



SMS Gateway 1.1 via FTP Mobile Terminated User Technical specifications

1 REVISIONS	1
2 FTP MT SMS TRAFFIC	2
2.1.1.1 GENERAL USAGE:	2
2.1.1.2 EXAMPLES:	5



1 REVISIONS

Version	Date	Author	Remark	In Production
1.0		Erwin Berghmans	Initial version	Yes
1.1	01/12/2010	Erwin Berghmans	Added provider Telenet(4)	Yes



2 FTP MT SMS TRAFFIC

2.1.1.1 GENERAL USAGE:

REQUEST:

```

<!DOCTYPE MESSAGES [
<!ELEMENT MESSAGES (MSG*)>
<!ELEMENT MSG (TO+,BODY,MSG_ID,BILLING,DELIVERY?,EXPDATE?)>
    <!ATTLIST MSG TYPE
        (CONTENT|LOGO|RINGTONE|PICTURE|OTAPUSH|BINFWD|LONGSMS|2DCODE
        ) #REQUIRED>
<!ELEMENT MSG_ID (#PCDATA)>
<!ELEMENT BODY (#PCDATA)>
<!ELEMENT TO (#PCDATA)>
    <!ATTLIST TO PROVID (1|2|3|4|5|6|7) #IMPLIED >
    <!ATTLIST TO TYPE (NPM|EMS) #IMPLIED>
<!ELEMENT BILLING (#PCDATA)>
<!ELEMENT DELIVERY (#PCDATA)>
<!ELEMENT EXPDATE (#PCDATA)>
]>
    
```

Field	Description	Format
TO	User's GSM number. Several TO tags allow the sending of a message to several users.	00xxxxxxxxxxx, +xxxxxxxxxxx, 0xxxxxxxx, xxxxxxxxxxx (15 chars maximum)
PROVID	User's operator. If not provided, Paratel will try with each operator until a successful delivery.	1=Proximus, 2=Mobistar, 3=Base, 4=Telenet, 5=Belgacom, 6=The Netherlands, 7=Luxembourg
TYPE	User phonetype. Distinction between NOKIA (NPM) & OTHER types (EMS)	NPM = NOKIA EMS = OTHER (Sony Ericsson, ...)
BODY	SMS content.	- 160 text characters maximum for CONTENT messages - 550 text characters maximum for LONGSMS messages - 550 hexadecimal characters maximum for LOGO, RINGTONE & PICTURE messages - 115 characters maximum for OTAPUSH messages - 280 characters maximum for BINFWD message 2DCODE: - 22 characters datamatrix and 50 character TEXT message
MSG_ID	Unique Id for the message	40 characters maximum
DELIVERY	Time when the SMS will be sent	YYYYMMDDHHMISS
EXPDATE	Time when the SMS isn't valid anymore	YYYYMMDDHHMISS
BILLING	Id identifying the shortcode set to	4 characters maximum



use.	
------	--

In the FTP MT model, the client sends SMS data to their own FTP server by writing the XML-data to a file in a predefined directory on their FTP server.

(*ftp://clientftpserver/path/yourfile.xml*).

* when writing the XML to the file it is best to not use the .xml extension, this to avoid overlap in reading and writing; when the writing is done you can rename the file to a .xml extension

Example:

```
<?xml version="1.0"?>
<MESSAGES>
<MSG TYPE="CONTENT">
  <MSG_ID>1</MSG_ID>
  <BODY>Client's first MT message</BODY>
  <TO PROVID="2">0032475569175</TO>
  <TO>0032475659183</TO>
  <BILLING>3456</BILLING>
</MSG>
<MSG TYPE="CONTENT">
  <MSG_ID>2</MSG_ID>
  <BODY>Client's second MT message</BODY>
  <TO PROVID="2">0032475569175</TO>
  <BILLING>3456</BILLING>
</MSG>
</MESSAGES>
```



In the FTP MT model, Paratel sends the response to the SMS data to the client's FTP server by writing the response XML-data to a file in a predefined directory on the client's FTP server.

(ftp://clientftpserver/path-**R**/yourfile.xml).

* the filename written on your MT XML response directory has the same name as the original xml file, so you can process the response easily by matching file names

* notice the **-R**, the path you give for placing the MT XML files will be appended automatically with **-R** by our system, so be sure this path exists too on your ftp server

RESPONSE:

```
<!DOCTYPE MESSAGES [
<!ELEMENT MESSAGES (MSG*)>
<!ELEMENT MSG (TO+)>
  <!ATTLIST MSG MSG_ID CDATA #REQUIRED>
  <!ATTLIST MSG STATUS (0|1) #REQUIRED>
  <!ATTLIST MSG RC CDATA #IMPLIED>
<!ELEMENT TO (#PCDATA)>
  <!ATTLIST TO ID CDATA #IMPLIED>
  <!ATTLIST TO STATUS (0|1) #REQUIRED>
  <!ATTLIST TO RC CDATA #IMPLIED>
]>
```

Field	Description	Format
TO	User's GSM number. Several TO tags allow the sending of a message to several users.	00xxxxxxxxxxx, +xxxxxxxxxxx, 0xxxxxxxx, xxxxxxxxxxx (15 chars maximum)
ID	Paratel's ID for the SMS which is sent to this user with this MSG_ID	Numeric
STATUS		0 = ERROR 1 = OK
RC	Reasoncode in case status = 0, error-definition	
MSG_ID	Unique Id for the message	40 characters maximum

Example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<MESSAGES>
<MSG MSG_ID="1" STATUS="1">
  <TO STATUS="0" RC="080">0032475569175</TO>
  <TO STATUS="1" ID="11112223344">0032475659183</TO>
</MSG>
<MSG MSG_ID="2" STATUS="1">
  <TO STATUS="1" ID="11112223345">0032475569175</TO>
</MSG>
</MESSAGES>
```

*output (RC="080") means that the message with MSG_ID="1" has already been sent for TO 0032475569175

* in case the error is at the level of the MSG, you won't find the TO's in the response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<MESSAGES>
<MSG MSG_ID="1" STATUS="0" RC="010"/>
</MESSAGES>
```



2.1.1.2 EXAMPLES:

PLAIN SMS TEXT message

This is most commonly used type. The maximum is set to 160 characters, when this length is exceeded, this message won't be sent!

Example:

```
<?xml version="1.0"?>
<MESSAGES>
<MSG_TYPE="CONTENT">
<MSG_ID>paratel.content.1</MSG_ID>
<BODY>This is a plain text message</BODY>
<TO PROVID="1">0032479983022</TO>
<BILLING>0</BILLING>
</MSG>
</MESSAGES>
```

LONG SMS messages

To send a text sms which is longer than 160 characters, you'll have to use this type explicitly. The maximum is now set to 550 characters.

Note: the message will be split into multiple sms, most phones support multiple message formats and will assemble it back to 1 message.

Example:

```
<?xml version="1.0"?>
<MESSAGES>
<MSG_TYPE="LONGSMS">
<MSG_ID>paratel.longsms.1</MSG_ID>
<BODY> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent interdum
malesuada odio. Ut ligula. Nunc gravida dignissim nulla. Aliquam ultrices ante sodales
pede. Phasellus nulla ante, venenatis tempus, varius vitae, fermentum et, massa. Nunc
interdum dapibus urna. Curabitur libero metus, blandit ac, auctor vel, sodales nec, sem.
Nam quis dui nec nulla tempor semper. In nonummy congue nunc. Maecenas luctus purus vel
arcu. Cras egestas. Ut aliquet lacus eu ligula. Aliquam erat volutpat. Vivamus non
erat.</BODY>
<TO PROVID="1">0032479983022</TO>
<BILLING>0</BILLING>
</MSG>
</MESSAGES>
```



OTAPUSH messages

The tag 'BODY' has to be filled like this: "<url>|<message>" where <url> is the url where the GSM have to connect to, then a "pipe" character followed by a <message> field. This is the text showed on the GSM screen when the otapush is received. <url> has a maximum size of 100 chars. <message> is not limited. The maximum length for 1 SMS is length(<url>)+length(<message>) <= 114.

Example:

```
<?xml version="1.0"?>
<MESSAGES>
<MSG TYPE="OTAPUSH">
<MSG_ID>2</MSG_ID>
<BODY>www.paratel.be/wap/main.wml|some text</BODY>
<TO PROVID="2">0032475569175</TO>
<BILLING>3456</BILLING>
</MSG>
</MESSAGES>
```



PICTURE messages

Example:

```
<?xml version="1.0"?>
<MESSAGES>
<MSG TYPE="PICTURE">
<MSG_ID>paratel.picture.1</MSG_ID>
<BODY>3002010000481C012440061900000000002340731F00001C030010C09C1900001107000E208637003800
8D800990CE2F001BD0908004407E1D00105040C0046008018800301040027000008C101630C0022A00018FFC1F
DBF8018108C308063907CC007C8FE60C03C0048300044EE406009C008200032728020142001C0001F1F0010A81
005000021C6000AD01067003822F80007BFF096003C2138000210F11781FC1084000218D1D481FC084200038C2
1B841FC042103E783C11C30FE02109F13C000FC00010308E189C01C121000C1852087A08C12A0006142404710C
070000020A060010860E000002090360E263FC0000030489C0241CE80000030454CC4403C400</BODY>
<TO PROVID="1">0032479983022</TO>
<BILLING>0</BILLING>
</MSG>
</MESSAGES>
```



RINGTONE messages

Example:

```
<?xml version="1.0"?>
<MESSAGES>
<MSG TYPE="RINGTONE">
<MSG_ID>paratel.ringtone.1</MSG_ID>
<BODY>024A3A4004005CD8E498618810810410210228A30A40840A40840A408409C08408208208108B08C08408
B484126D8A22C26C22C49B610410428A30A40840A40840A348409C0000</BODY>
<TO PROVID="1">0032479983022</TO>
<BILLING>0</BILLING>
</MSG>
</MESSAGES>
```

LOGO messages

Example:

```
<?xml version="1.0"?>
<MESSAGES>
<MSG TYPE="LOGO">
<MSG_ID>paratel.logo.1</MSG_ID>
<BODY>02F61001480E01FFFFFFC01FFFD8FFFFFFF836C1FFFE77FFFFFFE6770E7FF81FFFFFFF9F00739FF78FF
FFFFFF7EF77D8FEFB7FFFFFFE1DF7BEB7EFA7FFFFFFDC5F7BC7BEFB7FFFFFFBF00001BD9FA03FFFC3FBFDFDC7F8FD
FFFDC3BEFDFC3FAFFDFFC383EFD1FFDFDFFFFFF380000E601FFDFFFF7E7FE7F3F6F03FFFFFF003FF003F00FF
FF</BODY>
<TO PROVID="1">0032479983022</TO>
<BILLING>0</BILLING>
</MSG>
</MESSAGES>
```




BINARY FORWARD messages

Example:

```
<?xml version="1.0"?>
<MESSAGES>
<MSG TYPE="BINFWD">
<MSG_ID>paratel.bin fwd.1</MSG_ID>
<BODY>0605040B8423F09F0601AE02056A0045C60C03777772E656D6F62696C6F2E636F6D2F706172746E6572
732F6D7673696F6E2F476574436F6E74656E742E6173703F746F6B656E3D3530302E3732393539353336333134
00010347657420436F6E74656E74000101</BODY>
<TO PROVID="1">0032479983022</TO>
<BILLING>0</BILLING>
</MSG>
</MESSAGES>
```



DATAMATRIX, 2D – COUPON message

The 'BODY' tag contains following string '<code>|<message>' where code is an alphanumeric code which is maximal 22 characters long and will be translated into the datamatrix (), the text that follows will accompany the datamatrix in the sms, this text can not be longer than 50 characters. In this way both datamatrix and text can fit into 1 sms message.

You'll find a 'TYPE' attribute in the TO tag too. It is important to know which handset is used by the user, there are only two possibilities:

- NPM: Nokia Picture Message: for all Nokia and Sagem users
- EMS: Enhanced Messaging Service: for all others

If this type isn't set, you'll get an error (RC 074).

Example:

```
<?xml version="1.0"?>
<MESSAGES>
<MSG TYPE="2DCODE">
<MSG_ID>paratel.2dcoupon.1</MSG_ID>
<BODY>1234567890ABCDEFGHIJ01|some text</BODY>
<TO PROVID="1" TYPE="NPM">0032479983022</TO>
<BILLING>0</BILLING>
</MSG>
</MESSAGES>
```

Data encoding

The characters encoding used is ISO-8859-1 (Latin-1). The range of characters allowed are (in hexadecimal ASCII code): 0x9 | 0xa | 0xd | 0x20-0xFF. These characters correspond respectively to: TAB, LF, CR, SPACE.



The XML special characters have to be translated according to the following table:

Character	Translation
<	<
"	"
'	'
&	&
>	>



Note that you can use the numerical form too: &#xHH; and &#DDD; where HH is the hexadecimal ASCII code and DDD his decimal form. Example: & for the '&' character.



For example for submitting "you & me" you should put the following in an XML BODY:



```
<BODY>you &amp; me</BODY>
```



EXPLANATION STATUS REASON CODES FOR THE RESPONSE XML IN MT TRAFFIC

Status = 1 : OK

Status = 0 : Not OK (see reason (RC) in table below)

RC	DESCRIPTION	
001	MSG_ID empty	
002	MSG_ID too long	
010	MESSAGE (BODY tag) empty	
011	MESSAGE (BODY tag) too long	
020	MSG TYPE attribute empty	
021	MSG TYPE type not found	
025	MESSAGE (BODY tag) content is not valid	
026	Check with Paratel, error in the message type at Paratel.	
027		
028		
030	BILLING empty	
031	BILLING not found	
040	OTA URL too long	
041	OTA MESSAGE too long	
051	DATAMATRIX CODE too long	
052	DATAMATRIX MESSAGE too long	
060	EXPDATE format error	
061	DELIVERY format error	
062	EXPDATE before DELIVERY	
063	There has to be a minimal time interval between EXPDATE & now and between EXPDATE & DELIVERY	Minimal = 5 minutes
064	There has to be a maximal time interval between EXPDATE & DELIVERY (or now if DELIVERY is not set)	Maximal = 10 days
070	TO empty	
071	TO not valid	
072	TO too long	
073	INVALID PROVID	
074	TYPE not found	
080	MSG_ID + TO already occur, unique key violation	
081	Database error	

