

API Documentation

The following APIs are listed in this document and included with Basic or Plus Plans.

<https://www.mosio.com/plans/>

If you're currently a Mosio client with an active plan and would like to turn on access, submit a support ticket at <https://www.mosio.com/support> and the development team will get you set up.

Basic/Plus Plan APIs

1. Send Single SMS

Send one or many SMS messages from your project

2. Message Batch Status

Check the delivery status of sent messages

3. Carrier Lookup

Check if a phone number is a mobile number

4. Text History (for account backup)

Download all texts sent and received on your project

5. Storyline Participant

Add a participant to a storyline. Also edit or remove them.

Custom APIs

Mosio has a library of over 40 SMS APIs providing additional two-way text messaging functions, some examples are listed below. If your use case requires functionality beyond what is listed above, [contact us](#) to discuss your project. Examples:

- Appointment Reminders
- Create Surveys
- Create Storylines
- TextChat (get interactive conversations)
- Contacts

How To Make Calls to the API

The API is based on RESTful principles, limited to two HTTP verbs: GET and POST.

Parameters are passed using the standard HTTP query string formatting, and responses are delivered in a JSON document in the body of the response.

All calls need to specify an API Key, which may be specified using:

- The standard http Authorization header
- X-ApiKey header
- Mosio also supports appending the ApiKey to the GET or POST request, but this is not recommended due to security concerns.

API Connection Examples

API Connection Examples

using "my-api-key" as the value of the api key.

Authorization Header:

```
curl -u my-api-key: https://api.mosio.com/api/text_history
```

X-ApiKey Header:

```
curl -H "X-ApiKey: my-api-key" https://api.mosio.com/api/text_history
```

POST

```
curl -d "ApiKey=my-api-key" https://api.mosio.com/api/text_history
```

GET

This method is not recommended as they API key may appear in log files.

```
curl "https://api.mosio.com/api/text_history?ApiKey=my-api-key"
```

1. API: Send Single SMS

HTTP Post

This API allows the client to submit one SMS message for delivery to a mobile number.

The following parameters should be submitted in a secure HTTP POST request.

Post URL: https://api.mosio.com/api/send_single_sms

Parameter	Type	Description
Phone	String	11 digit telephone number (ex: 15554443333)
Message	String	160 character maximum message to be sent as an SMS.
FromNumber	String	Optional The virtual number associated with the account that you would like the message to send from.

Response

Mosio will respond with a JSON object containing the following data:

Parameter	Type	Description
Success	Bool	TRUE is the transaction processed successfully, FALSE if an error occurred.
TransactionId	String	Unique ID for this SMS. Set to 0 if Success is FALSE.
ErrorCode	Int	Possible error values: 0 Successful transaction 1 Invalid API Key. 100 Invalid Phone Number. 101 No Message found. 103 STOP request received, will not send. 104 Not an SMS-enabled number, not sending. 105 Duplicate message, not sending 108 Invalid From Number 110 Unknown error
ErrorMessage	String	If an error occurred, this will provide a description of the error. Ex: "Invalid phone number", "Invalid API Key", etc.

Mosio will not check the ability of the phone number to receive SMS messages at the time of the API call, so a successful response does not guarantee message delivery. The **Success** parameter

will return TRUE if Mosio is able to parse a valid telephone number. If the number is valid, but is unable to receive messages due to a STOP request, **Success** will be FALSE, and an appropriate **ErrorMessage** will be set.

2. API: Message Batch Status

HTTP Post

This API allows the client to lookup the delivery status of a message by the MessageId specified when the message was submitted, or by the TransactionId returned from a **send_single_sms API** call. The POST requires two parameters: the client ApiKey, and a Batch parameter which contains a JSON encoded array of all the data.

The following parameters should be submitted in a secure HTTP POST request.

Post URL: https://api.mosio.com/api/message_batch_status

HTTP POST Parameters		
Parameter	Type	Description
Batch	String	JSON object specifying an array of TransactionId values and an array of MessageId values. This is limited to 1000 message status requests at a time.

Batch Parameter – Array of Arrays		
Index	Type	Description
TransactionIds	Array	Optional Array of TransactionId STRING values
MessageIds	Array	Optional Array of MessageId STRING values

Batch Example JSON array:

```
{
  "TransactionIds": [600,800],
  "MessageIds": ["100-2013-02-04 22:56:24","300-2013-02-04 22:56:24"]
}
```

In this example, two message status lookups will be performed by TransactionId, searching for values 600 and 800. Two more status lookups will be performed searching for the MessageId values of "100-2013-02-04 22:56:24" and "300-2013-02-04 22:56:24".

Messages will only be returned once in the results. If a TransactionId and a MessageId point to the same message, this message will only appear one time, not two.

If more than 1000 message status requests are sent, the entire batch will be rejected.

Response

Mosio will respond with a JSON object containing the following data:

Parameter	Type	Description
Statuses	Array	An array of Status objects , defined below. There will be one entry for each message found in the batch. If an ID is not found in the system, it will not be returned in the response.
Success	Bool	TRUE is the transaction processed successfully, FALSE if an error occurred.
ErrorCode	Int	Possible error values: 0 Successful transaction 1 Invalid API Key. 105 Unable to parse Batch parameter 106 Too many message ids found 110 Unknown error
ErrorMessage	String	If an error occurred, this will provide a description of the error. Ex: "Invalid phone number", "Invalid API Key", etc.

Status Objects		
Parameter	Type	Description
TransactionId	Int	TransactionId is a unique message identifier, the same one returned by the send_single_sms API.
MessageId	String	The MessageId is a unique message identifier set by the API user who submitted the message to be sent.
Phone	String	Phone number this message was sent to.
TimeSent	Int	Unix timestamp when this message was actually sent.
Status	String	This is the current status for the message. One of the following: Queued, Sent, CarrierBuffered, Delivered, Retried, Failed, Permission Denied
StatusMessage	String	If the Status is Failed, a description of why the message failed will be provided here if one is available.
StatusTime	Int	Unix timestamp corresponding to the current status update.
StatusHistory	Array	Array of objects containing all status info for this message. Object has parameters: Status, StatusMessage, StatusTime, all defined the same as above.

3. API: Carrier Lookup

Post to Mosio

The following parameters should be submitted in an HTTP POST request. An SSL connection is required.

Post URL: https://api.mosio.com/api/carrier_lookup

Parameter	Type	Description
Phone	String	USA based telephone number (ex: 15554443333)

Response

Mosio will respond with a JSON object containing the following data:

Parameter	Type	Description
Phone	String	The phone number, in 11 digit format.
IsSmsEnabled	Bool	TRUE if the number can receive SMS messages from the shortcode.
CarrierId	String	The numeric Carrier ID.
CarrierName	String	Name of the Carrier. See table below.
Success	Bool	TRUE is the transaction processed successfully, FALSE if an error occurred.
ErrorCode	Int	Set to 0 if the lookup is successful. Possible error values: 0 Successful lookup. 1 Invalid API Key. 300 Invalid telephone number. 301 Temporary failure from the lookup service, try again. 302 Unable to connect to lookup services, try again. 303 STOP request received, will not send. IsSmsEnabled will be set to FALSE.
ErrorMessage	String	If an error occurred, this will provide a description of the error. Ex: "Invalid phone number", "Invalid API Key", etc.

Examples

Successful SMS Enabled Lookup

Phone number: 555-100-1000

```
{"Phone": "15551001000", "IsSmsEnabled": true, "CarrierId": 10001, "CarrierName": "Mosio",  
"Success": true, "ErrorCode": 0, "ErrorMessage": ""}
```

Successful non-Enabled Lookup

Phone number: 877-667-4699

```
{"Phone": "18776674699", "IsSmsEnabled": false, "CarrierId": null,  
"CarrierName": null, "Success": true, "ErrorCode": 0, "ErrorMessage": ""}
```

Error, Invalid Phone Number

Phone number: 123

```
{"Phone": "", "IsSmsEnabled": false, "CarrierId": null, "CarrierName": null,  
"Success": false, "ErrorCode": 300, "ErrorMessage": "Telephone number is invalid."}
```

Error, Stopped Phone Number

Phone number: 555-100-1001

```
{"Phone": "15551001001", "IsSmsEnabled": false, "CarrierId": 10001,  
"CarrierName": "Mosio", "Success": false, "ErrorCode": 303, "ErrorMessage": "STOP request received from  
mobile phone, shortcode will not deliver SMS."}
```

4. API: Text History

Overview

This API will allow you to view and edit the current opt-in status of each contact on your account.

Text History Object	
Value	Description
Direction STRING	in = message originated from the mobile phone and sent to Mosio out = message originated from Mosio and sent to the mobile phone
PptId STRING	Participant / Subject ID
Id INT	Message ID in Mosio.
UserId INT	The subject's User ID in the Mosio system.
Phone STRING	Phone number this message was sent to/from
MosioNumber STRING	The Mosio account phone number used to send/receive this message.
Processed_As STRING	If Direction = in This will represent how the system processed the message, either as part of a survey, or part of textchat. If Direction = out This will represent what sent the message, either textchat, a storyline, a survey, etc.
Body STRING	The message contents.
Date STRING	The date the message was sent or received, in the account's local time.
Status INT	If Direction = in 1 = success Any other status is an error message If Direction = out This is the delivery status of the outgoing message. 40, 100, and 200 represent delivered. See StatusDescription for additional info.
StatusDescription STRING	Description of the status.
Images ARRAY	An array of objects with 2 properties: thumb, fullsize Each property represents a relative URL to download the image. Append to the BASE URL to download the image.

HTTP GET

Submit an HTTP GET request to get an array of TextHistory objects.

API URL: https://api.mosio.com/api/text_history

Optional parameters supplied in the query string:

HTTP GET Parameters		
Parameter	Type	Description
Limit	Int	Optional Amount of text messages to return in this call. 1000 is maximum value.
Since	DateTime	Optional Get messages equal to or newer than this DateTime. If not specified, get all messages (up to the max limit).

Response

Mosio will respond with a JSON object containing status and an array of TextHistory objects.

Content-Type: application/json

Contact Status Response Object		
Name	Type	Description
Success	Bool	TRUE if the API processed successfully, FALSE if an error occurred.
Contacts	JSON Array	JSON Array of Contact Status objects , one for each contact found.
Status	Int	Possible error values: 0 Successful transaction 1 Invalid API Key 107 Unable to find account
Error	String	If an error occurred, this will provide a description of the error. Ex: "Invalid API Key", etc.

5. API: Storyline Users

Overview

This API will allow you to list, add, update, or remove participants on your existing Storylines.

GET API Parameters are passed using the standard HTTP query string formatting.

POST API Parameters are passed in the body of the request, using the content-type specified by the API.

Responses are delivered in a JSON document in the body of the response.

All calls need to specify an API Key, which may be specified using:

- The standard http Authorization header
- X-ApiKey header

API Connection Examples

API Connection Examples
using "my-api-key" as the value of the api key.
Authorization Header: curl -u my-api-key: https://api.mosio.com/api/storyline_users
X-ApiKey Header: curl -H "X-ApiKey: my-api-key" \ https://api.mosio.com/api/storyline_users

Connection Details

Production Environment

Base URL	https://api.mosio.com/api/
API URL	https://api.mosio.com/api/storyline_users

GET – List users on storylines

Request

Submit an HTTP GET request to receive an array of objects. You can limit the results to one storyline by specifying the storyline name on the url:

Get all users on all storylines:

https://api.mosio.com/api/storyline_users

Get users only on storyline1: https://api.mosio.com/api/storyline_users/storyline1

The Request Body is empty.

Response

Mosio will respond with a JSON object containing status of the API call and the status of each user in the requested storyline(s).

Content-Type: application/json

API Response Object		
Name	Type	Description
Success	Bool	True if the batch processed, False otherwise
ErrorCode	Int	API Level errors: 0: Success 1: Invalid API Key or storyline
ErrorMessage	String	A description of the error code.
Count	Int	Count of users returned.
Batch	Array	<p>An array of objects like:</p> <pre>[{ "UserId": 56, "Phone": "15555555555", "ParticipantId": "test-user", "StartDate": "2020-01-01", "DayNumber": 7, "State": "Active", "Storyline": "testStory", "StorylineId": 12345, "StorylineFriendlyName": "story friendly name" }]</pre> <p>DayNumber is the current storyline day the subject is on, where StartDate equals Day 0.</p> <p>Storyline is the internal name for the storyline, and may be used with API calls.</p> <p>StorylineId may also be used in place of the internal storyline name.</p> <p>StorylineFriendlyName is not supported by the API, but is returned to help identify which Storyline is referenced.</p>

Example

Submit via curl:

```
curl \
-u my-api-key: \
-X GET \
https://api.mosio.com/api/storyline\_users
```

POST – Create, Update, Remove users on Storylines

StorylineUsers Object

Submit an HTTP POST request with the following JSON object, or an Array of these JSON Objects. The maximum size of the batch if an Array is sent is 1000 objects.

Content type: application/json

StorylineUser Object		
Name	Type	Description
Action	String (required)	<p>Value: Add, Update, or Remove</p> <p>Add: Will add a Phone to the storyline and save the ParticipantData only if Phone is not in the storyline already. If this Phone is already in the storyline, this item will be skipped with no ParticipantData updated, and ErrorMessage will contain that info.</p> <p>Update: Will update the StartDate and the ParticipantData of this Phone in the storyline. If the Phone is not already in the storyline, Update functions the same as Add.</p> <p>Remove: Will delete this Phone from the named storyline. No error is thrown if the Phone is not already in the storyline.</p>
Phone	String (required)	<p>Phone number of the participant. Formatting does not matter. The following are all equivalent: (555) 555-5555; 555.555.5555; 5555555555</p> <p>North American country code is assumed, to add an international number, prefix with +CountryCode, such as: +525555555555</p>
Storyline	String (required)	<p>This is either the internal name for the storyline, or the numerical ID of the storyline the participant will be added to.</p> <p>Please note the friendly name of the Storyline will not work, please get the internal name or ID from the URL of the storyline.</p>
StartDate	String (optional)	<p>Format: YYYY-MM-DD</p> <p>This corresponds to Day 0 in the storyline. Messages start on day 1, but the welcome message will be sent immediately upon enrollment (if a welcome message exists).</p> <p>If no date is specified, the current date is used.</p>

ParticipantId	String (optional)	The participant ID displayed in Mosio for this phone number. If different from what currently exists, the participant ID will be updated. If empty, this will be ignored.
ParticipantData	Object (optional)	<p>Any additional variables specified in this JSON-encoded object will be stored with the participant in Mosio.</p> <p>Example object:</p> <pre>{ "Group" : "a", "Site" : "site1", "EndDate" : "2025-06-01" }</pre> <p>The three variables, Group, Site, and EndDate will be stored with the participant and accessible via the contacts page and by any other logic inside Mosio Surveys or Storylines.</p>
MosioUserId	Int <i>(set by Mosio)</i>	<p>Mosio's internal User Id for this phone.</p> <p>This value is set by Mosio on API response.</p>
ErrorCode	Int <i>(set by Mosio)</i>	<p>Any non-zero value is an error.</p> <p>Possible Error Values:</p> <ul style="list-style-type: none"> 0: Success 1: Not Processed (See ErrorMessage for more info) 2: Storyline not found 3: Invalid Object 4: Could not create user 5: User already in storyline (for Add action)
ErrorMessage	String <i>(set by Mosio)</i>	A description of the error code.

Response

Mosio will respond with a JSON object containing status of the API call and the status of each Object added to the storylines.

Content-Type: application/json

API Response Object		
Name	Type	Description
Success	Bool	True if the batch processed, False otherwise
ErrorCode	Int	API Level errors: 0: Success 1: Invalid API Key 2: Could not parse data object, invalid JSON 3: Could not parse data object, not array or object 4: Batch exceeds max size of 1000 objects
ErrorMessage	String	A description of the error code.
Batch	Array	An array of the data submitted to the api call.

Example

To add one phone to the storyline "StorylineTest1", submit data like:

```
[[
  "Action"      : "Add",
  "Phone"       : "555-555-5555",
  "Storyline"   : "StorylineTest1",
  "StartDate"   : "",
  "ParticipantId" : "test-participant",
  "ParticipantData" : {
    "Group" : "a",
    "Site" : "site1",
    "EndDate" : "2025-06-01"
  }
]]
```

Submit via curl:

```
curl \
-u my-api-key: \
-H "Content-Type: application/json" \
-X POST \
-d '{"Action":"Add","Phone":"555-555-5555","Storyline":"StorylineTest1","StartDate":"","ParticipantId":"test-participant","ParticipantData":{"Group":"a","Site":"site1","EndDate":"2025-06-01"}}' \
https://api.mosio.com/api/storyline_users
```

Revision History

Version	Date	Author	Summary of Changes
1.1	14-Jan-2022	Jay Sachdev	Add revision history; Add example; Update data required
1.2	21-Jan-2022	Jay Sachdev	<ul style="list-style-type: none"> • Add GET method • Add "remove" action on POST • Update API name to be plural