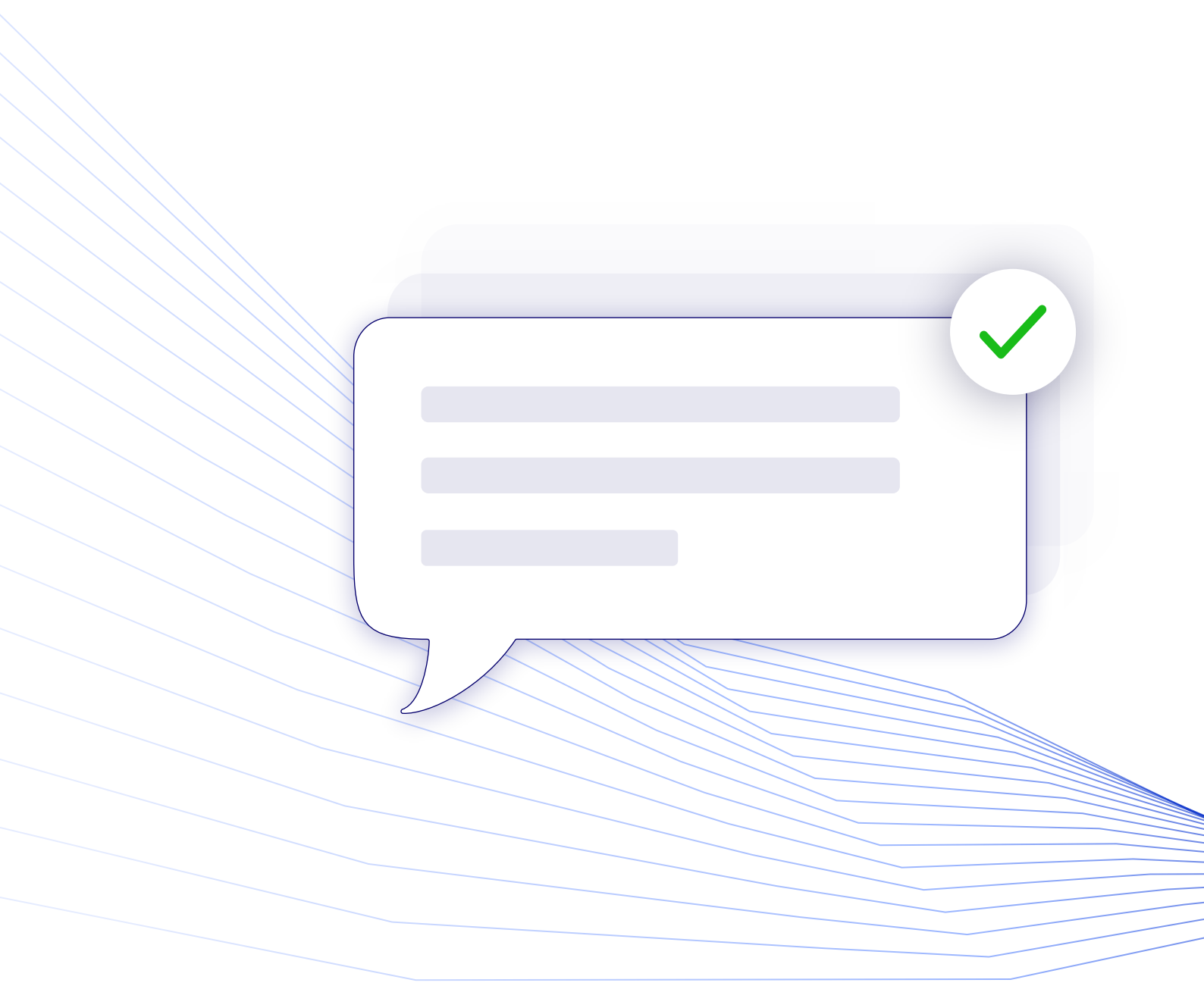
Ebook

plivo

How to Choose an SMS API Provider: The Complete Guide



Customers today expect companies to reach them where they spend most of their time: on their mobile phones. That's where they research products, make purchases, and get delivery updates.

Today there are **more than 5 billion unique mobile subscribers** globally. That means businesses can reach more than 60% of the world's population wherever they are.

Smart businesses take advantage of the ubiquity of mobile devices. According to the **Vibes Transactional Messaging Consumer Report**, 70% of consumers prefer to get service-based messages — such as order confirmations, shipping alerts, and account balance updates — on their mobile phones rather than on a PC.

SMS messaging gives companies a direct, automated, scalable, and cost-effective way to reach mobile customers in real time. Companies use SMS messaging for many kinds of communication, including:

- Order status updates
- Delivery and shipping notifications
- Financial transaction alerts
- Appointment reminders
- Two-factor authentication and password resets

What's the best SMS API platform?

Virtually every business can take advantage of SMS, but many don't know where or how to get started. There are two options: develop applications yourself or turn to a cloud communications platform. In today's cloud-enabled world, the benefits of a communications platform as a service (CPaaS) are obvious. An on-premises solution requires you to buy and maintain hardware and hire developers to write and maintain applications. Cloud platforms don't. They're more cost-effective because you pay for services only as you use them.

To let businesses hook into their services, CPaaS vendors provide application programming interfaces (API) that developers can use to integrate the ability to send and receive messages into their applications. APIs are a simpler and more effective way to write applications than starting from scratch.

A third alternative

You can also turn to an SMS marketing service to deliver marketing campaigns to mobile users. That's fine for one-off campaigns, but to get the most out of SMS communications you should use an SMS API to write and customize your own applications. You can then take advantage of other **capabilities of an SMS API**, such as notifications, interactive voice response, and two-factor authentication.

There are **dozens of cloud communications platforms**. How can you choose the most appropriate SMS API provider for your business? That's what this guide is about. It suggests several factors to consider:

- Objectives
- Features
- Geographic reach
- Carrier relationships
- Deliverability
- Security and compliance
- Development tools
- Documentation and support
- Pricing

Different businesses will weight all the factors differently, so it's impossible to say there's one "best" SMS API provider. However, few SMS API providers can score highly enough on the majority of these criteria to earn consideration as one of the best.

How to assess SMS API providers

Objectives

Step zero in the evaluation process is to figure out how you expect to use text messaging. Do you plan to use it for notifications or promotional (primarily outgoing) messaging or transactional (two-way) communication? Do you want to use it for marketing, in your contact center, for two-factor authentication? Do you have uptime requirements for the platform, or deliverability requirements?

Be sure you involve all potential stakeholders in your company at this stage. Otherwise, you risk selecting a platform that works well for a limited use case but doesn't meet the needs of the company as a whole.

Features

Any SMS API provider should support a core group of basic features. Most mature cloud communications platforms can tick all these boxes, but smaller providers may not. In addition, some providers offer advanced features that distinguish their platforms from those of competitors.

MMS (Multimedia Messaging Service) is an extension of the SMS standard for sending messages that include multimedia content (such as images, audio, and video) over a cellular network. Not all carriers around the world support MMS the same way, but if you have customers in the US and Canada, your communications platform should include **MMS support**.

Many businesses have customers in multiple states or regions. To enhance the likelihood that recipients will open your messages, you should be able to send messages from **local numbers**, meaning those in the same state, city, or area code, and have the platform automatically assign the right sender numbers to recipients.

An SMS API should support all kinds of SMS-enabled numbers:

- **Long codes** are 10-digit numbers that begin with an area code, such as 212-555-1212. Recently carriers have begun implementing a special kind of commercial long code called **10DLC** (10-digit long code) for application-to-person (A2P) messaging.

- **Short codes** are five- or six-digit numbers that are often used for promotional purposes, as in "Text SHOWME to 75486 to get a free sample"

- **Toll-free numbers** are long codes that begin with special area codes — specifically 800, 888, 877, 866, 855, 844, and 833. Anyone placing a call to a toll-free number is not charged.

SMS-enabled numbers should offer a full range of features. For instance, outside of North America, SMS carriers support sender IDs — alphanumeric identifiers that let businesses customize a short string that appears with each message to represent their brands. An SMS API should support sender IDs for recipients in regions where they're used.

The communications platform has to be able to discover the fastest routes for optimal message delivery and send messages along those routes automatically.

To improve delivery rates, the platform should provide **automatic fallback** for initially undeliverable messages. There are several types of fallback — retries with the same number, retries with a different number, and even the ability to route a message to a secondary provider's network.

Text in English is sent using the **GSM-7 character set**. Languages that use characters not supported in GSM are sent with a different character encoding called Unicode — as are emojis. An SMS API should support **characters across multiple languages**, and offer **intelligent message encoding** to replace Unicode characters with similar GSM characters when necessary to facilitate message delivery to recipients in non-Unicode regions.

When you send an SMS message that's longer than the 160 characters the SMS protocol allows, the message is split into multiple units before sending. **Message concatenation** assembles messages that were sent in multiple units into a single message again at the receiving end, ensuring that your communications arrive in one piece instead of being broken up into multiple, out-of-order texts.

Sometimes you may want to send a high volume of messages. To combat spamming, some operators and regulatory bodies set a limit on the rate at which messages can be sent out from a given number. Your provider should offer **message queuing functionality** to ensure your messages are sent out to customers in a compliant manner with respect to local regulations.

Your SMS provider should be able to handle the expected volume with good time to delivery. And you should be able to send messages in bulk to multiple numbers using a single API request.

If you manage multiple projects under a single account and want to track SMS messaging by task, look for a platform that offers **subaccounts** to implement multitenancy.

Look for robust **reporting and tracking** features, such as a dashboard that lets you monitor campaigns in real time, get message delivery status notifications, and view debug logs for failed messages. You should be able to filter reports so you can zero in on just the messages you're interested in, and export them so you can analyze your data using spreadsheets or other reporting tools.

Finally, we'd put **ease of use** under features. It's a bit of an intangible and difficult to quantify, but the people who have to work with the platform would probably put ease of use at the top of their evaluation list. People who need to get things done may be happy to forgo a few advanced features if the tradeoff is a better user experience.

Geographic reach

Where are your customers? Where are the people who interact with your business? Maybe they're only in certain countries today, so you'd be fine using a platform that supports only those countries.

But if you have a growing business, you may well find yourself expanding globally. In that case, you want a cloud communications platform with a global reach — a presence in lots of countries.

The United Nations recognizes 197 sovereign states. You probably don't have any customers in Niue or Tokelau, two countries with fewer than 2,000 citizens, but you just might have some in the small countries in Europe (Gibraltar, San Marino, Monaco) or the Caribbean (Montserrat, St. Barts, St. Martin), each of which has a population of fewer than 40,000. And if you have customers in a large country like Egypt (population 104 million) today, you might have customers in a smaller nearby country like Djibouti (population one million) tomorrow.

The ability to send SMS messages globally is a starting point. You also need strong carrier relationships.

Carrier relationships

Broad geographic reach is useful only if you have high-quality connections to carrier networks in all those countries. Carrier connections have a big impact on SMS deliverability. To get the most reliable connectivity, look for an SMS API partner that **direct relationships with Tier 1 carriers** throughout the world. Direct connectivity makes it easier for CPaaS platforms to provide high delivery rates and a strong suite of features.

Avoid providers whose services depend on aggregators or middlemen. Those services generally have slower delivery speeds and lower delivery rates. Without direct carrier relationships, your SMS platform may also have a hard time resolving any connection and deliverability issues that arise.

A relationship with the leading carrier in a country is good, but partnerships with two to three carriers is better. That gives your communications platform redundant coverage, so that if one carrier has issues with delivering your messages, your provider can route your messages through another local carrier. The platform should employ an **intelligent routing** system to ensure that your traffic is sent using the most reliable and efficient carriers and routes.

Find out how each provider routes messages through their networks. **Quality-based routing** is generally a better approach than pushing SMS traffic through the cheapest route available; in the long run, retries and missed opportunities may make those cheap routes not so cheap after all.

Deliverability

A few-minutes-long SMS service failure can be a nightmare for your company. Imagine if your customers ask for your attention and you appear to ignore them, or they're unable to access your site and systems because two-factor authentication isn't working. In some cases, high latency in message delivery is almost as bad as failure — think of the case of a user who doesn't get a one-time password or two-factor authentication right away. Poor deliverability also increases costs, as customers request multiple resends.

As we just mentioned, direct relationships with carriers tend to foster higher deliverability and reliability. Generally speaking, the better the carrier relationships, the higher the deliverability.

To assess reliability, check the service provider's historical record. They should be able to demonstrate **99.99% uptime** and guarantee that level of availability in a service level agreement (SLA).

For best deliverability, you should have a relationship with more than one communications service provider. That way, even if your primary provider goes down (as **Twilio did in 2020** for several hours thanks to an AWS outage) you can flip to your secondary provider.

Your provider should have **multiple points of presence** (PoP) covering each region you need service in to reduce the hops or distance your messages must travel. Additionally, your API provider should have one or more network operations centers (NOC) offer **24/7 performance monitoring** so they can detect and resolve problems quickly.

Security and compliance

In a world where laws like Europe's **GDPR** and the California Consumer Privacy Act (CCPA) prescribe certain behaviors, every company has to make information security and data privacy a priority. Your provider should act as your partner to help you handle customer data securely and ensure your messages are compliant with the latest data privacy regulations.

Telecommunication rules and regulations vary by country and change often. You shouldn't have to develop expertise in international law to use a communications platform — but your SMS API provider should.

As part of its data protection measures, your provider should offer **message content purging** to prevent sensitive message details like time, location, phone numbers, and dates from being stored and possibly misused. It should also offer **number masking** to keep phone numbers private.

Additionally, each country sets its own **messaging rate limits** and **opt-out requirements**. Your SMS API partner should offer **smart rate-limiting** to ensure that your campaigns comply with local limits, and automatic opt-out handling for customers who want to stop receiving your communications.

Development tools

Your SMS API provider should offer features that enable you to get your applications to market quickly. That means, for a start, **server-side software development kits (SDK)** that support development in your programmers' language of choice, whether that's Java, Python, Ruby, .NET, PHP, Node.js, or Go.

Look for rapid development tools in the form of a visual, drag-and-drop, **low-code visual workflow builder** that enables you to build custom applications using prebuilt templates for common use cases to provide quick integration.

Documentation and support

To get you started quickly and keep you on track, there's no substitute for having your developers explore the provider's documentation. The best way to do that is to build a sample application and see how well the documentation guides you and answers your questions. Look for concept tutorials, getting started documents, how-to guides, and reference pages. You can also **read customer reviews** for other users' opinions on the quality and clarity of the documentation.

Documentation isn't always enough to get you out of trouble, so you should check out each provider's **support plans** with an eye toward what might work best for your organization. Some businesses will want a free basic plan; others won't mind paying a premium for 24x7 support that comes with an explicit SLA. Regardless of the plan you choose, you should have access to the provider's solution engineers during the hours you expect to use the platform.

Pricing

Enterprise software pricing can be a black box, with vendors trying to squeeze the most money from their customers. We suggest looking for **honest pricing** laid out in black and white on the vendor's website. Look for **pay-as-you-go pricing**, so you pay only for the resources you use. Some vendors also offer **volume discounts** when you scale up your usage volumes.

Check the per-message pricing for all number types for the regions where you do business. While a fraction of a cent more or less than an alternative provider may not seem like a lot, those pennies add up quickly when you consider how many messages you send to all your customers.

Also check inbound SMS pricing. Some API providers offer **free inbound SMS**, while others charge $0.0075 or more per message.

Unless your budget demands it, don't choose a provider based solely on pricing — but all other things being nearly equal, do consider it.

To choose the best SMS API vendor for your business, first decide on what you need, then look at the features each vendor offers, and finally consider pricing. The goal is to select a vendor that optimizes for high quality at a reasonable cost. You want to make sure that messages reliably get to where they need to go, and that development and integration are easy.

Whether you're exploring your first SMS API platform, you're looking to add a second CPaaS vendor for failover situations, or you've grown your business to new geographies that your current provider can't reach, we hope you'll put Plivo on your short list. With six globally distributed PoPs, latency-free connectivity in 190+ countries, high deliverability, and intelligent routing, we've supported companies in every industry. Our SMS API and Tier 1 global carrier network have helped businesses like GoDaddy, Deckers Brands, and Wix optimize their customer experiences — all with significant cost savings compared to other SMS API providers.

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 1,600+ carrier networks and connectivity in 190+ countries.

To learn more, visit **www.plivo.com**.