

**mblox**  
From text to what's next

# The Basics of SMS Messaging

## Contents

Introduction to SMS .....	3
Types of SMS .....	4
Standard Rate SMS .....	4
Free to End User SMS (FTEU).....	4
Short Codes, Long Codes and Keywords .....	5
Mobile Messaging Value Chain .....	6
Role of a Mobile Application Service Provider (ASP).....	7
Role of a Mobile Messaging Provider (MMP) .....	7
Guidelines & Regulations .....	8
Managing SMS Internationally .....	8
Glossary of SMS Terminology .....	9

# Introduction to SMS

**Short Message Service**, better known as SMS or text messaging, is a telecommunications service that allows the sending of short (160 characters or less) text-based messages between mobile phones. SMS is generally available on all wireless networks globally and can reach virtually all of the 4-6 billion mobile devices in use today, making it the world's most pervasive data communications technology.

**SMS messages** can be typically sent and received within seconds throughout the world. Approximately 8 trillion SMS messages are expected to be sent globally in 2014, 1.6 trillion of which will be application-to-person messages (A2P). With the increasing focus on mobile marketing, mobile banking and healthcare A2P messages are expected to increase significantly over the next five years.

**SMS offers businesses** a compelling communication channel for effective, two-way interaction with customers and prospects. It can extend brand awareness, create customer loyalty and deliver timely content or critical information, providing the immediacy and interactivity no other medium can offer. Attracted by the unique characteristics offered by SMS, businesses are increasingly utilizing the anytime, anywhere mobile channel as part of a multichannel communication strategy.

## Types of SMS

Person-to-Person (P2P) and Application-to-Person (A2P) are the two categories of SMS messages. While P2P messages connect one individual to another, A2P messages, or what we call Business to Person messages, are used by companies that want to interact with consumers via an SMS application. This document deals solely with A2P messaging.

### Standard Rate SMS

Standard rate mobile messaging services (also known as bulk SMS) allow companies to send quantities of SMS quickly and efficiently. Generally, text messaging charges are not applied to the mobile subscriber's wireless bill or deducted from a subscriber's messaging plan allowance when they receive messages from an application (known as Mobile Terminated, or MT, messages). However, text messaging charges do apply when they send messages from their phone to an application (known as Mobile Originated, or MO, messages). An exception to this is found in the US and Canada, where many mobile operators charge for both sending and receiving text messages.

### Free to End User SMS (FTEU)

In countries, such as the US, where mobile subscribers pay network operator charges to both send and receive SMS messages, FTEU messaging allows businesses to set up programs that are free of operator charges for their consumers. The business absorbs the messaging cost on behalf of the consumer - whether sending or receiving SMS messages, the consumer pays nothing.

# Short Codes, Long Codes and Keywords

Short Codes are abbreviated mobile phone numbers, usually four to six digits, used as a destination address for two way text messaging programs. Short codes are easy to input and remember, providing a fast and convenient way for mobile users to interact with a business application using SMS. Short codes are always used for premium SMS services, but can also be used for standard rate SMS services. In some markets, including the US and Canada, the use of short codes is mandated for all types of A2P messaging.

Businesses are using short codes to successfully engage consumers via mobile advertising and marketing promotions. For example, an advertisement may instruct mobile subscribers to text to “46322” (which spells ‘4Free’ on a handset keypad) to enter a contest to win a free prize. Short codes are widely used for value-added mobile services such as traffic, weather, sports, banking, and charity donations.

As an alternative to short codes, businesses can use a long number as the destination address in a two way messaging program. A long code, sometimes known as a “long number” is a standard mobile telephone number that conforms to the numbering system in the relevant country. Using a long number has some advantages for A2P messaging programs. Long codes are less expensive and easier to lease than short codes and can receive A2P messages from outside the country in which the phone is hosted (in exactly the same way as individuals can text each other internationally). Also, because they are standard phone numbers, they can be voice-enabled.

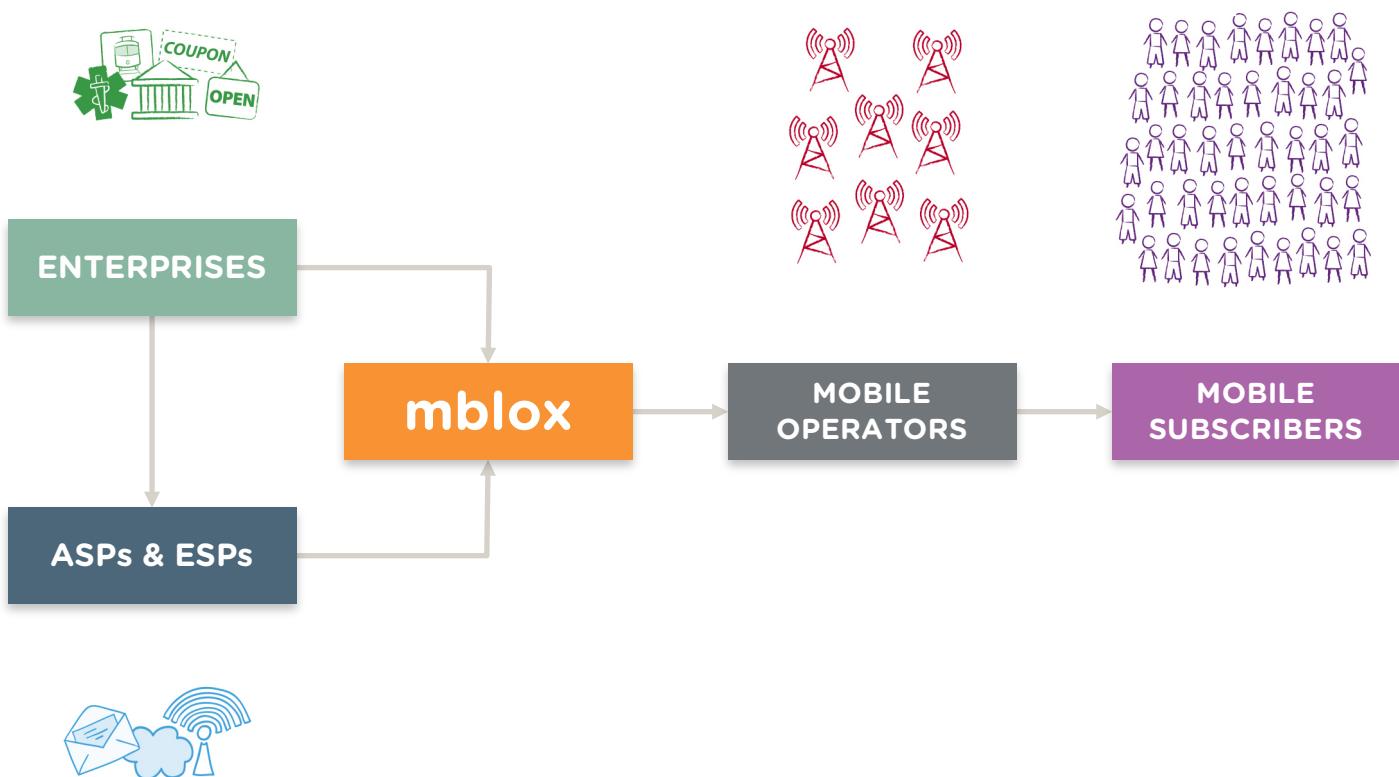
Keywords are often used in conjunction with short codes and long codes in two-way messaging programs. A keyword is a short word which a mobile user places at the beginning of an MO SMS message, which triggers a particular response from the application that receives the message. For example, a banking client could use the key word “bal” sent to the short code “12345” that will provide a return text message from the bank with their current banking balances.

Some types of messaging programs may only require a one way communication to the consumer, in which case neither a short code nor a long number is necessary. The originator of the message (the “number” it appears to come from) can be set to an alphanumeric string, such as a brand name, depending on rules and regulations in the relevant country. The consumer cannot reply to this type of message.

Short codes operate at a national level and are provided and managed by a separate ecosystem of companies in each country. These include the Common Short Code Administration (CSCA) in the US (or similar organizations in other countries) and participating mobile operators. Processes vary by country, but in general short codes are leased centrally and then must be provisioned separately on each operator.

## Mobile Messaging Value Chain

Many stakeholders are involved in the implementation of a complete mobile messaging program. The diagram below shows how each of these members of the messaging value chain interact with one another.



Application Service Providers and the Mobile Messaging Providers (commonly referred to as an aggregator) often work in partnership to provide the complete mobile messaging solution for brands who wish to connect to their customers or prospects. Each specializes in their areas of expertise, together providing a best-in-class mobile messaging solution.

## Role of a Mobile Application Service Provider (ASP)

An Application Service Provider typically builds the system that enables brands to communicate via the mobile channel by packaging different components of the mobile experience. These systems include SMS, mobile internet, and downloadable applications which are integrated into the brands' existing systems, such as CRM, call center applications or banking back office systems. Often specializing by industry, they provide mobile services expertise at a lower cost and reduced risk than having businesses attempt to build the capability in house.

**Application Provider services may include:**

- Development of custom applications
- Leading-edge services and market intelligence
- System monitoring
- Diagnostics and fault resolution
- User support
- Content formatting for various devices

## Role of a Mobile Messaging Provider (MMP)

The role of a Mobile Messaging Provider is to simplify the task of creating and maintaining connections to mobile operators. An MMP operates the network infrastructure on which messages are sent on a mass scale between business applications and mobile operators, providing a single technical and commercial interface to access dozens, or even hundreds, of operators and billions of consumers. An MMP also leverages its scale and buying power to provide a messaging cost advantage to its customers.

MMPs with global connections have expertise with multiple networking technologies and varying local market regulations. They can provide the local knowledge to navigate operator specific administrative and legal requirements in order to launch successful mobile programs in a timely manner. An experienced MMP builds and maintains relationships and direct connections to operators throughout the world. For these reasons, mobile operators typically do not connect directly with content providers, brands or ASPs, and instead rely on the services that an MMP provides.

**MMP services may include:**

- Technical on-boarding integration support
- Administration of short codes and long codes leasing and provisioning
- 24X7 problem detection and reporting
- Carrier and handset certification consulting and support
- Account management
- Global connectivity and expansion assistance

## Guidelines & Regulations

Guidelines, regulations, and enforcement agencies vary by country and region. In the US for example, the Mobile Marketing Association (MMA) publishes a set of Consumer Best Practices, the recognized industry guide to implementing short code programs, with a focus on consumer protection and privacy. It is a compilation of accepted industry practices, wireless carrier policies, and regulatory guidance that have been agreed upon by representative member companies from all parts of the ecosystem. In addition to these guidelines, specific regulations may also be enforced by each US network operator. It is best to work with an MMP to ensure compliance when creating messaging programs in each geographical location.

## Managing SMS Internationally

In today's global market place, many businesses need to expand communications beyond their home shores. Due to the simplicity, reach, and universal adoption of SMS, it has become a uniquely global communication channel. Using an MMP with global reach allows many SMS programs to be easily deployed in multiple countries, leveraging systems already developed, saving money and decreasing time to market.

For a smooth launch into international markets, businesses need to be aware of local regulatory and operator requirements, and administrative processes such as short code registration and program certification. An experienced global MMP, who works with numerous operators and local authorities, can offer full guidance on local markets.

# Glossary of SMS Terminology

**Short Codes** are abbreviated mobile phone numbers, usually four to six digits, used as a destination address for two-way text messaging programs.

**Long Codes** also known as long numbers are full mobile telephone numbers (e.g. 408 7654321) that can be used for 2-way SMS applications.

**Shared Short Code** is a short code that can be shared with other content providers. Keywords are used to differentiate traffic.

**Test Short Code** is a short code that can be used to prove that the application works as it should and integration is complete with the SMS provider. There are messaging caps to how many messages can be sent via this route.

**Standard Rate Mobile Terminated (MT) Message** is an outbound message submitted from a customer application and accepted by the mblox network addressed for delivery to a mobile device. The customer has to specify the destination network operator.

**Sure Route Mobile Terminated (MT) Message** is an outbound message submitted from a customer application and accepted by the mblox network addressed for delivery to a mobile device. The customer does not have to specify the destination network operator, as mblox identifies this based on the end user.

**Standard Rate Mobile Originated (MO) Message** is an inbound SMS which is routed from the end user's handset and delivered to a customer's application. Typical use cases include voting, competitions, text-to-win, opt-in & subscription requests

**Free to End User (FTEU) Message** is a type of message that the end user does not pay any network operator fee to send or receive the message.

**MNP (Mobile Number Portability)** is when mobile subscribers can retain their mobile number when switching from one mobile operator to another.

- For a majority of routes, mblox is able to do a lookup from a database to determine and route the message through to the appropriate operator.

**Throughput** defines the maximum sustained number of messages per second which an aggregator guarantees to process.

**Long messages** also known as concatenated messages overcomes the limitations on the number of characters that can be sent in a single SMS by connecting messaging. In this method the long message is split into smaller messages and recombined at the receiving end. In this case the end user will receive the message as one single long text message.

**Delivery receipts** is a feature of SMS sending where a delivery notification is provided for every successfully delivered message.

**Common Short Code Association (CSCA)** Organization that leases short codes in the United States. Companies can register for a short code at <http://usshortcodes.com>

**MMA** Mobile Marketing Association provides US Consumer Best Practices and guidelines that apply to your campaign  
(<http://mmaglobal.com/bestpractices.pdf>)

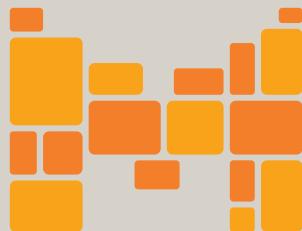
## ABOUT MBLOX

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Mblox, the largest Application to Person (A2P) mobile messaging provider in the world, helps service providers and enterprises create meaningful connections with consumers on mobile devices anytime and anywhere.

Our network reaches more than 900 mobile operators around the world and enables businesses to reach 6 billion devices. We make it easy to use interactive messaging campaigns to drive revenue, lifetime customer value and ROI.

For more information, and contact details for your regional mBlox office, visit [www.mblox.com](http://www.mblox.com)



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