



Merge Messaging Portal

API Developer Guide

API Introduction

The Merge API provides the simplicity that you are looking for when enabling your applications to send SMS messages. Sending a message is as easy as POSTing a web form.

The HTTP API interface contains the following functions:

API	Purpose
https://merge.shortcode.co.nz/api/3/sms/out	Send a single message
https://merge.shortcode.co.nz/api/1/sms/in	Receive a single incoming message via polling
https://merge.shortcode.co.nz/api/3/sms/out/poll	Receive a outgoing messages via polling
https://merge.shortcode.co.nz/api/1/sms/status	Receive the status of messages you've sent (e.g. Learn when a message is received) via polling
https://merge.shortcode.co.nz/api/2/sms/list	Receive a list of recent messages via polling
n/a	Receive incoming messages and statuses via http callback

To use the API [simply authenticate your user](#) and POST method parameters to the Merge server in the same way that a browser would.

To do this method parameters are first HTML form encoded and then submitted in a HTTP POST. This is well supported in most development environments.

Note: The number and order of parameters may vary. The parameter names described in this document will not change, however new parameters may be added from time to time.

Top Tips - useful pointers

Using a REST API is straightforward - no mucking around with XML and a very simple interface.

It is best to get familiar with the REST API outside of your code first - so that you can get a feel of how it hangs together without writing stuff and realising there may have been an oversight.

GUI Tools

We can recommend [Postman](#) as a way to easily construct the API calls to Merge - including saving them for later reference.

Command line tools

[cURL](#) is an awesome old-school tool for fetching and putting to web URL's from the command line. There is even a Windows version if you don't fancy using a GUI as mentioned above. Because cURL is a command line tool you can build it into scripts such as Bash shell scripts and use those to interact with the Merge API. Perfect if you don't want to start involving developers.

Integration Examples

We've put together some simple examples illustrating how to use the [/api/3/sms/out](#) API to send a message using a number of popular programming languages: [HTML](#), [Java](#), [Objective C](#), [PHP](#), and [Python](#)

API Authentication

Before we allow use of our APIs you must first authenticate yourself, so we know who you are. API calls can be authenticated in a few different ways, but all options are underpinned by SSL/TLS encryption for security.

API Key in an HTTP Bearer token

An API key can be manually created from within Merge on the [My Settings | Api Keys](#) page, by clicking the 'Create' menu item.

New Api Key Successfully Created

Your new Api Key **integration** has been created. You will not be able to view this api key again once you close this window, so make sure to save it somewhere safe. Remember that this will give full access to your account, so don't give it to anyone you don't trust.

```
eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiI2MDAwMTA1ODczIiwiaWUiOiJldm8iOnRydWUsImZcyI6InAiLCJwcmVmZXJyZWRfdXNlcm5hbWUiOiJidWxsZXRpblxcbXljb2lwYW55X2FkbWluIiwiaWF0IjoxNTA3MjUzNTgyLCJqdGkiOiJhRUtVVC9PSj9.9GwyIowF7uwkatLD5tPcuo2fZW97ooNPXkr13xBLBak
```

OK

Make sure you copy the key to the clipboard, because you won't be able to access it again. Once you have generated an API Key you use it as a Bearer token in the HTTP Authorization header. eg:

```
curl -H 'Authorization: Bearer eyJhbG...LBak' https://merge.shortcode.co.nz/api/3/sms/out --data "to=642715414141" --data "body=hi"
```

Username and Password via HTTP Basic Auth

It is also possible to authenticate your user using [HTTP Basic Auth](#).

```
curl --user your-user-name:your-password https://merge.shortcode.co.nz/api/3/sms/out --data "to=642715414141" --data "body=hi"
```

Username and Password in HTTP POST request

```
curl https://merge.shortcode.co.nz/api/3/sms/out --data "userId=youruser-name" --data "password=your-password" --data "to=642715414141" --data "body=hi"
```

Sending Messages

Use secure HTTPS GET or POST (recommended) to send messages to <https://merge.shortcode.co.nz/api/3/sms/out>

Simple API Example

Here's a simple GET example:

```
https://merge.shortcode.co.nz/api/3/sms/out?userId=yourId&password=yourPassword&to=6422222221&body=hello%20world
```

Don't forget to use your password and an [international-format](#) number for the recipient, in the "to" parameter.

The complete list of [URL encoded](#) parameters for *sending* messages are:

Name	Description	Required?	Min. Version
userId	User name for authentication (same as used for logging into the website). User name and password may be passed as form encoded parameters, or in the HTTP Authorization header in Basic format.	YES	/api/1
password	Your account password	YES	/api/1
to	Destination Number (MSISDN or Address book item (contact or group)). For numbers, include the country code but do not include leading zeros, spaces, brackets or other formatting characters. You can send a message to multiple recipients by space-delimiting items. Version 3 (/api/3) supports multiple recipients using a space-delimited list	YES	/api/1
body	The Message to send. Messages can be up to 480 characters long, although this can be controlled by fragmentationLimit. The allowable character set may vary depending on the destination network. In general characters from the GSM default character set are safe (see GSM 03.38). Set contentType to "text/plain; charset=UTF-16" to support richer alphabets.	YES	/api/1
from	Your Message Source MSISDN that you wish to use so that recipients can identify you. Only numbers or source strings that you have registered against your account can be used. If undefined then the default value will be used from your account settings.	NO	/api/3
messageId	An identifier that you can use to track message status information for retrying due to errors or delays. Maximum 36 characters. If undefined a UUID will be generated for you. Not valid with Virtual Numbers or Short Codes.	NO	/api/3
fragmentationLimit	Sets maximum number of SMS message parts to use for Multipart SMS Messages. Gateways may not respect this setting, which may result in longer messages being delivered without warning. If undefined this defaults to the "Long Messages" setting configured for your user	NO	/api/3
contentType	"text/plain" or "text/plain; charset=UTF-16"	NO	/api/3
callbackUrl	Provide a mailto, http, or https URL to be called when replies are made to this message. See Callback URLs	NO	/api/3

Name	Description	Required?	Min. Version
callbackStatusUrl	Provide an http or https URL to be called when the status of this message changes. See Callback URLs	NO	/api/3

Handling a Response

Merge will respond to each and every HTTP request with one of the following result codes, and an XML response in the body.

Code	Meaning	Action Required
200	Success!	Message Passed API validation, check the HTTP response XML for details if message subsequently fails Note Merge versions earlier than /api/3 return a 204 response, so be careful if you are upgrading
204	Success!	No action required. Valid for /api/1 only
400	Bad Request	Examine status line for error message
401	Unauthorized	Check you are using the correct URL as well as userId and password values
403	Forbidden	Check company limits and address book restrictions and that the recipient is either a) a number, or b) a contact or group. Note companies may be limited in the number of messages sent per day and will get a 403 error if this is exceeded. Contact Support if you need this limit removed
500	Internal Error	Contact Support

Important

It is important to note that the API may return a 200 Success result but still fail due to invalid contact name or possibly insufficient funds. You should get into the habit of checking the response XML for any issues in particular if sending to multiple recipients.

The body of the response is an XML structure that provides more information about the send attempt.

The following XML response example indicates a fundamental problem with the request which resulted in no messages being sent. In this case due to an authentication problem:

```
<?xml version="1.0" ?>
<outbound-message-delivery messageId="FebPromo" isError="true" errorCode="401" errorMessage="Unauthorised">
</outbound-message-delivery>
```

The following response indicates that processing was at least partially successful. The "salestem" error is likely due to a typo in the request, which should've been "salesteam".

```
<?xml version="1.0"?>
<outbound-message-delivery messageId="FebPromo" isError="false">
  <recipient msisdn="6421111111" isError="false"/>
```

```
<recipient msisdn="6421111112" isError="false"/>
<recipient msisdn="6422222221" isError="true" errorCode="403" errorMessage="Cannot deliver to 6422222221
(Number in Blocked List)"/>
<recipient msisdn="salestem" isError="true" errorCode="403" errorMessage="Cannot deliver to salestem (Contact
not in Address Book)"/>
</outbound-message-delivery>
```

Receiving via Callbacks

Merge can call URLs you provide when certain events occur. These events are:

- An inbound 'reply' message is received for your organisation.
- The status of an outbound message has changed (e.g. it has been received).

Note that default values can be defined for your organisation from within Merge, on the [API Settings page](#), and only need to be defined when using the API if they need to vary from the defaults.

API Settings

Callback URL Format ⓘ

XMLv3

Default Callback URL for Replies

http://example.com/reply?from={!recipient.msisdn}&msg={!body}

What http endpoint should we call every time a message is replied to?

Default Callback URL for Statuses

http://example.com/status?from={!recipient.msisdn}&status={!status}

What http endpoint should we call every time a message has its status changed?

Save

Each time an appropriate event occurs, Merge will call your provided URL.

If your service returns an http result code in the 400+ range we will retry for up to 48 hours. To avoid duplicate messages being posted to your service we recommend you issue an http 200 status code. If the reply has NOT been successfully acknowledged within 48 hours it will be removed from the retry queue and can viewed on-line only.

The currently supported delivery protocols are **http POST**, **https POST**, and, for callbackUrl only, **mailto**.

Callback URLs can include variables that Merge will populate dynamically at runtime. These are as follows:

Variable	Purpose	Reply or Status?
{!messageId}	Indicates the message that this reply is associated with. Either the messageId value returned in the <code>/api/3/sms/out</code> call, or a UUID allocated automatically by Merge if <code>/api/3/sms/out</code> was not used. Not valid with Virtual Numbers or Short Codes.	Both
{!body}	The body of the message that has been received.	Reply
{!recipient.msisdn}	The msisdn that has triggered this callback	Both
{!recipient.displayname}	The name of the entity that triggered this callback, when available	Both

Variable	Purpose	Reply or Status?
{!status}	The status of the message that was sent to {!recipient.msisdn}	Status

Some http examples:

`http://example.com/sms-reply?msg={!messageid}&from={!recipient.msisdn}&body={!body}`

`http://example.com/sms-state?msg={!messageid}&from={!recipient.msisdn}&status={!status}`

The mailto: protocol supports standard parameters 'Subject' and 'Body':

Parameter Name	Purpose	Required
Subject	Controls the Subject used in the email notification	NO. If undefined will default to "RE:"
Body	Controls the Body of the email sent in the email notification	NO. If undefined will default to the body of the message sent by the recipient

Some mailto: examples:

`mailto://someone@example.com?Subject=Message+from+{!recipient.msisdn}&Body={!recipient.displayname}+says:+{!body}`

`mailto://someone@example.com`

The http and https response sent to your callbackUrl, called when a message arrives for your Organisation, is available in two different formats. One is based on XML, and the other is an FORM POST format.

The format used in the callback is defined by your Organisation on Merge and are labelled "XMLv3" and "FORMv1".

Handling a Reply callback

When we call your server the data we provide to you depends on the format selected. These properties are:

XMLv3 Property	FORMv1 Property	Purpose
messageId	InReplyToId	This is the <code>messageId</code> value returned in the <code>/api/3/sms/out</code> call, or a UUID allocated automatically by Merge if <code>/api/3/sms/out</code> was not used. Blank if this is not a reply. Not valid with Virtual Numbers or Short Codes
receivedDate	n/a	The date the reply message was received, formatted as ISO-8601 in the UTC Timezone
displayName	n/a	The human-readable version of the msisdn, if available
msisdn	from	The phone number that sent the message.

XMLv3 Property	FORMv1 Property	Purpose
n/a	to	The phone number that Merge received the message on
body	body	The content of the SMS message received from the MSISDN (formatted as CDATA for XML)

The "XMLv3" reply document is formatted as in the following example:

```
<?xml version="1.0" ?>
<inbound-message messageId="FebPromo" receivedDate="2012-03-20T01:36:00Z">
  <recipient displayName="Big Bob" msisdn="6421333333">
    <body><![CDATA[Thanks for that]]></body>
  </recipient>
</inbound-message>
```

The "FORMv1" reply document is simply an http post containing the following form properties, as described above:

- messageId
- to
- from
- inReplyToId
- body

Handling a Status callback

The data available in the status callback depends on the format selected. These properties are:

XMLv3 Property	FORMv1 Property	Purpose
messageId	InReplyToId	This is the messageId value returned in the /api/3/sms/out call, or a UUID allocated automatically by Merge if /api/3/sms/out was not used. Blank if this is not a reply. Not valid with Virtual Numbers or Short Codes.
to	to	A MSISDN or Short Code from Bulletin's threading range
from	from	The number of the handset that the status change is associated with. e.g. Who received the message.
statusCode	statusCode	See Message Status Codes for simple descriptions of Codes used.
statusDate	n/a	The date the status message was received, formatted as ISO-8601 in the UTC Timezone
statusId	messageId	A unique identifier for this status message. Check this ID to ensure you have not already processed this status update.
error	error	More readable information about the Message Status, when available.

The "XMLv3" status document is formatted as in the following example:

```
<?xml version="1.0" ?>
<status-update>
  <messageId>summerpromo76</messageId>
  <to>4040</to>
  <from>021333333</from>
  <statusCode>RCV</statusCode>
  <statusDate>2012-03-20T01:36:00Z</statusDate>
  <statusId>9182</statusId>
  <error></error>
</status-update>
```

The "FORMv1" reply document is simply an http post containing the following form properties, as described above:

- messageId (please note that this is, unfortunately, the same as the XMLv3 property "statusId", *not* the XMLv3 property "messageId")
- to
- from
- statusCode
- inReplyToId
- error

Note: The order of the parameters may change so use value/pair matching rather than location mapping.

Using Callbacks in the API

The API allows Callback URLs to be defined individually when each message is sent, which is useful if you don't wish to use a Company default.

These are defined by API parameters **callbackUrl** and **callbackStatusUrl**

When defining these URLs they must be URL encoded prior to inclusion in the request. Here's a walkthrough describing how to define a "mailto:" URL:

Step 1: URL Encode your mailto parameters (if used) Replace the newlines (\n below) with %0A and spaces with %20. Any other characters should also be encoded

```
Subject=Message: {!messageId}&Body={!body}\n\n-- \nIn Reply to {!messageId}\n\n
```

to get the encoded string below

```
Subject=Message:%20{!messageId}&Body={!body}%0A%0A--%20%0AIn%20Reply%20to%20{!messageId}%0A%0A
```

Step 2: Concatenate the mailto string together as below

```
mailto:notifier@example.com?Subject=Message:%20{!messageId}&Body={!body}%0A%0A--%20%0AIn%20Reply%20to%20{!messageId}%0A%0A
```

Step 3: Finally URL Encode the entire string, for use as the "callbackUrl" parameter

```
mailto%3Anotifier@example.com%3FSubject%3DMessage%3A%2520%7B%21messageId%7D%26Body%3D%7B%21body%7D%250A%250A--%2520%250AIn%2520Reply%2520to%2520%7B%21messageId%7D%250A%250A
```

Note: This does result in 'double' encoding of the mailto parameters if used. This is correct and required.

Given the URL shown in the above example, if the original SMS was "Sign up for our competition", with a messageId of "FebPromo", and the recipient replied with "Yes Please", the email body delivered would be:

Yes Please

– In Reply to FebPromo

Sign up for our competition

Receiving Incoming Messages via Polling

You may obtain information about Messages and [Statuses](#) via our Polling API. Polling is 'firewall friendly' and often easier to implement (especially if you are working outside an HTTP server), but for the best experience we recommend [Callbacks](#).

Use secure HTTPS GET or POST (recommended) to receive messages

via <https://merge.shortcode.co.nz/api/1/sms/in>

Simple API Example

Here's a simple GET example:

<https://merge.shortcode.co.nz/api/1/sms/in?userId=yourId&password=yourPassword>

Don't forget to use *your* login and password

All messages appear in this api – including those that have been notified via callbacks. Each call to this API returns a single unread message and then marks it as read

There are just two [URL encoded](#) parameters for *polling* messages:

Name	Description	Required?
userId	User name for authentication (same as used for logging into the website). User name and password may be passed as form encoded parameters, or in the HTTP Authorization header in Basic format.	YES
password	Your account password	YES

Merge will respond to each and every HTTP request with one of the following result codes:

Code	Meaning	Action Required
200	OK (normal result)	Parse the results for the incoming message details as described below.
204	No content (no messages)	No incoming messages. Pause processing and retry after 30 seconds.
401	Unauthorized	Check userId and password .
500	Internal Error	Contact Support

Polling Delays

Please note that polling will wait for 30 seconds if there are no unread messages in the hope a new message arrives during that period. This is expected behaviour

Polling will only transmit unread messages within the Merge platform and mark them as read once transmitted. Remember this when testing.

For 200 codes (success) Merge will include a form encoded parameter list containing some or all of message information as described below.

Note: The order of the parameters may change so use value/pair matching rather than location mapping.

List Item	Description	Notes
messageId	A unique identifier for the message	Merge Unique ID. Check this ID to ensure you have not already processed this incoming message.
from	Source MSISDN	The sender of the SMS message in International format .
to	Destination MSISDN	The number the message was sent to. Applies to MO messages messages only , not to reply messages.
inReplyToId	Correlation ID (if the message is a reply)	Matches the messageId returned to you in the response to /api/3/sms/out. If no messageId was set when you submitted the original message then this will contain 'default'. If the message is sent to a dedicated short code then the inReplyToId parameter will not be available even if it is a reply to a message you have sent from that short code (or virtual number) as they are still considered MO messages .
body	Message Content	URL encoded content of the user's message
messageDate	The Date that the message is received	Formatted as ISO-8601 in the UTC Timezone, for example: 2017-05-16T01:23:04.417Z
contentType	The content type used in the message	text/plain, or text/plain; charset=UTF-16

Example GET Request

Substitute your correct Merge Credentials in this example and if you have any unread incoming messages available then you will download one of them if you access the URL in a browser.

```
https://merge.shortcode.co.nz/api/1/sms/in?userId=yourUserID&password=yourPassword
```

Example Mobile Initiated Message Content

This shows the content of the request when the messages is not a reply but is an '[MO messages](#)' message (ie: initiated by the handset).

Note: the [to](#) value is included in the content while the [inReplyToId](#) is not included.

```
body=Play+the+eagles+long+run&contentType=text%2Fplain&from=6149123456&messageId=3685355&to=4040&messageDate=2017-05-16T01%3A23%3A04.417Z
```

Example Content for Reply Messages

This shows the content of the request when the messages is a reply to one you sent previously.

Note: the [inReplyToId](#) which will map to the [messageId](#) you set in your original outbound message.

```
body=I+am+running+late+sorry&contentType=text%2Fplain&from=6421702659&inReplyToId=66071687&messageId=3685355
```

This is the same message when you do not set the [messageId](#) you set in your original outbound message.

```
body=I+am+running+late+sorry&contentType=text%2Fplain&from=6421702659&inReplyToId=default&messageId=3685355
```

Handy Hint

To take advantage of 2-way SMS message threading ensure that you set a unique messageId in your outbound message and match it with the `inReplyToId` in the incoming message. You can not receive specific messages/replies using the API. Access the <https://merge.shortcode.co.nz> web site to view your incoming messages or use the [Message Feed](#) to access your Inbox using your code/application.

Receiving Outgoing Messages via Polling

You may obtain information about Messages and [Statuses](#) via our Polling API.

Use secure HTTPS GET to receive messages via <https://merge.shortcode.co.nz/api/3/sms/out/poll>

Simple API Example

Here's a simple GET example:

<https://merge.shortcode.co.nz/api/3/sms/out/poll?userId=yourId&password=yourPassword>

Don't forget to use *your* login and password

All messages appear in this api. Each call to this API returns a list of messages sent since last polling date and then last polling date is updated with the latest polling date.

There are just two [URL encoded](#) parameters for *polling* messages:

Name	Description	Required?
userId	User name for authentication (same as used for logging into the website). User name and password may be passed as form encoded parameters, or in the HTTP Authorization header in Basic format.	YES
password	Your account password	YES

Merge will respond to each and every HTTP request with one of the following result codes:

Code	Meaning	Action Required
200	OK (normal result)	Parse the results for the outgoing message details as described below.
401	Unauthorized	Check <code>userId</code> and <code>password</code> .
500	Internal Error	Contact Support

For 200 codes (success) Merge will include JSON response containing some or all of message information as described below.

Note: The order of the parameters may change so use value/pair matching rather than location mapping.

List Item	Description	Notes
messageId	A unique identifier for the message	Merge Unique ID. Check this ID to ensure you have not already processed this outgoing message.
body	Message Content	The user's message

List Item	Description	Notes
recipientCount	Number of recipients	
recipients	Recipients	A string containing a summary of the recipients, for example: Bob, Mary + 7 others
messageDate	The Date that the message is received	Formatted as ISO-8601 in the UTC Timezone, for example: 2017-05-16T01:23:04.417Z
statusCode	A summarised delivery status of the message. For an accurate status consult the 'recipientsList.statusCode'	See Message Status Codes for simple descriptions of Codes used.
deleted	Flag to identify if deleted	Indication flag whether the message is deleted or not
recipientsList	List of recipients	
recipientsList.from	Source address	The sender of the message in International format .
recipientsList.to	Destination address	The address the message was sent to. Applies to MT messages messages only , not to reply messages.
recipientsList.name	Recipient name	The name of the person who receives the message
recipientsList.statusCode	The delivery status of the message	See Message Status Codes for simple descriptions of Codes used.
recipientsList.channel	Channel	The method used to deliver the message, i.e. Sms

Example GET Request

Substitute your correct Merge Credentials in this example and if you have any outgoing messages available then you will download a list of them if you access the URL in a browser.

`https://merge.shortcode.co.nz/api/3/sms/out/poll?userId=yourUserID&password=yourPassword`

Receiving Status via Polling

Clients can GET incoming receipts (status updates) from <https://merge.shortcode.co.nz/api/1/sms/status>
Clients can be advised of incoming receipts (status updates) via HTTPS GET or POST (recommended) calls <https://merge.shortcode.co.nz/api/1/sms/status>

Simple API Example

Here's a simple GET example:

<https://merge.shortcode.co.nz/api/1/sms/status?userId=yourId&password=yourPassword>

Don't forget to use *your* login and password

There are just two [URL encoded](#) parameters for *polling* messages:

Name	Description	Required?
userId	User name for authentication (same as used for logging into the website). User name and password may be passed as form encoded parameters, or in the HTTP Authorization header in Basic format.	YES
password	Your account password	YES

Merge will respond to each and every HTTP request with one of the following result codes:

Code	Meaning	Action Required
200	OK (normal result)	Parse the results for the incoming message details as described below.
204	No content (no messages)	No incoming messages. Pause processing and retry after 30 seconds.
401	Unauthorized	Check userId and password .
500	Internal Error	Contact Support

Polling Delays

Please note that polling will wait for 30 seconds if there are no unread messages in the hope a new message arrives during that period. This is expected behaviour

Polling will only transmit unread messages within the Merge platform and mark them as read once transmitted. Remember this when testing.

For 200 codes (success) Merge will include a form encoded parameter list containing some or all of message information as described below.

Note: The order of the parameters may change so use value/pair matching rather than location mapping.

List Item	Description	Notes
messageId	A unique identifier for the message	Merge Unique ID. Check this ID to ensure you have not already processed this status update.
to	A MSISDN or Short Code from our threading range	

List Item	Description	Notes
from	Destination MSISDN of message	The recipient number of an outbound message sent by you in International format .
statusCode	Message status	See Message Status Codes for simple descriptions of Codes used.
inReplyToId	Correlation ID of the message	Matches the <code>messageId</code> returned to you in the response to <code>/api/3/sms/out</code> . If no <code>messageId</code> was set when you submitted the original message then this will contain 'default'. Not valid with Virtual Numbers or Short Codes.
error	Descriptive text	More, readable information about the Message Status

Recent Message RSS Feed

You may wish to view your recent messages in an RSS Reader, or your own custom application. Use secure HTTPS GET or POST to view such messages via <https://merge.shortcode.co.nz/api/2/sms/list> in either RSS or ATOM format.

API Feed Parameters

Recognised URL encoded parameters for retrieving messages are:

Name (case sensitive)	Valid Values	Description	Required?
userId	String	User name for authentication (same as used for logging into the website). User name and password may be passed as form encoded parameters, or in the HTTP Authorization header in Basic format.	YES
password	String	Your account password.	YES
format	"ATOM" or "RSS"	Result format	NO. Default feed format is ATOM 1.0
type	"out" or "reply"	The type of messages to return	NO. By default we return both out and reply
size	Integer	The maximum number of messages to return. Note that no more than 300 messages will be returned.	NO. Defaults to 8

Your application should parse the resulting XML feed and display or manipulate your recent messages.

Details of your account including account balance, type and currency is included in the feed results. This will allow you to monitor your account status and initiate a payment before your service is restricted.

Feed Example

```
https://merge.shortcode.co.nz/api/2/sms/list?userId=yourUsername&password=yourPassword&format=ATOM&type=reply&size=20
```