SMS Inbound

Service Description | Version 5.2

1. Introduction

SMS Inbound from LINK Mobility allows contracting parties to implement maximum-quality SMS message inbound services easily and in accordance with their own specific requirements.

The highly specialised communications infrastructure maintained by LINK Mobility allows our partners to receive messages from almost any mobile network.

2. SMS Inbound

The product "SMS Inbound" offers the contracting party the ability to receive text messages at reasonable cost from the mobile networks via the direct connections maintained by LINK Mobility. For this, LINK Mobility sets up a message account for the contracting party on the LINK Mobility platform which the contracting party accesses in one of the ways listed in the section describing gateway types.

SMS messages received from the mobile networks are forwarded by LINK Mobility directly to the contracting party's message account. LINK Mobility assumes responsibility for total quality management with regard to the collection of messages from the mobile network operators and service providers and guarantees immediate forwarding of the messages to the message account.

2.1. SMS Long Numbers

SMS long numbers are registered by LINK Mobility for the contracting party directly on the mobile network operator's SMSC. The format for the long numbers is the same as that for regular mobile numbers, for example "0176 – 888 00 888" in Germany, or "0676 800780" in Austria. SMS long numbers can therefore be reached from (almost) all international mobile networks. Using this system, the long numbers only need to be set up on a single SMSC to operate a service available to local (and international) mobile subscribers.

For an SMS message sent to a long number, end users pay the contract price agreed with their mobile network operator (for example EUR 0.19 per SMS in the German mobile network). LINK Mobility maintains a pool of long numbers with the German network operator Telefónica and is also in a position to request long numbers from the Austrian network operator T-Mobile Austria. If required, LINK Mobility can also provide its contracting parties with international long numbers. Most of the

European mobile networks are available. The availability of other international destinations will be examined on request.

On request, long numbers can be used within the Telefónica network through the use of the voice option for receiving telephone calls (voice calls). To set this up, specification of a routing destination within the German fixed network to which incoming calls are forwarded is required (0800, 01801, 01802, 01803, or a German geographical landline number). End customers are charged the contract connection fees for a call within the Telefónica network.

In addition to the SMS long numbers described above (for example 0676 800780), there is also the "Phone numbers with a regulated price cap" option in Austria. These are numbers with a nine-digit sequence (for example 0828xxxxx) which can be used like virtual terminal numbers for receiving SMS messages. Unlike virtual terminal numbers however, these numbers must be set up on all SMSCs for each network operator. To send a text message, the end customer pays the contract price agreed with their mobile network operator.

2.2. Virtual SIM Hosting

The product "Virtual SIM Hosting" allows contracting parties to read SIM cards from various international networks into a virtual SMSC so that they can be used to receive international SMS messages. This allows content providers to provide their end customers with a local long number for the receipt of SMS messages. The SIM card must be furnished by the content provider. Note also that receipt of SMS messages to long numbers is also possible using the SMSCs and mobile networks.

2.3. SMS Short Codes

Like long numbers, SMS short codes are also set up by LINK Mobility for the contracting party directly on the SMSC. These are usually five-digit numbers such as "48000". SMS short codes can only be reached by end customers in the respective mobile network. To be accessible from all mobile networks, an SMS short code must be set up on all SMSCs (and vSMSCs). LINK Mobility maintains a pool of SMS short codes that are already in place on all networks in Germany, Austria and Switzerland (including service providers).

2.4. Comparison: Long Number vs. Short Code Number

Characteristic	Long Number (Virtual Terminal Number)	Long Number (with regulated price cap)	Short Code Number
▸ Example	▸ 0176 888 00 888 or ▸ 0676 800 780	▸ 0828 28028	▸ 48000
▸ Format	▸ 10 or 11 digits	▸ 9 digits	▸ 4 or 5 digits
▸ SMSC Setup	▸ Required for one mobile network operator only	▸ Required for all network operators	▸ Required for all network operators and service providers where applicable
▸ Accessibility (roaming)	▸ National and international	▸ National only	▸ National only
▸ Availability	▸ International	▸ Austria	▸ Germany, Austria, Switzerland

2.5. Options for use

The contracting party has the choice between exclusive, or dedicated use of short codes/long numbers and the shared use of existing LINK Mobility short codes/long numbers. Dedicated short codes/long numbers are set up by LINK Mobility at the network operators and service providers to be used exclusively by the contracting party. All incoming SMS messages can be forwarded immediately to the contracting party's message account. For shared use of existing LINK Mobility numbers, incoming SMS messages are differentiated by a keyword prefix which is used by the LINK Mobility infrastructure to assign them to a customer.

2.6. Comparison: Shared vs. Dedicated use

Characteristic	Shared use	Dedicated use
▸ Cost	▸ Low	▸ Relatively high
▸ Keywords	▸ Mandatory	▸ Not required
▸ Installation time	▸ Short-term	▸ Short code up to 8 weeks ▸ Long number short-term

2.7. Keywords

The keywords are assigned once for each short code/long number and allocated to each LINK Mobility contracting party on the basis of the duration of the contract. Incoming SMS messages sent to a short code/long number beginning with a keyword booked by the contracting party (freestanding or followed by a space) are forwarded to the party's message account. Keywords can basically be freely chosen by the contracting party, but, wherever possible, LINK Mobility recommends keywords that

- are at least three characters long, but not longer than eight characters,
- are made up of real terms, and ideally also known to SMS auto complete functions such as T9,
- have a causal contextual relationship with the mobile service,
- do not demand particularly good spelling skills on the part of the end user,
- are not likely to hinder other applications,
- do not contain special characters.

Suitable keywords	Unsuitable keywords
▸ Music	▸ XPT1
▸ Game1, Game2, etc.	▸ Bougainvillea
▸ Sound1, Sound2, etc.	▸ Hello
▸ Nina, Susanne, Peter, etc.	▸ ?!w"§
▸ Car	

LINK Mobility offers contracting parties the option to set up "tolerant" keyword recognition. This allows you for example to search the entire text of the SMS, to recognise certain strings (for example three digits followed by a letter), or a combination of both rules. LINK Mobility checks whether this type of keyword recognition is possible and useful on a case-by-case basis. LINK Mobility allows you to remove set keywords from the message. The keyword used for routing is removed from the message body before the message is passed to the message account. This feature is also available if you use tolerant keyword detection.

If a contracting party discontinues marketing activities for one or more of its keywords, LINK Mobility can withdraw and reassign these keywords four weeks after the end of advertising activities. Keywords that violate the law, that violate the rights of third parties, or that are likely to restrict or impede operation of the LINK Mobility infrastructure are not assigned by LINK Mobility. In addition, LINK Mobility retains the right to immediately withdraw keywords that violate any of the above.

2.8. SMS Inbound & Auto Reply

The SMS Inbound & Auto Reply feature also allows you to automatically reply to every message sent to a particular keyword. The contracting party has the option to define a default reply text for each keyword. You can also define an event window for competitions and voting services. Message received within this event window are automatically answered with a freely selectable text. Message received outside the event window are also answered with a custom text. The separate terms and conditions for setting up and operating the reply function can be found in the contract form at "Auto Reply".

2.9. Maintenance Reply

If you use the UCP, HTTP or SMTP protocols for your connection to LINK Mobility (see "Connection types"), you also have the option to automatically reply to all messages received, for example while carrying out maintenance work. Incoming messages are not delivered, but instead discarded.

2.10. Receipt of concatenated SMS messages

LINK Mobility supports the receipt of messages consisting of multiple, or concatenated SMS messages. These messages are treated as if they were a single SMS message. In rare cases, we may be notified as a result of a technical error on the part of a mobile network operator that a message with multiple components has been sent, but we do not receive all components of the message from the operator. If this happens, the incomplete messages are discarded. This measure is to protect the consistency of the data for any further processing required to forward the message to other systems and to prevent problems arising from the incomplete message.

2.11. Setup, operating and transaction charges

Setup, operating and transaction-based charges are specified in the contract form. If you have opted for shared use of LINK Mobility short codes/long numbers, the setting up of a keyword is already included. The contracting party specifies the mobile network operators and service providers to be connected when assigning a dedicated short code. Connection and monthly operating fees are charged for each short code and mobile network operator/service provider. Not connecting networks reduces the setup and monthly fees accordingly. The connection and operating fees for LINK Mobility services are separate and are charged independently of the number of connected mobile networks.

In the event of any increase in the price of short codes/long numbers on the part of the mobile network operators, LINK Mobility will inform the contracting party without delay. Prices for sending and receiving messages to international mobile networks may be subject to an exchange rate risk. Adjustments due to fluctuations in the exchange rate are possible at short notice. A right of withdrawal is excluded for such changes.

2.12. Volume discounts

Volume discounts are available for all setup fees when multiple short codes, long numbers or keywords are connected. We are happy to pass these discounts on to you. If you intend to set up multiple options, please get in touch with your contact person at LINK Mobility so that we can look into what discounts are available to you.

2.13. Commissions on SMS Long Numbers

For high volumes of incoming SMS messages per month to an SMS long number (> 100,000 messages), some network operators grant commissions (kickbacks) under certain circumstances for each incoming text message. If your MO-SMS volumes are high, please get in touch with your contact person at LINK Mobility so that we can look into what options are available to you.

3. Connection Types

You can choose between a range of different technical protocols for easy and secure access to the LINK Mobility infrastructure. The document "MMA API Specification" and the LINK Mobility technical support team are always there to help you with your technical implementation.

	HTTP, HTTPS (SSL)	SMTP	EMI/UCP, EMI/UCP (SSL), SMPP
Connection type	‣ Per protocol ‣ Connection via the technical systems of the contracting party	‣ Per protocol ‣ Connection via the technical systems of the contracting party	‣ Per protocol ‣ Connection via the technical systems of the contracting party
Application	‣ SMS Outbound ‣ SMS Inbound	‣ SMS Outbound ‣ SMS Inbound	‣ SMS Outbound ‣ SMS Inbound
Benefits	‣ High penetration rate ‣ Easy connection	‣ High penetration rate ‣ Easy connection ‣ Sending from e-mail	‣ Standard protocols of the network operators ‣ Designed for high

		client supported	volumes ▸ Easily monitored
Please note	▸ No permanent connection ▸ Cannot be monitored	▸ Cannot send large volumes	▸ Complex, requires good programming skills ▸ Supports only SMS

4. Glossary

Term	Meaning	Explanation
▸ Added-value number (premium-rate number)		▸ A number to which SMS or MMS messages can be sent. Sending an SMS message to an added-value number costs the end customer more than sending an SMS text message to a mobile handset
▸ Billing	▸ Billing or invoicing	▸ Successful entry of transactions in the invoicing systems (e.g. of mobile network operators or LINK Mobility)
▸ Content Provider		▸ Bears responsibility for the content and function of a (mobile) service
▸ Contracting Party		▸ Purchases LINK Mobility services
▸ Dedicated	▸ Exclusive	▸ e.g. exclusive use of a short code, i.e. all incoming SMS/MMS messages are forwarded to the contracting party's message account
▸ IP address	▸ Internet address	▸ e.g. 111.110.12.58
▸ Keyword		▸ Serves to identify and assign an end-customer text message to a contracting party's message account or application
▸ Kickback		▸ Commission on certain transactions depending on the volume generated
▸ Message		▸ A message can comprise several SMS text messages
▸ MNO	▸ Mobile Network Operator	▸ Holds a licence to operate a mobile telephone network including all necessary network components
▸ Mobile device		▸ e.g. mobile handset or PDA

‣ MO-SMS	‣ Mobile Originated SMS text message	‣ An SMS text message sent by the end customer (mobile device)
‣ MSISDN	‣ Mobile Subscriber Integrated Services Digital Network Number	‣ Also known as "mobile number"
‣ MT-SMS	‣ Mobile Terminated SMS text message	‣ An SMS text message sent to the end customer (mobile device)
‣ MVNO	‣ Mobile Virtual Network Operator	‣ Uses an MNO's infrastructure to operate their "own" mobile telephone network. Maintains its own active network components (e.g. Virgin Mobile in the UK)
‣ Routing		‣ Denotes the sending of SMS/MMS messages via special gateways (e.g. via foreign mobile network operators)
‣ Service Provider		‣ Uses an MNO's infrastructure to operate their "own" mobile telephone network. Does NOT maintain own active network components (e.g. Talkline)
‣ Shared	‣ Shared use	‣ Shared use of existing short codes/long numbers via keywords
‣ SMS	‣ Short Message Service	‣ Short text message, 160 characters maximum
‣ SMSC	‣ Short Message Service Center	‣ Each network operator maintains their own SMSC for the sending and receipt of SMS text messages. The SMSC is used for example to set up short codes. The SMSCs are the interfaces between LINK Mobility and the respective mobile telephone network.
‣ SMS long number		‣ Long number, e.g. 0176-888 00 88, to which SMS text messages may be sent
‣ SMS short code		‣ Short code, e.g. 12345, to which SMS text messages may be sent
‣ Termination		‣ Sending of SMS text messages to a mobile device (mobile handset)
‣ vSMSC	‣ virtual Short Message Center	‣ Numerous service providers maintain their own vSMSC. The vSMSC is used for example to set up short codes. The vSMSC are the LINK Mobility interface to the respective service provider networks