Apphive

SMPP ONBOARDING GUIDE

Connecting to Apphive over SMPP

For the engineers connecting your system to Apphive: how to connect, how to send, what our responses mean, and how delivery receipts reach you.

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Issued by
Apphive (SL) Limited

If anything here doesn't match what you see, contact us (details at the end) with the time and your login.

1 What you receive from us

Item	Example	Notes
Host	`smpp.apphivesl.com`	
Port	`2775` (SMPP) or `3550` (SMPP over TLS)	We recommend TLS. Some setups require it.
Login (`system_id`)	`acmebank`	
Password	8 characters	Sent separately from the login. We can't see or recover it; if it's lost, we issue a new one.
Speed limit	e.g. 5 messages per second	Shared by all your connections.
Connections	e.g. 2	How many binds you may hold open at once.
Approved sender IDs	e.g. `ACMEBANK`	The same sender IDs as your API and MySierraBox account.

> **Before you connect, send us the public IP address(es) of the servers that will connect.** We only accept connections from registered addresses. Connections from anywhere else are refused, even with the right password.

2 Connecting

- Protocol: **SMPP 3.4**.
- Bind as **transceiver** (recommended), or as a **transmitter** to send plus a **receiver** to get receipts. A transmitter-only bind can send but never receives receipts.
- `system_type`, `interface_version` and address ranges on the bind are accepted but not used.
- Send an `enquire_link` every 30 to 60 seconds when the connection is quiet. We answer every one.
- **TLS (port 3550):** TLS 1.2 or 1.3, with a public certificate for `smpp.apphivesl.com`. No client certificate is needed.
- After our maintenance or a network break, reconnect automatically with a short back-off. Messages we already accepted are not affected, and receipts for them wait for you (see section 5).

3 Sending messages (`submit_sm`)

Field	What to send
`source_addr`	One of your approved sender IDs (alphanumeric, up to 11 characters). Any TON/NPI.
`destination_addr`	The phone number, preferably in international format without `+` (e.g. `23276123456`). Local format for your account's country (e.g. `076123456`) also works.
`data_coding`	`0` (GSM 7-bit, default) or `8` (UCS-2 for characters outside GSM). `3` (Latin-1) is also accepted.
`registered_delivery`	`1` for a receipt on every message, `2` for failures only, `0` for none.
`short_message` / `message_payload`	The text.

- **One-time codes** are detected automatically and sent through our express lane. You don't need to flag them.
- **Long messages:** send them as parts with UDH (`esm_class` 0x40) or the SAR fields. Your SMPP library usually does this for you. Parts can arrive in any order and on any of your connections. **All parts of a message must reach us within 2 minutes**, otherwise the message is not sent and you get a failure receipt for the parts we did receive. We send the whole text as one SMS, billed per segment, the same as the API.
- Only `submit_sm` is supported. `submit_multi`, `data_sm`, `query_sm`, `cancel_sm` and `replace_sm` are not, and we don't deliver incoming (mobile-originated) messages over SMPP yet.
- Prices and your wallet are the same as for the API, and SMPP messages appear in your MySierraBox History like any other.

4 Our responses (`submit_sm_resp`) and what to do

A successful response carries our **message id**: a 36-character id such as `cd47fcd1-4a63-4798-b51a-932d16e8a921`. Each part of a long message gets its own id, such as `9f1c…e2-1`, `9f1c…e2-2`. Store these ids: receipts refer to them.

Status	Code	Meaning	What to do
`ESME_ROK`	0x00	Accepted	Nothing. Wait for the receipt if you asked for one.
`ESME_RTHROTTLED`	0x58	Faster than your speed limit	Slow down, then resend the same message. It was **not** accepted.
`ESME_RSYSERR`	0x08	Temporary problem on our side	Resend after a few seconds. It was **not** accepted.
`ESME_RINVSRCADR`	0x0A	Sender ID not approved for your account	Use an approved sender ID, or ask us to approve this one.
`ESME_RINVDSTADR`	0x0B	Invalid number, or a destination country we don't serve	Check the number. Don't retry unchanged.
`ESME_RSUBMITFAIL`	0x45	Refused by a sending policy	Contact us. Don't retry unchanged.
`ESME_RINVESMCLASS`	0x43	Invalid long-message part numbering	Check your concatenation settings.
`ESME_RINVBNDSTS`	0x04	Sent before the bind completed, or after it ended	Bind first.

Bind responses

Status	Code	Meaning
`ESME_RINVSYSID`	0x0F	Unknown login
`ESME_RINVPASWD`	0x0E	Wrong password
`ESME_RBINDFAIL`	0x0D	Connection refused for your account. Usually one of: the IP address isn't registered, your setup is disabled, TLS is required and you used port 2775, or all your connections are already in use. Contact us if it persists.

5 Delivery receipts (`deliver_sm`)

If you asked for receipts, each one arrives as a `deliver_sm` on a receiver or transceiver bind, with `esm_class` 0x04 and the standard SMPP 3.4 receipt text:

```
id:cd47fcd1-4a63-4798-b51a-932d16e8a921 sub:001 dlvrd:001 submit date:2611021230 done date:261102
1231 stat:DELIVRD err:000 text:Your verification co
```

Field	Meaning
`id`	Our message id from `submit_sm_resp`. For long messages, one receipt per part, each with its part's id.
`stat`	`DELIVRD` (delivered) or `UNDELIV` (not delivered).
`err`	`000` when delivered, `001` when not.
`submit date` / `done date`	UTC, `YYMMDDhhmm`.
`text`	The first 20 characters of the message.

The same information is in the optional fields `receipted_message_id` (0x001E), `message_state` (0x0427) and `network_error_code` (0x0423). Match on `receipted_message_id` if your library reads it.

- Answer each `deliver_sm` with `deliver_sm_resp` (status 0) promptly. A receipt stays with us until you acknowledge it, and we send them oldest first.
- **If you're not bound** (or only bound as a transmitter), receipts wait for you for **2 days** and arrive when you bind again as a receiver or transceiver.
- Receipts arrive when the mobile network reports back, usually within seconds, sometimes much later for phones that are off.

6 Going live, step by step

1. Send us your servers' public IP addresses and the sender IDs you'll use.
2. We create your setup and send the login and password separately.
3. Connect from a registered IP and send one test message to a phone you can see, with `registered_delivery=1`.
4. Confirm: `ESME_ROK` on bind and submit, the SMS on the phone, and a `DELIVRD` receipt.
5. Start your traffic at or below your speed limit. If you see `ESME_RTHROTTLED` often, ask us about your limit rather than sending faster.

Changes to your IP addresses, speed limit, number of connections or password are made by Apphive. Contact us and we'll make them, usually the same day.

7 Contact

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EMAIL
stephen@apphivesl.com

WEB
apphivesl.com

Developer documentation: apphivesl.com/developers. Include your login (`system_id`), the time (with time zone) and the message id when asking about a message.