
MobileWeb™ HTTP SMS Gateway

Technical Specification

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ARCHITECTURE

Server platform

Our server platform consists of Microsoft Windows 2003 servers with SQL 2005 which are under 24/7 monitoring and have redundant network connections.

Application

The MobileWeb SMS Gateway front end is written with Microsoft ASP and ASP.NET architecture. The back end is written in C#.

Security

Servers reside in a state of the art data center with extensive security facilities and disaster prevention. The communication to the Belgian mobile operators is done via VPN lines.

MODULE: SEND MOBILE TERMINATED MESSAGES (HTTP IN)

Description

The "MobileWeb HTTP In" functionality allows MobileWeb clients to send Text SMS messages via the "HTTP GET" or "HTTP POST" method.

URL

<http://gateway.mobileweb.be/smsin.asp?>

Mandatory Parameters

userproductid your gateway product id (number)
 userproductpassword your gateway product password
 gsmnr: the number to which to send the message
 format: 32479123456 (*)
 msgcontent: the message body of the SMS message

 (*) Important: - country code has to be mentioned (also for Belgium)
 - no zeroes between country and operator code
 - no spaces or punctuation marks

Optional parameters

sid: the MobileWeb identification of the shortcode over which the message needs to be sent
 senddatetime: date time upon at the message should be sent in the future
 should be in ISO format: yyyy-mm-ddThh:mm:ss.000 (eg:2002-02-02T15:13:12.999)
 ttl: timetolive : time in seconds during which the mobile operators should try to submit the
 message to the end user
 msgdesc: description of the message. This will not be sent to recipient.
 type: specify a message type if you are sending a "smart message", such as an operator logo or
 a picture message, use the table below to define the message type ID
 msgtitle: the title of a WAP Push message (only used for Message Types 22 and 23)

Message Type	Description
1 (default)	standard SMS text message
2	Multipart SMS
22	WAP Push JPEG
23	WAP Push URL

Reply from Mobileweb SMS Gateway

xml file containing with the following structure and info:

```
<?xmlversion="1.0"?>
<mwgate version=="3.0">
<status> $status$ </status>
<error>$error$ </error>
<reference>$reference$</reference>
<credits>$creditsleft</credits>
</mwgate>
```

where:

\$status\$ is the message status (accepted or not accepted)

\$error\$ is the error message: none or the specific error message

\$reference\$ is the mobileweb transaction reference

\$creditsleft\$ is the number of credits left

Example correct request:

```
<?xml version="1.0" ?>
<mwgate version="3.0">
<status>accepted</status>
<error>none</error>
<reference>7361420</reference>
<credits>22165</credits>
</mwgate>
```

Example incorrect request:

```
<?xml version="1.0" ?>
<mwgate version="3.0">
<status>not accepted</status>
<error>E6</error>
<reference>7361424</reference>
<credits />
</mwgate>
```

Error codes

Error	Description	Action
E1	Internal error	Abort sending and contact Mobileweb Support
E2	No Logon or password	provide logon and password
E3	Invalid Logon or Password	Provide correct logon and password
E4	No GSMNR	Provide gsmnr
E5	Invalid GSMNR	Provide gsmnr with valid format
E6	Invalid length messagecontent, length has to be between 1 and 160 characters	Provide correct message with correct length
E7	Invalid send date: date is in the past	
E8	Invalid send hour: hour is in the past	
E9	Invalid datetime format	ISO date time required
E10	Insufficient credits	Buy new credits
E11	Failed to create Message in queue	Abort sending and contact MobileWeb support
E12	Invalid message syntax	Check if your message is not empty or for special formats, please check your message format.

Example Script (VBSCRIPT)

1) Prepare Sending

```
set xmlHTTP = Server.CreateObject("Msxml2.XMLHTTP")
set xmlDoc = Server.CreateObject("Msxml2.DOMDocument")
```

```
sQuery =
"http://gateway.mobileweb.be/smsin.asp?userproductid=yourUserProductId&userproductpassword=password&gsmnr=32475123445&msgcontent=" & Server.URLEncode("test")
```

2) Sending

```
xmlHTTP.open "GET", sQuery, false
on error resume next
xmlHTTP.send()
on error goto 0
'treat response
xmlDoc.async = false
xmlDoc.loadXML(xmlHTTP.responseText)
```

3) Error Handling

```
if xmlDoc.parseError.errorCode <> 0 Then
    Error handling invalid response or XML not valid
else
```

4) Treat Response

```
strXMLOUT = xmlDoc.XML
    Treat response here
    Response.Write("<br/>status : " & xmlDoc.getElementsByTagName("status").item(0).text)
    Response.Write("<br/>Error : " & xmlDoc.getElementsByTagName("error").item(0).text)
    Response.Write("<br/>reference : " & xmlDoc.getElementsByTagName("reference").item(0).text)
```

```
Set xmlDoc = Nothing
Set xmlHTTP = Nothing
end if
```

Example Script (php)

```
<?
    $document = "http://gateway.mobileweb.be/
    smsin.asp?userproductid=yourUserProductId&userProductPassword=password&gsmnr=324751234
    45&msgcontent=" . urlencode("test");

    $parser = xml_parser_create();
    // create parser object
    xml_parser_set_option($parser,XML_OPTION_SKIP_WHITE,1);           // remove unneeded spaces
    xml_parser_set_option($parser,XML_OPTION_CASE_FOLDING,0);         // case sensitive on
    $xmlDocument = implode("",file($document));                       // read document

    @xml_parse_into_struct($parser,$xmlDocument,$d_ar,$i_ar);
    xml_parser_free($parser);
    // free the parser object

    $status  = $d_ar[1]['value'];
    $error   = $d_ar[2]['value'];
    $reference = $d_ar[3]['value'];
```

```
$credits = $d_ar[4]['value'];

/* 4 variables are created here
   $status = the status of your message (accepted - not accepted)
   $error = if an error occurred, the errorcode is available in this variable
   $reference = the reference number from MobileWeb
   $credits = the number of credits left on your account */

/* Check if the SMS is accepted or not */
if ($status == "accepted")
{
    // SMS is accepted
}
else
{
    // SMS is NOT accepted, errorcode is in $error
    // PLEASE WRITE YOUR OWN ERROR HANDLING PROCEDURE HERE
}

?>
```

Example C#

```
string url = "http://gateway.mobileweb.be/?";
string userproductid = "1234";
string userproductpassword = "password";
string gsmnr = "32475123456";
string message = "This is a test message";
string response = "";

HttpWebRequest webRequest = (HttpWebRequest)WebRequest.Create(url);
webRequest.ContentType = "application/x-www-form-urlencoded";
webRequest.Timeout = 15000;
webRequest.AllowAutoRedirect = true;
webRequest.Method = "POST";

string postData = "userproductid=" + userproductid;
postData += "&userproductpassword=" + userproductpassword;
postData += "&gsmnr=" + gsmnr;
postData += "&msgcontent=" + HttpUtility.UrlEncode(message,
Encoding.GetEncoding("iso-8859-15"));

using (Stream requestStream = webRequest.GetRequestStream())
{
    using (StreamWriter writer = new StreamWriter(requestStream,
Encoding.GetEncoding("iso-8859-15")))
        writer.Write(postData);
}

using (HttpWebResponse webResponse =
(HttpWebResponse)webRequest.GetResponse())
{
    if (webResponse.StatusCode == HttpStatusCode.OK)
    {
        using (Stream responseStream = webResponse.GetResponseStream())
```

```
{  
    using (StreamReader reader = new StreamReader(responseStream))  
        response = reader.ReadToEnd();  
}  
}
```

Sending WAP Push JPEG

When sending a WAP Push JPEG, the **msgcontent** represents the base64 encoding of the image. If you fill in the **msgtitle**, this will be the title of the WAP Push message. You should use the **POST** method to post all the data on our gateway.

Sending WAP Push URL

When sending a WAP Push URL, the **msgcontent** represents the URL that will be sent. If you fill in the **msgtitle**, this will be the title of the WAP Push message.



Example:

Do this post

```
http://gateway.mobileweb.be/smsin.asp?userproductid=userProductId  
&userproductpassword=userProductPassword&gsmnr=32475123445&msgtitle=wappushtest&type=23&msg  
content=http://plazza.mobileweb.be/plazza.aspx?action=sdfsdfsdfsdf%2526keyid=2752%2526languag  
e=nl
```

to do a WAP Push of this url:

```
http://plazza.mobileweb.be/plazza.aspx?action=sdfsdfsdfsdf&keyid=2752&language=nl
```

MODULE: RECEIVE MOBILE ORIGINATED MESSAGES (HTTP OUT)

Description

With the MobileWeb HTTP out application, it is possible to receive Mobile Originated messages in your own web application.

All incoming SMS messages that are received on one of the MobileWeb shortcodes (eg, 3339 or 3455) or on one of the customers' shortcodes for which the application is enabled, and that have YOUR keyword (a keyword is maximum 10 character long) as the first characters, will automatically be posted on your webserver via HTTP POST.

Url

The url we can use to send the HTTP post messages.

Eg: <http://www.yourserver.be/sms/receive.asp>

Parameters

The parameters we include in the HTTP post are:

Name	Datatype	Remark
SendDateTime	Timestamp	ISO format: yyyy-mm-ddThh:mm:ss.000 Eg:2002-02-02T15:13:12.999
MsgContent	String	The content of the SMS Eg:"XYZ Test"
ShortCode	Int	The shortcode the SMS was received on Eg:3455
SenderGSMNR	Bigint	The sending GSMNR
MessageID	Int	The Mobileweb transaction reference
Operator	Int	The identification of the mobile operator of the GSM nr (1=Proximus, 2=Mobistar, 3=Base)

MODULE: RECEIVE DELIVERY CONFIRMATIONS (HTTP OUT)

Description

With the MobileWeb DC Interface, it is possible to receive in your own web application Delivery Confirmations of messages sent via the MobileWeb HTTP gateway.

The Delivery Confirmations of all messages, sent with your MobileWeb account, will automatically be posted on a script that you need to provide us with on your webserver via HTTP post.

Url of the receipt script

You need to provide us with the url we can use to send the HTTP post messages (who contain the delivery receipt information).

Eg: <http://www.yourserver.be/sms/receiveDC.asp>

Parameters

The parameters we include in the HTTP post are:

Name	Datatype	Remark
GSMNR	Bigint	GSMNR to which the message was sent
Reference	Int	The transaction reference as supplied in the MobileWeb http in gateway.
Level	Int	The Level indicates the stage at which the delivery receipt happens: Level 1: receipt at MobileWeb Level 2: receipt at Mobile operator Level 3: receipt at Handset
LevelDate	Timestamp	LevelDate indicates the time of the creation of the delivery receipt. ISO format: yyyy-mm-ddThh:mm:ss.000 Eg:2005-02-02T17:55:12.999
Error	Int	The error code. Error code = 0 means successful delivery Error code <> 0 means that delivery failure Typical errors than can occur: - GSMnr deactivated - empty card - GSM switched off ... The error codes provided are the ones generated by the communication protocols used by the mobile operators. A detailed list of the error codes is available upon request.
Operator	Int	The identification of the mobile operator of the GSM nr (1=Proximus, 2=Mobistar, 3=Base)

Error codes (level2/level3)

Error	Description	State
0	In transit at SMSC (level 2)	Transient
0	Delivered successfully (level 3)	Final
1001	Subscriber blocked	Final
1002	No previous MO/MT	Final
1003	Subscriber number invalid	Final
1004	No operator for this number	Final
1005	Service not authorized	Final
1006	Reverse charging not allowed	Final
1007	Service type not authorized	Final
2101	Subscriber temporarily unavailable	Transient
2102	Unknown subscriber	Transient
2103	SMSC technical problem	Transient
2104	SMSC overload	Transient
3000	Moved to unknown operator	Transient
3001	Moved to Proximus	Transient
3002	Moved to Mobistar	Transient
3003	Moved to Base	Transient
4001	Absent subscriber	Final
4002	Delivery failed	Final
4003	Unknown subscriber	Final
4004	Subscriber deactivated	Final
4005	SMSC Fatal technical problem	Final
4006	Subscriber blocked	Final



TECHNICAL CONTACT AND TERMS OF USE

Contact information

For **commercial information** about the MobileWeb SMS Gateway please contact:

MobileWeb Sales

Rue de Verdunstraat 742
1130 Brussels
contact@mobileweb.be
Tel +32 2 247 37 08

For **technical information** about the MobileWeb SMS Gateway please contact:

MobileWeb Customer Service

Rue de Verdunstraat 742
1130 Brussels
info@mobileweb.be
Tel +32 2 247 37 27

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