

# D7 RESTful API Reference

This document is targeted at software designers/programmers wishing to integrate SMS messaging as a function into their applications using RESTful API, e.g. in connection with WEB-server, unified messaging, information services etc.

SMS Messages can be transmitted using the RESTful API, the following requirements must be met to enable the service:

- You need a D7 user account
- You need sufficient credit on your D7 user account

## Features

D7 RESTful API allows you to:

- Send and receive SMS
- Receive http callbacks for delivery notification (receipts) when SMS is received (or not) on mobile station
- Send and receive long (more than 160 characters) SMS, Unicode/binary content and receive HTTP callbacks when a mobile station sends you a SMS-MO.

## Authentication

Services having the **/secure/** path) require authentication using **Basic AUTH** which transmits D7's account credentials as username/password pairs, encoded using base64.

Example:

```
curl -X GET -H 'Authorization: Basic Zm9vOmJhcg=='http://rest-api.d7networks.com/secure/sendbatch
```

We have passed the base64 encoded credentials through the **Authorization** header, 'Zm9vOmJhcg==' is the encoded username:password pair ('foo:bar'), you can use any tool to base64 encode/decode.

If wrong or no authentication credentials are provided, a **401 Unauthorized** error will be returned.

## Send a single message

Send a single message to one destination address.

Definition:

<http://rest-api.d7networks.com/secure/send>

Examples:

```
curl -X POST -H 'Authorization: Basic Zm9vOmJhcg==' -d '{  
  "to": 971500000000,  
  "from": "D7SMS",  
  "content": "Hello",  
}' http://rest-api.d7networks.com/secure/send
```

Result Format:

```
{"data": "Success \c723d42a-c3ee-452c-940b-3d8e8b944868"}
```

If successful, response header HTTP status code will be **200 OK** and the message will be sent, the *message id* will be returned in **data**.

## Send multiple messages

Send multiple messages to one or more destination addresses

Definition:

<http://rest-api.d7networks.com/secure/sendbatch>

Example of sending same message to multiple destinations:

```
curl -X POST -H 'Authorization: Basic Zm9vOmJhcg==' -d '{
  "messages": [
    {
      "to": [
        "33333331",
        "33333332",
        "33333333"
      ],
      "content": "Same content goes to 3 numbers"
    }
  ]
}' http://rest-api.d7networks.com/secure/sendbatch
```

Result Format:

```
{"data": {"batchId": "af268b6b-1ace-4413-b9d2-529f4942fd9e", "messageCount": 3}}
```

If successful, response header HTTP status code will be **200 OK** and the messages will be sent, the *batch id* and total *message count* will be returned in **data**.

## Send binary messages

Sending binary messages can be done using [single](#) or [batch](#) messaging APIs.

It's made possible by replacing the **content** parameter by the **hex\_content**, the latter shall contain your binary data hex value.

Example of sending a message with coding=8:

```
curl -X POST -H 'Authorization: Basic Zm9vOmJhcg==' -d '{  
    "to": 971000000000,  
    "from": "D7SMS",  
    "coding": 8,  
    "hex_content": "0623063106460628"  
}' http://rest-api.d7networks.com/secure/send
```

The **hex\_content** used in the above example is the UTF16BE encoding of arabic word "أرنب"

('x06x23x06x31x06x46x06x28').

## HTTP request parameters

Parameter	Value / Pattern	Presence	Description / Notes
to	Destination address	Mandatory	Destination address, only one address is supported per request
from	Originating address	Optional	Originating address, In case rewriting of the sender's address is supported or permitted by the SMS-C used to transmit the message, this number is transmitted as the originating address
coding	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13 or 14	Optional	Sets the Data Coding Scheme bits, default is 0, accepts values all allowed values in SMPP protocol
username	Text (30 char. max)	Mandatory	Username for D7 user account.
password	Text (30 char. max)	Mandatory	Password for D7 user account.
priority	0, 1, 2 or 3	Optional	Default is 0 (lowest priority)
validity-period	Integer	Optional	Message validity (minutes) to be passed to SMSC, default is value is None (message will take SMSC's default)
dlr	yes or no	Optional	Default is no (no DLR will be tracked)
dlr-url	HTTP(s) URL	Mandatory <i>if dlr</i>	If a DLR is requested (dlr='yes'), dlr-url MUST be set, if not, dlr value is reconsidered as 'no'
dlr-level	1, 2 or 3	Mandatory <i>if dlr</i>	1: SMS-C level, 2: Terminal level, 3: Both
dlr-method	GET or POST	Mandatory <i>if dlr</i>	DLR is transmitted through http to a third party application using GET or POST method.
tags	Text	Optional	Will tag the routable to help interceptor or router enable specific business logics.
content	Text	Mandatory <b>y</b> if <b>hex-content</b> not defined	Content to be sent
hex-contet	Binary hex value	Mandatory <b>y</b> if <b>content</b> not defined	Binary to be sent

## HTTP response

When the request is submitted D7 API, you will get the following responses from the system.

On success:

*Success "07033084-5cfd-4812-90a4-e4d24ffb6e3d"*

Otherwise:

*Error "No route found"*

If any error happened, you will get the HTTP Error Code along with the response.

HTTP Code	HTTP Body	Meaning
200	Success "07033084-5cfd-4812-90a4-e4d24ffb6e3d"	Message is successfully queued, messaged-id is returned
400	Error "Mandatory arguments not found, please refer to the HTTPAPI specifications."	Request parameters validation error
400	Error "Argument _ is unknown."	Request parameters validation error
400	Error "Argument _ has an invalid value: _."	Request parameters validation error
400	Error "Mandatory argument _ is not found."	Request parameters validation error
400	dynamic messages	Credentials validation error
403	Error "Authentication failure for username:_"	Authentication error
403	Error "Authorization failed for username:_"	Credentials validation error
403	Error "Cannot charge submit_sm, check RouterPB log file for details"	User charging error
412	Error "No route found"	Message routing error
500	Error "Cannot send submit_sm, check SMPPClientManagerPB log file for details"	Fallback error, checking log file will provide better details