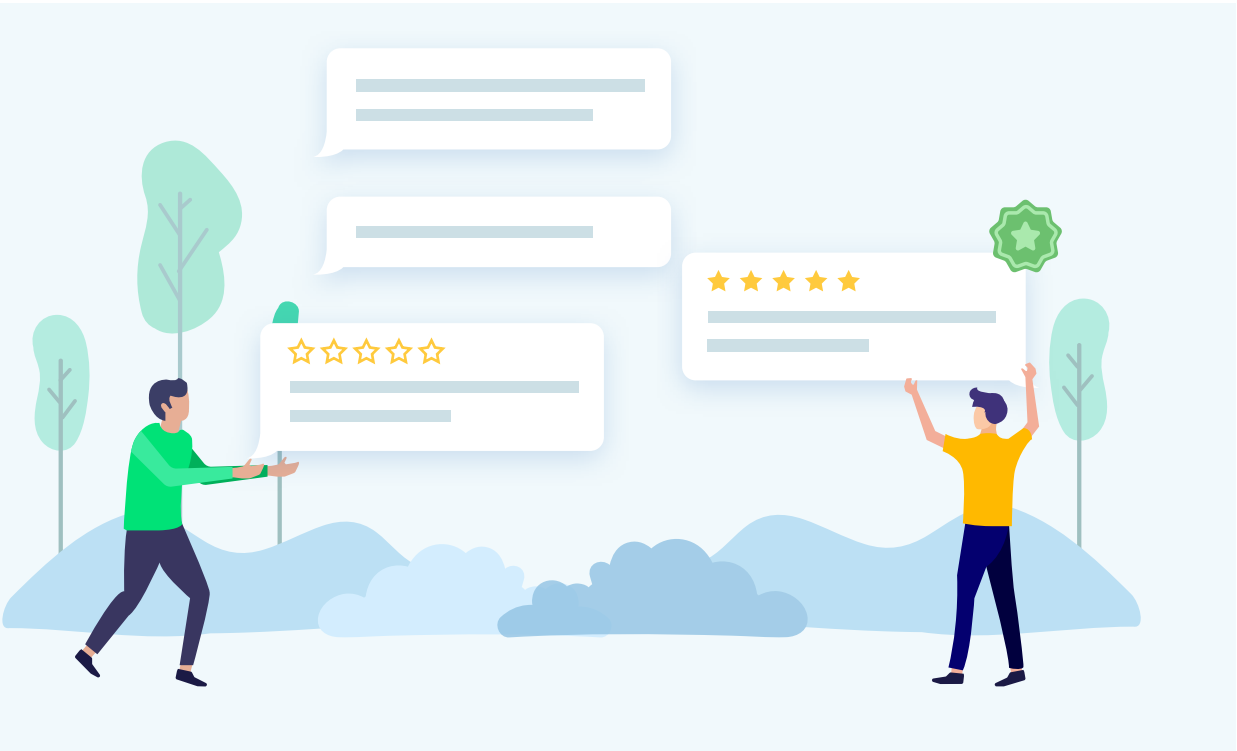


# How to Optimize Your Customer Experience with an SMS API





## WHY CONSIDER SMS?

No matter what industry you look at, customers today are very choosy. They count on great selection and great prices, and they are easily turned off by poor service. Overall, they expect an outstanding experience. Many companies – and probably some of your competitors – are adopting SMS messaging as a powerful way to improve both the efficiency and the quality of the customer experience to ensure they keep customers informed, satisfied, and loyal.

SMS is a powerful tool for four key reasons:

- It's already installed on smartphones; end-users don't have to download, install, or configure an app like they do with email or other messaging apps.
- It's simple to use and highly engaging. People read their SMS messages 98% percent of the time, a much higher "open rate" than email, according to industry data.
- SMS interactions are inexpensive, especially compared to a phone call with a live customer service agent.
- SMS messages are versatile and easy to customize, and can carry crucial information like one-time passwords, promotion codes and URLs.

Companies investing in SMS are excited by capabilities such as automating order delivery notifications or alerting a customer when a service technician will arrive. They see the value of using SMS to respond to calls outside of business hours, with messages customized using the caller's number. They understand that SMS makes it easy to enable two-factor authentication, a critical security tool in an age of rampant hacking, phishing, and data breaches. These are just a handful of the customer-experience enhancements that can be enabled with SMS.

Despite these compelling scenarios, though, companies recognize that what powers SMS - telecommunications - involves complex technologies, regulations, and value chains. So how do you implement sophisticated SMS capabilities without the hassle of learning telco programming languages, mastering voluminous regulations, or negotiating carrier agreements?



## THE ANSWER: AN SMS API

With an SMS API, a small but powerful piece of code, your web-based application can easily interact with the telecommunications networks, masking most of the complexity involved in implementing sophisticated SMS capabilities.

An SMS API allows developers to work in familiar languages like Java, Python, PHP, Ruby, and Golang. They don't have to learn C, the language traditionally used by telco UNIX machines. Using the popular JSON data interchange format, an SMS API can be easily integrated with a company's existing code base. A cloud-based SMS platform scales easily, so that it makes no difference whether you're executing one operation or one million.

When properly implemented, an SMS API can help you dramatically improve operational efficiency and customer experience. That's an important goal for every company. After all, happier customers tend to be more loyal and generate more revenue. And smart businesses know that it's always cheaper to retain existing customers than it is to acquire new ones.

## THINGS TO KNOW AS YOU CONSIDER AN SMS API

### THE SMS PLAYING FIELD

Delivery of SMS messages depends on an ecosystem of telecommunications carrier networks, technology companies, companies using SMS, and their end-customers. Telecom carriers have a central role, of course, not only because they deliver the messages over their networks but also because they manage and regulate message traffic. They make sure messages comply with relevant local laws and geo-specific policies governing message content. The technology companies provide software platforms and standards-based APIs for message delivery and management, providing the critical link between telecom carrier networks and other businesses. These technology companies mask most of the complexity of telecommunications and enable businesses to quickly and easily deploy sophisticated SMS services.



## NUMBER TYPES AND FORMATS

Even though much of the complexity is hidden, however, you have a number of options to consider. In particular, you must choose the right type of SMS for your business purpose. You also must consider the geographic areas where you plan to do business, because different rules and procedures apply in North America than in the rest of the world.

If you do business solely or primarily in North America, you start by purchasing from your SMS vendor a North American phone number appropriate for the type of service you want to provide. Your three options are Long-Code SMS, Short-Code SMS, and Toll-Free SMS.

Long-Code SMS refers to the fact that messages are associated with a standard 10-digit phone number. It's a good choice for many customer-service needs because it enables "conversational" communication with customers – for example, a handyman and a homeowner texting via a home improvement app to schedule a visit. It can be provisioned immediately, and it is often the lowest-cost option in SMS. However, Long-Code SMS is limited to about one message every four seconds, so it is not well suited for one-to-many use cases.

For one-to-many communication – event reminders or sale notifications, for example – Short-Code SMS is the better solution, though it is the most expensive option and can take about six weeks to set up.



## DIFFERENT TYPES OF SMS

Type	Send Rates	Advantages	Disadvantages
<b>Long-Code SMS,</b> Two-way & conversational	1 SMS every 4 secs, up to 200 messages per day per number.	Can be the lowest cost option. Immediate provisioning.	Not good for "one- to-many" messages. Number pooling and rotation required.
<b>Short-Code SMS,</b> One-to-many communications	Up to 100 SMS per second	Good for high- volume.	Can be expensive. Set-up time may be up to 6 weeks
<b>Toll-Free SMS,</b> Similar to long-code	Up to 10 SMS per second in the U.S.	Supports higher volume than long- code.	Only available in the U.S. Some carrier limitations.
<b>Alphanumeric Sender ID,</b> One-way SMS in select international destinations	Varies by country.	Can be used for branding. Does not always require registration.	Only available for outbound SMS and in select countries.

Short-Code SMS enables the use of a five- or six-digit code that a customer can lease through the U.S. Short Code Registry or its Canadian counterpart.

Short-Code SMS supports high volumes of messages (up to 100 per second), but messages must be tested and pre-approved by carriers, which monitor SMS traffic closely to make sure it follows their rules.

Short-Code SMS is referred to as "Application to Person" (as opposed to person-to-person) because messages are computer-generated. A second type of Application to Person SMS is a fairly recent innovation called Toll-Free SMS, which is used primarily for informational content. It addresses a key limitation of Short-Code SMS in that it supports dynamic message content – that is, content that can be adapted based on whether certain conditions are met. For example, Luxer One, a leader in package delivery locker technology, uses Toll-Free SMS to alert customers where their package is located and the locker access code.

Toll-Free SMS also addresses a limitation of Long-Code SMS in that it supports higher



volumes of messages - up to 10 messages per second in the US, and one per second in Canada.

## INTERNATIONAL OPTIONS

The US and Canada have the strictest rules governing SMS traffic. Elsewhere in the world, you only need to buy a local phone number if you want to enable two-way SMS (which is Long-Code SMS in the US). For one-way SMS, in many countries you may use a use any custom numeric or alphanumeric sender ID.

Alphanumeric sender IDs are a powerful marketing tool because you can replace the originating phone number with letters or a combination of letters and numbers such as your name or brand.

Overall, alphanumeric sender ID is supported in about 160 countries worldwide and barred in about 50. For example, Australia, France, and the United Kingdom permit alphanumeric sender ID, while Argentina, Brazil, Peru, Colombia, and the countries of Central America do not. A key reason for blocking use of Alphanumeric Sender ID is to limit spoofing, or fraud through false identification or impersonation. For example, scammers may try to obtain password or credit card information through friendly-seeming SMS sender IDs, just as they do through email phishing attacks.

## SENDER ID SUMMARY

### What is a Sender ID?

What appears on a person's phone showing who the SMS is from

### What Sender IDs should I consider?

- Numeric (a standard phone number)
- Alphanumeric (combination of letters/numbers)

### Alphanumeric Sender IDs may be

- Dynamic – sender can choose any alphanumeric combination
- Pre-registered (required by carriers in countries such as India, Japan, Singapore, Russia)

### Why use a numeric sender ID?

Required by carriers in the US and Canada



## SMS PITFALLS TO AVOID

### LOCAL CARRIER RULES

Besides choosing among the main SMS formats, you should know that carriers apply different rules and fees to the SMS traffic they deliver. Furthermore, rules differ from country to country, and not just around Alphanumeric Sender ID.

For example, India bans promotional SMS messages after 8 pm. And, in China, meanwhile, a company may not own a local SMS number but instead must register a static, 16-digit “virtual local number.” Companies targeting international markets should look for an SMS platform provider with expertise in such rules and practices.

### EVERYONE HATES SPAM

Another pitfall your SMS provider can help you avoid is having your messages inadvertently look like spam – to the carrier that is. Recipients hate spam, and carriers work hard to protect their customers from it. They use in-network controls such as subscriber reputation analysis and advanced pattern detection to monitor the flow of messages across their systems and identify potential spam. When they detect it, they can respond in a variety of ways, from issuing warnings to blocking all messages from a given account.

### DON'T GET SHAFTED

Certain topics are a sure-fire way to be flagged as spam. For example, in the U.S., so-called “SHAFT” rules forbid short-code messages that contain or promote sex, hate, alcohol, firearms or tobacco. (Cannabis-related messages also must be handled carefully, in part because of differences between federal and state law.) Messages offering help dealing with the IRS or offering relief from mortgage or personal debt will be flagged, as will things like hate speech and job placement offers.

In addition, certain kinds of links – for example long URLs, URLs from particular domains, and unusual-looking URLs – will raise concern. US carriers also monitor the rate and frequency with which messages are sent, as well as



the number of duplicate messages sent from the same number. The ratio of outgoing to incoming messages can be an indicator of spam; so can the rate at which recipients “opt out” of certain messages, for example by replying “STOP.” For example, if 5 percent of a company’s inbound message volume is people opting out, that will trigger a carrier review; a 10 percent opt-out rate will cause the campaign to be blocked.

Message formats, carrier rules, country rules, spam – it can sound complicated, especially since there are no comprehensive, published rules or guidelines that companies can simply read and follow. The key point to remember: you don’t have to sort it out on your own. Experienced SMS platform providers can offer both technology solutions and expert guidance to steer around the obstacles.

## DEBUNKING SMS MYTHS

Like any emerging area of technology, SMS messaging suffers from a number of myths and misconceptions.

### **MYTH 1: SHORT CODE IS THE PANACEA**

One is that Short-Code SMS, with its greater convenience and high throughput, is the preferred solution for the majority of business needs. While it is a good choice for many situations, it isn’t a panacea. For one thing, it’s expensive. In addition to per-message costs, carriers also apply pass-through fees and quarterly rental fees, which can reach \$1,500 per quarter. For another, carriers manage Short-Code SMS very closely; they carefully monitor the company’s content and keywords and the app it may be using to ensure compliance with their policies. This can make implementation a bit more tricky.

### **MYTH 2: DOUBLE OPT-IN IS REQUIRED**

In another common misunderstanding, companies often assume they are required to use a “double opt-in” process with short-code SMS messages. For example, a customer might text the company asking to subscribe to messages with discount offers; the company messages back asking if they’re sure they want to do this, forcing the customer to say “yes” again. This type of





process used to be encouraged, but in many cases it is needlessly complex, and it is definitely not required. On the other hand, poorly crafted messages can lead to high unsubscribe rates, which in turn can cause the carrier to block that particular campaign. In such a case, a double-opt-in process might be a good approach. Your SMS provider can help you decide on the right approach for your business use case.

### **MYTH 3: COMPANIES FACE LEGAL AND REGULATORY COMPLEXITY**

Companies implementing SMS often worry that they must master complex laws and regulations in all of the countries where they want to do business. In fact, with the right SMS API provider serving as the interface with carriers, companies don't have to take this on themselves.

It can be bewildering to confront the myths around SMS. But just as with the questions around message format, spam, and the rest, companies can take comfort in knowing that they don't have to go it alone. SMS platform providers can provide invaluable products, services, and advice to help them avoid pitfalls and ensure their SMS campaigns are effective.

## **THE POWER OF TWO SOLUTIONS**

If you're happy with an SMS solution you've implemented, you might be thinking, "Check that box" and be done with it. But companies doing business globally should consider that carriers' network coverage isn't uniform; any given carrier might have great coverage in one region but not in others.

To ensure rock-solid delivery around the globe, companies should consider a backup solution that automatically "fails over" to another number or carrier in the event of disruption. In exploring this option, make sure your failover solution doesn't require your development team to learn a new language or write a lot of new code. Here again, your SMS platform or API provider can be a helpful guide.

It's also worth considering that message delivery failure is rare with a top SMS platform provider, if you're dealing with large message volumes, even downtime as low as one-tenth of a percent can have a business impact. So choose your provider wisely and understand the depth of their expertise, the quality of their infrastructure and the breadth of their relationships with local carrier networks.



## EFFECTIVE COMMUNICATION IS THE CORE OF SUCCESS

Across industries and geographies, companies are growing more customer-centric than ever. They are adopting metrics for closely tracking customer satisfaction through every interaction with the company. Many category leaders are creating a new C-level role – that of the Chief Customer Officer – to ensure that customers' needs and wishes are always given top priority.

As they engineer their companies to be obsessively customer-focused, they also understand that effective communication – timely, accurate, helpful communication – must be central to their strategies. From there it is a short step to recognizing that SMS has a crucial role to play, not just in customer service but in the success of their businesses overall.

SMS messages get read, unlike FAQs that no one clicks on or email reminders that go to people's junk folders. SMS solutions can be implemented in days, not weeks or months. They are highly cost-effective, and can be paired with existing solutions like call centers to improve operations and communications efficiency. Best of all, when you work with a trusted partner to implement your SMS, scaling is easy. Good SMS solutions can handle high volumes and global deliverability with ease. Eventually, SMS will become part of the company's DNA – and its success.



## About Plivo

For businesses of all kinds, Plivo offers a simple, fast, and scalable way to modernize customer communications. Thousands of businesses use Plivo to quickly integrate Messaging and Voice calling into their applications to deliver better customer experiences. The Plivo team brings deep communications and modern software development experience to address the needs of today's businesses - quality, scale, speed, and agility. Plivo has direct relationships with over 1600+ carrier networks and connectivity in 190+ countries.

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