ZephyrTel Mobile Messaging HUB R04.12.05

SMPP Protocol Implementation Compliance Statement

Release 19.4 Revision A
April 2021

ZephyrTel

CloudForward

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Chapter
1

Introduction

Topics:

1.1 About this Document

This document contains the conformance statements of the ZephyrTel Mobile Messaging SMPP PICS with the SMPP version 3.4 protocol. This statement is generally referred to as Protocol Implementation Compliance Statement (PICS).

1.2 Scope

This document covers the SMPP compliance of the HUB, which is part of the ZephyrTel Mobile Messaging family of SS7 message routing and network querying products.

1.3 Intended Audience

This document is meant for everyone who is interested in how ZephyrTel Mobile Messaging can best be used, but mainly for:

- Implementation engineers who are responsible for the pre-installation, on-site installation and configuration of ZephyrTel Mobile Messaging in the end-user environment.
- Maintenance and support engineers who are responsible for maintaining the total system environment of which ZephyrTel Mobile Messaging is a part or just the ZephyrTel Mobile Messaging devices.
- Network operators who are evaluating the ZephyrTel Mobile Messaging systems and infrastructure.

1.4 Documentation Conventions

Typeface or Symbol	Meaning	Example
Bold	Refers to part of a graphical user interface.	Click **Cancel**.
`Courier`	Refers to a directory name, file name, command, or output.	The `billing` directory contains...
`<pointed brackets>`	Serves as a placeholder for text that the user will replace, as appropriate in context.	The file is called `MGRdata.xml.<ip>.gz`, where `<ip>` is the server's IP address.
`[square brackets]`	Indicates an optional command.	`[--validateonly]`
Note:	Indicates information alongside normal text, requiring extra attention.	**Note:** Ensure that the configuration...

Typeface or Symbol	Meaning	Example
\ (Unix)	Denotes line continuation; the character should be ignored as the user types the example, and ENTER should only be pressed after the last line.	`% grep searchkey \` `data/*.dat`

1.5 Locate Product Documentation on the Customer Support Site

Access to ZephyrTel's Customer Support site is restricted to current ZephyrTel customers only. This section describes how to log into the ZephyrTel Customer Support site and locate a document. Viewing the document requires Adobe Acrobat Reader, which can be downloaded at www.adobe.com.

1. Log into the ZephyrTel Customer Support site.

   Note: If you have not registered for this new site, click the **Register Here** link. Have your customer number available. The response time for registration requests is 24 to 48 hours.

2. Click the **Product Support** tab.
3. Use the Search field to locate a document by its part number, release number, document name, or document type. The Search field accepts both full and partial entries.
4. Click a subject folder to browse through a list of related files.
5. To download a file to your location, right-click the file name and select **Save Target As**.

Chapter
2

Overview

Topics:

2.1 Introduction

The SMPP PICS R04.02 has support for SMPP version 3.3 and SMPP version 3.4 as applicable for GSM. For more information about the items in this document, please contact ZephyrTel Mobile Messaging support.

2.2 Major Capabilities

Title	Reference	Support
ESME Role	SMPP chapter 4.1	Yes
SMSC Role	SMPP chapter 2.10	Yes

Chapter

3

Compliance to SMPP

Topics:

3.1 Operations Supported

3.1.1 PDUs Supported

Item	Functional Unit/Description	SMPP Reference	Related Table	Support
PDU-OUTBIND	Is the outbind PDU supported?	4.1.7	Table 2	No
PDU-BIND-TRANSMITTER	Is the bind transmitter PDU supported?	4.1.1, 4.1.2	Table 3, Table 22	Yes
PDU-BIND-RECEIVER	Is the bind receiver PDU supported?	4.1.3, 4.1.4	Table 3, Table 22	Yes
PDU-BIND-TRANSCEIVER	Is the bind transceiver PDU supported?	4.1.5, 4.1.6	Table 3, Table 22	Yes
PDU-UNBIND	Is the unbind PDU supported?	4.2.1, 4.2.2		Yes
PDU-ESME-GENERIC-NACK	Is the generic_nack PDU initiated by the EMSE supported?	4.3.1		Yes
PDU-SMSC-GENERIC-NACK	Is the generic_nack PDU initiated by the SMSC supported?	4.3.1		Yes
PDU-SUBMIT-SM	Is the submit_sm PDU supported?	4.4.1, 4.4.2	Table 4, Table 23	Yes
PDU-SUBMIT-MULTI	Is the submit_multi PDU supported?	4.5.1, 4.5.2	Table 5, Table 24	Yes (AGW only)
PDU-DELIVER-SM	Is the deliver_sm PDU supported?	4.6.1, 4.6.2	Table 6, Table 25	Yes
PDU-ESME-DATA	Is the data_sm PDU initiated by the EMSE supported?	4.7.1	Table 7, Table 26	Yes
PDU-SMSC-DATA	Is the data_sm PDU initiated by the SMSC supported?	4.7.1	Table 8, Table 26	Yes
PDU-QUERY	Is the query_sm PDU supported?	4.8.1, 4.8.2	Table 9	Yes
PDU-CANCEL	Is the cancel_sm PDU supported?	4.9.1, 4.9.2	Table 10	Yes

Item	Functional Unit/Description	SMPP Reference	Related Table	Support
PDU-REPLACE	Is the replace_sm PDU supported?	4.10.1, 4.10.2	Table 11	Yes (see remarks)
PDU-ESME-ENQUIRE-LINK	Is the enquire_link PDU initiated by the EMSE supported?	4.11.1, 4.11.2		Yes
PDU-SMSC-ENQUIRE-LINK	Is the enquire_link PDU initiated by the SMSC supported?	4.11.1, 4.11.2		Yes
PDU-ALERT	Is the alert_notification PDU supported?	4.12.1	Table 12	No

Remarks

When the AMS is used in combination with Concatenated In Sequence delivery queues, replace of concatenated messages from those queues is not supported.

3.1.2 outbind PDU

The outbind PDU is not supported.

Item	Functional Unit/Description	SMPP Reference	Support
OUTBIND-1	Is the password field supported?	4.1.7.1	No
OUTBIND-2	Is the password field used by the ESME for access control before connecting to the SMSC?	4.1.7.1	No

3.1.3 bind PDU

Item	Functional Unit/Description	SMPP Reference	Support
BIND-1	Is sc_interface_version field supported in a response to the operation?	4.1.2, 4.1.4 4.1.6	Yes
BIND-2	Is the interface_version field supported in the bind_transceiver operation?	Errata, 4.1.5	Yes

3.1.4 submit_sm PDU

Item	Functional Unit/Description	SMPP Reference	Support
SUBMIT-1	Is the use of different values in the service_type field allowed?	5.2.11	Yes
SUBMIT-2	Is the use of default values in the source_addr fields supported?	5.2.8	No (see remarks)

Item	Functional Unit/Description	SMPP Reference	Support
SUBMIT-3	Is scheduled_delivery supported?	5.2.15	Yes
SUBMIT-4	Is the replace_if_present functionality supported?	5.2.18	Yes
SUBMIT-5	Are pre-defined short messages supported?	5.2.23	No
SUBMIT-6	Is the use of the validity_period field supported?	5.2.16	Yes
SUBMIT-7	Is the user_message_reference field supported?	5.3.2.17	Yes
SUBMIT-8	Is the source_port field supported?	5.3.2.20	Yes
SUBMIT-9	Is the destination_port field supported?	5.3.2.21	Yes
SUBMIT-10-1	Is the sar_msg_ref_num, field supported?	5.3.2.22	Yes
SUBMIT-10-2	Is the sar_total_segments field supported?	5.3.2.23	Yes
SUBMIT-10-3	Is the sar_segment_seqnum field supported?	5.3.2.24	Yes
SUBMIT-11	Is the more_messages_to_send field supported?	5.3.2.34	Yes
SUBMIT-12	Is the message_payload field supported?	5.3.2.32	Yes
SUBMIT-13	Is the privacy_indicator field supported?	5.3.2.14	Yes
SUBMIT-14-1	Is the callback_num fields supported?	5.3.2.36	Yes
SUBMIT-14-2	Is the callback_num_atag fields supported?	5.3.2.37	Yes
SUBMIT-14-3	Is the callback_num_pre_ind fields supported?	5.3.2.38	Yes
SUBMIT-15	Is the source_subaddress field supported?	5.3.2.15	Yes
SUBMIT-16	Is the dest_subaddress field supported?	5.3.2.16	Yes
SUBMIT-17	Is the user_response_code field supported?	5.3.2.18	Yes
SUBMIT-18	Is the display_time field supported?	5.3.2.26	Yes
SUBMIT-19	Is the sms_signal field supported?	5.3.2.40	Yes
SUBMIT-20	Is the ms_validity field supported?	5.3.2.27	Yes

Item	Functional Unit/Description	SMPP Reference	Support
SUBMIT-21	Is the number_of_messages field supported?	5.3.2.39	Yes
SUBMIT-22	Is the alert_on_msg_delivery field supported?	5.3.2.41	Yes
SUBMIT-23	Is the language_indicator field supported?	5.3.2.19	Yes
SUBMIT-24-1	Is the its_reply_type field supported?	5.3.2.42	No
SUBMIT-24-2	Is the its_session_info field supported?	5.3.2.43	No
SUMBIT-25	Is the ussd_service_op field supported?	5.3.2.44	No
SUMBIT-26	What is the maximum length of message_payload data supported?	5.3.2.32	640 bytes
SUMBIT-27	Is the payload_type field supported?	5.3.2.10	Yes
SUMBIT-28	Is the source_addr_subunit field supported?	5.3.2.2	Yes
SUMBIT-29	Is the dest_addr_subunit field supported?	5.3.2.1	Yes
SUMBIT-30	Is the ms_msg_wait_facilities field supported?	5.3.2.13	No

Remarks

For the source and destination address fields, lengths up 21 octets (including terminating NULL character) are supported.

3.1.5 submit_multi PDU

Item	Functional Unit/Description	SMPP Reference	Support
SUBMIT-MULTI-1	Is the use of different values in the service_type field allowed?	5.2.11	Yes
SUBMIT-MULTI-2	Is the use of default values in the source_addr fields supported?	5.2.8	Yes
SUBMIT-MULTI-3	Is scheduled_delivery supported?	5.2.15	Yes
SUBMIT-MULTI-4	Is the replace_if_present functionality supported?	5.2.18	Yes
SUBMIT-MULTI-5	Are pre-defined short messages supported?	5.2.23	No
SUBMIT-MULTI-6	Is the use of the validity_period field supported?	5.2.16	Yes
SUBMIT-MULTI-7	Is the user_message_reference field supported?	5.2.3.17	Yes

Item	Functional Unit/Description	SMPP Reference	Support
SUBMIT-MUTLI-8	Is the source_port field supported?	5.3.2.20	Yes
SUBMIT-MULTI-9	Is the destination_port field supported?	5.3.2.21	Yes
SUBMIT-MULTI-10-1	Is the sar_msg_ref_num field supported?	5.3.2.22	Yes
SUBMIT-MULTI-10-2	Is the sar_total_segments, field supported?	5.3.2.23	Yes
SUBMIT-MULTI-10-3	Is the sar_segment_seqnum field supported?	5.3.2.24	Yes
SUBMIT-MULTI-11	Is the message_payload field supported?	5.3.2.32	Yes
SUBMIT-MULTI-12	Is the privacy_indicator field supported?	5.3.2.14	Yes
SUBMIT-MULTI-13-1	Is the callback_num, callback field supported	5.3.2.36	Yes
SUBMIT-MULTI-13-2	Is the callback_num_atag field supported	5.3.2.37	Yes
SUBMIT-MULTI-13-3	Is the callback_num_pre_ind field supported	5.3.2.38	Yes
SUBMIT-MULTI-14	Is the source_subaddress field supported?	5.3.2.15	Yes
SUBMIT-MULTI-15	Is the dest_subaddress field supported?	5.3.2.16	Yes
SUBMIT-MULTI-17	Is the display_time field supported?	5.3.2.26	Yes
SUBMIT-MULTI-18	Is the sms_signal field supported?	5.3.2.40	Yes
SUBMIT-MULTI-19	Is the ms_validity field supported?	5.3.2.27	Yes
SUBMIT-MULTI-21	Is the alert_on_msg_delivery field supported?	5.3.2.41	Yes
SUBMIT-MULTI-22	Is the language_indicator field supported?	5.3.2.19	Yes
SUBMIT-MULTI-23	What is the maximum number of destinations supported?	5.2.24	Yes
SUBMIT-MULTI-24	What is the maximum length of message_ payload data supported?	5.3.2.32	640 bytes
SUBMIT-MULTI-25	Are distribution lists (DLs) supported?	4.5.1.2	No
SUMBIT-MULTI-26	Is the payload_type field supported?	5.3.2.10	Yes
SUBMIT-MULTI-27	Is the more_messages_to_send field supported?	5.3.2.34	Yes

Item	Functional Unit/Description	SMPP Reference	Support
SUBMIT-MULTI-28	Is the source_addr_subunit field supported?	5.3.2.2	Yes
SUBMIT-MULTI-29	Is the dest_addr_subunit field supported?	5.3.2.1	Yes
SUBMIT-MULTI-30	Is the ms_msg_wait_facilities field supported?	5.3.2.13	Yes

Remarks

For the source and destination address fields, lengths up 21 octets (including terminating NULL character) are supported.

3.1.6 deliver_sm PDU

Item	Functional Unit/Description	SMPP Reference	Support
DELIVER-1	Is the use of different values in the service_type field allowed?	5.2.11	Yes
DELIVER-2	Is the user_message_reference field supported?	5.3.2.17	Yes
DELIVER-3	Is the source_port field supported?	5.3.2.20	Yes
DELIVER-4	Is the destination_port field supported?	5.3.2.21	Yes
DELIVER-5-1	Is the sar_msg_ref_num field supported?	5.3.2.22	Yes
DELIVER-5-2	Is the sar_total_segments field supported?	5.3.2.23	Yes
DELIVER-5-3	Is the sar_segment_seqnum fields supported?	5.3.2.24	Yes
DELIVER-6	Is the user_response_code field supported?	5.3.2.18	Yes
DELIVER-7	Is the privacy_indicator field supported?	5.3.2.14	Yes
DELIVER-8	Is the message_payload field supported?	5.3.2.32	Yes
DELIVER-9	Is the source_subaddress field supported?	5.3.2.15	Yes
DELIVER-11	Is the dest_subaddress field supported?	5.3.2.16	Yes
DELIVER-12	Is the network_error_code field supported?	5.3.2.31	Yes
DELIVER-13	Is the its_session_info field supported?	5.3.2.43	No

Item	Functional Unit/Description	SMPP Reference	Support
DELIVER-14	Is the language_indicator field supported?	5.3.2.19	Yes
DELIVER-15	Is the message_state field supported?	5.3.2.35	Yes
DELIVER-16	What is the maximum length of message_payload data supported?	5.3.2.32	640 bytes
DELIVER-17	Is the payload_type field supported?	5.3.2.10	Yes
DELIVER-18	Is the recipted_message_id field supported?	5.3.2.12	Yes

Remarks

For the source and destination address fields, lengths up 21 octets (including terminating NULL character) are supported.

3.1.7 ESME data_sm PDU

This section applies to data_sm PDUs sent from the ESME to the SMSC.

Item	Functional Unit/Description	SMPP Reference	Support
ESME-DATA-1	Is the use of different values in the service_type field allowed?	5.2.11	Yes
ESME-DATA-2	Is the use of default values in the source_addr fields supported?	5.2.8	No (see remarks)
ESME-DATA-3	Is the user_message_reference field supported?	5.2.3.17	Yes
ESME-DATA-4	Is the source_port field supported?	5.3.2.20	Yes
ESME-DATA-5	Is the destination_port field supported?	5.3.2.21	Yes
ESME-DATA-6-1	Is the sar_msg_ref_num field supported?	5.3.2.22	Yes
ESME-DATA-6-2	Is the sar_total_segments field supported?	5.3.2.23	Yes
ESME-DATA-6-3	Is the sar_segment_seqnum fields supported?	5.3.2.24	Yes
ESME-DATA-7	Is the privacy_indicator field supported?	5.3.2.14	Yes
ESME-DATA-8-1	Is the callback_num field supported?	5.3.2.23	Yes
ESME-DATA-8-2	Is the callback_num_atag field supported?	5.3.2.24	Yes
ESME-DATA-8-3	Is the callback_num_pre_ind field supported?	5.3.2.25	Yes

Item	Functional Unit/Description	SMPP Reference	Support
ESME-DATA-9	Is the source_subaddress field supported?	5.3.2.15	Yes
ESME-DATA-10	Is the dest_subaddress field supported?	5.3.2.16	Yes
ESME-DATA-11	Is the user_response_code field supported?	5.3.2.18	Yes
ESME-DATA-12	Is the display_time field supported?	5.3.2.26	Yes
ESME-DATA-13	Is the sms_signal field supported?	5.3.2.40	Yes
ESME-DATA-14	Is the ms_validity field supported?	5.3.2.27	Yes
ESME-DATA-15	Is the number_of_messages field supported?	5.3.2.39	Yes
ESME-DATA-16	Is the alert_on_msg_delivery field supported?	5.3.2.41	Yes
ESME-DATA-17	Is the langauage_indicator field supported?	5.3.2.19	Yes
ESME-DATA-18-1	Is the its_reply_type field supported?	5.3.2.42	No
ESME-DATA-18-2	Is the its_session_info field supported?	5.3.2.43	No
ESME-DATA-19	Is the more_msgs_to_send field supported?	5.3.2.21	Yes
ESME-DATA-20-1	Is the set_dpf field supported?	5.3.2.29	No
ESME-DATA-20-2	Is the dpf_result field supported?	5.3.2.28	No
ESME-DATA-21	Is the message_payload field supported?	5.3.2.32	Yes
ESME-DATA-22	What is the maximum length of message_payload data supported?	5.3.2.32	640 bytes
ESME-DATA-23	Is the delivery_failure_reason field supported?	5.3.2.33	No
ESME-DATA-24	Is the network_error_code field supported?	5.3.2.31	No
ESME-DATA-25	Is the source_addr_subunit field supported?	5.3.2.2	Yes
ESME-DATA-26	Is the dest_addr_subunit field supported?	5.3.2.1	Yes
ESME-DATA-27	Is the ms_msg_wait_facilities field supported?	5.3.2.13	No
ESME-DATA-28	Is the payload_type field supported?	5.3.2.10	Yes
ESME-DATA-29	Is the additional_status_info_text field supported?	5.3.2.11	No

Item	Functional Unit/Description	SMPP Reference	Support
ESME-DATA-30	Is the source_network_type field supported?	5.3.2.4	Yes
ESME-DATA-31	Is the source_bearer_type field supported?	5.3.2.6	Yes
ESME-DATA-32	Is the source_telematics_id field supported?	5.3.2.8	No
ESME-DATA-33	Is the dest_network_type field supported?	5.3.2.3	Yes
ESME-DATA-34	Is the dest_bearer_type field supported?	5.3.2.5	Yes
ESME-DATA-35	Is the dest_telematics_id field supported?	5.3.2.7	No
ESME-DATA-36	Is the message_state field supported?	5.3.2.35	No
ESME-DATA-37	Is the qos_time_to_live field supported?	5.3.2.9	Yes

Remarks

For the source and destination address fields, lengths up 21 octets (including terminating NULL character) are supported.

3.1.8 SMSC data_sm PDU

This section applies to data_sm PDUs sent from the SMSC to the ESME.

Item	Functional Unit/Description	SMPP Reference	Support
SMSC-DATA-1	Is the use of different values in the service_type field allowed?	5.2.11	Yes
SMSC-DATA-2	Is the use of default values in the source_addr fields supported?	5.2.23	Yes
SMSC-DATA-3	Is the user_message_reference field supported?	5.2.3.17	Yes
SMSC-DATA-4	Is the source_port field supported?	5.3.2.20	Yes
SMSC-DATA-5	Is the destination_port field supported?	5.3.2.21	Yes
SMSC-DATA-6-1	Is the sar_msg_ref_num field supported?	5.3.2.22	Yes
SMSC-DATA-6-2	Is the sar_total_segments field supported?	5.3.2.23	Yes
SMSC-DATA-6-3	Is the sar_segment_seqnum field supported?	5.3.2.24	Yes
SMSC-DATA-7	Is the privacy_indicator field supported?	5.3.2.14	Yes

Item	Functional Unit/Description	SMPP Reference	Support
SMSC-DATA-8-1	Is the callback_num field supported?	5.3.2.23	Yes
SMSC-DATA-8-2	Is the callback_num_atag field supported?	5.3.2.24	Yes
SMSC-DATA-8-3	Is the callback_num_pre_ind field supported?	5.3.2.25	Yes
SMSC-DATA-9	Is the source_subaddress field supported?	5.3.2.15	Yes
SMSC-DATA-10	Is the dest_subaddress field supported?	5.3.2.16	Yes
SMSC-DATA-11	Is the user_response_code field supported?	5.3.2.18	Yes
SMSC-DATA-12	Is the display_time field supported?	5.3.2.26	Yes
SMSC-DATA-13	Is the sms_signal field supported?	5.3.2.40	Yes
SMSC-DATA-14	Is the ms_validity field supported?	5.3.2.27	Yes
SMSC-DATA-15	Is the number_of_messages field supported?	5.3.2.39	Yes
SMSC-DATA-16	Is the alert_on_msg_delivery field supported?	5.3.2.41	Yes
SMSC-DATA-17	Is the langauage_indicator field supported?	5.3.2.19	Yes
SMSC-DATA-18-1	Is the its_reply_type field supported?	5.3.2.42	No
SMSC-DATA-18-2	Is the its_session_info field supported?	5.3.2.43	No
SMSC-DATA-19	Is the more_msgs_to_send field supported?	5.3.2.21	No
SMSC-DATA-20-1	Is the set_dpf field supported?	5.3.2.29	No
SMSC-DATA-20-2	Is the dpf_result field supported?	5.3.2.28	No
SMSC-DATA-21	Is the message_payload field supported?	5.3.2.32	Yes
SMSC-DATA-22	What is the maximum length of message_payload data supported?	5.3.2.32	640 bytes
SMSC-DATA-23	Is the delivery_failure_reason field supported?	5.3.2.33	Yes
SMSC-DATA-24	Is the network_error_code field supported?	5.3.2.31	Yes
SMSC-DATA-25	Is the source_addr_subunit field supported?	5.3.2.2	Yes
SMSC-DATA-26	Is the dest_addr_subunit field supported?	5.3.2.1	Yes

Item	Functional Unit/Description	SMPP Reference	Support
SMSC-DATA-27	Is the ms_msg_wait_facilities field supported?	5.3.2.13	No
SMSC-DATA-28	Is the payload_type field supported?	5.3.2.10	Yes
SMSC-DATA-29	Is the additional_status_info_text field supported?	5.3.2.11	Yes
SMSC-DATA-30	Is the source_network_type field supported?	5.3.2.4	Yes
SMSC-DATA-31	Is the source_bearer_type field supported?	5.3.2.6	Yes
SMSC-DATA-32	Is the source_telematics_id field supported?	5.3.2.8	No
SMSC-DATA-33	Is the dest_network_type field supported?	5.3.2.3	Yes
SMSC-DATA-34	Is the dest_bearer_type field supported?	5.3.2.5	Yes
SMSC-DATA-35	Is the dest_telematics_id field supported?	5.3.2.7	No
SMSC-DATA-36	Is the receipted_message_id field supported?	5.3.2.12	Yes (see remark 2)
SMSC-DATA-37	Is the message_state field supported?	5.3.2.35	Yes
SMSC-DATA-38	Is the qos_time_to_live field supported?	5.3.2.9	Yes

Remarks

1. For the source and destination address fields, lengths up 21 octets (including terminating NULL) are supported.
2. The receipted_message_id field must be present when an external SMSC is sending an SMPP deliver_sm SMSC delivery receipt. This ensures that SMPP message ID matching will be done correctly.

3.1.9 query_sm PDU

Item	Functional Unit/Description	SMPP Reference	Support
QUERY-1	Is the use of default values in the source_addr fields supported?	4.8	Yes

Remarks

For the source and destination address fields, lengths up 21 octets (including terminating NULL) are supported.

3.1.10 cancel_sm PDU

Item	Functional Unit/Description	SMPP Reference	Support
CANCEL-1	Is the use of default values in the source_addr fields supported?	4.1.9	Yes
CANCEL-2	Is the message_id of NULL, and thus cancelling a group of messages supported?	4.1.9	Yes

Remarks

For the source and destination address fields, lengths up 21 octets (including terminating NULL) are supported.

3.1.11 replace_sm PDU

Item	Functional Unit/Description	SMPP Reference	Support
REPLACE-1	Is the use of default values in the source_addr fields supported?	4.10.1	Yes

Remarks

For the source and destination address fields, lengths up 21 octets (including terminating NULL) are supported.

3.1.12 alert_notification PDU

The alert_notification PDU is not supported.

Item	Functional Unit/Description	SMPP Reference	Support
ALERT-1	Are the source and ESME address fields always set?	5.2.4, 5.2.5, 5.2.7	No
ALERT-2	Is the ms_availability_status field supported?	5.3.2.30	No

Remarks

For the source and destination address fields, lengths up 21 octets (including terminating NULL) are supported.

3.2 Functionality

3.2.1 Forward Compatibility

Item	Functional Unit/Description	SMPP Reference	Support
FORWARD-1	If the application receives an unknown PDU does it return a generic_nack?	3.3	See remarks
FORWARD-2	Are unsupported and unrecognised optional fields ignored?	3.3	Yes
FORWARD-3	Are all 'reserved' values in parameters interpreted as the default value ?	3.3	Yes
FORWARD-4	Are unrecognised values in parameter value fields treated as an error ?	3.3	Yes
FORWARD-5	Is an inconsistent Optional parameter combinations counted as an error?	3.3	Yes
FORWARD-6	Do invalid parameter lengths cause the PDU to be rejected?	3.3	Yes

Remarks

A response with the same opcode is returned.

3.2.2 Backward Compatibility Issues

Item	Functional Unit/Description	SMPP Reference	Support
BACK-1	Is it possible to make this implementation only support the v3.3 and not use any v3.4 features?	3.4	Yes

3.3 Implementation Issues

Item	Functional Unit/Description	SMPP Reference	Support
IMP-1	What is the maximum value for the PDU header field command_length which is supported by the implementation?	3.2.1	2048
IMP-2	Are all the optional parameters processed in an order independent manner?	3.2.4	Yes

3.4 Overall Supported Message Types

3.4.1 Supported Message Types

Item	Functional Unit/Description	SMPP Reference	Support
TYPE-1	Are normal data messages transmitted?	2.11	Yes
TYPE-2	Can SMSC Delivery Receipts be requested and obeyed?	2.11	Yes
TYPE-3	Are intermediate notifications supported?	2.11	Yes
TYPE-4	Are SME Delivery acknowledgements (Read receipts) supported?	2.11	Yes
TYPE-5	TYPE-5	2.11	Yes
TYPE-6	Are Conversational Aborts supported?	2.11	No

3.4.2 Supported Timers

Item	Functional Unit/Description	SMPP Reference	Support
TIMER-1	Is the SMPP session_init_timer implemented?	7.2	Yes
TIMER-2	Is the SMPP enquire_link_timer implemented?	7.2	Yes
TIMER-3	Is the SMPP inactivity_timer implemented?	7.2	Yes
TIMER-4	Is the SMPP response_timer implemented?	7.2	Yes

3.5 ESME-Specific Questions

Item	Functional Unit/Description	SMPP Reference	Support
ESME-1	Can it bind as a Transmitter?	4.1.1	Yes
ESME-2	Can it bind as a Receiver?	4.1.3	Yes
ESME-3	Can it bind as a Transceiver?	4.1.5	Yes
ESME-4	Is the SMPP session timer Implemented?	2.9	Yes

Item	Functional Unit/Description	SMPP Reference	Support
ESME-5	Does this ESME correctly create a session to the SMSC with a bind PDU when it receives an outbind PDU from the SMSC?	2.2.1	No
ESME-6	Are addr_ton, addr_npi and address_range fields populated with values in the bind_receiver and bind_transceiver PDUs?	4.1.3, 4.1.5	Yes
ESME-7	What is the maximum length of message_id supported in operations?	5.2.23	64 bytes

3.6 SMSC-Specific Questions

Item	Functional Unit/Description	SMPP Reference	Support
SMSC-1	Can a Store and Forward method of final delivery be used?	2.1.0	Yes
SMSC-2	Can a Datagram method of final delivery be used?	2.10	Yes (see remark 1)
SMSC-3	Can a Transaction mode method of final delivery be used?	2.10	Yes (see remark 1)
SMSC-4	Can this initiate a session by using the outbind operation sequence?	2.2.1	No
SMSC-5	What is the maximum length of message_id supported in operations?	5.2.23	13 bytes (see remark 2)

Remarks

1. Transaction or Datagram mode can be selected by using AO-MT rules.
2. In standard SMPP 3.4 operation (non-AGW mode) the message_id has a length of 5+8 bytes. As AGW the message_id is subject to processing and can get up to 64 bytes in length depending on the remote SMSC supplied message_id length.

3.7 SMSC-Specific Implementation Questions

Item	Functional Unit/Description	SMPP Reference	Support
IMP-SMSC-1	Is information in a bind PDU is used for access control?		Yes

Item	Functional Unit/Description	SMPP Reference	Support
IMP-SMSC-2	Can the information in the bind PDU be used for routing messages to the ESME?		No
IMP-SMSC-3	In a cancel_sm received from an ESME, must the service_type field be set to the same value as the original message which is being cancelled?	5.2.12	Yes (see *PDUs Supported*)
IMP-SMSC-4	In a replace_sm received from an ESME, must the service_type field be set to the same value as the original message which is being replaced?	5.2.12	Yes

3.8 Link Usage

Item	Functional Unit/Description	SMPP Reference	Support
LINK-1	Is it possible to have multiple links to the same SMSC using the same access control information?		Yes
LINK-2	Is it possible to have multiple links to the same SMSC using different access control information?		Yes

3.9 Data Fields

3.9.1 Bind PDU Fields

Item	Functional Unit/Description	SMPP Reference	Support
Bind-Field1	Are there any characters or other limitations imposed upon values used in the system_id field?	5.2.1	Yes, alphanumeric characters
Bind-Field2	Are there any characters or other limitations imposed upon values used in the system_type field?	5.2.2	Alphanumeric characters
Bind-Field3	Are there any characters or other limitations imposed upon values used in the password field?	5.2.3	Alphanumeric characters

3.9.2 Submit SM PDU Fields

Item	Functional Unit/Description	SMPP Reference	Support
Submit-Field1	What, if any restrictions are imposed upon the value used in the service_type field?	5.2.11	None
Submit-Field2	What values in the esme_class field are supported, and in what circumstances?	5.2.12	All (see remark 1)
Submit-Field3	What values in the protocol_id field are supported, and in what circumstances?	5.2.13	All
Submit-Field4	What values in the priority field are supported, and in what circumstances?	5.2.14	All
Submit-Field5	What, if any restrictions are imposed upon the value used in the schedule_delivery_time field?	5.2.15	May not be in the past
Submit-Field6	What, if any restrictions are imposed upon the value used in the validity_period field?	5.2.16	May not be in the past
Submit-Field7	Which values in the registered_delivery field are supported?	5.2.17	Bits 0, 1 and 5
Submit-Field8	Are there any restrictions set upon the values specified in the data_coding field?	5.2.19	None (see remark 2)
Submit-Field9	How many canned messages are supported via the sm_default_allowed field?	5.2.20	None
Submit-Field10	What dest_network_type and source_network_type values are supported?	5.3.2.3, 5.3.2.4	0 to 8
Submit-Field11	What dest_bearer_type, dest_telematics_id, source_bearer_type, source_telematics_id values are supported?	5.3.2.5, 5.3.2.6, 5.3.2.7, 5.3.2.8	0 to 8
Submit-Field12	What payload_type values are supported?	5.3.2.10	0, 1
Submit-Field13	What ms_msg_wait_facilities values are supported?	5.3.2.13	None
Submit-Field14	What privacy_indicator values are supported?	5.3.2.14	0 to 3
Submit-Field15	What language_indicator values are supported?	5.3.2.19	0 to 61

Remarks

1. All values for the esm_class are a supported for AO-AO routing path. For AO-MT store and forward mode is not supported. For AO-Store datagram and forward mode are not supported.
2. For AO-AO all values of data_coding are supported. For AO-MT or AO-Store to GSM handsets, values 0, 4, and 8 are supported.

3.9.3 submit_multi SM PDU Fields

Item	Functional Unit/Description	SMPP Reference	Support
Multi-Field1	What, if any restrictions are imposed upon the value used in the service_type field?	5.2.11	None
Multi-Field2	What values in the esme_class field are supported, and in what circumstances?	5.2.12	All (see remark 1)
Multi-Field3	What values in the protocol_id field are supported, and in what circumstances?	5.2.13	All
Multi-Field4	What values in the priority field are supported, and in what circumstances?	5.2.14	All
Multi-Field5	What, if any restrictions are imposed upon the value used in the schedule_delivery_time field?	5.2.15	May not be in the past
Multi-Field6	What, if any restrictions are imposed upon the value used in the validity_period field?	5.2.16	May not be in the past
Multi-Field7	Which values in the registered_delivery field are supported?	5.2.17	Bits 0, 1 and 5
Multi-Field8	Are there any restrictions set upon the values specified in the data_coding field?	5.2.19	None (see remark 2)
Multi-Field9	How many canned messages are supported via the sm_default_allowed?	5.2.20	None
Multi-Field10	What dest_network_type source_network_type values are supported?	5.3.2.3, 5.3.2.4	0 to 8
Multi-Field11	What dest_bearer_type dest_telematics_id source_bearer_type source_telemantics_id values are supported?	5.3.2.5, 5.3.2.6, 5.3.2.7, 5.3.2.8	0 to 8
Multi-Field12	What payload_type values are supported?	5.3.2.10	0, 1
Multi-Field13	What ms_msg_wait_facilities values are supported?	5.3.2.13	None

Item	Functional Unit/Description	SMPP Reference	Support
Multi-Field14	What privacy_indicator values are supported?	5.3.2.14	0 to 3
Multi-Field15	What language_indication values are supported?	5.3.2.19	0 to 61

Remarks

1. All values for the esm_class are a supported for AO-AO routing path. For AO-MT submit multi is not supported. For AO-store submit_multi is not supported.
2. For AO-AO all values of data_coding are supported.

3.9.4 Deliver SM PDU Fields

Item	Functional Unit/Description	SMPP Reference	Support
Deliver-Field1	What, if any restrictions are imposed upon the value used in the service_type field.	5.2.11	None
Deliver-Field2	What values in the esme_class field are supported, and in what circumstances?	5.2.12	All
Deliver-Field3	What values in the protocol_id field are supported, and in what circumstances?	5.2.13	All
Deliver-Field4	What values in the priority field are supported, and in what circumstances?	5.2.14	All
Deliver-Field5	Which values in the registered_delivery field are supported?	5.2.17	Bit 0, 1 and 5
Deliver-Field6	Are there any restrictions set upon the values specified in the data_coding field?	5.2.19	None
Deliver-Field7	What payload_type values are supported?	5.3.2.10	0, 1
Deliver-Field8	What privacy_indicator values are supported?	5.3.2.14	0 to 3
Deliver-Field9	What language_indication values are supported?	5.3.2.19	0 to 61

3.9.5 Data SM PDU Fields

Item	Functional Unit/Description	SMPP Reference	Support
Data-Field1	What, if any restrictions are imposed upon the value used in the service_type field?	5.2.11	None

Item	Functional Unit/Description	SMPP Reference	Support
Data-Field2	What values in the esme_class field are supported, and in what circumstances?	5.2.12	All (see remark 1)
Data-Field3	Which values in the registered_delivery field are supported?	5.2.17	Bits 0, 1, 5
Data-Field4	Are there any restrictions set upon the values specified in the data_coding field?	5.2.19	None (see remark 2)
Data-Field5	What dest_network_type source_network_type values are supported?	5.3.2.3, 5.3.2.4	None
Data-Field6	What dest_bearer_type dest_telematics_id source_bearer_type source_telemantics_id values are supported?	5.3.2.5, 5.3.2.6, 5.3.2.7, 5.3.2.8	0 to 8
Data-Field7	What ms_msg_wait_facilities values are supported?	5.3.2.13	None
Data-Field8	What payload_type values are supported?	5.3.2.10	0, 1
Data-Field9	What privacy_indicator values are supported?	5.3.2.14	0 to 3
Data-Field10	What language_indication values are supported?	5.3.2.19	0 to 61

Remarks

1. All values for the esm_class are a supported for AO-AO routing path. For AO-MT store and forward mode is not supported. For AO-Store datagram and forward mode are not supported.
2. For AO-AO all values of data_coding are supported. For AO-MT or AO-Store to GSM handsets, values 0, 4, and 8 are supported.

Appendix
A

References

Topics:

A.1 References

1. SMPP version 3.4 dated 12 October 1999 issue 1.2
2. ZephyrTel Mobile Messaging HUB Operator Manual

Glossary

A

AGW   Application Gateway

A gateway between SMS applications and service centres provided by the Router, HUB, and AMS components.

AO   Application Originated

Short message traffic that is originated by an application.

E

ESME   External Short Message Entity

The remote-destination entities on the IP network that is connected to using SMPP protocol.

G

GSM   Global System for Mobile Communications

M

MT   Mobile Terminated

All transmissions that reach the mobile station and are accepted by it, such as calls or short messages.

P

PDU   Protocol Data Unit

PICS   Protocol Implementation Conformance Statement

S

SMPP   Short Message Peer-to-Peer Protocol

Compliance**S**

An open, industry standard protocol that provides a flexible data communications interface for transfer of short message data.

SMSC   Short Message Service Center

SS7   Signaling System #7

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