
E-BOOK

Blueprint for Mobile Customer Notifications





ABOUT THIS E-BOOK

Introduction

Based on a global survey of 2,500+ smartphone users*, we've determined the best practices for businesses to engage with customers through notifications. Consumers want businesses to send them relevant notifications. In fact, more than 70% of consumers want to receive delivery notifications and order information, meaning that consumers value real-time updates on their digital purchases. In addition, more than 60% of consumers want to receive notifications for time-sensitive events such as upcoming appointments, sales, discounts and promotions, and billing notifications.

But businesses don't always get this right. Nearly half of consumers in this same survey report that communications sent from businesses often aren't relevant and only 13% of consumers regularly receive personalized communications from businesses. This highlights a massive opportunity for businesses to improve the relevancy of the notifications they send.

In this guide, we'll help you map different types of customer notifications to the best channel for delivery: SMS, app-based (OTT), push notifications, and email. We'll also share a notifications maturity model to help you create a differentiated customer experience through your notifications strategy.

**Twilio-commissioned survey of over 2,500 global consumers in 2019*

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Notifications for Every Stage of the Customer Lifecycle

Notifications serve a valuable purpose across every stage of the customer lifecycle, differentiating customer experience to impact business outcomes. Below is a general overview of how notifications can be used across four distinct use-cases of the customer lifecycle to influence a particular key performance indicator (KPI):

- **Promotions/interest → Drive user growth**
A prospect or customer opts-in to a marketing promotion to receive digital offers.
- **Product selection → Lower customer acquisition cost**
A prospect or customer is incentivized to use a promo code for a limited-time offer on a specific product category.
- **Post-purchase → Improve Customer Satisfaction (CSAT)**
Update your customer with the delivery status of their purchase.
- **Value-added services → Reduce churn**
Sell customers value-added services and support to complement or enhance a standard product.





CHAPTER 2

Channel Considerations for Customer Engagement Notifications

In developing your notifications strategy, there are eight key channel considerations to help determine how to best engage with customers.

1. Engagement rates

Notifications are meant to drive action. Sending your notification and ensuring deliverability is half of the battle, but you also want to ensure customers read the notification (open rates) and act (click and conversion rates).

2. Ubiquity

While some channels are supported natively on mobile devices, others require customers to download an application. Depending on the region, customers may be more likely to use a third-party messaging application instead of SMS applications.

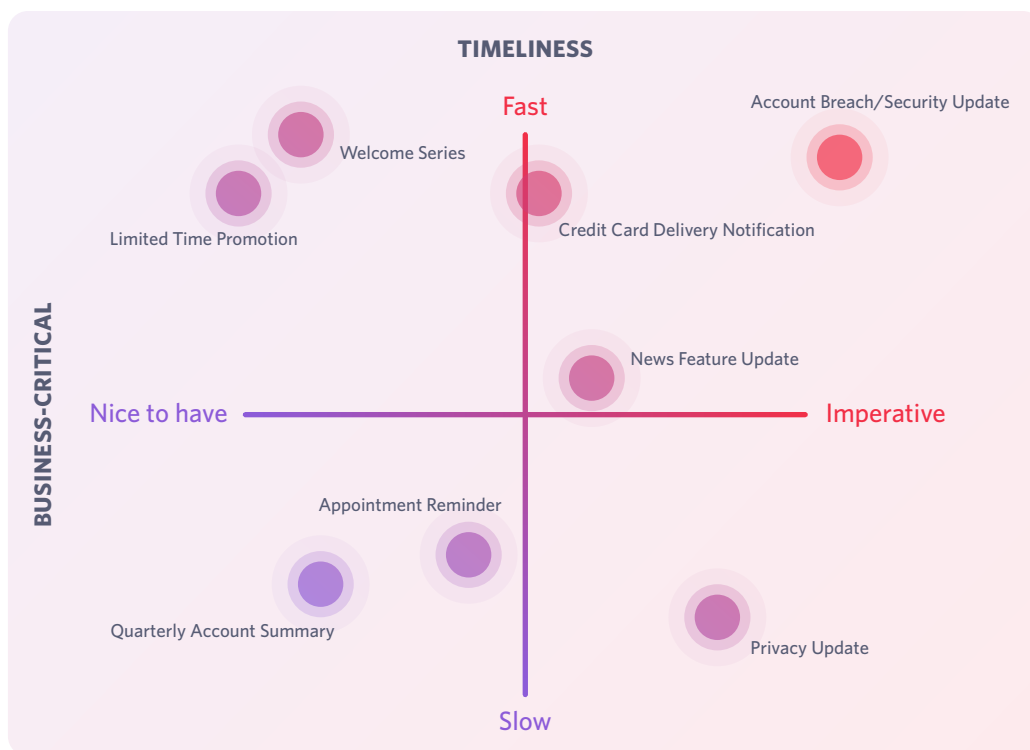
3. Form of transmission

While many notifications are one-way, the best practice is to provide a reply path for your customers. Ideally, this should limit channel-switching and allow customers to reply directly to your message.



4. Urgency

All notifications and alerts are urgent, but some are more appropriate for time-sensitive notifications than others. Not every message makes it to the lock screen of a customer's smartphone—optimizing urgent notifications to appear on the lock screen ensures action.



This diagram illustrates a method for prioritizing the immediacy of different types of notifications.

5. App context

Messages sent through OTT applications or push notifications support context, such as company information or a direct path to an action like *quick reply* and *check status*. Transactional email and SMS currently require users to click through or channel-switch for additional context.

6. Content length

While the best alerts and notifications are direct and to-the-point, some require additional explanation, images, or resources.



7. Rich media

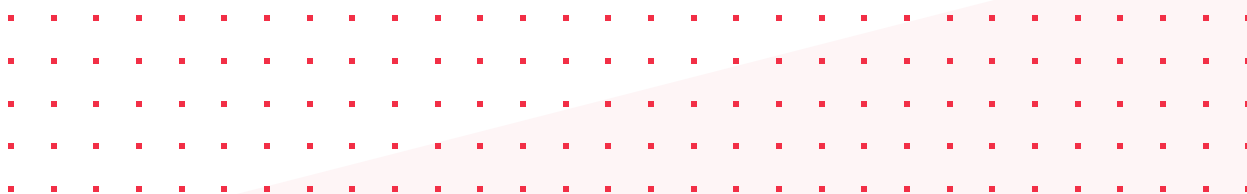
Images, videos, and other media can improve engagement—every channel supports rich media to some extent, but some carriers limit media sent over SMS (in this case, Twilio supports fallback to a URL).

8. Consent

Regulations vary by channel, and from country-to-country. That said, a best practice is to give customers a choice over what, when, and how they receive notifications.

Notifications Channel Considerations Cheat Sheet

	Push Notifications	SMS	Rich Messaging (WhatsApp, Line, Messenger, RCS)	Transactional Email
Engagement Rates	43.9% (iOS)/ 91.9% (Android) opt-in 7.8% average click rate	98% average open rate 45% average response rate	>80% open rate	45% average open rate 18% average click-to-open rate
Ubiquitous	Mobile app needed	Yes	Multiple Apps	Yes
Two-way	No	Depends on phone number capabilities	Yes	Yes
Urgent/ Time Sensitive	Yes	Yes	Somewhat	Yes
App Context	Yes	No	Yes	No
Content Length	Short	Short	Short/Medium	Medium
Rich Media	Yes	Somewhat	Yes	Yes
Consent	Explicit Opt-In	Explicit Opt-In	Explicit Opt-In for outbound use cases	Explicit Opt-In not required; based on account creation





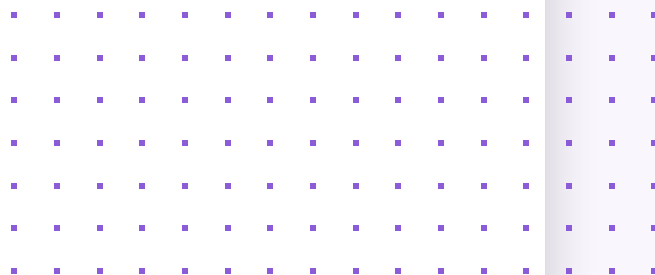
CHAPTER 3

All About SMS

Short Message Service (SMS), also known as a text message, is a simple but powerful communication tool since SMS is the one messaging function that's baked into every mobile device—pre-installed by default. According to Twilio's *2019 Guide to Customer Messaging*, more than two-thirds of global customers prefer text messaging over any other channel to communicate with businesses.

Transactional SMS messaging, triggered by a user's action, prompts an immediate message alert. Automated SMS replies are typically used for transaction alerts, delivery confirmations, appointment reminders, or acknowledgment of a customer opting-in to receive text messages from your brand. For example, banks are increasingly offering text banking for customers to quickly request and receive their account information via SMS. By texting certain keywords to the bank, members can check their balance, recent transactions, and the details of any loans they have.

*More than **60%**
of consumers want to
receive notifications for
time-sensitive events, such
as upcoming appointments
and billing notifications.*





Advantages of SMS

- **Unparalleled open rates:** SMS has an open rate of 98%—the highest of any channel available today—with 90% of SMS messages being read within 3 minutes.
- **High response rates:** 45% of people that receive SMS messages respond to them. SMS-based promos or coupons are 10 times as likely to be redeemed than direct mail or in-store coupons.
- **No app required:** SMS leverages the existing messaging app on your customer's smartphone, giving it true global reach—even in regions with limited connectivity.
- **Works globally:** SMS messages have a global reach.

Challenges of SMS

- **Not optimized for rich multimedia:** While you can send pictures and short videos via text message, there can be inconsistencies with how recipients are able to actually view media on their devices.
- **Limited opportunities for branded experience:** Your options to make it clear that the message is coming from your brand are limited.
- **Regional differences:** There are complexities associated with sending messages around the globe; different regulations exist and feature support varies by country.

Ideal use cases for SMS

- Reminders for appointments, billing
- Time-sensitive alerts for fraud, security breaches, deadlines
- Order or delivery notifications



Rich communication services

In the near future, SMS will become even more powerful through rich communication services (RCS) messaging, the next evolution of SMS messaging technology that adds media-rich features like read-receipts, group chat, image sharing, video calls, GIFs, emoticons, and animated features.





All About OTT

Whereas SMS relies on traditional telephony infrastructure, your customers are likely already interacting with businesses (maybe even your business) using over the top (OTT) channels like Facebook Messenger, WhatsApp for Business, or LINE. While OTT channels require users to install an additional application on their phone, they provide businesses and consumers alike with rich messaging features—and, importantly, are often the preferred platform in regions where SMS is still prohibitively expensive. As they only require a data connection or WiFi, OTT channels have quickly gained billions of monthly users.

Advantages of OTT

- **Branded experience:** Branded profiles enable a branded experience for your notifications.
- **Interactive:** Two-way channels allow customers to respond to a call-to-action.
- **Secure:** Some application-based messaging services, such as WhatsApp, provide end-to-end encryption—and all offer some form of branded profile or verification to help users ensure the message is authentic.

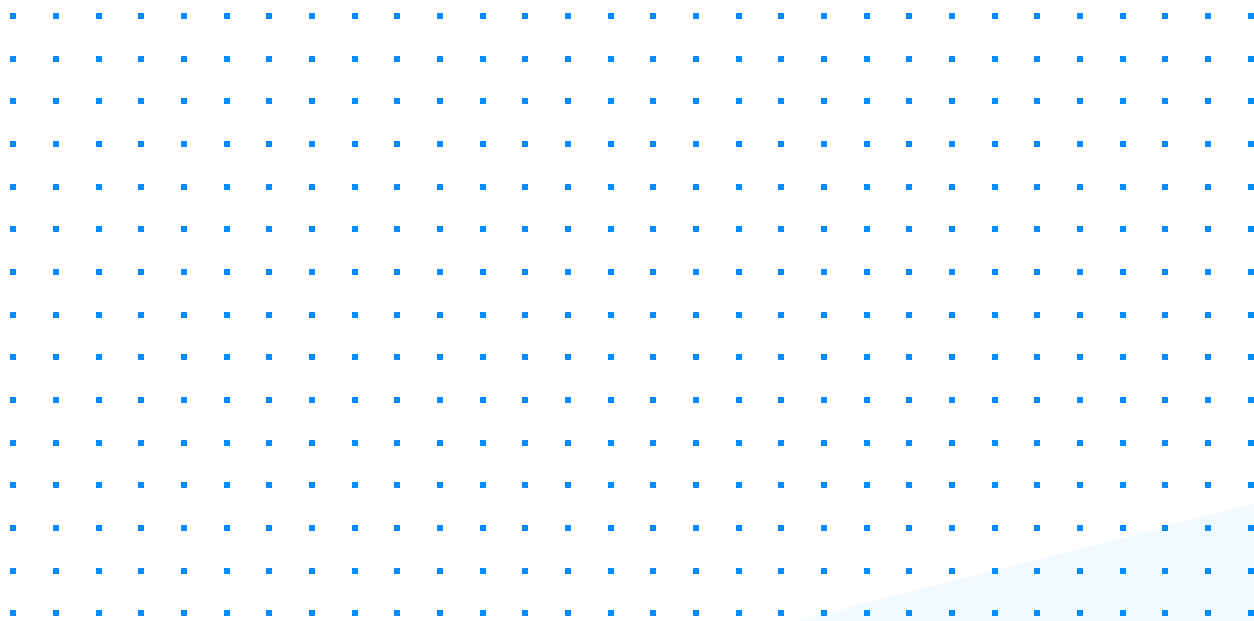


Challenges of OTT

- **Limited reach:** You can only reach customers who have the app to receive the notification.

Ideal use case for OTT

- In geographies where specific apps are more popular than SMS, where messaging rates are particularly high or where cellular coverage is not very reliable.





CHAPTER 5

All About Push Notifications

Push notifications are a form of one-way communication that can provide useful information while also directing users to your app. In contrast to SMS, Apple and Google don't charge an underlying cost for receiving push notifications on their iOS and Android operating systems. These messages do not require a particular application to be open on a device for the message to be received by the end-user, so a smartphone user can see notifications even when their phone is locked, or when an app is not running.

People who opt into an app's push notifications are about 3x more likely to open an app than those who opt out.

And thanks to receipts and real-time status updates, you'll also know precisely when your notifications have been delivered and read. Finally, push notifications have fewer technical and legal limitations than SMS. The regulations that apply to promotional SMS and email messages don't apply to push notifications, making it a good channel for marketing messages.

The downside of push notifications is that the end-user must opt-in to receive them from each application. Push notifications are not enabled by default when a user installs an app; a customer will have to agree to receive them the first time they use the app, or go back and subscribe to them later. Many consumers opt-out or turn off app notifications to avoid what they fear will be spam-like messaging.



Advantages of push notifications

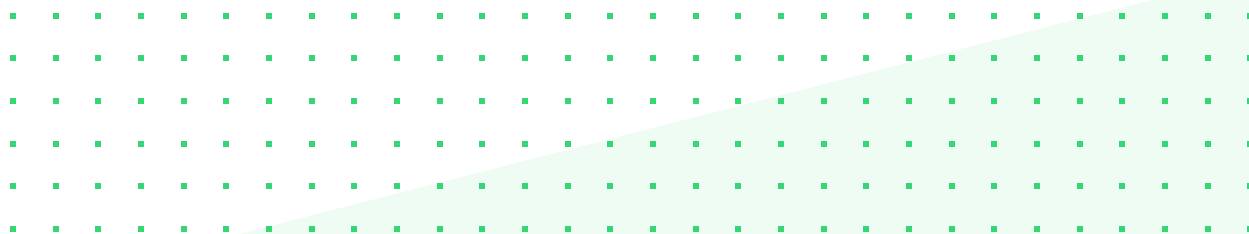
- **App context:** Push notifications enable you to surface personalized and relevant notifications to your customers, leveraging their interactions and behavior within your mobile application.
- **Urgency:** Push notifications are advantageous when your notifications are time-sensitive and can send users to a specific location/action within your app.
- **Low cost:** Push notifications don't have any underlying cost from Apple and Google, making them a low-cost option for sending one-way notifications.

Challenges of push notifications

- **Limited reach:** Only reach customers who have your application installed.
- **Open rates:** On average, only 7.8% of users click to open their push notifications.
- **Opt-in required:** Push notifications are not enabled by default. Customers must first agree to receive push notifications, and many people opt-out.

Ideal use cases for push notifications

- Order/delivery notifications (not requiring action from the customer)
- Promotions or sales





CHAPTER 6

All About Email

Not to be confused for marketing email, which engages with recipients to persuade them to complete a task, transactional email facilitates an already agreed-upon action or updates a customer about ongoing activity. Transactional email includes email triggered by a user's interaction with a web application, mobile sites, and apps. The transactional email represents a closing of some sort of business activity between the sender and recipient—most times at the request of the recipient. As a result, transactional email consistently results in higher open rates across all categories of email.

Types of transactional email include:

- Account signups
- Password changes
- Confirmations
- Account notifications
- Legal and policy updates required by law

Some companies have started adding promotional content within transactional email. However, if you add too much promotional content, you run the risk of changing the fundamental purpose of the email notification and open yourself up to increased filtering and CAN-SPAM compliance risks. Subsequently, ISPs can place your notification emails in the spam folder.



Advantages of email

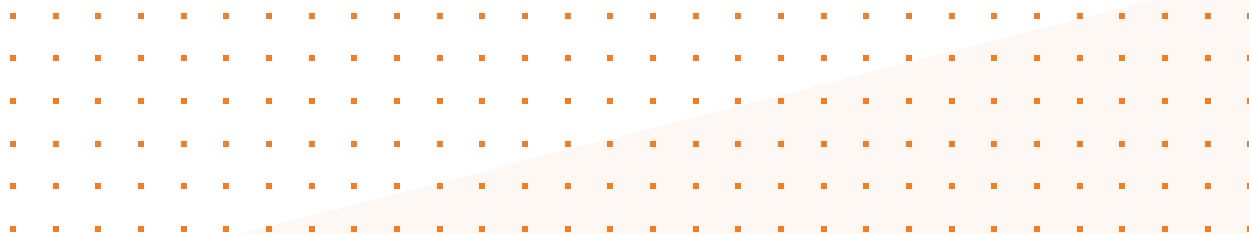
- **Long-form:** Email allows for notifications requiring many details or attachments.
- **Branding & multimedia:** Email provides ample opportunity for creating a branded experience with interactive content and clear calls-to-action.
- **Digital filing:** Email serves as the system of record for our digital lives, enabling your customers to search and find important information about your business relationship or transactions.
- **Online identifier:** As consumers' online identifier to sign up for new products and services and retrieve important user credentials, email is a trusted authenticator.

Challenges of email

- **Deliverability:** Ensuring your emails get past spam filters into the recipient's inbox can be complex.
- **Open rates:** Transactional emails have an average open rate of 45%.

Ideal use cases for email

- Account signups
- Password changes





Notifications Maturity Model

The technical requirements and capabilities of your notifications will vary by the type(s) you choose to use. Here are three increasingly sophisticated approaches to notifications, as well as key practical considerations for building a notification workflow for your business.

1. Simple notifications

These one-way messages do not require a response from the end-user. The content is usually informative, like a flight gate change or a shipment notification. Push notifications, email, and SMS can all be effective channels for these types of notifications, depending on how urgent and critical the notification is.

Even for the simplest forms of notifications, integrations are key to driving value. Data from your CRM, ERP, and other internal systems drive the logic for when customers receive different types of notifications. Here are a few things to consider when building out a simple, one-way notification workflow:

- **Compliance:** Many countries have laws in place to protect consumers from unwanted communications. You'll want to review the channel-specific regulations in every country you're sending notifications and ensure your process for handling opt-in/opt-out is compliant to avoid expensive fines.



- **Context/personalization:** Crafting the message to ensure your notification is relevant and timely for your customers can help create trust and brand loyalty. Details, like the recipient's time zone, can be crucial to ensuring the notification meets your business objectives and a positive customer experience. Identifying your business early in the message is also best practice to ensure recipients can contextualize your message. Finally, personalization is only as effective as the quality of your data—keep this in mind as you build personalization into your notifications.

And if you're sending these notifications via SMS, you'll also want to consider:

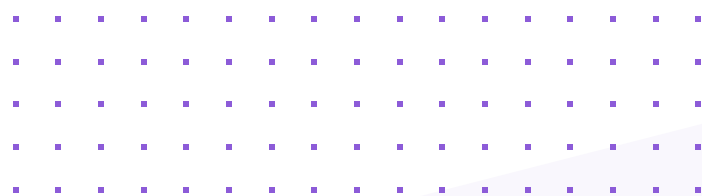
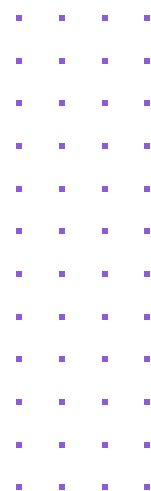
- **Number selection:** Identify the best number type (i.e. the SenderID shown on the message) for sending out your notification. Support for different types of numbers varies by country. In the U.S. and Canada, you can select from long codes, short codes, and toll-free numbers to send messages to your customers. Outside of North America, you have long codes, short codes, and alphanumeric senderIDs. For each of these options, support for volume, deliverability, branding, and one-way vs. two-way notifications varies.
- **Encoding:** Notifications sent via SMS are generally encoded using the GSM-7 encoding standard, which means you can send up to 160 characters into each text message. For longer messages, many carriers support message concatenation, meaning an SMS over 160 characters will be split into 160 character segments that get reassembled on the destination mobile device. This has important implications for the content of the message you are sending. For example, you wouldn't want a URL to be split into multiple messages when delivered to your customer. Many communications platforms offer a messaging service to help prevent errors with message concatenation.



2. Intelligent notifications

If your notification is prompting customers to take a particular action or is likely to prompt a response, you may want to add more intelligence to your notifications and choose a channel that supports two-way communication. For example, in addition to setting up logic for confirming an appointment via text (one-way), you could enable a two-way communication that allows the recipient to reschedule an appointment within the message.

- **Static responses:** The simplest approach is to set up a static, catchall response. This enables you to let customers know that you received their message and to provide directions for how they should redirect their inquiry to your preferred channel. For example, if your notification is delivered via text, you might send a response to anyone who replies directing them to a contact web page.
- **Keyword responses:** When sending notifications via SMS or other OTT applications, you can also set up keywords your customer can reply with to automate a workflow, such as confirming an appointment. When using call-to-actions in your notifications, be sure to have clear instructions as to the next step for your customer, and that if they do encounter issues, what they should do.
- **Following up:** When no response is received from your call-to-action, you can follow up with a reminder through a different channel, depending on the urgency.

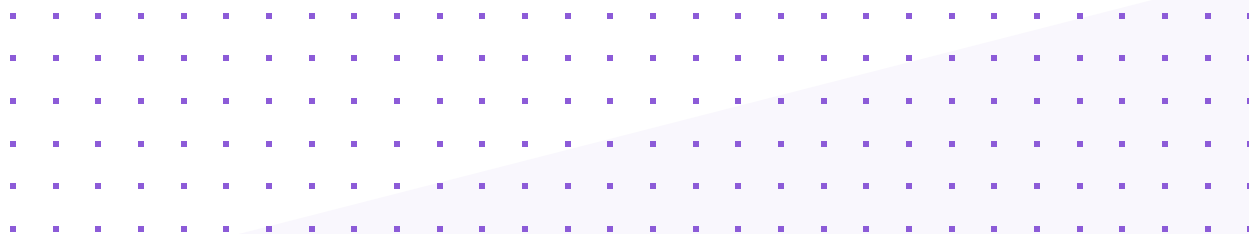




3. AI notifications and conversations

This takes intelligent notifications a step further by implementing some automation with natural language understanding (NLU). By providing some self-service functionality, end users are able to accomplish tasks by themselves and businesses reduce support costs. For example, asking about an account balance is a basic task that can be easily automated through the use of NLU.

- **Training the bots:** Use existing transcripts and chat logs to train our bots before deploying them. Once they're deployed, continue training them with new conversational data to ensure your bots improve with each subsequent conversation.
- **Escalate to a human:** When the AI automation is unable to complete the task, you need to escalate it to a human for completion. Essentially the message ceases to be classified as a notification and is instead escalated into a conversation between a customer and an agent.



CONCLUSION

Notifications encompass a variety of use cases and apply to practically every industry. Ensuring your customers are informed about important updates to their account through timely notifications is critical to business success and customer satisfaction. Businesses who have implemented notifications around key engagement points in their customer journey have realized significant benefits, including increased sales, a reduction in support requests, and improved customer satisfaction. Critically, leaders have optimized channels by use case and allow customers agency in defining their preferences. And, there's always room to improve how your customers engage with your business; while basic notifications might be most appropriate as a first iteration, supporting intelligent two-way, and conversational AI-based notifications is how businesses will distinguish themselves in the future.

About Twilio

Twilio powers the future of business communications, enabling phones, VoIP, and messaging to be embedded into web, desktop, and mobile software. We take care of the messy telecom hardware and expose a cloud API that is globally available for developers to build intelligent and complex communication systems.



Thanks for reading.

Talk to one of Twilio's experts
about your strategy for alerts
and notifications.

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