



www.smsmatrix.com

SMS Gateway

release 2.8

I. General Information

In addition to [SMS Matrix](http://www.smsmatrix.com) web (GUI) based SMS/Voice messaging platform, SMS Matrix also offers the SMS/TTS/Voice Gateway.

Matrix SMS Gateway provides an easy way to integrate SMS capabilities with your IT system, be it a simple website or a complex messaging or alerting system. It allows to deliver SMS, TTS and Voice messages to phone numbers **around the world**. SMS Matrix provides coverage to all countries.

SMS Matrix Gateway is extremely reliable and developer friendly; it handles either simple HTTP/HTTPS Post or XML access, which allows usage of any programming language capable of making HTTP posts. So far, access to Matrix SMS Gateway has been successfully implemented and tested with the following programming languages: PHP, Perl, Java, C#, Python, C and others.

If in doubt, please refer to Perl examples, as they were most thoroughly tested.

Because our service is focused on the North American market, we can provide really easy to use API, and much better customer support than our competition.

SMS Text messages in the Unicode (utf-8) are supported, as long as wireless carrier and phone receiver support given language. When the Unicode is used, most of Asian languages, including Chinese, are supported.

Text to Speech (TTS) and Voice messaging, however not being a part of the 'SMS' functionality, are also covered in this document.

Technical Support for the SMS Gateway is available at this email address: support@smsmatrix.com

II. Basic API Functions

Matrix SMS/TTS/Voice Gateway provides the following **API functions**, all available via HTTP/HTTPS calls:

- **Send SMS Message**
- **Send TTS Message**
- **Send Voice Message**
- **Query Message Status**
- **Cellular Carrier Lookup**
- **Query Account Balance**
- **Query Message Fee**

● Send SMS Message

HTTP/HTTPS call:

URL: <http://www.smsmatrix.com/matrix>

METHOD: POST

POST VARIABLES:

username:	Account user name (login) – an email address
password:	Account password
phone:	phone number, or comma delimited list of phone numbers
txt:	Text of the SMS message to be sent

Return value: For each phone number provided in the request, the following text entry is returned:

```
PIN=NNNNNNNNNN  
ID=TTTTTTTTTTTTT  
STATUSCODE=NNN  
STATUSTXT=TTTTTTTTTTTTTTTTTTTTTTTTTTT  
TIMESTAMP=NNNNNNNNNN
```

Each line ends with '\n' character. There is no '\r' character.

ID represents unique string assigned by the Gateway to this SMS message.

It is needed when the status of the message is queried.

STATUSCODE represents three digit error/success code. See **Error Codes** at the end of this document. Generally any status code from 0 to 399 means success.

STATUSTXT represents textual error/success description, such as 'OK MESSAGE QUEUED'

TIMESTAMP represents a [time](#) – number of seconds since January 1st, 1970.

● Send TTS Message

HTTP/HTTPS call:

URL: http://www.smsmatrix.com/matrix_tts

METHOD: POST

POST VARIABLES:

username:	Account user name (login) – an email address
password:	Account password
phone:	phone number
callerid:	Optional, 'caller id' phone number
gender:	Optional, 'male' or 'female' (default)
response:	Optional, 1 or 0, see next chapter
txt:	Text of the SMS message to be sent

Return value: The following text entry is returned:

```
ID=TTTTTTTTTTTTT  
STATUSCODE=NNN  
STATUSTXT=TTTTTTTTTTTTTTTTTTTTTTTTTTT  
TIMESTAMP=NNNNNNNNNN
```

Each line ends with '\n' character. There is no '\r' character.

ID represents unique string assigned by the Gateway to this SMS message.

It is needed when the status of the message is queried.

STATUSCODE represents three digit error/success code. See **Error Codes** at the end of this document. Generally any status code from 0 to 399 means success.

STATUSTXT represents textual error/success description, such as 'OK MESSAGE QUEUED'

TIMESTAMP represents a [time](#) – number of seconds since January 1st, 1970.

● Send Voice Message

HTTP/HTTPS call:

URL: http://www.smsmatrix.com/matrix_voice

METHOD: POST

Content-Type: form-data

POST VARIABLES:

username:	Account user name (login) – an email address
password:	Account password
phone:	phone number (or comma delimited list)
callerid:	Optional, 'caller id' phone number
response:	Optional, 1 or 0, see next chapter
voicefile:	wave or mp3 file

Return value: For each phone number provided in the request, the following text entry is returned:

```
ID=TTTTTTTTTTTTTT
STATUSCODE=NNN
STATUSTXT=TTTTTTTTTTTTTTTTTTTTTTTTTTT
TIMESTAMP=NNNNNNNNNN
```

Each line ends with '\n' character. There is no '\r' character.

ID represents unique string assigned by the Gateway to this Voice message.

It is needed when the status of the message is queried.

STATUSCODE represents three digit error/success code. See **Error Codes** at the end of this document. Generally any status code from 0 to 399 means success.

STATUSTXT represents textual error/success description, such as 'OK MESSAGE QUEUED'

RESPONSE represents recipients response (a digit pressed), see next chapter for details

TIMESTAMP represents a [time](#) – number of seconds since January 1st, 1970.

● Send Voice Message using voice URL

HTTP/HTTPS call:

URL: http://www.smsmatrix.com/matrix_voicew

METHOD: POST

POST VARIABLES:

username:	Account user name (login) – an email address
password:	Account password
phone:	phone number (or comma delimited list)
callerid:	Optional, 10 digit 'caller id' phone number
voiceurl:	url of the voice file
response:	Optional, 1 or 0, see next chapter

Return value: For each phone number provided in the request, the following text entry is returned:

```
ID=TTTTTTTTTTTTTTT
STATUSCODE=NNN
STATUSTXT=TTTTTTTTTTTTTTTTTTTTTTT
TIMESTAMP=NNNNNNNNNN
```

Each line ends with '\n' character. There is no '\r' character.

ID represents unique string assigned by the Gateway to this Voice message.

It is needed when the status of the message is queried.

STATUSCODE represents three digit error/success code. See **Error Codes** at the end of this document. Generally any status code from 0 to 399 means success.

STATUSTXT represents textual error/success description, such as 'OK MESSAGE QUEUED'

RESPONSE represents recipients response (a digit pressed), see next chapter for details

TIMESTAMP represents a [time](#) – number of seconds since January 1st, 1970.

● Query Message Status

HTTP/HTTPS call:

URL: http://www.smsmatrix.com/matrix_status

METHOD: POST

POST VARIABLES:

username:	Account user name (login) – an email address
password:	Account password
id:	Message ID returned by /matrix call

Return value: The following text entry is returned:

```
ID=TTTTTTTTTTTTTTT
STATUS=NNN
TIMEZONE=PDT
RESPONSE=N
STATUSTXT=TTTTTTTTTTTTTTTTTTTTTTT
TIMESTAMP=NNNNNNNNNN
```

Each line ends with '\n' character. There is no '\r' character.

ID represents unique string assigned by the Gateway to this SMS message.

STATUS represents three digit error/success code. See **Error Codes** at the end of this document. Generally any status code from 0 to 399 means success.

STATUSTXT represents textual error/success description, such as 'OK MESSAGE QUEUED'

RESPONSE represents recipients response (a digit pressed), see next chapter for details

TIMESTAMP represents a [time](#) – number of seconds since January 1st, 1970.

● Cellular Carrier Lookup

HTTP/HTTPS call:

URL: <http://www.smsmatrix.com/carrier>

METHOD: POST

POST VARIABLES:

username:	Account user name (login) – an email address
password:	Account password
phone:	10 digit North American cell phone number

Return value: The following text entry is returned:

CARRIER=TTTTTTTTTTTTTT

Function returns cellular carrier's name, if resolved. If name can not be resolved, strings UNKNOWN or ERROR will be returned, e.g. CARRIER=UNKNOWN

Current list of supported (for lookup) cellular carriers is available at this address:

<http://www.smsmatrix.com/?sms-carriers>

● Query Account Balance

HTTP/HTTPS call:

URL: <http://www.smsmatrix.com/balance>

METHOD: POST

POST VARIABLES:

username: Account user name (login) – an email address

password: Account password

Return value: The following text entry is returned:

BALANCE=NNN

Function returns number of credits in user's account. If the balance can not be retrieved, string ERROR will be returned, e.g. BALANCE=ERROR

● Query Message Fee

HTTP/HTTPS call:

URL: http://www.smsmatrix.com/voice_rate

or **URL:** http://www.smsmatrix.com/sms_rate

or **URL:** http://www.smsmatrix.com/tts_rate

METHOD: POST

POST VARIABLES:

phone: Phone number (e.g. 12506546544 or 48774752834)

Return value: The following text entry is returned:

VOICE_RATE=NNN

or SMS_RATE=NNN

or TTS_RATE=NNN

Function returns number of credits needed to send message to given phone number. If this phone number is invalid or not supported, applicable string will be returned, e.g. VOICE_RATE=NOT SUPPORTED

III. Optional parameters for Voice and TTS calls

All functions for sending **voice and text to speech** messages support additional, optional parameters.

- **callerid** – caller's phone number. This number should include country code, e.g. 16042349876
- **repeat** – if set to 1, the recipient will be offered an option to “Press 1 repeat this message or hung up”. This option is especially useful for TTS messages, in which case recipients may not be able to understand well the words being spoken, and they would like to listen again to the message.
- **response** – if set to 1, system will allow the recipient to press a digit on the phone as a response to the message received. For example, you may want to send a message of this kind: ***“Hello Adam, this is dentist Kamranakis. You have an appointment with me, Tuesday, 9am. Press 1 to confirm your appointment or press 2 to cancel. Press 9 to repeat this message.”***

If recipient presses something (any number on the keypad), our system will capture this response, and it will indicate it in the message status. Typical message status may look like this: ***“Voice call answered, duration 18 seconds. R = 1”***.

The response digit will be also returned by Query Message Status (matrix_status()) call.

Please remember that '9' is reserved for 'repeat this message' function, so it should not be used for any other purpose.

If this option is set to 1, the 'repeat' option (if set) will be ignored.

- **language** – optional and valid only for TTS messages, can be set to 'us' or 'es' for American English or American Spanish languages respectively. Case sensitive. If not specified, the default language will be set to 'us'.
- **gender** – optional and valid only for TTS messages, can be set to 'male' or 'female'. If not specified, the gender will be set to 'female'. Case sensitive.

At present time, all Gateway calls do work via HTTP Post and Get, however only Post will be supported in the future.

However the parameter name for phone number, in all Gateway calls, is set to '**phone**', for the compatibility with previous versions of the API, name '**pin**' can be used instead.

IV. Examples in Perl

Send SMS Message Perl Example

```
#####  
## Example of using SMS Matrix HTTP API in Perl  
  
use LWP::UserAgent;  
use HTTP::Request::Common;  
  
my $TXT = 'This is a test, pls ignore';  
  
# my $TXT = "This is Chinese unicode text: ".  
#         "\xE6\x96\x87\xE6\x98\x8E\xE5\x8A\x9E\xE7\xBD\x91\xE6\x96\x87\xE6\x98\x8E" .  
#         "\xE4\xB8\x8A\xE7\xBD\x91\xE4\xB8\xBE\xE6\x8A\xA5\xE7\x94\xB5\xE8\xAF\x9D";  
  
my $ua = LWP::UserAgent->new();  
my $res = $ua->request  
(  
    POST 'http://www.smsmatrix.com/matrix',  
    Content_Type => 'application/x-www-form-urlencoded',  
    Content       => [ 'username' => 'user66@yahoo.com',  
                      'password' => 'pass7878',  
                      'phone'    => '12506063167,12508763211',  
                      'txt'      => $TXT ]  
);  
if ($res->is_error) { die "HTTP Error\n"; }  
print "Matrix API Response: " . $res->content . "\n\n";
```

Send TTS Message Perl Example

```
#####  
## Example of using SMS Matrix HTTP API in Perl  
## Sending Text-to-Speech message  
  
use LWP::UserAgent;  
use HTTP::Request::Common;  
  
my $ua = LWP::UserAgent->new();  
my $res = $ua->request  
(  
    POST 'http://www.smsmatrix.com/matrix_tts',  
    Content_Type => 'application/x-www-form-urlencoded',  
    Content       => [ 'username' => 'user@hotmail.com',  
                      'password' => 'pass2727',  
                      'phone'    => '12506063167',  
                      'txt'      => 'Adam, web server is down' ]  
);  
  
if ($res->is_error) { die "HTTP Error\n"; }  
print "Matrix API Response: " . $res->content . "\n\n";
```

Send Voice Message Perl Example

```
#####  
## Example of using Voice Matrix HTTP API in Perl  
  
use LWP::UserAgent;  
use HTTP::Request::Common;  
  
my $ua = new LWP::UserAgent;  
my $res = $ua->request  
(  
    POST 'http://www.smsmatrix.com/matrix_voice',
```

```

Content_Type => 'form-data',
Content      => [
    username => 'user@hotmail.com',
    password => 'pass72727',
    phone    => '12502795621',
    voicefile => ['/sounds/nov2009/sale2_2.wav'],
    callerid => '6308891723' ## optional
]
);
if ($res->is_error) { die "HTTP Error\n"; }
print "Matrix API Responcel: " . $res->content . "\n\n";

```

Send Voice Message with voice URL Perl Example

```

#####
## Example of using Voice Matrix HTTP API in Perl

use LWP::UserAgent;
use HTTP::Request::Common;

my $ua = new LWP::UserAgent;
my $res = $ua->request
(
    POST 'http://www.smsmatrix.com/matrix_voicew',
    Content_Type => 'application/x-www-form-urlencoded',
    Content      => [
        username => 'user@hotmail.com',
        password => 'pass72727',
        phone    => '12502795621',
        voiceurl => 'http://www.myweb.ca/sounds/welcome1.mp3',
        callerid => '6308891723' ## optional
    ]
);
if ($res->is_error) { die "HTTP Error\n"; }
print "Matrix API Responcel: " . $res->content . "\n\n";

```

Query Message Status Perl Example

```

#####
## Example of using SMS Matrix HTTP API in Perl

use LWP::UserAgent;
use HTTP::Request::Common;

my $ua = new LWP::UserAgent;
my $res = $ua->request
(
    POST 'http://www.smsmatrix.com/matrix_status',
    Content_Type => 'application/x-www-form-urlencoded',
    Content      => [
        username => 'user@hotmail.com',
        password => 'pass72727',
        id       => 'a876f1267536589be789effa879'
    ]
);
if ($res->is_error) { die "HTTP Error\n"; }
print "Matrix API Response: " . $res->content . "\n\n";

```

Cellular Carrier Lookup Perl Example

```

#####
## Example of using SMS Matrix HTTP API in Perl

use LWP::UserAgent;
use HTTP::Request::Common;

my $ua = LWP::UserAgent->new();
my $res = $ua->request
(
    POST 'http://www.smsmatrix.com/carrier',
    Content_Type => 'application/x-www-form-urlencoded',
    Content      => [
        'username' => 'user78@yahoo.ca',
        'password' => 'passui8888',
        'phone'    => '2504447766' ]
);

```

```
);
if ($res->is_error) { die "HTTP Error\n"; }
print "Matrix API Response: " . $res->content . "\n\n";
```

● Query Account Balance

```
#####
## Example of using SMS Matrix HTTP API in Perl

use LWP::UserAgent;
use HTTP::Request::Common;

my $ua = LWP::UserAgent->new();
my $res = $ua->request
(
  POST 'http://www.smsmatrix.com/balance',
  Content_Type => 'application/x-www-form-urlencoded',
  Content      => [ 'username' => 'user77@gmail.com',
                  'password' => 'mypass' ]
);
if ($res->is_error) { die "HTTP Error\n"; }
print "Matrix API Response: " . $res->content . "\n\n";
```

● Query Message Rate

```
use LWP::UserAgent;
use HTTP::Request::Common;

my $ua = LWP::UserAgent->new();
my $res = $ua->request
(
  POST 'http://www.smsmatrix.com/sms_rate',
  Content_Type => 'application/x-www-form-urlencoded',
  Content      => [ 'phone' => '12506053342' ]
);
if ($res->is_error) { die "HTTP Error\n"; }
print "Matrix API Response: " . $res->content . "\n\n";
```

V. Other Examples

Send SMS Message PHP Example

```
<?php
$URL = 'http://www.smsmatrix.com/matrix';
$PIN = '12506063167'; // comma separated list of phone numbers
// $PIN = '12506063167,12508763211';
$USERNAME = urlencode ('user@hotmail.com');
$PASSWORD = urlencode ('pass72727');
$TXT = urlencode ('This is a test, pls ignore');

$Q = "$URL?username=$USERNAME&password=$PASSWORD&pin=$PIN&txt=$TXT";

$res = implode ('', file ($Q));
echo "Matrix API Response :\n$res\n";
?>
```

Send SMS Message Java Example

```
try
{
    String MATRIXURL = "http://www.smsmatrix.com/matrix";
    String PIN = "12506063167";
    String USERNAME = "user@hotmail.com";
    String PASSWORD = "pass72727";
    String TXT = "This is a test, pls ignore";

    String q = "username=" + URLEncoder.encode (USERNAME, "UTF-8");
    q += "&" + "password=" + URLEncoder.encode (PASSWORD, "UTF-8");
    q += "&" + "pin=" + PIN;
    q += "&" + "txt=" + URLEncoder.encode (TXT, "UTF-8");

    URL url = new URL (MATRIXURL);
    URLConnection conn = url.openConnection();
    conn.setDoOutput (true);
    OutputStreamWriter wr = new OutputStreamWriter (conn.getOutputStream());
    wr.write (q);
    wr.flush();

    BufferedReader rd = new BufferedReader (new InputStreamReader (conn.getInputStream()));
    String line;
    System.out.println ("Matrix API Response :");
    while ((line = rd.readLine()) != null) { System.out.println (line); }
    wr.close();
    rd.close();
} catch (Exception e) { }
```

● Send SMS Message C# Example

```
string MATRIXURL = "http://www.smsmatrix.com/matrix";
string PIN = "12506063167";
string USERNAME = Server.UrlEncode ("user@hotmail.com");
string PASSWORD = Server.UrlEncode ("pass72727");
string TXT = Server.UrlEncode ("This is a test, pls ignore");

string q = "username=" + USERNAME +
"&password=" + PASSWORD +
"&pin=" + PIN +
"&txt=" + TXT;

HttpWebRequest req = (HttpWebRequest)WebRequest.Create (MATRIXURL);
req.Method = "POST";
req.ContentType = "application/x-www-form-urlencoded";
req.ContentLength = q.Length;

StreamWriter streamOut = new StreamWriter(req.GetRequestStream(), System.Text.Encoding.ASCII);
streamOut.Write (q);
streamOut.Close();

StreamReader streamIn = new StreamReader(req.GetResponse().GetResponseStream());
string res = streamIn.ReadToEnd();
Console.WriteLine ("Matrix API Response:\n" + res);
streamIn.Close();
```

VI. Error Codes

The following numerical values are returned as STATUS:

```
200 - OK

404 - ACCOUNT OR USER DOES NOT EXIST
502 - PIN IN DO NOT CALL DATABASE
503 - INSUFFICIENT BALANCE
504 - DATABASE ERROR
505 - USER NOT FOUND OR WRONG PASSWORD
506 - ACCOUNT NOT ACTIVE
507 - DATABASE ERROR
508 - DATABASE ERROR
510 - INVALID USERNAME
511 - INVALID TXT
512 - INVALID PASSWORD
513 - INVALID PIN
520 - ERROR PARSING XML
```

All values from 0 - 399 (inclusive) mean success, all other values mean failure.