Quriiri HTTP MT API

This document describes the Quriiri HTTP MT API version 1 (v1).

Sending messages

The URL to send HTTP requests to is available in the Quriiri web UI.

Request types

Quriiri's HTTP API supports the following request types:

JSON	HTTP POST, with UTF-8 encoded JSON data as request body. Invoked for POST requests with `Content-Type` HTTP header set to `application/json`.
POST	HTTP POST, with UTF-8 URL encoded form data as request body. Invoked for POST requests with `Content-Type` HTTP header set to `application/x-www-form-urlencoded`.
GET	HTTP GET, with UTF-8 URL encoded data in query string. It is not recommended to use this request type in production; it is mainly present to support systems for which the other request types are not an option as well as for quick tests.

For the JSON and POST request types, parameters in them can be overridden by adding query string parameters encoded the same way as with the GET request type.

Security

While the Quriiri API is available through plain unencrypted HTTP, we strongly recommend using HTTPS and resort to HTTP only if HTTPS support is not available in the system to be interfaced with us.
All API requests must be authenticated. Authentication is based on API keys which can be managed in the Quriiri web UI. The API key must be sent with each request in one of the following:

Authorization HTTP header	`Authorization: apikey your-api-key-goes-here` (where your-api-key-goes-here is your API key)
apikey parameter	Set the value of the apikey parameter to your API key according to the request type used.

Request parameters

Parameter name	Description	Required
sender	Message sender. International numbers with + or 00 prefix and 5 to 15 numbers following it, national ones / shortcodes with 1 to 15 numbers, alphanumeric with max 11 characters. Although other characters may work, we cannot guarantee it and recommend restricting the characters used in alphanumeric senders to letters A-Z and a-z, and digits 0-9.	Yes
sendertype	Sender type; MSISDN (international number), NATIONAL (national number / shortcode), ALNUM (alphanumeric) -- optional; if missing, an attempt is made to guess one from the sender, and guess failure results in an error.	No
destination	Message destination number in international or national format. International numbers should begin with + or 00 prefix and national format numbers will be converted to Finnish ones. For maximum reliability, we recommend using only international format numbers, with nothing but digits following the international prefix. The HTTP response contains information about which international number each accepted destination was converted to or treated as. Accepts multiple values: array in JSON, set multiple times with form POST and GET.	Yes
text	Message text. Based on the text, Quriiri automatically determines whether the message can be sent using the GSM character set or if sending it as Unicode is required. Also, Quriiri determines automatically how many SMS messages sending the message will require. The general rule of thumb is that the first SMS using the GSM character set can hold up to 160 characters; if there are more, concatenation is required and each SMS (including the first one) can hold up to 153 characters. Note that some characters in the GSM character set will consume two characters instead of one. For Unicode, the corresponding numbers are 70 and 67. Optional, but either text or data is required. If text is provided, data is ignored.	Yes
udh	User data header, bytes encoded as hexadecimal characters. Optional, maximum number of bytes in udh and data combined is 140. Note that concatenated text messages may be sent using the entire message context in the text parameter, without setting udh, and Quriiri will take care of splitting the message into appropriately sized parts.	No

data	Binary message data, bytes encoded as hexadecimal characters. Optional, but either data or text is required. If text is provided, data is ignored. Maximum number of bytes in udh and data combined is 140.	No
batchid	Batch ID, max 255 characters, optional. Used to group interrelated messages, for example if some special actions should be taken to a group of separately sent but logically related messages. Under normal circumstances, Quriiri does not use this parameter but just relays it back in corresponding delivery reports.	No
billingref	Billing reference, max 255 characters, optional. This is solely for the API user, Quriiri does not do anything else with it besides relaying it back in corresponding delivery reports.	No
drurl	Delivery report URL, optional. URL where to relay delivery reports. See the delivery reports chapter for more information.	No
drtype	Delivery report type; `JSON`, `POST`, or `GET`, similarly as for supported API request types. Optional, defaults to the format of the API request.	No
flash	Optional, send a "flash" SMS if set to `true`, `on`, `yes`, or a number greater than 0.	No
validity	Validity period of the message in minutes, optional. Integer >= 1. If not set, defaults to the value set in your account details.	No
scheduletime	Schedule time can be used for message scheduling. If a message is scheduled, the API response contains messageid for later message cancellation, if needed. Schedule time must be set in RFC 3339 format, ie. 2020-05-31T04:20:03Z . In scheduling the seconds and milliseconds are ignored, so every scheduled message is sent in a resolution of minutes.	No

Request examples

The following request examples send a message with contents "H€llo, world!" to two destination numbers +358400000001 and +358500000002, using Quriiri as the sender.

JSON

In a nutshell:

- ✓ HTTP POST request
- ✓ `Content-Type: application/json`
- ✓ Data encoded like `{ "param1": "value1", "param2": "value2", ... }`
- ✓ Data character encoding UTF-8
- ✓ Query string parameters override/take precedence

```
POST /v1 HTTP/1.1
Authorization: apikey xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx
Content-Type: application/json

{
    "sender": "Quriiri",
    "destination": ["+358400000001", "+358500000002"],
    "text": "H€llo, world!"
}
```

POST

In a nutshell:

- ✓ HTTP POST request
- ✓ `Content-Type: application/x-www-form-urlencoded`
- ✓ Data encoded like `param1=value1&param2=value2&...`
- ✓ Data character encoding UTF-8 (before URL encoding)
- ✓ Query string parameters override/take precedence

```
POST /v1 HTTP/1.1
Authorization: apikey xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx
Content-Type: application/x-www-form-urlencoded

sender=Quriiri&destination=%2B358400000001&destination=%2B358500000002&t
ext=H%E2%82%ACllo%2C%20world%21
```

GET

Same as POST, except form data in query string.

```
GET /v1?sender=Quriiri&destination=%2B358400000001&destination=%2B358500
000002&text=H%E2%82%ACllo%2C%20world%21 HTTP/1.1
Authorization: apikey xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx
```

Response

Supported response types are JSON and plain text, both with character encoding UTF-8. The choice of the type happens primarily per the `Accept` HTTP header sent with the request, and secondarily following the request type: JSON for JSON requests, plain text for others.

HTTP response statuses:

200	Request successfully processed.
4xx	Client error, see details in the response. Should not be retried without making changes.
5xx	Server error, retry later.

Response data will contain at least one of the following, possibly more than one:

errors	Errors occurred when processing the request.
warnings	Warnings occurred when processing the request.
messages	One of these for each destination number: ✓ destination: destination number as set in request ✓ converted: destination number as the Quriiri API converted it to and treats as the actual destination to send the message to ✓ status: status of the message for this destination ✓ reason: optional reason for the status ✓ messageid: if scheduletime is present in request For information about the status and reason values, see the delivery reports chapter.

JSON response example

Note that the < and > characters below are not present in actual responses, they are here only to mark placeholders that will be replaced by real data in actual responses.

```
Content-Type: application/json

{
    "errors": [
        {"message": "<error message>"}
        <...possibly more errors here...>
    ],
    "warnings": [
        {"message": "<warning message>"}
        <...possibly more warnings here...>
    ],
    "messages": {
        "<destination>": {
            "converted": "<converted destination number>",
            "status": "<status>",
            "reason": "<optional reason>"
            "messageid": "<message id>"
        }
        <...possibly more messages here...>
    }
}
```

Plain text response example

Note that the < and > characters below are not present in actual responses, they are here only to mark placeholders that will be replaced by real data in actual responses.

```
Content-Type: text/plain

error: <error message>
<...possibly more errors here...>
warning: warning message
<...possibly more warnings here...>
<destination>: <converted> <status> <optional reason or message id>
<...possibly more messages here...>
```

Cancel scheduled message

If a message was scheduled, it can be cancelled using the DELETE request with the message id returned in the Sending Message API response.

Request types

Supported request types are:

DELETE	HTTP DELETE, with message id in query string.

Request parameters

Parameter name	Description
messageid	Message id of message to be deleted

Response

The response for a successful message cancellation is *HTTP 204 No content,* which means that the message with a given message id will be cancelled. After cancellation is done, the message is marked with the status CANCELED and a delivery report is sent if it is requested by the application.

HTTP response statuses:

204	Request successfully processed.
4xx	Client error, see details in the response. Should not be retried without making changes.
5xx	Server error, retry later.

Request examples

The following request example cancels a scheduled message with the message id cjz2jbpaz16ir0pu4s31k5ko9

DELETE

```
DELETE /v1?messageid=cjz2jbpaz16ir0pu4s31k5ko9 HTTP/1.1
Authorization: apikey xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx
```

Delivery reports

Reports about the delivery status of sent messages are relayed using HTTP requests by Quriiri. The URL to which the requests are made, is the one supplied when the message was sent, using the format also determined at that time. If the receiving server cannot be contacted or if it responds with an HTTP status >= 500, the request will be retried a few times after an increasing delay.

Request types

Supported request types are:

JSON	HTTP POST, with UTF-8 encoded JSON data as request body, with the `Content-Type` HTTP header set to `application/json`.
POST	HTTP POST, with UTF-8 URL encoded form data as request body, with the `Content-Type` HTTP header set to `application/x-www-form-urlencoded`.
GET	HTTP GET, with UTF-8 URL encoded data in query string. It is not recommended to use this request type in production; it is mainly present to support systems for which the other request types are not an option.

Request parameters

Parameter name	Description
sender	Sender of the message.
destination	Destination number of the message. Corresponds to the `converted` number returned by the send API.
billingref	Billing reference as supplied when the message was sent.
batchid	Batch ID as supplied when the message was sent.
status	Delivery status. For information about possible values and their descriptions, see the delivery statuses chapter.
reason	Optional reason for the delivery status. For information about possible values and their descriptions, see the delivery statuses chapter.
statustime	Timestamp of the status, in ISO 8601 combined date+time format, including time zone designator.

smscount	Amount of SMS messages used to send the message. Please see section "Sending messages -> Request types -> text" for detailed information about the character count in SMS messages.

Request examples

The following request examples relay a delivery report for a message sent by the sender Quriiri to destination +358400000001, with billing reference bref, batch ID bid, failed delivery at 2015-08-26 12:34:55 UTC due to validity period elapsed, delivery report URL set to https://example.com/dr?custom1=data1&custom2=data2

The request headers shown in these examples are not exhaustive. Only the most relevant ones related to delivery report processing are shown, other ones will be present in addition to them.

JSON

```
POST /dr?custom=data1&custom2=data2 HTTP/1.1
Host: example.com
Content-Type: application/json

{
    "sender": "Quriiri",
    "destination": "+358400000001",
    "billingref": "bref",
    "batchid": "bid",
    "status": "FAILED",
    "reason": "EXPIRED",
    "statustime": "2015-08-26T12:34:55Z"
}
```

Note that JSON data in the example above is formatted and indented here for legibility, in actual requests it might not be.

POST

```
POST /dr?custom=data1&custom2=data2 HTTP/1.1
Host: example.com
Content-Type: application/x-www-form-urlencoded

sender=Quriiri&destination=%2B358400000001&billingref=bref&batchid=bid&s
tatus=FAILED&reason=EXPIRED&statustime=2015-08-26T12%3A34%3A55Z
```

GET

```
GET /dr?custom=data1&custom2=data2&sender=Quriiri&destination=%2B3584000
00001&billingref=bref&batchid=bid&status=FAILED&reason=EXPIRED&statustim
e=2015-08-26T12%3A34%3A55Z HTTP/1.1
Host: example.com
```

Delivery statuses

Delivery statuses in Quriiri message send responses and delivery reports are the following:

Status	Description
CREATED	The message has been created and is being processed.
SENT	The message has been sent from Quriiri.
ACKED	The message is en route and has been acknowledged by a carrier.
FAILED	The message failed to deliver. Check reason for more information.
DELIVERED	The message has been delivered.
UNKNOWN	The status of the message is not known.
RETRY	The message is being retried.

Sometimes there is more information available for the status of the message. When not, the reason is not given. These reasons are:

Reason	Description
BUFFERED	The message has been buffered e.g. due to congestion, and is being processed.
EXPIRED	The message's validity period expired.
CANCELED	The message was canceled.
FILTERED	The message was filtered by Quriiri's intelligent messaging logic.
INVALID	The recipient number was invalid.
TERMINAL_ERROR	An error related to the receiving device occurred.
CARRIER_ERROR	A carrier related error occurred.
BILLING_ERROR	A billing related error occurred.
SEND_ERROR	An error occurred while sending the message from Quriiri.
LIMIT_EXCEEDED	A message limitation was exceeded.

Revision history

Version	Description
1.0.6, 07.06.2020	Added message scheduling and cancellation of a scheduled message
1.0.5, 20.9.2019	Added requirements (Yes/No) to request parameters
1.0.4, 26.3.2019	Added smscount to delivery reports
1.0.3, 10.4.2018	Added binary message support
1.0.2, 13.1.2016	Add Authorization header to request examples
1.0.1, 6.11.2015	Document delivery report retry
1.0.0, 26.8.2015	Initial version