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2.0 Document Revision History

Date	Version	Description
24/11/2009	1,1	CMT regulation
01/03/2009	1,0	Premium format

3.0 Overview

The SMS Premium Gateway is a platform which allows you to offer methods of payment via mobile telephone through SMS premium, which can be integrated and automated with other applications, webs or other means. Also offers tools of practical use related to payment via SMS premium and different services related to payment systems and mobile marketing. This document describes the HTTP interface for the purpose of integrating SMS into applications and web systems.

This document describes the integration process of the tool "Gateway". Even though the integration of this tool offers simple methods of implementation ... for its use one needs to possess a minimum knowledge of web development, HTTP communication standards and language standards of web communication.

This document focuses on the technical detail of the integration not on the function of each type of service or method of payment which can be integrated. When carrying out the integration, one should take into account the technical and legal details of each method of payment integrated. It is very important you know the details referent to each method.

Premium SMS are defined as SMS having an additional cost in exchange for receiving an additional service. The basic process of payment through a premium SMS can be summarized in the following steps: The user sends an SMS to a short number, this SMS is passed on to the telephone operator, afterward the operator passes on the SMS to the service provider which in turn sends an SMS to the user indicating the service contracted. A special rate is included in the users telephone bill, after a predetermined time the service supplier is paid a percentage of the total billed to the user.

Receiving SMS via this interface is simple and easy to integrate into applications written in almost any programming language. The SMS is sent to our server in the same way as submitting a form on a website (POST) or typing a URL into a web browser (GET).

The interface supports both HTTP GET and HTTP POST requests for submitting messages. All input should be fully URL encoded.

MO (Mobile Originated), when the user writes a message to request a service.

MT (Mobile Terminated), when the user receives a message.

You must have an account in order to use this interface. For more information please visit our website.

4.0 Protocol definition

4.1 Receiving SMS

When the Gateway receives a MO message, the platform sends the message to your server, so it is mandatory to set up your account with the URL where you want to receive the message, for instance:

www.yourserver.com/service_premium/script.php

The platform sends a form in POST format with the parameters explained below.

4.2 Parameters

Parameters are case sensitive.

Parameter	Name	Description	Example values
UN	Username	Account username (case sensitive)	user007
KW	Keyword	The keyword of the service	RADIOWOW
MNC	Mobile Network Code	check: http://en.wikipedia.org/wiki/Mobile_network_code	214
MCC	Mobile Country Code	check: http://en.wikipedia.org/wiki/Mobile_network_code	3
SC	Short Code	The number where message was sent by the user	27067
MN	Mobile Number	The mobile number	3465222500X
M	Message	The SMS text for plain messages.	RADIOWOW Hi! please i would like to hear Black Eyed Peas!
TS	Time Stamp	The date time when the message was received.	2009-07-25 14:05:13
T	Tarification	Tarification of the service.	1,20
ID	Identification	Identification of the message.	2342344

4.3 Response

When a message is sent to your server, your server must answer with OK + message

It is only necessary to check the HTTP content. The HTTP header status code can be useful for integrating with systems that are only capable of determining success based on a 200 OK header status.

Successful Response of your server	
HTTP Header	200 OK
Content	OK Thank you for your participation

Your server must respond with a OK + message, once has received the form. NOTE: It is not necessary to answer message in tariff 0,15 so better send an ordinary PUSH if you want to reply the message received from the user.

What happens if your server does not answer? The gateway will try later, and if your server does not answer then the default answer will be sent to the user in case the tariff is different to 0,15.

5.0 Additional information

5.1 Special Long Characters

There are 9 special characters that are counted as 2 individual characters when GSM encoded. This could result in a message becoming longer and therefore being concatenated. The following table identifies these characters.

Symbol	Name
[Open square
\	Backslash
]	Close square
^	Caret
{	Left brace
	Vertical bar
}	Right brace
~	Tilde
€	Eur symbol

5.2 GSM Encoding

According to GSM specification, a standard SMS message can contain up to 140 bytes of data (payload). Standard latin (ISO-8859-1) character encoding represents a single character using 1 byte, which is 8 bits. Therefore, the maximum number of latin 1 characters that could be included in an sms is 140.

GSM encoding represents characters using 7 bits instead of 8. This therefore provides a maximum of 160 characters per SMS. $(140 * 8 \text{ bits}) / 7 \text{ bits} = 160$

This effectively halves the number of characters that the GSM character set can support, compared to ISO-8859-1. In order to include common characters that are usually represented using the 8th bit, these characters as well as other symbol characters must be re-mapped to a combination of lower bits. These re-mapped characters are often referred to as special characters. This re-mapping, in combination with packing 7-bit characters into 8-bit bytes is called GSM Encoding.

The below table lists the 7-bit default alphabet as specified by GSM 03.38.

Hex	Character name	Character	ISO-8859-1 Hex
0x00	COMMERCIAL AT	@	40
0x01	POUND SIGN	£	A3
0x02	DOLLAR SIGN	\$	24
0x03	YEN SIGN	¥	A5
0x04	LATIN SMALL LETTER E WITH GRAVE	è	E8
0x05	LATIN SMALL LETTER E WITH ACUTE	é	E9
0x06	LATIN SMALL LETTER U WITH GRAVE	ù	F9
0x07	LATIN SMALL LETTER I WITH GRAVE	ì	EC
0x08	LATIN SMALL LETTER O WITH GRAVE	ò	F2
0x09	LATIN SMALL LETTER C WITH CEDILLA (case changed)	Ç	C7
0x0A	Line Feed		A
0x0B	LATIN CAPITAL LETTER O WITH STROKE	Ø	D8
0x0C	LATIN SMALL LETTER O WITH STROKE	ø	F8
0x0D	Carriage Return		D
0x0E	LATIN CAPITAL LETTER A WITH RING ABOVE	Å	C5
0x0F	LATIN SMALL LETTER A WITH RING ABOVE	å	E5
0x10	GREEK CAPITAL LETTER DELTA	Δ	
0x11	LOW LINE	_	5F
0x12	GREEK CAPITAL LETTER PHI	Φ	
0x13	GREEK CAPITAL LETTER GAMMA	Γ	
0x14	GREEK CAPITAL LETTER LAMBDA	Λ	

Hex	Character name	Character	ISO-8859-1 Hex
0x15	GREEK CAPITAL LETTER OMEGA	Ω	
0x16	GREEK CAPITAL LETTER PI	Π	
0x17	GREEK CAPITAL LETTER PSI	Ψ	
0x18	GREEK CAPITAL LETTER SIGMA	Σ	
0x19	GREEK CAPITAL LETTER THETA	Θ	
0x1A	GREEK CAPITAL LETTER XI	Ξ	
0x1B	ESCAPE TO EXTENSION TABLE		
0x1B0A	FORM FEED		12
0x1B14	CIRCUMFLEX ACCENT	^	5E
0x1B28	LEFT CURLY BRACKET	{	7B
0x1B29	RIGHT CURLY BRACKET	}	7D
0x1B2F	REVERSE SOLIDUS (BACKSLASH)	\	5C
0x1B3C	LEFT SQUARE BRACKET	[5B
0x1B3D	TILDE	~	7E
0x1B3E	RIGHT SQUARE BRACKET]	5D
0x1B40	VERTICAL BAR		7C
0x1B65	EURO SIGN	€	A4 (ISO-8859-15)
0x1C	LATIN CAPITAL LETTER AE	Æ	C6
0x1D	LATIN SMALL LETTER AE	æ	E6
0x1E	LATIN SMALL LETTER SHARP S (German)	ß	DF
0x1F	LATIN CAPITAL LETTER E WITH ACUTE	É	C9
0x20	SPACE		20
0x21	EXCLAMATION MARK	!	21
0x22	QUOTATION MARK	"	22
0x23	NUMBER SIGN	#	23
0x25	PERCENT SIGN	%	25
0x26	AMPERSAND	&	26
0x27	APOSTROPHE	'	27
0x28	LEFT PARENTHESIS	(28
0x29	RIGHT PARENTHESIS)	29
0x2A	ASTERISK	*	2A
0x2B	PLUS SIGN	+	2B

Hex	Character name	Character	ISO-8859-1 Hex
0x2C	COMMA	,	2C
0x2D	HYPHEN-MINUS	-	2D
0x2E	FULL STOP	.	2E
0x2F	SOLIDUS (SLASH)	/	2F
0x30	DIGIT ZERO	0	30
0x31	DIGIT ONE	1	31
0x32	DIGIT TWO	2	32
0x33	DIGIT THREE	3	33
0x34	DIGIT FOUR	4	34
0x35	DIGIT FIVE	5	35
0x36	DIGIT SIX	6	36
0x37	DIGIT SEVEN	7	37
0x38	DIGIT EIGHT	8	38
0x39	DIGIT NINE	9	39
0x3A	COLON	:	3A
0x3B	SEMICOLON	;	3B
0x3C	LESS-THAN SIGN	<	3C
0x3D	EQUALS SIGN	=	3D
0x3E	GREATER-THAN SIGN	>	3E
0x3F	QUESTION MARK	?	3F
0x40	INVERTED EXCLAMATION MARK	¡	A1
0x41	LATIN CAPITAL LETTER A	A	41
0x42	LATIN CAPITAL LETTER B	B	42
0x43	LATIN CAPITAL LETTER C	C	43
0x44	LATIN CAPITAL LETTER D	D	44
0x45	LATIN CAPITAL LETTER E	E	45
0x46	LATIN CAPITAL LETTER F	F	46
0x47	LATIN CAPITAL LETTER G	G	47
0x48	LATIN CAPITAL LETTER H	H	48
0x49	LATIN CAPITAL LETTER I	I	49
0x4A	LATIN CAPITAL LETTER J	J	4A
0x4B	LATIN CAPITAL LETTER K	K	4B
0x4C	LATIN CAPITAL LETTER L	L	4C

Hex	Character name	Character	ISO-8859-1 Hex
0x4D	LATIN CAPITAL LETTER M	M	4D
0x4E	LATIN CAPITAL LETTER N	N	4E
0x4F	LATIN CAPITAL LETTER O	O	4F
0x50	LATIN CAPITAL LETTER P	P	50
0x51	LATIN CAPITAL LETTER Q	Q	51
0x52	LATIN CAPITAL LETTER R	R	52
0x53	LATIN CAPITAL LETTER S	S	53
0x54	LATIN CAPITAL LETTER T	T	54
0x55	LATIN CAPITAL LETTER U	U	55
0x56	LATIN CAPITAL LETTER V	V	56
0x57	LATIN CAPITAL LETTER W	W	57
0x58	LATIN CAPITAL LETTER X	X	58
0x59	LATIN CAPITAL LETTER Y	Y	59
0x5A	LATIN CAPITAL LETTER Z	Z	5A
0x5B	LATIN CAPITAL LETTER A WITH DIAERESIS	Ä	C4
0x5C	LATIN CAPITAL LETTER O WITH DIAERESIS	Ö	D6
0x5D	LATIN CAPITAL LETTER N WITH TILDE	Ñ	D1
0x5E	LATIN CAPITAL LETTER U WITH DIAERESIS	Ü	DC
0x5F	SECTION SIGN	§	A7
0x60	INVERTED QUESTION MARK	¿	BF
0x61	LATIN SMALL LETTER A	a	61
0x62	LATIN SMALL LETTER B	b	62
0x63	LATIN SMALL LETTER C	c	63
0x64	LATIN SMALL LETTER D	d	64
0x65	LATIN SMALL LETTER E	e	65
0x66	LATIN SMALL LETTER F	f	66
0x67	LATIN SMALL LETTER G	g	67
0x68	LATIN SMALL LETTER H	h	68
0x69	LATIN SMALL LETTER I	i	69
0x6A	LATIN SMALL LETTER J	j	6A
0x6B	LATIN SMALL LETTER K	k	6B
0x6C	LATIN SMALL LETTER L	l	6C
0x6D	LATIN SMALL LETTER M	m	6D

Hex	Character name	Character	ISO-8859-1 Hex
0x6E	LATIN SMALL LETTER N	n	6E
0x6F	LATIN SMALL LETTER O	o	6F
0x70	LATIN SMALL LETTER P	p	70
0x71	LATIN SMALL LETTER Q	q	71
0x72	LATIN SMALL LETTER R	r	72
0x73	LATIN SMALL LETTER S	s	73
0x74	LATIN SMALL LETTER T	t	74
0x75	LATIN SMALL LETTER U	u	75
0x76	LATIN SMALL LETTER V	v	76
0x77	LATIN SMALL LETTER W	w	77
0x78	LATIN SMALL LETTER X	x	78
0x79	LATIN SMALL LETTER Y	y	79
0x7A	LATIN SMALL LETTER Z	z	7A
0x7B	LATIN SMALL LETTER A WITH DIAERESIS	ä	E4
0x7C	LATIN SMALL LETTER O WITH DIAERESIS	ö	F6
0x7D	LATIN SMALL LETTER N WITH TILDE	ñ	F1
0x7E	LATIN SMALL LETTER U WITH DIAERESIS	ü	FC
0x7F	LATIN SMALL LETTER A WITH GRAVE	à	E0

For more information please contact us.