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InTime Message Center
SMS – API V2.3 EN

Contents

Introduction

InTime Message Center is a service provided by InTime International to handle mobile messaging via the Internet. This document describes the XML/FTP-interface to facilitate integration with the customer's application. The interface is designed to provide clients with easy to use alternative and is easy to integrate into most applications. The document requires knowledge of how to use basic FTP commands and XML.

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Communicating with InTime SMS gateway

FTP-data:

Host	sms.intime.nu
Port	21
Remote folder	Allotted separately
UserID	Allotted separately
Password	Allotted separately

Each client account is allotted four sub maps:

Map	**Description**
\in	The XML-files target map. Upload of files will be put to this map.
\sent	The map where every approved XML-file will be stored. In the xml-file, the element ”message” will be complemented with the attribute ”message_id” and the element ”receiver” with the attribute ”receiver_id” and ”status flag”.
\failed	The map where all rejected, and for other circumstances not handled XML-files will be stored. For every message moved to \failed an error file be created with a description of the problem. The error file is named by this convention: [xml-filename].error. (i.e. Message1234.xml.error)
\delivered	The map where all valid xml-files is moved when all messages has received final delivery status. In the xml-file, the element ”message” will be complemented with the attribute ”message_id” and the element ”receiver” with the attribute ”receiver_id” and ”status flag”. Optional service.

XML-specification

The client application ought to validate the xml-file against InTime´s XSD-schema before the file is sent to InTime. Please note that the order of the element is important while the order of attribute within an element is not important.

Formally xsd for xml-file

```
<?xml version="1.0" encoding="iso-8859-1"?>
<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"
xmlns:xs="http://www.w3.org/2001/xmlSchema">
  <xs:element name="messages">
    <xs:complexType>
      <xs:sequence>
        <xs:element maxOccurs="unbounded" minOccurs="1" name="message">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="receiver" maxOccurs="unbounded" minOccurs="1">
                <xs:complexType>
                  <xs:simpleContent>
                    <xs:extension base="xs:string">
                      <xs:attribute name="receiver_id" type="xs:int"
                           use="optional" />
                      <xs:attribute name="statusflag" type="xs:int"
                           use="optional" />
                      <xs:attribute name="transid" use="optional">
                        <xs:simpleType>
                          <xs:restriction base="xs:string">
                            <xs:maxLength value="50" />
                          </xs:restriction>
                        </xs:simpleType>
                      </xs:attribute>
                    </xs:extension>
                  </xs:simpleContent>
                </xs:complexType>
              </xs:element>
              <xs:element name="callbackaddress" maxOccurs="1" minOccurs="0"
              type="xs:string" />
              <xs:element name="body" maxOccurs="1" minOccurs="1"
              type="xs:string" />
            </xs:sequence>
            <xs:attribute name="timestamp" type="xs:dateTime" use="required" />
            <xs:attribute name="senderid" type="xs:int" use="required" />
            <xs:attribute name="test" type="xs:int" use="optional" />
            <xs:attribute name="sendertitle" use="optional">
              <xs:simpleType>
                <xs:restriction base="xs:string">
                  <xs:maxLength value="15" />
                </xs:restriction>
              </xs:simpleType>
            </xs:attribute>
            <xs:attribute name="flash" type="xs:int" use="optional" />
            <xs:attribute name="multisms" type="xs:int" use="optional" />
            <xs:attribute name="message_id" type="xs:int" use="optional" />
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

Explanation of available parameters in XML-files

Type E = element
Type A = attribute

Name	Required	Type	Format	Description
messages	Yes	E	N/A	Start / stop of all messages.
message	Yes	E		Start / stop of message. Has ”timestamp”, ”senderid”, ”flash”, ”multisms”,”sendertitle” and ”message_id” as attribute.
timestamp	Yes	A	Numeric string with format; ”YYYY-MM-DDThh-mm-ss”	Stamp for point of time when message is originated.
senderid	Yes	A	Numeric string	Representing customer identification. Allotted separately.
test	No	A	Numeric string	1 = The message is received and processed as usual but will not be forwarded to operator. Any other, or no value = the message will be forwarded to operator.
sendertitle	No	A	Alphanumeric string max 11 characters; A-Z, 0-9. Or numeric string max 15 characters; 0-9, ’ ’, ’/’, ’\’, ’-’, ’+’.	Will be presented in the receivers display as “header”. Alphanumeric string exceeding 11 characters will be cut after the 11:th character. Numeric strings exceeding 15 characters will be stripped for ’ ’, ’/’, ’\’, ’-’, ’+’ and will be cut after the 15:th character. It is recommended that numeric sendertitle only contains digits 0-9. If no sendertitle is used, default will be ”InTime”.
flash	No	A	Numeric string	1 = Message is sent as flash-SMS 0 = Message is sent as an ordinary SMS Any other, or no value = ordinary SMS
multisms	No	A	Numeric string	1 = Message can exceed 160 characters.

				0 = Ordinary SMS Any other, or no value = ordinary SMS
mes-sage_id	System pa-rameter	A	Numeric string	Message identifier, will be written by the system.
receiver	Yes	E	Alphanumeric string	Represents the receiver's telephone number. "-" and"+" is permitted but the recommendation is that receiver only contains di-gits. Has "transid", "statusflag" and "receiver_id" as attribute.
transid	No	A	Alphanumeric string, max 50 characters	Identifies messages when delivery status is sent by HTTP. Must be unique for EVERY sent message.
statusflag	System pa-rameter	A	Numeric string	Indicate message status, written by the system.
receiver_id	System pa-rameter	A	Numeric string	Receiver identifier, written by the system.
callback-address	No	E	Alphanumeric string	URL where status report will be sent.
body	Yes	E	Alphanumeric string	Message text that will be sent. Ordinary SMS = max 160 characters. If multi SMS is chosen, 804 cha-racters can be sent in 6 parts each.

Character table

Sendertitle

Sendertitle is sensitive for unusual characters. The recommendation is to use only these characters.

Type	**Interval**
Upper case	A-Z
Lower case	a-z
Digits	0-9
Space	

Other characters may be used but is depending on mobile phone operator and mobile phone device. InTime is not responsible for other characters to be displayed.

Body

This table shows valid unusual characters within the <body>-tag.
In some cases the character can be replaced by a code.

Character	Valid	Replacement
<	No	&lt;
>	No	&gt;
{ }	No	
[ ]	No	
( )	Yes	
&	No	&amp;
½	No	
´ `	No	
Á á ´	No	
É è `	No	
Û û ^	No	
Ü ü ¨	Yes	
” ’	Yes	
\ |	No	
€	No	
£	Yes	
$	Yes	
@	Yes	
~	No	
! ?	Yes	
+ - _	Yes	
# ¤	Yes	
%	Yes	
*	Yes	
§	Yes	

Delivery status

Code	Status	Explanation	Type
1	Not delivered	Message is not approved by MSP	Final
2	Not delivered	Incorrect parameter in xml-file	Final
3	Not delivered	Message halted in operator's network.	Final
4	Not delivered	Unknown reason.	Final
10,11,12,13	Buffered	Message approved by InTime and forwarded	Intermediate
20	Delivered	Message delivered and confirmed by the receivers telephone.	Final
21	Not delivered	Unknown status, no confirmation received from MSP. The message is likely delivered.	Final

Status in xml-files – Option

Incoming xml-files will be complemented with code for delivery status, ”statusflag”, for each message. Correct files reaching status 10, 11,12 or 13 is transferred to the map ”sent” when processed. Not correct files will be transferred to the file ”failed”.

Status via http – Option

A status report can be sent to a predefined address via http post.

Conditions:

1. callbackaddress is required, see xml specification
2. transid is required, se xml specification

A status report belonging to a message with a defined callbackaddress will be transferred to the callbackaddress.

Parameter	Description
id	transid indicated in the xml-file.
status	Status code for current message.
type	Always ”SMS”

The receiver of a status report must confirm by an answer with only id. If the message is not confirmed it will be sent again. InTime can provide examples of how status receivers in different languages can be implemented.

Final status – Option

As an option there is a mode to get all sent xml file with final status transferred to the map ”delivered”. This will occur when the receivers of all messages have reached final status, and within 72 hours.

Status codes that triggers transfer of xml files is 3. 20 and 21.

XML-file example

This example shows a xml-file containing two messages where one of them has two receivers, which will result in three text messages:

```
<?xml version="1.0" encoding="iso-8859-1"?>
<messages>
  <message timestamp="2007-12-07T10:48:33" senderid="921122222"
  sendertitle="Biblioteket">
    <receiver>0703977645</receiver>
    <receiver>0702157585</receiver>
    <body>Hi.
      The book you are asking for is now available at the library.
    </body>
  </message>
  <message timestamp="2007-12-07T10:48:35" senderid="921122222"
          sendertitle="Biblioteket">
    <receiver>0705430122</receiver>
    <body>Hi.
      Your lending time for the book ”Eartquake” has expired.
      City Library.
    </body>
  </message>
</messages>
```

The following standard message is an example for xml-files formatting when status is delivered via http. The message (-s) is sent as flash-SMS:

```
<?xml version="1.0" encoding="iso-8859-1"?>
<messages>
  <message timestamp="2005-12-28T09:48:13" senderid="921122222"
           flash="1" sendertitle="Butiken">
    <receiver transid="12345">0703977645</receiver>
    <receiver transid="12346">0702157585</receiver>
    <callbackaddress>http://www.adress.nu/applikationsnamn</callbackaddress>
    <body>Hej.
      Your ordered goods has arrived.
      City Store
    </body>
  </message>
</messages>
```

Document change log

Version	Date	Comment	Responsible
1.0	2003-09-22	Established	Lars Nordström
1.1	2003-10-01	Extended DTD for handling of Sendertitle. Parameters format changes, updating in examples	Andreas Lind
1,2	2003-10-08	Parameters format changes.	Andreas Lind
1,3	2003-11-19	Approved characters.	Andreas Lind
1.4	2003-11-20	Parameters format changes, adapted to product portfolio.	Andreas Lind
1.5	2006-01-05	”Sendertitle”, number of characters changed. Character table updated Introduction of delivery status, ”statusflag”.	Lars Nordström
1.6	2006-01-13	Introduction of new map; ”delivered”	Andreas Nilsson
2.0	2007-12-07	Introduction of Flash-SMS, long SMS and delivery status via http.	Andreas Nilsson
2.1	2008-01-08	Small adjustments.	Andreas Nilsson
2.2	2008-01-17	Introduction of test parameter for simulated sending.	Andreas Nilsson
2.3	2008-04-16	Updated documentation for multisms	Andreas Nilsson
2.3.1 EN	2009-07-03	Translation to English.	Lars Nordström

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