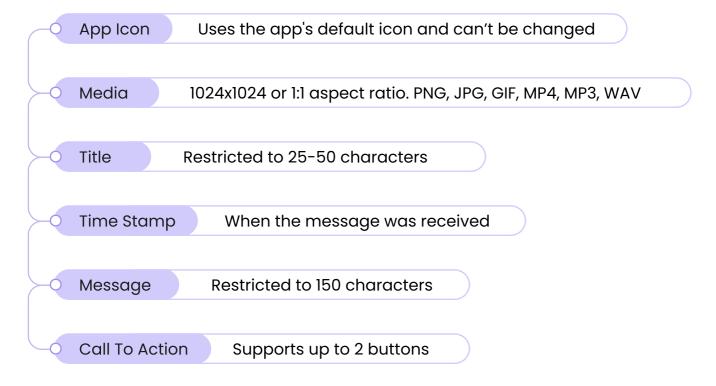
You are writing for them, NOT YOU!

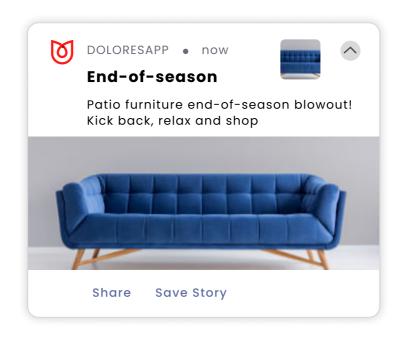
Designing a notification

If you are designing for iOS or Android, here are a mobile push notification's design components and specifications. As a marketer, you may have to work with a small real estate so use what you must to deliver a compelling message to your users with the tools at your disposal.



1. IOS





2. Android

Small Icon

24x24 - 96x96 to fit all device sizes. Must be white with a transparent background (.PNG)

Title

Up to 50 characters

Body

Up to 150 characters

Large Picture

1440x720 or 2:1 aspect ratio. PNG, JPG, GIF (not animated)

App Name

Can't be changed

Icon

192x192 or larger. PNG, JPG, GIF (not animated)

Call To Action

Supports up to 2 buttons

Add a CTA

The whole point of a push notification is to earn the attention of the user and get them to take action. So ask yourself, what action do you want the user to take?

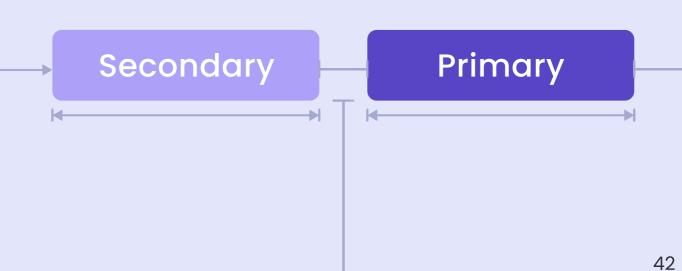
That action should be your Call-To-Action.

Call-To-Action or CTA are clickable buttons on a push notification. A push notification can have one or two Call-To-Actions.

CTAs are to push notifications what morals are to stories. They are takeaways and provide a sense of conclusion.

A CTA can look like this:

- · Accepting or declining an invitation,
- · Wishlisting a product,
- · Booking a movie,
- · Tracking an order,
- Subscribing to a channel.



RECAP:

Here's what you should know about crafting a push notification:

- Devise an engaging message strategy
- Design an attractive notification
- Add one or more actionable CTAs.

Remember - If you don't grip, they slip.

Setting up conversion tracking and defining success metrics

You nailed the messaging, added it to a well-designed notification, and placed a meaningful CTA/s under it.

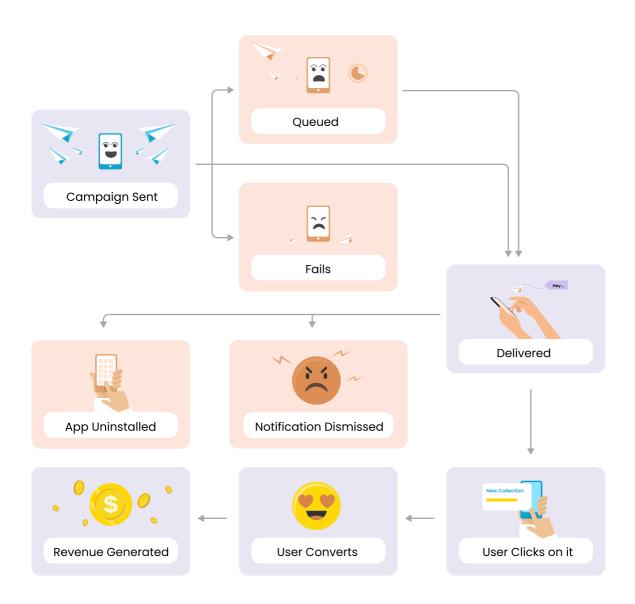
What next?

You want to know how your push messaging performs, don't you?

To understand the health of your push notifications, it's important to track and measure their performance.

The advisable way to do that is by setting quantifiable metrics.

Once you send a push campaign, its lifecycle looks something like this -



Each stage is tracked as a campaign event or a performance indicator, helping you analyze the campaign's impact on user engagement, conversions, and revenue.

Let's get you acquainted with all the indicators tracked for push campaigns.

Send

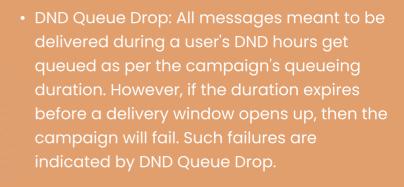
Indicates the total number of messages sent to a push campaign's target audience within the selected time frame.

Failures

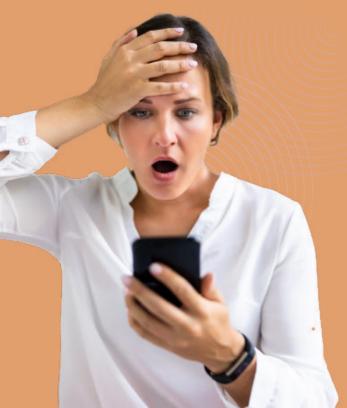
Indicate the total number of messages that failed to get delivered to a campaign's target audience within the selected time frame.

Here's a list of all the reasons why a Push campaign could fail:

- Uninstalls: Indicates that the user uninstalled your app, due to which the notification could not be delivered.
- Configuration Issue: Indicates an error with your authentication keys, certificates, or incorrect FCM (Firebase Cloud Messaging) configuration.



 Engagement Window: If a campaign is sent within DND Hours and no Queueing Duration has been specified for it, then all messages sent during a user's DND Hours will fail to get delivered. The same is indicated by Engagement Window.



- Frequency Capping Queue Drop: If the daily, weekly, or monthly frequency cap
 has been exhausted for a user, then all additional campaigns will get queued
 for delayed delivery, as per each campaign's queueing duration. However, if
 the duration expires before a delivery window opens up, then the campaign will
 fail. Such failures are indicated by Frequency Cap Queue Drop.
- Personalization Error: Indicates an error with the personalization variables (user attributes, event attributes) or Nunjucks syntax used in the push notification's copy.
- Device Not Registered/ No Device: Indicates any of the following errors:
 - Incorrect Integration with WebEngage
 - Time Zone Elapsed
 - Channel Not Available

Delivered

Indicates the total number of messages delivered to the target audience of a campaign, within the selected time frame.

Total number of Delivered messages = Sent - (Failures + Queued)

Queued

Indicates the total number of messages that have been sent to a campaign's target audience but are currently Queued for delayed delivery. A few common reasons why campaigns get queued include:

- DND Queue
- Frequency Cap Queue
- Waiting for Time Zone

If the Queueing Duration of a campaign expires before the message could be delivered to a user, then the message will fail.

Total/Unique Dismisses

Both metrics indicate the number of users that have dismissed a Push campaign within the selected time frame.

Total/Unique Clicks

Both metrics indicate the number of users that have clicked on a Push campaign sent within the selected time frame. This metric includes clicks on the notification, its buttons, and deep links.

Total Conversions

Indicates the total number of times a user has performed the Conversion Event of a Push campaign within the selected time frame.

Unique Conversions

Indicates the number of users that have performed the Conversion Event of a Push campaign within the selected time frame.

Total Click-through Conversions

Indicates the total number of times your users have performed the Conversion Event of a campaign, within the selected time frame, after clicking on the Push Notification.

Unique Click-through Conversions

Indicates the unique number of users that have converted within the selected time frame, after clicking on the Push Notification.

Revenue

Indicates the total amount of revenue generated by the Total Conversions that have occurred within the selected time frame.

Click-through Revenue

Indicates the total amount of revenue generated by the Total Click-through Conversions that have occurred within the selected time frame.



Although there are plenty of success indicators, the ones you choose must honestly reflect the honest health of your campaigns. For example, **if your goal is to reduce churn**, **you should track Unique Conversions** for success definitions. **If your goal is to monetize**, **you should track metrics like Revenue or Click-through Revenue**.

A/B Testing your Push Campaigns

You have prepared a workable notification and laid down robust performance tracking metrics.

The next and final next step is to A/B test your notification.

Why?

Well, having a notification and ways to measure them isn't enough anymore because you still don't know if your messaging will resonate with your chosen segments, do you?

By A/B Testing, you sure can.

A/B Testing is a simple concept of experimenting with two variations of something to evaluate which one works better.

Suppose you have two CTAs on your notification. One reads 'Get' in purple and the other one reads 'Spend' in red.

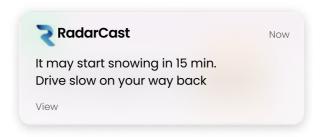


A/B Testing determines which CTA is more likely to be clicked on by users. Simulating your notifications before sending them makes them more potent. Not only will you get to know which ones are getting tapped, but also which ones aren't. This in itself is an insight into your users' mindset, preferences, and intent. Test different message variations to understand what strikes a chord with your audiences.

To perform A/B testing on push notifications, start by deciding the variables required to test the pushes. With push notifications, you can fiddle with the message, CTA, time, location, urgency, images, emojis and GIFs. Let's take a look at those variables in detail.

Message Content

Your core message's objective and your audience determine the tonality of your notification. To know whether or not it drives more CTRs, experiment with varied tones and rich media elements in your copy. Make changes to your message text, background color, titles, subtitles, word count, language, and tonality, and see what floats your boat.



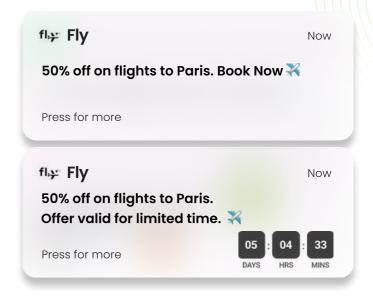
CTA

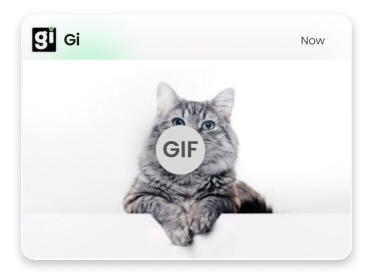
Test different Calls-to-Action to know what makes your target audiences tick - like the A/B test experiment we talked about earlier.



Urgency

It is an important part of push notifications' content. While creating urgency can get more CTRs, it's not always the case. Hence, you need to try messages with and without including urgency in your push notifications.





GIFs

Notifications with rich media boost engagement by <u>25</u> <u>percent.</u>

Just like with images, A/B different GIFs if necessary. Although they may not work for all seasons, they will if you have the right reasons.

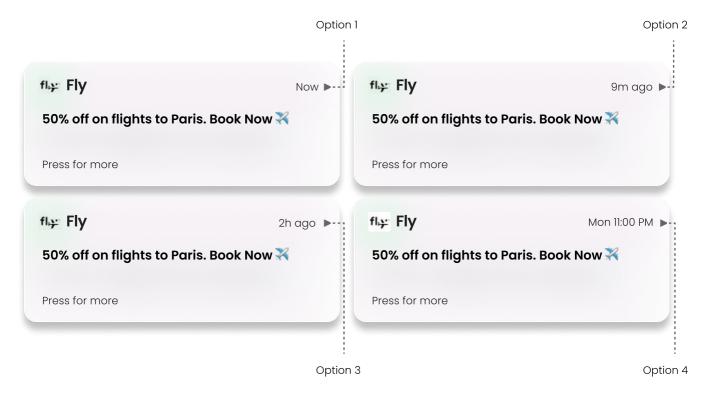
Images

Including a visual element can get you more subscribers but that does not hold true in all cases which is why A/B testing push notifications with and without images is equally key.



Timing

One of the most instrumental factors in the clickability of push notifications is the time at which you send your notifications. A/B testing push times is a great way to know the best day, week, month or season to notify your users.



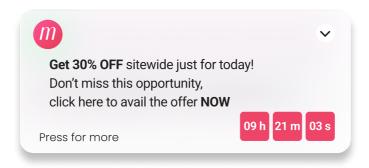
Location

Push notifications which are designed with the location of your users in mind, work favorably. Group your users by cities, states, and countries and A/B test your notifications based on your user locations to get positive results.



Colors

As far as customizations go, there is also wiggle room to play around with the background color of a push notification as well as the color of the text. E-Commerce brands put this feature to good effect by using brand colors as a background to stand out in a sea of notifications.



Emojis

Another rich media that can do wonders for your copy is Emojis. In fact, a report by <u>HubSpot</u> revealed that notifications with emojis were opened 85 percent as opposed to notifications without emojis. Perhaps, it's time to put that research to use. Your texting addiction might finally pay off.



That's it! You have successfully created a push notification campaign.

RECAP:

Here's what you should know about creating a push strategy:

- Setup and configure push notifications
- Know why you want to send push notifications
- Know whom you want to send them to
- Make them unique to each user with hyper-personalization
- · Know what to send
- Define what success looks like for you, and
- Test your messages to know what works and what doesn't

Campaign Delivery



The stage is set. A carefully curated push notification is in place ready to be launched into the world - so what do you say we go right ahead and launch it? Think again.

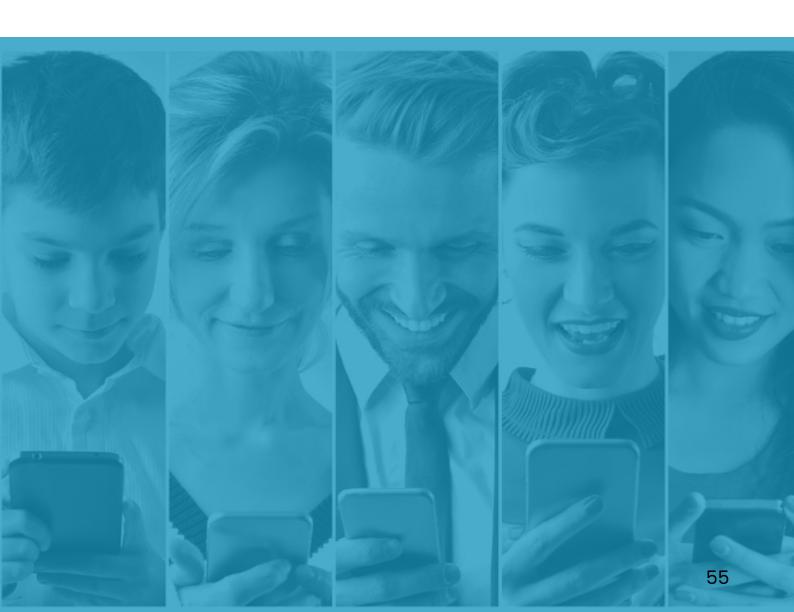
If you were a user, would you want to be disturbed by a notification at ungodly hours just when you are winding down after a long day?

Nobody would. Creation is vital but so is delivery. A marketer ought to spend as much time contemplating when and how to send out a push notification as they do creating one.

Your user should get a notification when they are most likely to read it.

Okay, pop quiz - What if 1000 users want it at different times in different places across different time zones?

Easy-peasy. We have you covered with.....





Auto-triggered campaigns with Send-time Optimization

Auto-triggered campaigns with Send-time Optimization

Carpet bombing messages all over users' inboxes may have been fashionable back in the day but with technology, users have also evolved. They have grown more receptive to smart conversations and less receptive to encroachment.

As a marketer, it is your responsibility to respect their space but you also owe it yourself to send notifications when users are more likely to engage with them.

A win-win approach is to use auto-triggered campaigns with optimized send times. Therefore, you could choose to send a notification at a specific date & time or send it intelligently.

Optimized Campaigns with Send Intelligently Without Send Intelligently With Send Intelligently Each user receives Each user receives communication at communication as per the same time their preferred time **9 AM** 11:30 AM **4 PM 7 PM**

Send Intelligently

Using A/B tests to create send-times conducive for users only goes so far as catering to segments of users and not individual users. To target each user, you must hyper-personalize. I am talking about a unique send-time for every user.

Since we used WebEngage as an example, let's stick to one of our platform's features to explain the aforementioned concept in detail.

WebEngage's send intelligently feature helps you narrow this approach down to a 1:1 interaction with an optimized campaign send-time for each user. Its system intelligently decides the best time to send a campaign based on a user's interactions with past campaigns.



An effective push strategy can both attract and retain users but an ineffective strategy can drive your users away.

The only thing worse than broadcasting an effective push message is inundating your users with frequent blasts.

A general rule of thumb - With Push, never push.

The last thing you want your push notifications to be is marked spam. To avoid such a fiasco, remember to cap the number of messages sent within a time frame via Frequency Capping.

Frequency Capping is a powerful campaign management tool that allows you to control the number of campaigns a user can receive within a day, week and month. Additionally, you can also specify a time gap that needs to be maintained between consecutive messages.



An integral aspect of user engagement is respecting the boundaries of a user's comfort and availability. Thus, using the DND settings of your account, you can prevent users from receiving campaigns during specific periods such as when they may be asleep or away, for example, from 10 pm to 8 am.

How It Works - DND time slots can be defined at 4 levels:

- Daily (applicable to all days of the week)
- Per day (Any day of the week)
- Weekends (Saturday and Sunday)
- Weekdays (Monday, Tuesday, Wednesday, Thursday, Friday)

The best part about DND Hours is they are configured individually for each user. This means that the periods specified by you will be applied to all your users only in the context of their time zone! By detecting the location of each user in real-time, we ensure that no matter where your users are located, they remain undisturbed during the specified hours, irrespective of their time zone.



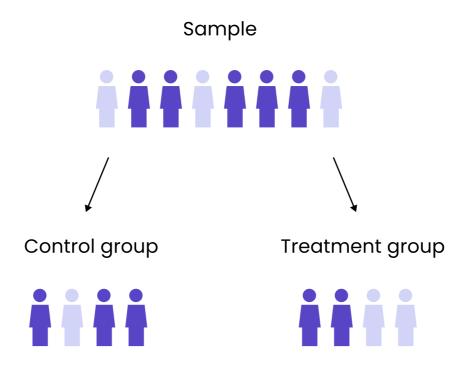
As marketers, we want our messages to reach all our users as soon as possible but for apps that have a significantly large user base, this tendency increases the risk of server overload.

Picture a scenario where you've sent a Push Notification to all your users (1M+) who click on it to open your app around the same time. Such a sudden surge in traffic can jeopardize systems, risk a system overload, and even for well-equipped businesses, the unanticipated load may cause server slowdown or outage (in extreme cases).

Such situations inconvenience as well as disrupt your user experience and are a source of frustration for your fellow teammates.

The solution? Message throttling.

Throttling allows you to limit the number of messages that can be sent to a particular endpoint, enabling you to maximize user outreach without taking unnecessary risks.



Measuring effectiveness with Control Group

A Control Group is a small portion of a campaign's target audience that is randomly selected, represents the behavior and preferences of the entire segment, and does not receive the campaign.

By setting up a Control Group (CG) you would be able to measure the conversion of the users who did not interact with your campaign against the users who did. This would essentially let you know the unbiased impact of your campaign.

By excluding the Control Group from receiving the campaign, one can compare the campaign's outcome against the organic behavior of Control Group users. This makes for the perfect benchmark to assess the real impact of the campaign on influencing user behavior.

Yes, not sending the campaign to a few users may seem odd at first but, by not testing your campaigns with a Control Group, you make very risky assumptions like:

- Sending campaigns can only lead to higher engagement and conversions.
- Users must be engaged with appropriate campaigns continuously throughout their lifecycle to retain them.

Why Do We Need Control Groups?

Let's take the example of a gaming app that incentivizes user engagement by crediting gifts (cards/reward points) to a user's account twice a day. Each time a gift is credited, users are notified with a Push Notification.

End Goal: Motivating users to play a game at least once a day.

Marketers of the app tested two Variations of the Push Notification to identify the right messaging. At the end of the A/B test, they found:

2.2% of users who received Variation A, played a game at least once a day.

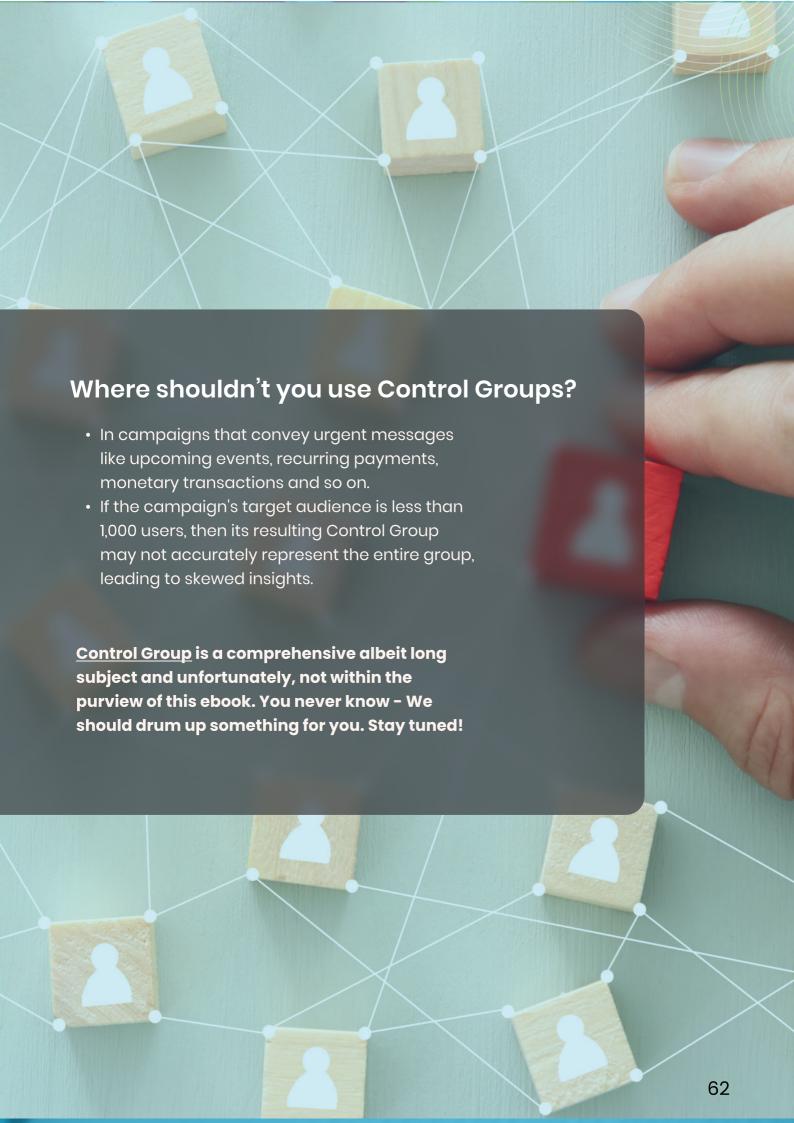
1.8% of users who received Variation B, played a game at least once a day.

Clearly, Variation A is the winner, and marketers of the app should continue sending it to all users.

But, what if we told you that 3.4% of users who received neither campaign played a game at least once in a day? This insight makes it evident that they should cease sending a Push Notification each time a gift is credited.

Oftentimes, running campaigns for the sake of it can be counterproductive. Like we mentioned earlier, a goal is pivotal and that goal ought to be backed by research and intent. A/B tests are merely to execute Control Groups; however, the idea of Control Groups is to show you the influence of a campaign on groups who receive it versus groups who don't.





Advanced Push - What is it, and why do you need it?

Our latest survey indicates that the volume of push notifications sent in Q1 2021 vs. Q1 2022 has increased by 40%

With the surge in apps available on the app store or play store, guaranteed impressions or delivery of push notifications has become a daunting task.

Volume jams traffic. Jamming is a challenge and not the only one. Challenges abound due to delivery failures stemming from user inactivity, opt-outs, network issues, and OS/device restrictions. The device-level restrictions kill background processes while stopping FCM (Google's Cloud messaging platform & APN (Apple's Cloud Messaging Platform) from delivering a push notification and are prevalent in Chinese OEMs, including Xiaomi and Huawei.

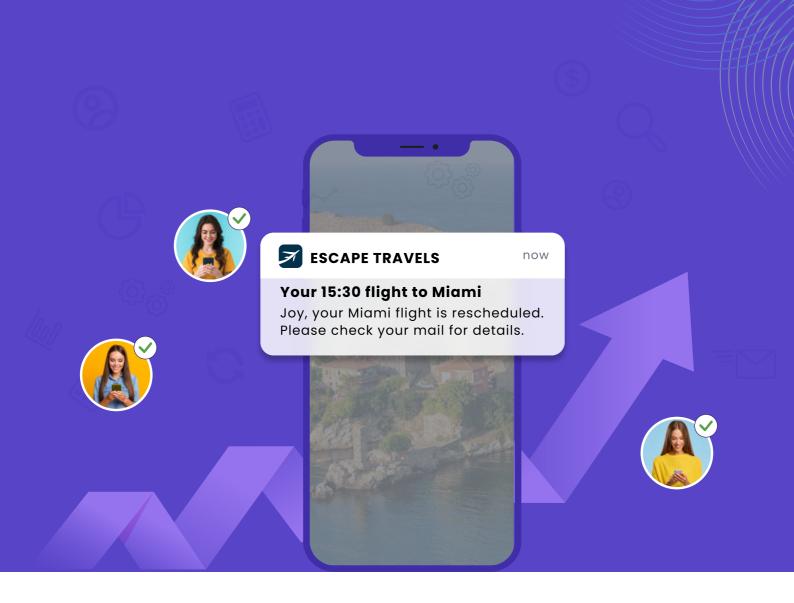
Despite how targeted or personalized your campaign is, low delivery will yield lower opens and consequently lower conversions, rendering your efforts futile.

Solution?

Advanced Push by WebEngage

Among the various reasons for delivery failure, one area we can control and actively improve is OS/device level restrictions.

WebEngage's 2-step mechanism ensures maximum impressions for every push notification you send to your users.



Step 1

Adding an extra layer on top of the push notification delivery mechanism for FCM and APNs.

This layer's enhanced delivery support for Xiaomi and Huawei push services helps with just that in the case where device-level restrictions prevent delivery through FCM (Google's cloud messaging service).

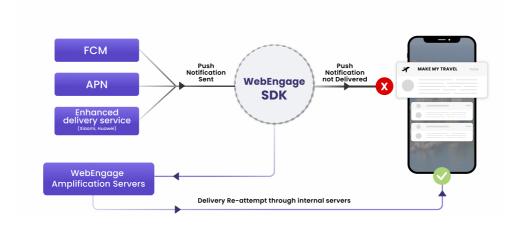
Step 2

Going the extra mile, ensuring maximum delivery of your push notifications.

In case of undelivered push notifications, our system bypasses the traditional route (FCM + APN) and re-attempts delivery through our amplification servers.

Let's dive in to understand this better.

WebEngage 2- step mechanism for best push notificcation delivery rates



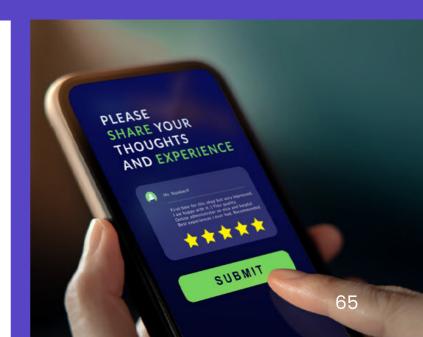
The Impact

For any push campaign, with enhanced delivery, WebEngage's system attempts simultaneous delivery through FCM or Xiaomi, or Huawei.

The simultaneous delivery attempt can <u>uplift the</u> <u>delivery rate</u> by up to

30%

Our Advanced Push mechanism is also cognizant of the fact that spamming the end-user is not in anyone's best interest, so it ensures that despite delivery attempts through multiple avenues, users receive the notification only once.



RECAP:

Here's what you should know about delivering a push campaign.

- Send your messages intelligently
- But use frequency capping to not send too many
- Or disturb your users when they're away
- Limit the messages to not overload your system
- Test your message with control groups
- Make sure notifications reach users with our Advanced Push mechanism

CAMPAIGN PERFORMANCE



The fundamental difference between traditional and digital marketing is that the latter can track your marketing campaigns. Without it, there's no knowing how your campaigns are faring.

Metrics that define the success of your Push campaigns

There are certain parameters that assess the performance of your push campaigns. Let's have a look at 5 such Key Performance Indicators (KPIs) that will help you measure your push notification campaigns.

Opt-in Rates

Measures the number of users who have signed up to receive your push notifications.

Click-through/Open Rates

Measures the number of people who click on your push notifications.

Conversion Rates

Measures the number of people who complete a predefined goal after opening your push notifications.

Time spent on the app after clicking notifications/ Time spent on conversionMeasures the time your users spend on your platform, after clicking through a push notification.

Influenced Conversions

Measures the number of times your users manually open an app after receiving a push notification (rather than tapping on the notification directly to open the app) within a given time frame.

Engagement Scores

They are a way of gamifying the customer journey by scoring customers based on their engagement actions. Each action is assigned a score and each user is rated on a scale from 1 to 10 (least engaged to most engaged). Engagement scores also double as user attributes which can be used for segmentation, analysis, and hyper-personalization.

To know more and get started with engagement scoring on your WebEngage dashboard, reach out to us at product@webengage.com

DOS AND DON'TS OF

Push Notification



We shouldn't be spilling the beans but tell you what - we feel generous. In a nutshell, here are some caveats just for your eyes.





- Hyper-personalize your notifications
- Quality over quantity;
- Respect DND for empathetic communication
- A/B test your notifications
- Include rich push notification elements such as background color, GIF, countdown timers to make them more engaging



X Don'ts



- Spray and pray with notification blasts
- Send too many notifications.
 Avoid spam
- Disturb users with notifications while users are away
- Send notifications without testing
- Send notifications without a CTA/ with an incorrect CTA



'PUSH'ING THE ENVELOPE



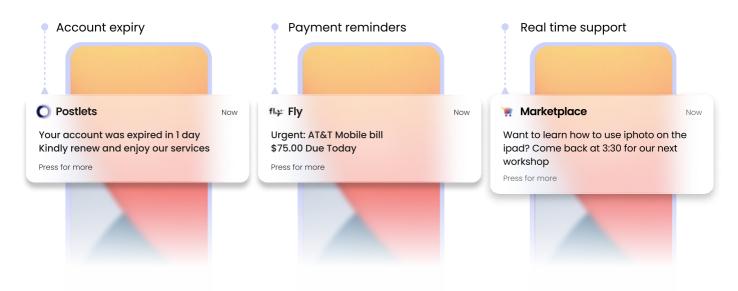
Use Cases

As a channel, push notification is accessible, actionable, and making a splash across sectors. We wanted this ebook to be the gift that keeps on giving which is why we have carefully curated specific use cases across major domains.

We didn't want to stop there so we figured why not throw in some impactful case studies that showcase brands that have used push to improve retention, increase revenue, and fast-track growth.

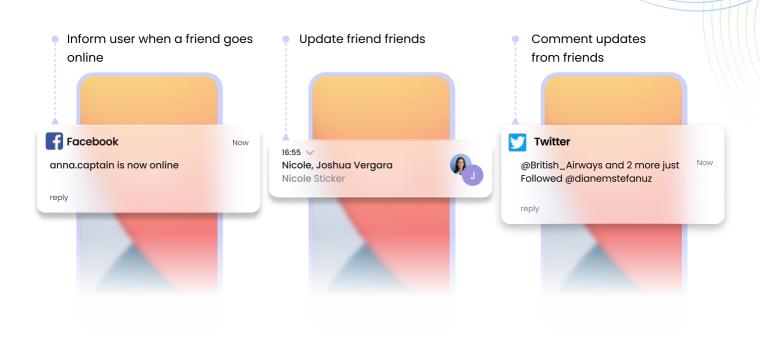
For business apps

Business apps can use push notifications to target events like account expiry, sending payment reminders, real-time support, and product usage recommendations.



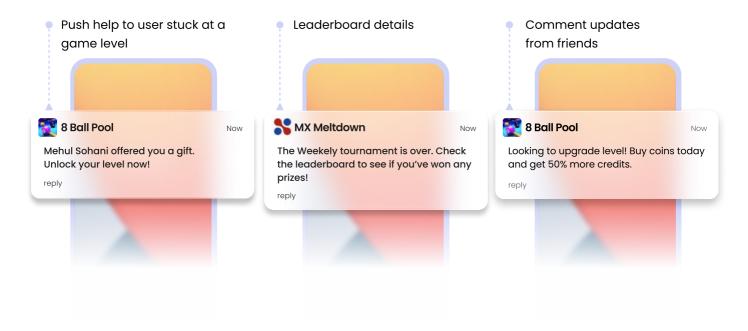
For social/chat/dating apps

Most of the social media apps are already leveraging push notifications to create the FOMO (Fear Of Missing Out) effect. Most of these apps use push to keep users updated about their friends when friends go online, when they comment on a post, etc. They can also be used to send RSVP reminders.



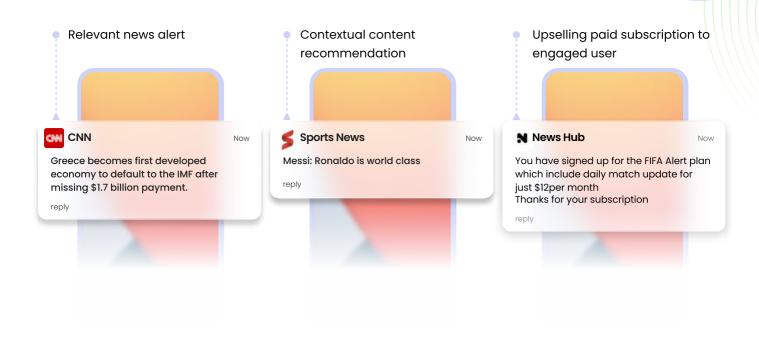
For gaming apps

Gaming apps can use push notifications to help users level up, share leaderboards, congratulate players on unlocking achievements, and upsell in-app features to engage users.



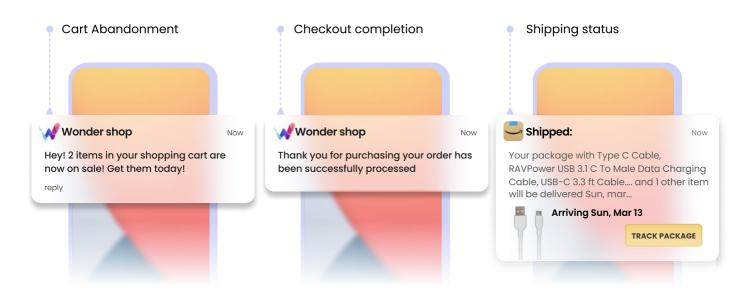
For news apps

News apps use push notifications to send useful news alerts and achieve contextual content recommendation. In case of recently downloaded apps, push notifications can also be used to entice users to opt for paid subscriptions.



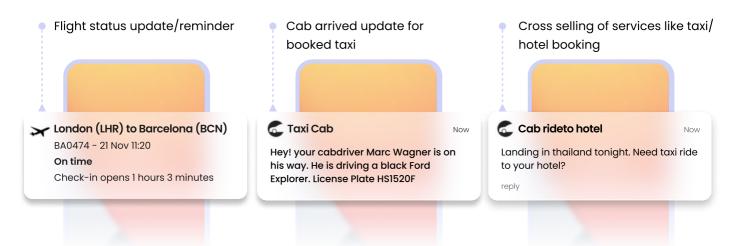
For D2C apps

Push notifications can be effectively used to tackle issues like cart abandonment, wishlist abandonment, checkout completion, shipping status, targeted flash sales, or deal of the day. Likewise, push notifications can also be swiftly used for multichannel marketing and initiating a two-way conversation through feedback survey posts, etc.



For travel apps

Travel apps use push notifications to notify users about flight status, cab status, discount coupons, or last-minute updates for upselling premium features like a window seat, meal plans, or additional baggage plans. Likewise, they can also be used to cross-sell services like cabs or hotel booking. Travel apps can especially benefit by sending geo-location-based push notifications around a user's places of interest.



For weather apps

Weather apps use push notifications to send daily weather updates, and provide real-time alerts and forecasts. Likewise, when a user syncs a weather app with their travel schedule or fitness app, push notifications can be sent to update the user about imminent bad weather conditions that might impact travel time or send periodic updates on precautions a user can take to navigate erratic weather conditions.



3 App-Push campaigns that you must make a part of your marketing strategy...

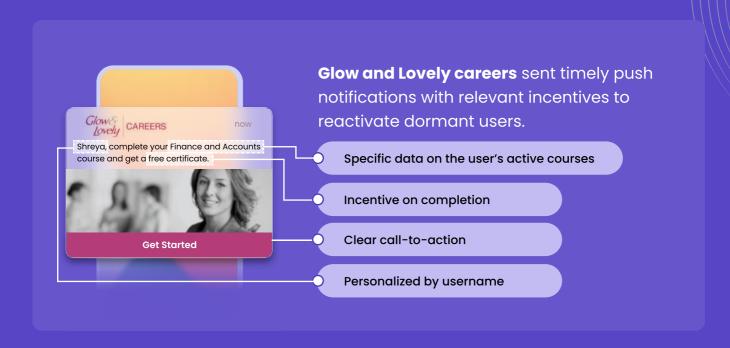
1 Exclusive Offers

Get your users excited with personalized recommendations based on their preferences. An excellent way for food-tech companies to whet their customers' appetite.



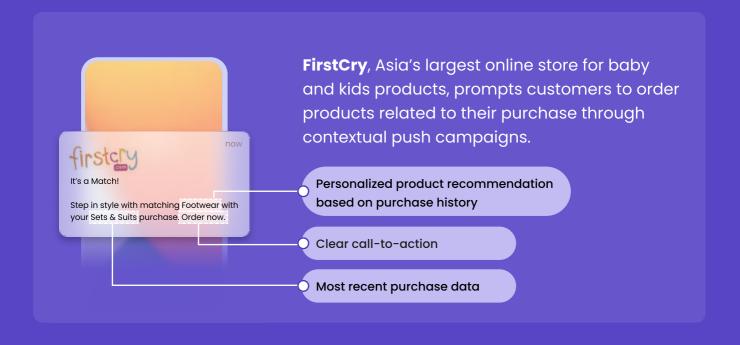
2 Reactivation Campaign

User started the journey but is missing in action? Keep users engaged in the journey with timely reminders and appropriate incentives.



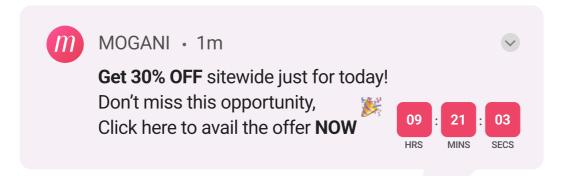
3 Cross-promotional Campaign

Insert hooks to convert a one-time customer into a "repeat" customer. Ecommerce companies can leverahe push notifications to run campaigns based on user's purchase history.



Case Studies

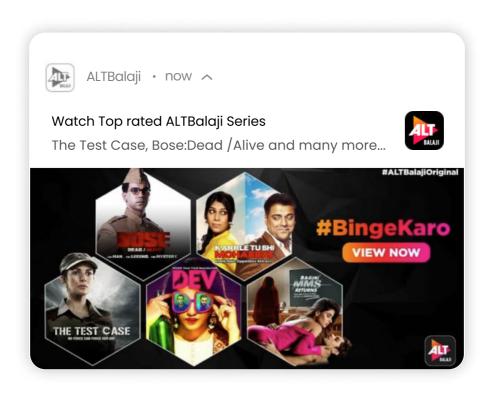
We've put in our decade-long experience in helping 500+ brands across the globe to study what's effective and what isn't. Here are our top 5 picks from the list of brands that derived value from WebEngage's push notification campaigns.





Media & Entertainment - ALTBalaji

ALTBalaji is a Subscription-based Video-On-Demand (SVOD) platform. Available across multiple interfaces and devices, ALTBalaji marries state-of-the-art technology with gripping storytelling. They are one of India's leading Over-The-Top (OTT) media players with over 100 hours of original content belonging to a wide variety of content categories.



With WebEngage's push engine, they:

- Witnessed 30% increase in user retention,
- Witnessed 9.51% uplift in conversions.

Read more about AltBalaji's juicy insights **here**.

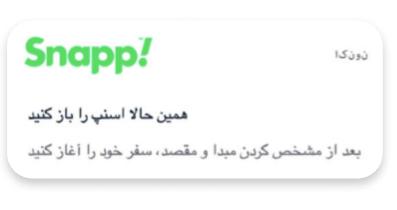
Ed Tech - Aakash Digital

Aakash Digital is India's #1 online learning platform that caters to the K12 segment. AEPL also offers comprehensive online test preparation services for learners preparing for Medical and Engineering entrance exams. They also provide an effective online learning environment (website & mobile app) where the learners can opt for LIVE or pre-recorded classes, practice tests, and more from highly experienced teachers and the comfort of their homes!



Travel - Snapp!

Snapp!, started in 2014 as a ride-hailing brand, is now a super app that offers diverse services to its users. With just a few clicks, users can simply book a cab ride, order food, recharge their number, book a hotel room, and much more. With more than 40 million users, 2 million drivers, 2 million rides/day, and 2.5 million transactions/day, Snapp! has successfully built the largest and fastest-growing internet company in the Middle East.



With WebEngage's push service, they:

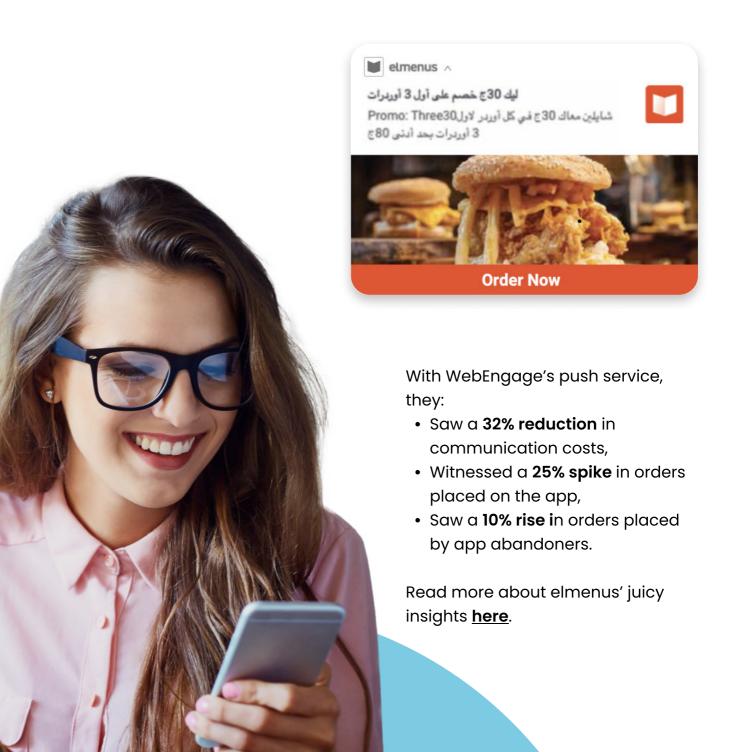
- Saw a 44.62% uplift in app reinstalls,
- Witnessed a 21% uplift in app sign-ups,
- Drove a 13% conversion uplift from purchase abandoners.

Read more about Snapp!'s juicy insights <u>here</u>.



Food Tech - elmenus

elmenus is Egypt's booming online food discovery platform that helps people discover and order food from over 12,000 restaurants in Cairo on its mobile and web app. Founded in 2011, elmenus saw a gap in the market for the delivery of high-quality, beautifully presented meals that catered to local tastes. To bridge this gap, the company provides a social, visual, and personalized experience to users with provisions to upload food photos, feedback mechanisms, and detailed menus.



Agro Tech - BharatAgri

Siddharth Dialani and Sai Gole founded BharatAgri in 2017. Today, BharatAgri is India's most trusted farming app, which works directly with the farmers. Bridging the gap between traditional agriculture and technology. Using their mobile app, farmers can avail of personalized advisory services. They can consult experts for soil testing, water testing, dynamic weather-based advisory, personalized crop calendar, and more.



With WebEngage's push service, they:

- Drove a 19.8% uplift in localized campaigns,
- Saw a 2X increase in Daily Active Users,
- Enabled a 10% increase in Month-On-Month revenue.

Read more about BharatAgri's juicy insights **here**.



Ideal push times

We did promise this was going to be a holistic guide on Push, didn't we?

We would be doing you and us a disservice if we didn't leave you with just one more thing.

Now that you are familiar with the ins and outs of push notifications, aren't you a wee bit curious to find out what are the ideal send times to share these notifications with the world?

Yes, with THE WORLD.

When is the best time to engage with users?

(Based on conversion rates and local timezones)



European Union 4 pm to 8 pm

Avg. conversion rate of **31%**



South East Asia

12 noon to 4 pm

Avg. conversion rate of **24%**



Middle East & North Africa

12 noon to 4 pm

Avg. conversion rate of **22.5%**



North America

4 pm to 8 pm

Avg. conversion rate of **26%**



India & Asia Pacific

4 pm to 8 pm

Avg. conversion rate of **24.7%**

Other Key Stats

Average smartphone user gets 46 mobile push notifications a day

46

Overall push notification opt-in rate

60%

Android average push notification CTR

4.6%

iOS average notification CTR 3.4%

Highest push CTR day Highest push CTR day of the week – Tuesday

Emojis improve CTR by

20%

Rich formats improve CTR by

25%

Tailored send times improves CTR by

40%

Advanced targeting improves CTR by

300%

Push notification personalization improves CTR by

400%

SUMMARY

The proliferation of mobile devices coupled with the advent of 5G networks has opened Pandora's box. To a brand, it means limitless possibilities but that road to brand supremacy is paved with challenges.

Why? Because users expect a novel, more immersive experience to not only try a brand but also, more importantly, stay with that brand. Retention grows increasingly relevant as users churn and revenues plummet.

In order to maximize revenue while minimizing churn, brands must look to engage and retain, and as far as engagement channels go, Mobile Push stands out like a diamond in the rough for they are a simple solution to sophisticated problems like accessibility, reachability, deliverability, and actionability.

From recollection to retargeting, Mobile Push is designed to give you bang for your buck. With the right people to guide you when you embark on a journey of retentionled growth, you are only a good decision away from building a community of loyalists and advocates.

At WebEngage, we are equipped to provide you with a seamless experience with push notifications thanks to our full-stack retention suite of applications which are built to grow organizations from strength to strength.

As the industry's favorite growth partners, we are big on meaningful conversations and feedback. That's why if you have any questions or thoughts on this ebook; or how it could be better, get in touch with us or request a demo.

We can't wait to see what you do. All the best!





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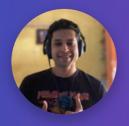
We hope the insights shared help you design effective push notification campaigns and make better strategic decisions. Have questions? Want to know more about how WebEngage can help you boost your business metrics? Get in touch today!

Schedule My Free Demo

Web**Engage**

WebEngage is a full-stack customer engagement and retention platform that helps consumer businesses increase their customer lifetime value. Get a unified view of your customers with a robust customer data platform, engage them across 12+ channels with automation workflows, and hyper-personalize their experiences with a state-of-the-art personalization engine, all backed by a solid analytics framework.

With a mission to humanize the world's website & apps, we now power over 1 Billion messages sent everyday for our customers across 50+ countries, and 20+ industries.



Dev lyer | in Content Evangelist

















