red oxygen

HTTP API
User Guide

Version 1.00

Introduction

The Red Oxygen HTTP API provides a simple interface for programmers to add SMS capability to their applications.

HTTP interface details

The Red Oxygen HTTP interface can be easily called from just about any programming language.

Features
- Standard SMS 160 characters
- Long SMS (Greater than 160 characters)
- 2-Way messaging. (SMS replies sent to email address)
- Use GET or POST
- Can be used through firewalls and proxy servers

Sample code is provided for:
- C# (C Sharp)
- Java
- ASP (Active Server Pages)
- VB.Net

Server details

Primary Server: sms1.redoxygen.net
Secondary Server: sms2.redoxygen.net
Server Port: 80 (HTTP) or 443 (HTTPS)

Function   SendSMS

Parameters

Parameter	Descrption
AccountId	This is your AccountId which uniquely identifies your account. If you are not sure what your AccountId is you can also use your Authcode in place of the AccountId.
Email	This is used to identify your user account. It is also receives SMS replies as emails to the SMS messages you send.
Password	In this field you must put your password which can be set by your account administrator. If you have installed OutlookSMS or NotesSMS you may also use your InstallCode in place of your password.
Recipient	The destination mobile number. Multiple recipients can be specified comma separated.
Message	The message may be up to 765 characters in length.

Calling the server

Parameters passed to the Red Oxygen SMS gateway can be passed via GET request or a POST request.

A GET request is generally simpler to implement but has the limitation of 2048 characters for the entire request which may be a problem if sending to a large number recipients in one call.

The URL and Data must be URL encoded.

HTTP GET

With a GET request all parameters are passed in the address part of the request.

Example URL:
http://sms1.redoxygen.net/sms.dll?Action=SendSMS&AccountId=CI00001234&Email=Username%40company%2Ecom&Password=MyPassword&Recipient=61400000001&Message=Hi+There

The limitation of using the GET method is that the total address line can only be 2048 characters long. For a longer recipient list the user must send

HTTP POST

With a POST request the SendSMS command might look like this:

URL:
http://sms1.redoxygen.net/Action=SendSMS

DATA:
AccountId=CI00001234&Email=Username%40company%2Ecom&Password=MyPassword&
Recipient=61400000001&Message=Hi+There

URL Encoding

URL Encoding means certain non alpha-numeric characters should be replaced with a
'Percent' symbol followed by the ASCII value of the character as 2 Hex digits. Eg. A space
has ASCII code 32 which is 20 in Hex so it would be represented as %20.   A . (Dot)
character would be %2E, a @ symbol would be %40, etc.

For more information on URL encoding follow this link.
http://www.w3.org/International/O-URL-code.html

Accessing through a proxy server
The method for sending through proxy server will be language dependent.

Alternatively If you are using the Red Oxygen DLL, COM object, or Command
Line tool they can be configured to use a proxy server.

Legacy Format - Red Alert by HTTP format

The Red Alert interface is a mechanism for sending SMS messages using a standard email using the protocol SMTP.   The Red Alert HTTP extension provides an interface for the same messages to be submitted to the Red Oxygen server using HTTP. The advantage of HTTP over SMTP is performance and feedback.

The request must be a HTTP POST command and not a HTTP GET command.

Authentication
Like Red Alert by email the user can be authenticated by either a password or by IP address. IP authentication has the added advantage that new users can be automatically added to the system provided the customer account has 'Active Creation' enabled.

Message Format
When submitting messages to the Red Oxygen server via HTTP the data must be formatted in a particular way.

URL: http://sms1.redoxygen.net/sms.dll?private&type=0
           Or
           http://sms2.redoxygen.net/sms.dll?private&type=0

HTTP Data format:

[SENDER]
ID=<Authcode>

[FROM]
Email=<email address of the user>
PW=<The users password>

[1]
Name=<Recipients name>
Number=<Recipients mobile phone number>
Message=<SMS message>

[2]
Name=<Recipients name>
Number=<Recipients mobile phone number>
Message=<SMS message>

Field Descriptions

Section	Field	Value
[SENDER]	**Authcode**	The Authcode is provided when the customer account is created. A customer account may have many users but the authcode will be the same for all users within the same customer account
[FROM]	**Email**	The email address of the user sending the message. This is used as the destination email address for SMS replies.
	PW	(Optional) This field contains the user's password. The user would need to be created by the customer's system administrator. It is possible however to have new users automatically created if the customer can be authenticated by IP address and 'Active Creation' is enabled for the customers account. In the case of 'Active Creation' the password is not required.
[1]		This section contains the details of the actual SMS message to send. The data section can contain data for multiple messages using sections [2], [3] and so on.
	Name	(Optional) This is the name of the recipient the message is being sent to. This becomes useful when the recipient replies to the SMS. The Name specified will be passed back to the user in the subject field of the email sent back to the user with the SMS replies message.
	Number	This is the mobile phone number of the recipient. It should be formatted in full international format if the
	Message	The actual SMS text to be sent. The text should be URL encoded to represent symbols

Reply Path

When the SMS recipient replies with their mobile phone the message is returned to the address specified in the 'Email' field of the [FROM] section of the message data.

The 'from' address will be smsgateway@redoxygen.net

The Subject line will be 'SMS Reply from <Name>' where <Name> is replaced with the 'Name' specified in the [1] section.

Return Codes

The HTTP result code of 200 is returned if the Red Oxygen server successfully receives and processes the message, even if the there is an error in the processing. The HTTP result code just indicates the success or failure in connecting to the Red Oxygen server. An errors in the actual processing of the request are returned in the body of the response. The format of the response is:

<Return Code><Space><Error description>

Where <Return Code> is '0000' in a successful case. In the case of an error it is a 4 digit error code. In the case of '0000' (Success) the error description is blank.

HTTP Examples

Example 1: - Send one SMS – Authentication by password

URL:	http://sms1.redoxygen.net/sms.dll?private&type=0
DATA:	[SENDER] ID=123456 PW=secret [FROM] Email=john.smith@somewhere.com [1] Name=Jack Jones Number=44111222333 Message=The C: drive is below 5mb of disk space.
RESPONSE	0000
SMS sent to +44111222333	
System Alert The C: drive is below 5mb of disk space.	

Example 2: - Send two SMS – Authentication by IP address

URL:	http://sms1.redoxygen.net/sms.dll?private&type=0
DATA:	[SENDER] ID=123456 [FROM] Email=john.smith@somewhere.com [1] Name=Jack Jones Number=44111222333 Message=The C: drive is below 5mb of disk space. [2] Name=Mike Miller Number=44111222555 Message=The C: drive is below 5mb of disk space.
RESPONSE:	0000
SMS sent to +44111222333	
System Alert The C: drive is below 5mb of disk space.	
SMS sent to +44111222555	
System Alert The C: drive is below 5mb of disk space.	