



iWord (SMS Domain Names) Ltd

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Email: info@iword.ie

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Text: IWORD <Your Message> to 51444

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Who Should Read This Guide?

This guide is intended for application developers who wish to interact with the iWord System to send and receive SMS messages via XML.

Conventions Used

There are a number of standard conventions used in this guide. The following list describes these conventions.

The following font is used for field and variable names,

`field-name`

The following font is used for field and variable values

variable-value

NOTE - IMPORTANT DETAILS WILL APPEAR IN THIS TYPE OF FORMATTING.



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Introduction

The iWord System supports the transmission of short messages between a mobile phone user and a third part application. This transmission can be achieved using HTTP Post of XML documents.

Overview of Message Transmission using SMS/XML

The following message transmission scenarios are supported:

1. Mobile phone user to third party application

A text message sent by a mobile phone user can be forwarded to a third party application by the iWord System.

2. Mobile phone user to third party application to Mobile phone user

A text message sent by a mobile phone user can be forwarded to a third party application by the iWord System and then the third party application can send a text message back to the mobile phone user using the iWord System.

3. Third party application to mobile phone user

A third party application can send an uninitiated text message to a mobile phone user using the iWord system. Typical uses for this scenario would be subscription systems.

Example

The following example illustrates and explains how a text message is sent from a Mobile phone user to a third party application and how the application returns a response to that message.

1. The mobile phone user (353879031010) sends the text message ‘Start Dating’ to the Shortcode 57188.



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2. The iWord system receives the message and uses a HTTP POST to send the XML document containing the message to the third party application. In this case it would be a *ForwardRequest* XML document.
3. The third party application replies to the text message with the message 'Thank you for subscribing to our Dating service.'. It replies by sending an XML document via HTTP POST to the iWord system. In this case it would be a *SendMsgRequest* XML document.
4. The mobile phone user receives the text message sent from the third party application.

HTTP POST

A HTTP POST is used to send and receive XML documents to/from third party applications.

The HTTP message used to send/receive SMS messages as XML documents must contain certain Header and Body elements. These are outlined in the following sections.

Custom Headers

The following HTTP header **must** be used for any message sent from a third party application.

IWORD-SYSTEM-ID: <Value>

This header identifies the sender of the message and allows the XML body to be decoded properly.

The iWord administrator defines a service provider identification number for each provider. This identification number will be given to the service provider for use as the **<Value>** for this header. Please refer to the iWord administrator for details.



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Message Body

The message body will contain the XML document and details of the encoding used. The encoding will typically be UTF-8 but any other standard encoding can be specified.

```
<?encoding="UTF-8" ?>
```

This top level tag is used to encapsulate the message body.

```
<iWordSMS>  
</iWordSMS>
```

Other elements

Within the **<iWordSMS>** tags you can specify one of 3 elements, with its associated sub-elements.

1. **<ForwardRequest>**

This message is sent from the iWord system to forward on the incoming text message to a third party application/system.

2. **<SendMsgRequest>**

This message is sent from a third party application to the iWord system with the purpose of sending a text message to a mobile phone user.

3. **<SendMsgResponse>**

This message is sent from the iWord system to a third party application if the third party application has requested a response to its *SendMsgRequest*. It indicates that the *SendMsgRequest* message has been received by the iWord system successfully.



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4. <DeliveryReceipt>

This message is sent from the iWord system to a third party application if the third party has arranged to receive these message types. It indicates that the mobile phone user has received the message sent from the 3rd Party application.



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Example HTTP POST of SMS/XML Message

This example shows the HTTP POST used by a third party application to send a text message to a mobile phone user.. The required header and body components outlined above are used in this example.

```
POST www.iWord.ie/iWordWS.asmx/SendMessage HTTP/1.1
Connection: Close
Content-Type: text/xml
Content-Length: 260
User-Agent: Mozilla/3.0 (Win95; I)
Host: Localhost
Accept: image/gif, image/x-xbitmap, image/jpeg,
image/pjpeg, */*
IWORD-SYSTEM-ID: 1050
<?xml version="1.0" encoding="UTF-8"?>
<iWordSMS>
<SendMsgRequest>
// fill in
</SendMsgRequest>
</iWordSMS>
```

HTTP Return Codes

The HTTP response will contain a HTTP response code and accompanying text indicating if the message was ok or if there were errors.

The following return codes may be included in a response:

OK: 200

Badly formed message: 400

Using wrong IP address in submit: 400

Using wrong source address in submit: 400

Server error: 500



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iWord SMS/XML Elements

SMS HTTP POST forwarding to third party

The iWord system sends an *ForwardRequest* XML message to the third party system by using HTTP POST.

The XML message is included in the body of the POST as explained above.

The *ForwardRequest* XML message takes the following form :-

```
<iWordSMS>
  <ForwardRequest>
    <From>The mobile no. that this message came from</From>
    <To>The iWord shortcode</To>
    <iWord>The iWord</iWord>
    <SubWord>The Sub Word</SubWord>
    <FullMsg>The full text of the message</FullMsg>
    <DateSent>The datetime of the message
      dd/mm/yyyy hh:mm:ss
    </DateSent>
    <OriginatingID>This is used by iWord to track message
    </OriginatingID >
    <SHA1Hash>blank</SHA1Hash>
  </ForwardRequest>
</iWordSMS>
```

No XML response is expected from the external system.

The iWord system will attempt to send this message up to 5 times over the space of half an hour if it gets an error on the original send. The resend stops within the half hour when it gets a successful send. If at the end of the half hour period the message has not been sent then the iWord system will stop trying to send the message and record this fact.



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Datatypes for ForwardRequest XML message

- <From> - From is a alphanumeric of size 20 field.
- <To> - To is a alphanumeric of size 20 field.
- <iWord> - iWord is a alphanumeric of size 30 field.
- <SubWord> - iWord is a alphanumeric of size 30 field.
- <FullMsg> - FullMsg is a alphanumeric of size 160 field.
- <DateSent> - format=dd/mm/yyyy hh:mm:ss
- <OriginatingID> - OriginatingID is an alphanumeric of size 20
- <SHA1Hash> - Intentionally left blank

Third party HTTP POST to iWord system

Please note that IWORD-SYSTEM-ID HTTP header must be set.

<iWordSMS>

<SendMsgRequest>

<From>iWord Shortcode</From>

<To>The mobile no. that this message came from</To>

<iWord>The iWord</iWord>

<SubWord>The Sub Word</SubWord>

<MsgText>Your response text</MsgText>

<Route>The return route

1=prepay,

2=30 cent premium,

3=1 Euro premium,

4=1.50 Euro premium,

</Route>

<ResponseRequired> 0=No Response ,

1 = Response (default)

</ResponseRequired>

<ThirdPartyID>The third party id (if any)

(Required for SendMsgResponse)

</ThirdPartyID>

<OriginatingID>The ID that was given on the ForwardRequest.



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If this message is not a result of a ForwardRequest then this value should be left blank.

```
</OriginatingID>
<SHA1Hash>Leave blank</SHA1Hash>
</SendMsgRequest>
</iWordSMS>
```

Datatypes for SendMsgRequest XML message

<From>	- From is a alphanumeric of size 20 field.
<To>	- To is a alphanumeric of size 20 field for single send. If you want to broadcast to multiple phone numbers then simply add them here delimited by a semi-colon i.e. 353879101010;353869110000;353853901033
<iWord>	- iWord is a alphanumeric of size 30 field.
<SubWord>	- iWord is a alphanumeric of size 30 field.
<MsgText>	- MsgText is a alphanumeric of size 160 field.
<Route>	- Character size 1 - valid values=(1,2,3,4 see above)
<ResponseRequired>	- Bit 0 or 1 (0=Do not require response, 1=Require response)
<ThirdPartyID>	- Third Party Id (can be blank) - Alphanumeric size 20
<OriginatingID>	- Alphanumeric size 20
<SHA1Hash>	- Intentionally left blank

iWord system delivery response to third party

```
<iWordSMS>
  <SendMsgResponse status="OK" or "FAIL">
    <ThirdPartyID>The third party id</ThirdPartyID>
    <SHA1Hash>Leave blank</SHA1Hash>
  </SendMsgResponse>
</iWordSMS>
```



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Note : The delivery response gets sent as the return to the SendMsgRequest.

Datatypes for SendMsgResponse XML message

<status attribute>	- OK or FAIL
<ThirdPartyID>	- Third Party Id (can be blank) - Alphanumeric size 20
<SHA1Hash>	- Intentionally left blank



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Delivery receipts to third party

```
<iWordSMS>  
  <DeliveryReceipt>  
    <ThirdPartyID>The third party id</ThirdPartyID>  
    <Status>The delivery status</Status>  
    <SHA1Hash>Leave blank</SHA1Hash>  
  </ DeliveryReceipt >  
</iWordSMS>
```

Note : The delivery receipt gets sent to indicate the delivery status of a message sent from a third party. This status indicates whether or not the message has reached the mobile phone user.

Datatypes for DeliveryReceipt XML message

<Status>	- D=Delivered U=Undelivered R=Retrying Delivery
<ThirdPartyID>	- Third Party Id - Alphanumeric size 20
<SHA1Hash>	- Intentionally left blank



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Special Characters

When iWord sends a message to a third party it will encode certain characters to avoid breaking XML parsers on the 3rd party side.

The following characters can break the XML message. So please encode as follows when sending to iWord:

Character	Encoding
& ampersand	&
£ pound sign	£
' single-quote	'
" double-quote	"
< less than	<
> greater than	>

GSM character set

Here is the link to the GSM character set. This is the standard character set, operators may differ in which characters they support e.g. the euro symbol and \$

http://www.csoft.co.uk/sms/character_sets/gsm.htm

Please Note :

You will need to contact iWord to get

- 1) IWORD-SYSTEM-ID
- 2) URL to POST to.
- 3) Your iWord account unlocked for 3rd Party integration.
- 4) Delivery Receipts turned on (optional).