

redcoal InteraktSMS – Technical Guide

Technical Support: support@redcoal.com
Or visit <http://www.redcoal.com/>

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Overview

This technical document is intended for users who wish to implement SMS or MMS inbound messaging applications. Inbound messaging is implemented through the use of a virtual mobile phone number provided by redcoal. At present redcoal can provide virtual mobile phone numbers for Australia (standard and premium) and US (5 digit short code premium or standard). Typical applications built using InteraktSMS are SMS voting or polls, micro-payments, mobile content retrieval etc. redcoal's role in this case is to act as the intermediary between the mobile user and your application. Messages are routed from the handset to your application and from your application to the handset. You will need to ensure that your application is capable of interpreting these messages and responding accordingly.

How InteraktSMS works

Inbound Messaging

Inbound Messages (messages sent from a mobile handset to your InteraktSMS mobile phone number) can arise in two ways:

- 1) A mobile handset user creates and sends a text message to your number in response to an advertisement on TV, radio or newspaper that promotes your number.
- 2) A mobile handset user replies to an SMS message sent via the redcoal gateway, and the message was sent with your InteraktSMS mobile phone number as the sender. (See below for information on how to set the sender mobile phone number).

Once the message is received at the redcoal gateway we forward it to you either via SMTP (this is, we send an email message to a specified address) or via a HTTP request to your application. For the latter we basically access a web script (written by you) the same way a web browser would access it and in the URL we include the message content etc as HTTP GET parameters or POST data (See below for more information). All received messages can be download to Excel or ASCII files from redcoal service management.

Outbound Messaging

Outbound messages are the messages that are sent from your application to the mobile handset. redcoal provides several ways of sending messages to the handset. In particular: Basic EmailSMS, SOAP/XML (as part of MIDA 7.0), Mobile communicator, MS Outlook EmailSMS, Lotus Notes EmailSMS. For information on these services, check out the relevant product pages.

By default when sending a message to a handset we send it in 2-way mode. This means that when the user replies, the message gets sent back via email. By default we choose a shared mobile phone number from our large pool of virtual numbers.

If you want replies to go back to your own InteraktSMS number you need to change the setting accordingly before sending the message.

Creating InteraktSMS rules

In order to direct SMS inbound traffic to your application (or to your email address) you need to first set-up an *InteraktSMS rule*. This is done via redcoal service management

(see below for more information on service management). The process is simple and can be done in few minutes:

1. Login in to Service Management at www.redcoal.com.
2. Click on the InteraktSMS tab
3. Select "Add A Rule"
4. Choose the dedicated number that you wish to attach a rule to
5. Select whether you would like to SMS or MMS messages forwarded by email or by calling your custom built web script (Call back URL).
6. Enter the email address or http address that you would wish to direct to.
7. Enter a keyword (optional). By entering a keyword you can direct the SMS to a particular email address. e.g. All SMS messages that start with "Sale" go to sales@redcoal.com, all other messages go to info@redcoal.com (a second rule). The keyword only applies to SMS, but not MMS.
8. Message Confirmation enables you to automatically send a bounce back message to any in-bound message sent to your dedicated number. e.g. "Thank you for contacting redcoal, one of our staff will contact you shortly. Have a Great Day".
9. Select the backup email address that will be used for any error notifications and then click Add.

Your InteraktSMS rule has now been set up. You can set up unlimited InteraktSMS rules and have multiple dedicated numbers running on one account.

Forwarding inbound messages via HTTP request (Call back URL)

When forwarding inbound messages via HTTP (also called *call back URL*) we issue an HTTP request to URL specified by you. For example:

http://www.yourdomain.com/yourscript.aspx?sender=61407370020&subject=192145&content=Hello+world&provider=505_01

- *Sender* is the mobile phone number of the user that sends the message to your number
- *Content* is SMS message content typed in by the user (for MMS messages check below).
- *Subject* is your InteraktSMS number.
- *Provider* is the network code for sender's carrier.

redcoal gateway will try to contact your server 10 times within 10 minutes. After the 10th unsuccessful delivery attempt an email will be sent to the specified backup email address.

Processing Inbound MMS messages

MMS messages are forwarded the same way as SMS messages. When forwarding inbound messages via email then the picture content will be attached as a jpeg file to the email. When forwarding via HTTP, a POST request will be issued with the information in the POST data. For example:

<http://www.yourdomain.com/yourscript.aspx>

Sender=61407370020&Subject=192145&Text=Hello+world&AttachmentCount=2&AttachmentType1=image/jpeg&AttachmentEncodedContent1=base64encodedcontent&AttachmentType2=image/gif&AttachmentEncodedContent2=base64encodedcontent

- *Sender* is the mobile phone number of the user that sends the message to your number.
- *Subject* is your InteraktSMS number.
- *Text* is the MMS message text typed in by the user.
- *AttachmentCount* is the number of (multimedia) attachments. Even if there are no attachments, this field will still be present and will be set to 0.
- *AttachmentType1* is the media (MIME) type of attachment 1, and *AttachmentType2* the type of attachment 2, and so on up to *AttachmentCount*. Valid types include: image/jpeg, image/gif.
- *AttachmentEncodedContent1* is the base64-encoded content of attachment 1, and *AttachmentEncodedContent2* the base64-encoded content of attachment 2, and so on up to *AttachmentCount*.

redcoal gateway will try to contact your server 10 times within 10 minutes. After the 10th unsuccessful delivery attempt an email will be sent to the specified backup email address.

Service Management Web Site

redcoal Service management web site can be accessed by selecting the 'My Account' tab on the redcoal.com main page. See the appendix for sample screen shots. Service Management provides the following features for InteraktSMS:

Create InteraktSMS Rules: Create SMS forwarding rule. Define how messages are forwarded to your email or application. See above for more information on how to create rules.

Inbound SMS Reports: Search for individual SMS transactions, including message content. Download comma delimited or Excel reports.

Outbound SMS Reports: Provides extensive reporting to the administrator with detailed SMS transaction reports on individual users, departments/cost centres or destination numbers.

Further Product Information

Business customers can obtain InteraktSMS product information from a redcoal account executive – please send an email with your details to info@redcoal.com and we will be in touch to discuss your requirements.

About redcoal

Further information on redcoal including company profile, services and contact details can be found at <http://www.redcoal.com>

Appendix A

ASP.net sample script for processing Inbound SMS messages

```
<%@ Page Language="VB" %>
<%@ import Namespace="redcoalShared" %>
<script runat="server">

sub page_load
'Get the parameters passed by redcoal HTTP request
dim content As String 'content of the SMS or MMS message
dim sender As String ' the mobile phone number of the
sender
dim interaktNo As String 'your virtual mobile phone number
dim provider 'Network ID for carrier, only used in Premium SMS/MMS

content = request.querystring("content")
sender = request.querystring("sender")
interaktNo =
request.querystring("subject") provider =
request.querystring("subject")

'Here enter the message into the database and run business logic

end sub

</script>
<html>
<head>
</head>
<body>
  <form runat="server">
    <!-- Insert content here -->
  </form>
</body>
</html>
```

Appendix B

Fig B.1 – InteraktSMS Service Management – Rule Wizard

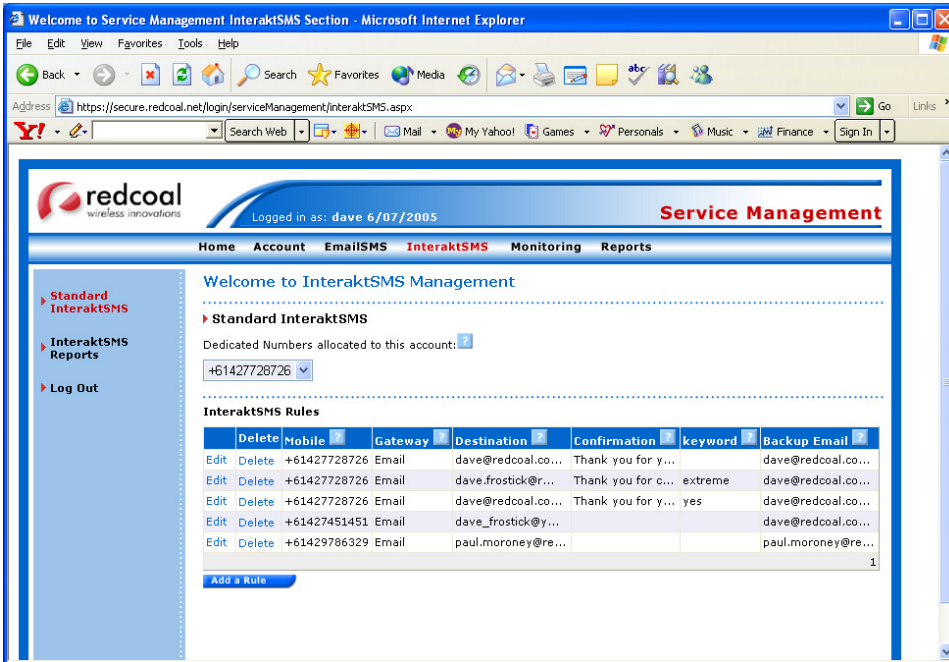


Fig. B.2 InteraktSMS Service Management – Transaction Reports

