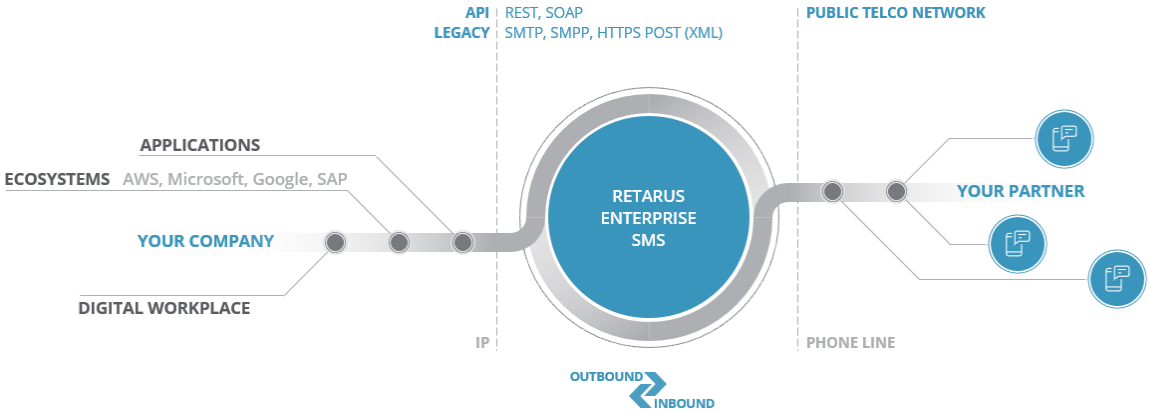
Service Description and Duties of Cooperation
Retarus Enterprise SMS

Retarus Enterprise SMS allows SMS messages to be sent and received without requiring your own SMS infrastructure. Business and web applications such as CRM, ERP and legacy systems, as well as desktop applications, can be connected to Retarus Enterprise SMS. Data processing is carried out in Retarus data centers.

The various Retarus Enterprise SMS services and interfaces can be configured according to the service. For example, SMS sender identification, transmission priority, cost center or status updates can be defined as default settings for all SMS jobs or individually set for each transmission request.



Outbound Application SMS Services

Retarus SMS for Applications

With Retarus SMS for Applications, SMS messages can be sent from business applications or web applications via the Retarus system. By default, customer systems are connected via REST, SOAP or HTTP interfaces using HTTPS. Transmission status can be sent automatically via HTTP(S) Push or the client can request this information via the respective interface.

Alternatively, it is possible to connect via SMPP. Retarus acts as an SMPP server in this case. Authorization and authentication are carried out using customer-specific access data. Transmission status is sent based on the SMPP protocol.

Retarus SMS for SAP (via Mail2SMS)

With Retarus SMS for SAP, SMS messages can be sent directly from SAP systems via the Retarus system. SMS for SAP uses the Mail2SMS Service in order to do this. The standard SAP interface SAPconnect (BC-SMTP interface) is used as the connection for sending SMS and confirming transmission status in the SAP system. The option also exists to encrypt the BC-SMTP connection using Enforced TLS and/or VPN.

Outbound Desktop SMS Services

Retarus Mail2SMS

With Retarus Mail2SMS, users can send SMS messages from email clients via SMTP through the Retarus system. SMS transmission requests are addressed in the following format: „<mobile_phone_number>@eu.rsms.net“ (the domain may vary; the domains communicated by Retarus Service Implementation should be used). Transmission status is sent back to the sender via email.

Several users per customer can be created and their SMS settings (e.g., SMS sender identification, transmission priority, status updates or cost center) can be individually configured on customer, profile and user levels. This can be done either manually by the customer through the EAS Portal, or automatically through address book or directory synchronization in a predetermined Retarus format.

Additionally, it is possible to transmit personalized SMS messages to a number of recipients using transmission lists.

Inbound SMS Services

Retarus Inbound SMS Services allow inbound SMS messages to be received and automatically processed. The Retarus inbound service options are:

- SMS2Mail
- SMS2Applications
- SMS Reply
- SMS to Stop
- SMS to List
- SMS to SMPP

Using the booked service options, actions can be created and configured in the EAS Portal. Numbers are then allocated to actions to be carried out upon receipt of SMS messages. Both default and optional allocation are possible, where the latter is dependent on the content (keywords) of the message. When a matching keyword is identified, the respective allocated actions are carried out. If no keywords are identified, the default actions are carried out.

The inbound options SMS to Stop and SMS to Reply are automatically offered to each customer as they may be necessary to fulfill regulatory requirements for SMS transmission (Outbound) in target countries or target networks. Fulfilling requirements of SMS transmission can therefore incur additional costs when receiving SMS messages.

The inbound service options SMS2Mail, SMS2Applications, SMS to List and SMS to SMPP can also be booked.

Retarus SMS2Mail

Retarus SMS2Mail allows inbound SMS messages to be delivered as emails. Recipients can be assigned statically or dynamically. In the case of static assignment, the SMS message is transmitted to stored email addresses. In the case of dynamic assignment, the SMS message will be sent to the Mail to SMS user who last sent an SMS to the source number. Dynamic assignment is valid for seven days.

Retarus SMS2Applications

Retarus SMS2Applications allows SMS messages to be received in business and web applications via HTTP(S) POST or PUT. You can configure target URL, authentication information and HTTP header. The standard body of the push message is in SOAP or REST format.

Retarus SMS Reply

SMS to Reply allows automatic replies to inbound SMS messages, e.g., a reply to requests/queries or a confirmation of automatic unsubscriptions. The automatic reply can be personalized on a per-service basis, consists of the customer's preferred message and will be sent via the Retarus system as an SMS message to the sender of the inbound SMS. This service may be compulsory in order to fulfill country- or network provider-specific requirements for automatic unsubscription processes (STOP-SMS) and help/info requests (HELP-SMS).

Retarus SMS to Stop

Retarus SMS to Stop allows the numbers of STOP-SMS senders to be automatically transferred into customer-specific stop lists to trigger automatic processes that unsubscribe these numbers and stop them from receiving SMS messages. The stop list consists of numbers, to which the Retarus system does not send SMS messages. Entries in this list can be assigned to a specific service and individual numbers can be added or deleted using the Retarus EAS administration portal.

This service may be compulsory in order to fulfill country- or network provider-specific requirements for automatic unsubscription processes (STOP-SMS) and help/info requests (HELP-SMS).

Retarus SMS to List

SMS to List allows the numbers of inbound SMS senders to be added to a list. The list can be sent to a user-defined email address on a daily basis. The list name, email address, list size (entire list or changes) and transmission time can be set via the EAS Portal.

Retarus SMS to SMPP

Retarus SMS to SMPP allows SMS messages to be received via the Retarus system and delivered to business applications or web applications via the HTTPS protocol.

Additional standard features

Enterprise Administration Services Portal (EAS Portal)

The Retarus Enterprise Administration Services Portal is a web portal where the customer can configure the Retarus services they have booked. Default settings such as SMS sender identification, transmission priority, cost center, status notifications, validity period and message coding can be set up differently for different services. The customer's administrator can configure further users and their authorizations. Detailed and status information can be viewed and downloaded to be used for further processing or analysis. The EAS portal also provides an overview of support questions that have been asked and their processing status, and provides service documentation for services that have been booked.

SMS Outbound Reporting

With SMS Outbound Reporting within the Retarus EAS Portal, detailed information for each SMS order is available. This information can be filtered and viewed for three (3) months after completion of the relevant SMS order according to targeted search criteria such as service, recipient number and status. It can also be saved via download.

Report Archive

Service-specific monthly overviews of SMS messages sent and received (monthly reports) for the last six (6) months are saved in the Report Archive. These can be automatically sent to a stored email address. The reports for the previous calendar month can be retrieved at the start of the following month.

Coding and Smart Replacement

Retarus supports GSM-7 (Standard) and UCS-2 (part of UTF-16) SMS coding. At Retarus, inbound SMS transmission orders are automatically coded in the preferred character set. The preferred coding can be defined in the account settings or in the transmission order.

If you choose to use GSM-7 coding, you can also define how text should be handled that includes characters which are not supported by GSM-7. The available functions are as follows:

- 'Smart Replacement': Characters not supported by GSM-7 are translated into related characters available in the GSM-7 character set (e.g., 'á' becomes 'a') and the message is sent in GSM-7 coding.
- Simple Replacement: Characters not supported by GSM-7 are replaced by spaces. The message is sent in GSM-7 coding.
- Switch to UCS-2 coding: The message in question is automatically sent using UCS-2 coding.
- Rejection: If the SMS transmission order includes characters which cannot be coded in GSM-7, the order is rejected (only with SMS for REST or SOAP applications).

Message splitting and limits

Retarus Enterprise SMS supports concatenated SMS for sending and receiving longer text messages. Each SMS can consist of up to 160 characters if GSM-7 coding is used and up to 70 characters if UCS-2 coding is used. Text messages consisting of more characters must be split up and sent as multiple concatenated SMS messages. A concatenated SMS can consist of up to 153 characters with GSM-7 coding and up to 67 characters with USC-2 coding. Retarus Outbound SMS Services, not including SMS for Applications SMPP, can automatically split longer text messages and send them as individual concatenated SMS fragments, if necessary. Retarus allows you to set a maximum number of permitted message fragments. Any text in the SMS that goes beyond this limit will be automatically cut off.

Retarus Inbound SMS Service automatically aggregates inbound SMS fragments within specified time periods and forwards the entire text to your target.

Each concatenated SMS will be counted as a full SMS message in your invoice.

Optional features

Receipt notification

A receipt notification provides status information about an SMS transmission order. These receipt notifications can be requested on a per-SMS-job basis or can be activated in the EAS Portal by default. Receipt notifications are transmitted based on the outbound protocol.

Express transmission

SMS transmission orders of the 'express' type are prioritized in the Retarus system.

Sender ID

In principle, it is possible to use numeric as well as alphanumeric sender ID. Sender ID can be set as default for Retarus Enterprise SMS by the customer or can be requested on a per-job basis. There are country- and network-specific limitations, which are described further in the section titled 'Sender ID'.

SMS Inbound numbers

Retarus can provide Long Codes (SMS long-dial numbers) and Short Codes (SMS short-dial numbers) on behalf of the customer receiving SMS messages, which can be set up specifically for the customer, shared via prefix or shared dynamically. If a number is shared dynamically, inbound messages are automatically forwarded to the company which last contacted the recipient.

Receipt numbers may be necessary for transmission in order to fulfil regulatory requirements.

Enforced TLS

When emails are delivered by SMTP from Retarus to the customer in the context of Mail2SMS and SMS2Mail services, it is possible to set up Enforced TLS for each recipient domain.

VPN

If further encryption of the connection between the customer and Retarus is required, beyond the secure connection procedures offered as standard and the optional ones detailed above, the connection can be established using a Virtual Private Network (VPN).

Connection to additional Retarus data centers

Retarus Enterprise SMS services are available in several Retarus data centers. Additional connection to another Retarus data center increases service availability and allows load balancing concepts to be implemented. Details of the service-specific type of connection between customer systems and an additional data center are worked out with the customer on a case-by-case basis.

Directory-Synchronization

Directory-Synchronization is an interface that allows the customer to automatically update Mail2SMS user data in the Retarus system based on their address books or directories.

Implementation options

Retarus services can be adapted to customer-specific requirements. Retarus offers various consulting services, such as implementation options or consulting workshops for services that go beyond standard implementation.

This allows service components to be adapted to individual customers, e.g. considering corporate identity and/or settings for automatic processing within the framework of standard business processes.

These implementation options can be ordered as work packages.

Customer-specific adaptations

Push status feedback for SMS for Applications

The format of SMS for Applications HTTPS Push status feedback can be adapted for individual customers. Feedback includes the following fields among others: Sender ID, recipient, SMS ID and time stamp. The following template adaptations are possible:

- Changing field names or field order
- Adding/deleting Retarus default fields
- Adding customer-defined fields with default values
- Changing the format, e.g. XML, JSON, Key-Value

The template that has been adapted for the customer is then applied to the customer configuration.

Push SMS via SMS2Applications

The format of inbound SMS messages, which are delivered through SMS2Applications via HTTPS Push, can be adapted for individual customers. The standard template is in XML format and includes, the following fields among others: Customer number, Sender ID, recipient, SMS ID, time stamp and text message content. It can be personalized for individual customers by

- Changing field names or field order
- Adding/deleting Retarus default fields
- Adding customer-defined fields with default values
- Changing the format, e.g., JSON, Key-Value, etc.

The template that has been adapted for the customer is then applied to the customer configuration.

Email status feedback for Mail2SMS

When transmitting SMS messages via the Retarus Mail2SMS service, the sender receives status information about SMS transmission via email. The standard template is in HTML format and can be personalized for individual customers by

- Changing included elements, e.g. color, position, size
- Adding/deleting Retarus default fields
- Adding/deleting a preview
- Adding customer-defined elements, e.g. texts, links and graphics

The template that has been adapted for the customer is then applied to the customer configuration.

Email via SMS2Mail

Using Retarus SMS2Mail received SMS messages are delivered via email. The standard template is in HTML format, which is defined in the EAS Portal at profile level. It can be personalized for individual customers by

- Changing included elements, e.g. color, position, size
- Adding/deleting Retarus default fields
- Adding/deleting a preview
- Adding customer-defined elements, e.g. texts, links and graphics

The template that has been adapted for the customer is then applied to the customer configuration.

Service Quality / Duties of Cooperation

The customer is aware that the successful use of Retarus services and the quality of service provided depends significantly on their cooperation.

There are various parties involved in transmitting an SMS message (including sender, service provider, carrier and recipient). In order to provide a perfectly tailored solution, in regard to use cases, delivery rates and throughput, these parties need to coordinate and cooperate effectively.

Experience has shown that their technical changes often arise in connection with the above-mentioned parties which fall outside Retarus' sphere of influence. It is therefore necessary to compare the service requirements and the routes set up to achieve these requirements at regular intervals (please see 'Framework for SMS communication').

Retarus offers established SMS routes for standard use cases in common target countries, which do not require setting-up or fine-tuning. Use cases which are not covered by these established routes will be set up individually and in close collaboration with the customer.

For initial set-up, the customer will send back the provided Implementation Sheet as soon as possible after the contract has been signed.

Corporate communication using SMS messages

The customer is solely responsible for ensuring that corporate communications and message processing comply with the law. The customer shall take any necessary internal measures, such as obtaining the appropriate consent of employees / communication participants / any co-determination bodies and/or effectively banning the employees from using the means of communication for private purposes. Retarus is entitled to request information about the measures taken. If the customer does not comply with this request or if Retarus believes that the customer's assurances are not sufficient to avoid legal infringements, Retarus is entitled to refuse the use of the service or the specific partial performance or access option.

Framework for SMS communication

An overview over current terms and restrictions for common receiving countries is available in the documentation section of the EAS Portal. Subsequent changes of the terms may incur additional costs (e.g. for registering the Sender ID used). As certain parts of the framework for delivering SMS messages lie outside Retarus' sphere of influence, successful delivery cannot be guaranteed in all cases.

Sender ID

Differing from the technical possibilities in SMS transmission and in the Retarus services, free usage of Sender ID can be restricted by rules and policies implemented by the receiving countries as well as the SMS carrier. These restrictions, which may differ from country to country and even between carriers, limit the choice of Sender ID. It may be specified which type must be used, whether a dynamically-shared Sender ID is automatically over-written, how many SMS messages may be sent within a certain time period, and whether an SMS message may be blocked or discarded based on the Sender ID selected. These restrictions may depend on the selected use case and content of the messages (marketing SMS or transactional SMS).

In some countries, no alphanumeric Sender ID may or should be used. In these cases, we recommend switching to Long Codes or Short Codes.
Using a Long Code limits the throughput of sent SMS messages in some countries. In order to achieve higher throughput rates, a Short Code or, if possible, an alphanumeric Sender ID must be used.

- In some countries, alphanumeric Sender IDs must be pre-registered, with the permitted Sender ID length often being below the technical limit of 11 characters. Some countries using this guideline

require there to be a local subsidiary in order to be able to register. Retarus can support you in registering individual sender IDs.

- In some countries, using a dedicated Sender ID is not possible and the Sender ID selected is automatically over-written with a shared Sender ID (used by several sources).
- For certain countries, pre-registered Sender IDs (e.g. TOKENS, NOTICE) are available, which may be used for various use cases.
- In order to support seamless two-way communication, a Long Code or Short Code should be used as Sender ID, if possible.
- In many countries, the SMS recipient must have the option of unsubscribing. Often, the request to unsubscribe should or must be answered using automatic replies and the unsubscription should or must also be confirmed using automatic replies. This is particularly the case when a dedicated or shared Short Code is used. In these cases, the respective Retarus services must be booked and maintained.

SMS content and use cases

The content of the SMS message is generally the sender's responsibility. Suitable routes, however, are determined based on the use case and the SMS content associated with it. The reason for this is that different use cases can, on the one hand, lead to different transmission volumes, and are, on the other hand, not supported in all countries and by all SMS carriers.

- In some case, it may be necessary to register the Sender ID in connection with the associated use case and the average expected transmission volume.
- Most service providers and SMS carriers treat SMS messages for marketing purposes differently to transactional SMS messages. They are only permitted when adhering to country-specific regulations, e.g., registering the Sender ID used.
- The content of the SMS may be predefined in certain countries. The text of an SMS may have to include certain prefixes and/or suffixes in order for the SMS to be delivered successfully.
- Some countries may require receipt volume to be balanced with transmission volume.
- It may be necessary for the text of the SMS to include information on the process of unsubscribing from receiving SMS messages.
- In some countries, using SMS to conduct prize draws or competitions is not supported.

Depending on the use case and target country, it may be necessary for the customer to provide sample SMS content to Retarus for review (or register a Sender ID).

Specific SMS performance features

Regardless of the technical possibilities of transmitting SMS and of Retarus services, there are additional technical characteristics which may not be supported in all countries and by all SMS carriers.

- The use of delivery notifications is not supported in some countries. In some cases, a positive delivery notification may be received, even if the SMS has not been delivered to the terminal device. Therefore, Retarus cannot guarantee final delivery to the recipient.
- The coding of SMS message texts (e.g., UCS-2) or the Sender ID that are possible with Retarus services are not supported in all countries.
- Some countries do not allow concatenation of several SMS fragments or restrict the maximum number of fragments.
- In some countries, the number of possible characters in an SMS message may be more restricted than what is technically feasible due to technical considerations or regulatory provisions.

Use of Long Codes and Short Codes

Successful SMS receipt (as swell as seamless two-way communications) requires a receipt number (Long Code or Short Code). Retarus can request or provide these on behalf of the customer in accordance with the applicable national legal and regulatory requirements.

Application-to-Application (A2A) messaging

Retarus Enterprise SMS services are designed for Application-to-Person sending. A2P messaging is the process of sending mobile messages from a business application to an individual. If your intended use case is Application-to-Application using SMS, please be aware it is not guaranteed to work and Retarus can advise you of relevant alternatives.

Dedicated numbers

A dedicated Long Code or Short Code is acquired by the customer or for the customer via Retarus and is only used by this customer.

Shared numbers

Long Codes as well as Short Codes can be used by different, unrelated parties. In some cases, using a shared Short Code is required to fulfil country-specific regulations (e.g., STOP-SMS in France). The party, to which an SMS message is delivered via a shared number, is determined either dynamically or based on prefixes or keywords. The target party, or recipient, is already determined by the aggregator and/or Retarus, regardless of who owns the shared number. The customer is aware that the dynamic determination of SMS recipients or the initial sender as required for shared use of a phone number may not always be correct in case of unfavorable time overlaps.

Information about transmission volumes and status feedback

Transmission volume is a relevant factor when choosing and configuring suitable transmission routes. A significant increase in volume may lead to decreased throughput. In order to avoid this, we recommend checking transmission volume at regular intervals and, if necessary, amending your agreed arrangements with Retarus.

Irrespective of the Outbound SMS Services used, status feedback (e.g., delivery notification or status information from the Retarus system) via HTTPS Push or email can be set up. The customer is aware that no conclusions, neither positive nor negative, can be drawn if no status feedback is provided. In such a case, the actual status can be requested using the Reporting section in the EAS Portal or via the SOAP / REST interface.

Secure connection

Enforced TLS or VPN use for SMTP communication from Retarus to the customer (SMS2Mail, Mail2SMS status emails) is carried out based on the email recipient's domain.

In order to guarantee the use of Enforced TLS for other domains, this extension needs to be requested from Retarus in advance.

If VPN is used, the customer is to immediately inform Retarus about changes to network infrastructure (IP addresses, certificates, VPN keys etc.) and request any necessary amendments to service configuration ahead of time in order to avoid any negative impacts to the service.