eCall
an F24 product

SMPP access

Description

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Content

1. Introduction

This document contains general information about the eCall SMPP interface from F24 Schweiz AG.

This eCall service allows accessing the short message peer to peer (SMPP) interface to send SMS. The SMPP interface uses a standard protocol. SMPP is a protocol primarily used to connect to short message service centres (SMSC) for mobile phones.

This document has the following chapters as structure:

- Basic information
- Access information
- Commands

2. Basic information

This chapter provides basic information about the eCall SMPP interface and its features.

2.1 Core features

The SMPP interface provides the following core features:

- Submitting single- or multipage SMS
- Reception of the delivery receipts
- Support for the GMS 7bit alphabet and parts of the Unicode charset

2.2 Requirements

To use the SMPP interface the following requirements apply:

- Customer needs an eCall account
- The SMPP interface needs to be activated for a specific account
- Use of specification for SMPP protocol v3.4
- Only the secure TLS versions are allowed: TLS 1.2 and TLS 1.3

2.3 Single or multiple user

The SMPP interface may be used for a single user or multiple users. Please ask the support for more information.

2.4 Document Short Message Peer to Peer Protocol Specification v3.4

General information for the specification for SMPP protocol is documented in the document “Short Message Peer to Peer Protocol Specification v3.4” from 12. October 1999 Issue 1.2

“This document defines Version 3.4 of the SMPP protocol and specifies the command and response format to be used when implementing an SMPP v3.4 protocol interface.

It is intended for designers and implementers of an SMPP v3.4 interface between an SMSC and an External Short Message Entity (ESME), as illustrated in the following diagram.”

“Short Message Peer to Peer (SMPP) protocol is an open message-transfer protocol that enables short message entities (SMEs) outside the mobile network to interface with an SMSC. Nonmobile entities that submit messages to, or receive messages from an SMSC are known as External Short Message Entities (ESMEs).”

3. Access information

This chapter provides information about the access, IP-addresses and port.

3.1 Host, IP and Port

These are the values to access the eCall SMPP interface:

Host: smpp.ecall.ch (193.93.208.139)

Port: 2776

4. Commands

At the beginning of this chapter the supported and not supported commands are listed. Later in the chapter some of the supported commands and parameters are described in more detail.

4.1 Supported Commands

The following list of commands is supported by eCall SMPP interface:

- bind_receiver
- bind_transmitter
- bind_transceiver
- submit_sm
- unbind
- enquire_link
- deliver_sm

4.2 Not supported commands

The following list of commands is not yet supported by eCall SMPP interface:

- replace_sm
- cancel_sm
- submit_multi
- data_sm
- query_sm

> Note: If not supported commands are used the following error code is sent:
> ”ESME_RINVCMDID“ (0x00000003)”

4.3 Open session with a 'bind'-command

Before the data for the SMS can be sent or received a session must be opened first. For this one of the following three ‘bind’-commands can be used.

Command	**Description**
bind_transmitter	This command is used to send messages to eCall. There are, apart from the answers, no messages sent from eCall.
bind_receiver	This command is used to receive messages from eCall (currently only the confirmation of reception).
bind_transceiver	This command is a combination of the two commands bind_receiver and bind_transmitter. This command is used to send messages to eCall and receive message from eCall.

The following parameters are used to specify the username, password and some other information.

Parameter	**Description or allowed values**
system_id	This is the username for eCall.
password	This is the corresponding password for the username.
system_type	NULL
interface_version	0x34 (decimal: 52)
addr_ton	NULL
addr_npi	NULL
address_range	NULL

The SMPP interface replies to any ‘bind’-request with “eCallSmpp” for the parameter “system_id“.

4.4 Send an SMS with the 'submit_sm'-command

The ‘submit_sm’-command is used to send an SMS over the eCall SMPP interface. The SMPP interface supports only the mandatory parameters. The optional parameters are not evaluated at all.

The following mandatory parameters are only supported with specific values.

Parameter	**Allowed values or explanation**
service_type	„“, „CMT“, „CPT“
source_addr_ton	0, 1, 2, 5
source_addr_npi	0, 1
source_addr	Maximum of 16 characters or blank to use an eCall Sender
dest_addr_ton	0, 1, 2
dest_addr_npi	0, 1
dest_addr	Maximum of 16 characters
esm_class	GSM Network specfic Features: 00XXXXXX, 01XXXXXX Message Type: XX0000XX Messaging Mode: XXXXXX00, XXXXXX11
registered_delivery	SMSC Delivery Receipt: XXXXXX00, XXXXXX01, XXXXXX10
data_coding	XXXXX0000

Some of the mandatory parameters are not evaluated at all:

- protocol_id
- priority_flag *
- replace_if_present_flag
- sm_default_msg_id

* If prioritization is desired, please contact our support.

4.5 Close session with the 'unbind'-command

The ‘unbind’-command can be used to close a session. This is not mandatory, as the eCall SMPP interface also closes the session when the TCP connection is disconnected.

4.6 Keep a session open with the 'enquire_link'-command

The ‘enquire_link’-command can be used to keep a session open.
A client will be disconnected after 60 seconds of inactivity.

4.7 Receive delivery receipts with the 'deliver_sm'-command

The eCall SMPP interface will forward delivery receipts with the ‘deliver_sm’-command to a connected client if a delivery receipt has been requested when sending a message.

The parameter “esm_class” will be set to 0x04 for delivery receipts according to the SMPP specification.

4.8 Receive inbound messages with the 'deliver_sm'-command

The eCall SMPP interface will forward inbound messages with the ‘deliver_sm’-command to a connected client if a message forwarding has been configured.

The parameter “esm_class” will be set to 0x00 or 0x40 for inbound messages according to the SMPP specification.

To receive inbound messages over the eCall SMPP interface a message forwarding can be configured for virtual mobile numbers in the eCall portal.

4.9 Additional states for parameter 'command_status'

In addition to the defined specification, there are eCall SMPP interface specific error codes.

Code	Value	Description
ESME_RBILLINGFAILED	0x00000401	The billing of the SMS has failed. This error can occur if there are not enough points available.