



Application Programming Interface

Fusion Messaging Gateway

Version 1.4

1 Table of Contents

2	Change History	3
1	Overview	4
1.1	Communication between client and FMG	4
1.1.1	Mobile Originating Message	4
1.1.2	Mobile Terminating Message	5
2	Supported Function	6
2.1	Function overview.....	6
2.2	Message format	6
2.2.1	receiveMessage.....	6
2.2.2	submitMessage	7
2.2.3	submitMessageAck	7
2.2.4	deliveryNotification.....	9
2.3	Status Code	10

2 Change History

Date	Version	Change
3-Aug-11	1.0	Initial version
4-Aug-11	1.1	Added Client, Gateway & Server Tx id for MO & MT leg accordingly
20-May-2015	1.2	Add socket protocol for submitMT
19-Dec-2018	1.3	Add supported datacoding
07-Jan-2019	1.4	Update section 2.2.2 add ReqDn param

1 Overview

1.1 Communication between client and FMG

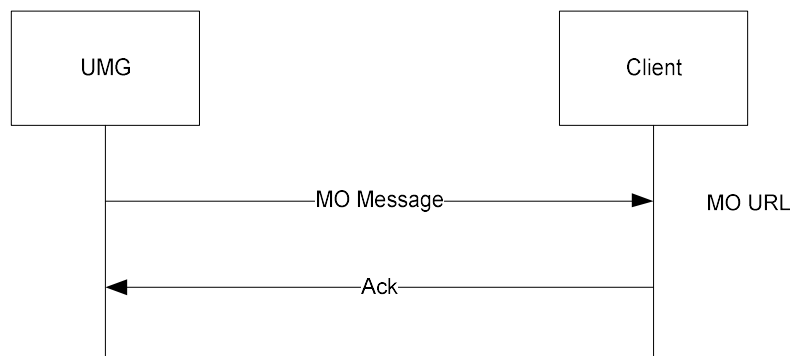
Communication between client and Fusion Messaging Gateway (FMG) is in synchronous mode. FMG supports Mobile Originating (MO) and Mobile Terminating (MT) messages. For MO messages, FMG will invoke and pass the message to client, while for MT messages; client will submit the messages to FMG.

All communication between FMG and client and vice versa can be based on 2 methods:

- 1) HTTP_GET
- 2) TCP Raw Socket
- 3) SMPP version 3.4

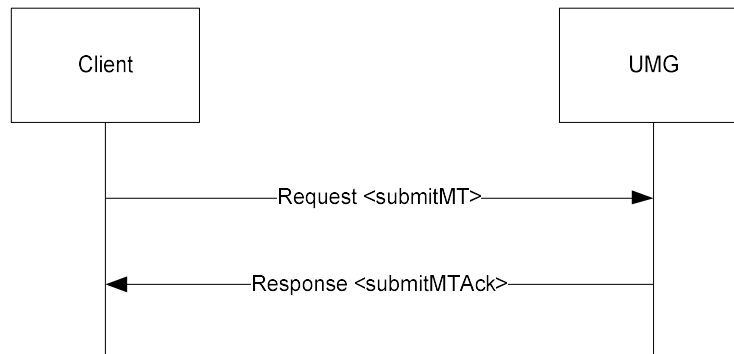
1.1.1 Mobile Originating Message

The following diagram shows how client application will receive MO from subscribers:

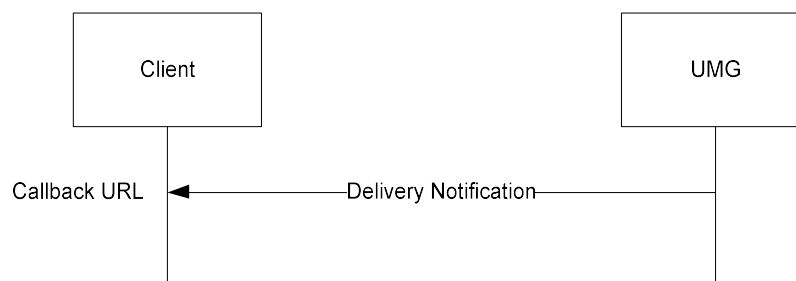


1.1.2 Mobile Terminating Message

The following diagram shows the process of submitting a message for delivery by FMG.



When a message has been successfully delivered to the subscribers, FMG will invoke the callback URL of the client to update status as DELIVERED. Client must register with valid callback URL with FMG. This process is done manually when system administrator creates an account for the client application.



2 Supported Function

2.1 Function overview

The following are transaction supported by UMG on MO.

Function description	Function name
Receive Short Message from subscribers	N/A

The following are transaction supported by UMG on MT.

Function description	Function name
Send Short Message	submitMT, submitMTAck
Message delivery notification (DN)	N/A

2.2 Message format

2.2.1 Receive MO

Parameter	Description	Data type/max. length
GwMsgId	UMG Message ID. Mandatory.	Alphanum (20)
SvrMsgId	Server Message ID. Optional depending on server side setting.	Alphanum (20)
Message	SMS Content	Alphanum (480)
SrcAddr	Sender MSISDN in international format with country code	Alphanum (15)
DestAddr	Destination MSISDN in international format with country code or Short-code	Alphanum (15)
DataCoding	Supported datacoding : 0 - 'ASCII' 8 - Unicode	Num (1)

e.g:

<http://api2.fusionbd.net:81/processMsg.php?GwMsgId=201108031EF00FFF&SvrMsgId=999999999&Message=TR%200088017123456789%2050&SrcAddr=60133331234&DestAddr=22422&DataCoding=0>

Based on the above example, the MO URL to be registered in FMG is

<http://api2.fusionbd.net:81/processMsg.php>

2.2.2 submitMT via HTTP

Parameter	Description	Data type/length
Cmd	Value= <i>submitMessage</i>	
GwMsgId	FMG Message ID. Mandatory ONLY if application associate or pair MO & MT as 1 transaction. Not required if ONLY sending MT.	Alphanum (20)
SvrMsgId	Server Message ID. Optional depending on server side setting.	Alphanum (20)
CliMsgId	Client Message ID. Mandatory.	Alphanum (20)
SystemId	System Id or Username assigned to client application	Alphanum (9)
Password	Password assigned to client application	Alphanum (9)
Message	SMS Content in URL encoded	Alphanum (480)
SrcAddr	Sender MSISDN in international format with country code or Short-code	Alphanum (15)
DestAddr	Destination MSISDN in international format with country code	Alphanum (15)
DataCoding	Supported datacoding: 0 - ASCII 8 - Unicode	Num(1)
SrcTon	Source Address TON. Optional.	Num(1)
SrcNpi	Source Address NPI. Optional.	Num(1)
DestTon	Destination Address TON. Optional.	Num(1)
DestNpi	Destination Address NPI. Optional.	Num(1)
ReqDn	DR flag indicator. Optional 0 - No DR (default) 1 - Request for DR	Num(1)

e.g:

<http://api2.fusionbd.net:81/processMsg.php?Cmd=submitMT&GwMsgId=201108031EF00FFF&SvrMsgId=999999999&CliMsgId=IATS123456789&SystemId=app1&Password=app1@123&Message=Hello%20world&SrcAddr=22422&DestAddr=60133331234&DataCoding=0&SrcTon=1&SrcNpi=1&DestTon=1&DestNpi=1&ReqDn=1>

2.2.3 SubmitMT via raw socket

Message exchanged between FMG and client is over TCP socket. Function call message from client to FMG must be packed in CSV format. The response message from FMG to client is also in CSV form. To send MT to FMG via raw socket, client must open new socket connection, send CSV message and close the connection. Communication is in SYNC mode. FMG will send response immediately after receive request from client.

Request Message format (Client to FMG):

umgTxId,svrmsgid,msgId,umg_username,umg_pwd,msgencoded,shortcode,msisdn,datacoding,ton_npi_config_base64_encoded,telco,service_no,package_id,dn_flag,priority,protocolId,delayDeliveryInSecond,validityPeriodInMinute

ton_npi_config_base64_encoded = base64_encode(src_ton,src_npi,dest_ton,dest_npi)

Sample: 123123AC1122213,,12345,user,user@123,dGVzdA==,6525,60132333288,0,MSwxLDEsMQ==

Response Message format (FMG to Client):

Errorcode,umgTxId

Sample : 001,20150124342340234

Parameter	Description	Data type/length
umgTxId	FMG Message ID. Mandatory ONLY if application associate or pair MO & MT as 1 transaction. Not required if ONLY sending MT.	Alphanum (20)
SvrMsgId	Server Message ID. Optional depending on server side setting.	Alphanum (20)
MsgId	Client Message ID. Mandatory.	Alphanum (20)
Fmg_username	System Id or Username assigned to client application	Alphanum (9)
Fmg_password	Password assigned to client application	Alphanum (9)
MsgEncoded	Short message in base64 encoded string	Alphanum (480)
Shortcode	Sender MSISDN or Short-code	Alphanum (15)
Msisdn	Destination MSISDN	Alphanum (15)
DataCoding	Put value 0	Num(1)

2.2.4 submitMT via raw SMPP

Client need to do SubmitSM request to FMG using SMPP standard version 3.4

SMPP SERVER: smpp.fusionbd.net

SMPP User: Username

SMPP Password: Password

SMPP Port: 11000

2.2.5 submitMessageAck

Parameter	Description	Data type/length
StatusCode	Status of the message, refer Status code section	Alphanum (3)
GwMsgId	UMG Message ID. Mandatory.	Alphanum (20)
SvrMsgId	Server Message ID. Optional depending on server side setting	Alphanum (20)
CliMsgId	Client Message ID	Alphanum (20)

The submitMessageAck message will be in form of XML.

e.g:

```
<?xml version="1.0"?>
<submitMessageAck>
  <StatusCode>001</StatusCode>
  <GwMsgId>201108031EF00FFF</GwMsgId>
  <SvrMsgId>999999999</SvrMsgId>
  <CliMsgId>IATS123456789</CliMsgId>
</submitMessageAck>
```

2.2.6 Delivery Notification

User will provide delivery notification link to Fusion Net SMS provider

Parameter	Description	Data type/length
GwMsgId	UMG Message ID. Mandatory.	Alphanum (20)
SvrMsgId	Server Message ID. Optional depending on server side setting.	Alphanum (20)
StatusCode	Status of the message, refer Status code section	Alphanum (3)

e.g:

<http://usersmsgw.com/sendsms.php?GwMsgId=201108031EF00FFF&SvrMsgId=999999999&StatusCode=100>

Based on the above example, the DN URL to be registered in FMG is

<http://usersmsgw.com/sendsms.php>

2.3 Status Code

Code	Description	Possible cause
001	Message received by UMG and in process of delivery	N/A
100	Message delivered to subscriber	N/A
101	Message failed to be delivered	- Subscriber not reachable - Invalid MSISDN - MSISDN being blocked at telco end
104	Invalid message format	- Unrecognized/unsupported message format - Message exceeds limit
201	Client authentication failed	Either System Id or Password is incorrect
202	Client account has insufficient balance	Account has insufficient balance
203	No routing defined in gateway	No route or/and pricing has been define for the MSISDN prefix the client attempting to send
901	Unknown error	Unknown error
902	External connection error	A failure in connectivity with backend provider either telco or other 3 rd party SMS provider
903	System error	Internal system error