1. Introduction

The Ontech Bulk SMS Platform API provides a RESTful interface for managing SMS messaging, contacts, templates, and account resources. All endpoints return JSON responses and require JWT authentication unless otherwise noted.

Base URL:

```
https://bulksms.ontech.co.zm/api
```

> All API requests must include a valid JWT token in the `Authorization` header (except the login endpoint).

High-volume senders may also connect over **SMPP v3.4** instead of, or alongside, this REST API — see **section 9**. Both routes bill the same account and share one credit balance.

2. Authentication

2.1 Login (Obtain JWT Token)

POST `/api/login`

Authenticate with email and password to receive a JWT access token.

Field	Type	Required	Description
email	string	Yes	User email address
password	string	Yes	User password

Request Example (Python)

```
import requests

resp = requests.post("https://bulksms.ontech.co.zm/api/login", json={
    "email": "user@example.com",
    "password": "your_password"
})
data = resp.json()
token = data["access_token"]
print(f"Token: {token}")
```

Response

```
{
    "access_token": "eyJhbGciOiJIUzI1NiIs...",
    "token_type": "bearer",
    "user": {
        "id": 1,
        "name": "John Doe",
        "email": "user@example.com",
        "role_id": 3
    }
}
```

2.2 Using the Token

Include the token in every subsequent request:

```
headers = {
    "Authorization": "Bearer eyJhbGciOiJIUzI1NiIs...",
    "Content-Type": "application/json"
}
```

3. Send SMS

3.1 Send Single SMS

POST `/api/send/sms`

Field	Type	Required	Description
phone	string	Yes	Recipient phone number (Zambian, e.g. 260971234567)
message	string	Yes	SMS message text
sender_id	string	No	Custom sender ID — max 11 characters, must be approved (matched case-insensitively)

Request Example

```
import requests

headers = {"Authorization": "Bearer YOUR_TOKEN", "Content-Type": "application/json"}

resp = requests.post("https://bulksms.ontech.co.zm/api/send/sms", headers=headers, json={
    "phone": "260971234567",
    "message": "Hello from the API!"
})
print(resp.json())
```

4. Bulk Upload

4.1 Upload CSV File

POST `/api/send/bulk-upload`

Upload a CSV file with columns: phone, message. The file is processed and messages are queued.

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```
import requests

headers = {"Authorization": "Bearer YOUR_TOKEN"}
files = {"file": open("messages.csv", "rb")}

resp = requests.post("https://bulksms.ontech.co.zm/api/send/bulk-upload",
                     headers=headers, files=files)
print(resp.json())
```


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5. Contacts

5.1 List Contacts

`GET` `/api/contacts/`

Parameter	Type	Description
page	int	Page number (default: 1)
per_page	int	Results per page (default: 20)
search	string	Search by name or phone

5.2 Create Contact

`POST` `/api/contacts/`

Field	Type	Required	Description
name	string	Yes	Contact name
phone_number	string	Yes	Phone number
email	string	No	Email address
group_id	int	No	Contact group ID

5.3 Update Contact

`PUT` `/api/contacts/{id}`

5.4 Delete Contact

`DELETE` `/api/contacts/{id}`

6. Templates

6.1 List Templates

`GET` `/api/templates/`

6.2 Create Template

`POST` `/api/templates/`

Field	Type	Required	Description
name	string	Yes	Template name
content	string	Yes	Template text (supports {name} placeholders)
group_id	int	No	Template group ID

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7. API Key Management

7.1 List API Keys

`GET` `/api/externals/`

7.2 Create API Key

`POST` `/api/externals/`

Field	Type	Required	Description
client_name	string	Yes	Descriptive name for the key

The response includes `client_access_id` and `client_secret_id` which can be used for CloudService API authentication.

7.3 Delete API Key

`DELETE` `/api/externals/{id}`

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8. Message Status & Delivery Reports

8.1 List Sent Messages

`GET` `https://bulksms.ontech.co.zm/api/outboxes/`

Returns your sent messages, newest first, each with its current delivery state. Messages still waiting in the queue are included on page 1.

Parameter	Type	Description
page	int	Page number (default: 1)
per_page	int	Results per page (default: 20, max: 100)
search	string	Search by recipient, sender ID or message text

8.2 Delivery Status Values

Each message carries a `status` field (also mirrored as `dlr_status`), derived from the delivery receipt (DLR) returned by the mobile network.

Status	Final?	Meaning
`pending`	No	Queued on the platform; not yet handed to the mobile network.
`submitted`	No	Accepted by the mobile network, awaiting a delivery receipt.
`queued`	No	Buffered by the network for later delivery (e.g. handset off).
`delivered`	Yes	Confirmed delivered to the recipient's handset.
`failed`	Yes	The network could not deliver the message.
`rejected`	Yes	Rejected by the network (e.g. unregistered sender ID, invalid number).

> **Important:** `submitted` means the network accepted the message — it is not a confirmation of delivery. Some networks do not return a final delivery receipt, so a message may legitimately remain `submitted`. Treat only `delivered`, `failed` and `rejected` as final outcomes, and do not assume failure from a `submitted` status.

8.3 Example

```
resp = requests.get("https://bulksms.ontech.co.zm/api/outboxes/",
                    headers=headers, params={"page": 1, "per_page": 20})

for msg in resp.json():
    print(msg["receiver"], msg["status"])
    # 260971234567 delivered
    # 260962334000 submitted
```

8.4 Real-Time Delivery Callbacks

Rather than polling, you can register a callback URL to receive delivery reports as they arrive. See `POST` `/api/callback-urls/`.

9. SMPP Connection

High-volume senders can bind directly over **SMPP v3.4** instead of, or alongside, the REST API. Both routes bill the **same account** and enforce the same sender ID rules, so an SMPP bind and an API key belonging to one customer draw on one credit balance.

> SMPP credentials are issued by Ontech and are not self-service. Contact us with the public IP address you will connect from — an IP whitelist is mandatory on every credential.

9.1 Connection Details

Setting	Value
Host	`bulksms.ontech.co.zm`
Port	2775
Protocol	SMPP v3.4
Bind types	transmitter, receiver, transceiver
system_id	Issued by Ontech — maximum 15 characters
password	Issued by Ontech — maximum 8 characters, shown once
Keepalive	Send `enquire_link` at least every 60 seconds; idle binds close after 180 seconds

> Your REST API key (`ak_...` / `sk_...`) **cannot** be used as an SMPP login. SMPP limits credentials to 15 and 8 characters respectively, so SMPP credentials are always issued separately.

9.2 Sending (submit_sm)

- `source_addr` is your sender ID — max 11 characters (SMPP/GSM 03.38 alphanumeric limit; carriers reject longer ones outright) — and must be one approved for your account, matched case-insensitively.
- `destination_addr` must be a Zambian mobile number.
- Concatenated (multipart) messages are reassembled before sending. You are charged for the parts of the assembled message — a three-part message costs three credits, charged once, not as three separate messages.
- The `message_id` returned in `submit_sm_resp` is the same identifier used for delivery reports and the REST status endpoint.
- GSM 03.38 (`data_coding 0`) and UCS-2 (`data_coding 8`) are supported.

9.3 SMPP Status Codes

Rejections return a specific status rather than a generic failure, so each case can be handled correctly.

Code	Name	Meaning
`0x00000000`	ESME_ROK	Accepted
`0x0000000A`	ESME_RINVSRCADR	Sender ID not approved for your account
`0x0000000B`	ESME_RINVDSTADR	Destination invalid, or recipient has opted out
`0x00000045`	ESME_RSUBMITFAIL	Insufficient credits, or blocked by anti-spam policy

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0x00000058	ESME_RTHROTTLED	Throughput limit exceeded — back off and retry
0x0000000F	ESME_RINVSYSID	Unknown system_id
0x0000000E	ESME_RINVPASWD	Incorrect password
0x0000000D	ESME_RBINDFAIL	IP not whitelisted, or credential disabled
0x00000005	ESME_RALYBND	Too many concurrent binds for this credential
0x00000004	ESME_RINVBNDSTS	Operation not permitted for your bind type

9.4 Delivery Receipts

Set `registered_delivery = 1` on `submit_sm` to receive a receipt. Receipts arrive as `deliver_sm` with `esm_class = 0x04` on your receiver or transceiver bind, in the standard format:

```
id:b83d448460324b95a3d2e4a8f8ab4849 sub:001 dlvrd:001 submit date:2607201734
done date:2607201736 stat:DELIVRD err:000 text:Your message here
```

`stat` is one of `DELIVRD`, `UNDELIV` or `REJECTD`. Only final states are reported; intermediate states are not sent.

> If your bind is down when a receipt arrives it is held and delivered when you reconnect — receipts are not lost. Note that not every mobile network returns a final delivery report; where a network does not, a message may legitimately never receive one.

9.5 Inbound Messages (MO)

Replies from handsets are delivered to your receiver or transceiver bind as `deliver_sm` with `esm_class = 0x00`. That value is how you distinguish an inbound message from a delivery receipt. Inbound messages are also queued while your bind is down and flushed on reconnect.

> Inbound delivery requires the mobile network to route replies to Ontech for the short code in use, which is provisioned per network. It also cannot be attributed reliably on the shared system short code, where several customers may have messaged the same handset. If two-way messaging is required, ask about a dedicated short code.

9.6 Throughput and Limits

- Each credential has a throughput limit (TPS) and a maximum number of concurrent binds, both set by Ontech to suit your volume.
- Exceeding the throughput limit returns `ESME_RTHROTTLED` rather than dropping the message. Pause briefly and retry.
- Connections are restricted by IP whitelist. Notify Ontech in advance if your source IP changes, or binds will be refused.

10. REST Status Codes

HTTP Code	Meaning	Description
200	OK	Request was successful
201	Created	Resource was created successfully
400	Bad Request	Invalid request parameters
401	Unauthorized	Missing or invalid authentication token
403	Forbidden	Insufficient permissions for this action

404	Not Found	Requested resource not found
422	Validation Error	Request body failed validation
500	Server Error	Internal server error

11. Rate Limits & Best Practices

- Use bulk endpoints for sending to multiple recipients instead of looping single-send calls.
- Store your JWT token and reuse it until it expires (8 hours).
- Always normalize phone numbers to international format (e.g. 260971234567).
- Handle insufficient credit errors (check balance before large sends).
- Use webhook/callback URLs to receive delivery reports asynchronously.
- For sustained high volume, prefer an SMPP bind (section 9) over repeated REST calls — delivery receipts are pushed to you rather than polled.

> **Need help?** Contact Ontech Solutions Limited for technical support and integration assistance.

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