

ERMES

Technical Specification for ex MPAY services integration

version 1.7 – 26/10/2018

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1. Changes

1.0	First emission
1.1	Added “User must be unsubscribed” for Code 1050, 2050, 3050 (5.1.1)
1.2	Added “GENERIC CARING” in “Guide for valorizing delivery-mode” (4.1)
1.3	Some clarifications about <code>text</code> param for <code>sendSms</code> (4.1)
1.4	Added <code>sending_not_executable</code> reason ERROR (4.1); Added the <code>error-type</code> row in the Ermes response headers table (4.1); Added error type details table for sending (4.1); Added <code>charging_not_executable</code> reason ERROR (4.4), modified (***) description (4.4)
1.5	Changed request type from GET to POST (4.1); Added <code>content-type</code> header (4.1); Changed text transfer from header to BODY parameter (4.1) ; Added “Request method: GET” (4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8)
1.6	Added <code>op-id</code> header (4.1, 4.4, 4.6); Added <code>op-auth-id</code> header (4.1, 4.4, 4.6, 4.7, 4.8); Changed <code>msisdn</code> header (4.1, 4.3, 4.4, 4.6, 4.7, 4.8); Changed <code>op-id</code> header (4.3, 4.7, 4.8)
1.7	Added <code>wind-ref-id</code> on subscription notification (4.7); Updated all WIND RAW errors (5.2)

2. Introduction

The purpose of this document is to describe the full suite of HTTP API provided by Engineering's ERMES to all CPs that migrate ex MPAY services in Ermes.

2.1. Glossary

CP	Content Provider
ENG	Engineering
ERMES	Engineering integration platform
SMS	Short Message Service
SMS-MT	SMS-Mobile terminated
SMS-MO	SMS-Mobile originated

3. ERMES API Overview

The list of all the ERMES functionality offered through HTTP API are here summarized:

- 1) HTTP API for textual SMS-MO notification (ERMES to CP)
- 2) HTTP API for textual SMS-MT sending (CP to ERMES)
- 3) HTTP API for SMS-MT sending result notification (ERMES to CP)
- 4) HTTP API for customer charging (CP to ERMES)
- 5) HTTP API for customer charging result notification (ERMES to CP)
- 6) HTTP API for customer unsubscription (CP to ERMES)
- 7) HTTP API for customer subscription notification (ERMES to CP)
- 8) HTTP API for customer unsubscription notification (ERMES to CP)

3.1. Protocol

ERMES API protocol is HTTP/HTTPS to:

- staging
 - `http://<host_tbd>/tbd/serviceEngine`
- producion
 - `https://<host_tbd>/tbd/serviceEngine`

In every request the CP must include the following headers:

Header Name	Header value
sid	Service id provided by ENG
authorization	Basic <username:password base64 encoded> The credentials, username and password, will be provided by ENG

In every request the ERMES will include the following headers:

Header Name	Header value
sid	Service id provided by ENG
authorization	Basic <username:password base64 encoded> The credentials, username and password, will be shared with CP

For an HTTP API request would be returned :

- an HTTP code 200 that indicates that request has been processed
 - CP, for some kind of logic errors, can retry the request using a new txId (see retry roules)
- an HTTP code different from 200 that indicates an error (see table below)
 - CP, for some kind of http errors, can retry the request using the same txId (see retry roules)
- a read timeout
 - CP can retry the request using the same txId (see retry roules)

HTTP error code

Code	Description
400	Invalid request (check response message)
401	Permission denied. Credentials sent by CP (username/password) are not valid.
403	CP is not authorized to invoke the requested service
429	Too many concurrent request
500	Temporary error (the request should be retried with the same txId)
503	Service Unavailable (the request should be retried with the same txId)

The CP has to configure the HTTP Request with:

- 1) a connection timeout of at least 5 seconds
- 2) a read timeout of 30 seconds

Retry rules on logic error (when result is ERROR)

Reason	Cause	Retry
already_sub	Customer already subscribed	NO
invalid_request	Request not valid (missing parameters, invalid parameters value, ...)	NO: check request parameters
op_auth_denied	Mobile operator authorization denied (permanent error)	NO: check op-response-code to undestand what to do
op_sys_not_available	Mobile operator system not available (temporary error)	YES
tx-already-executed	Transaction already processed by ERMES and executed	NO
tx-already-expire	Transaction already processed by ERMES but expired	NO
tx-already-requested	Transaction already processed by ERMES but not	NO

	executed yet	
wl-msisdn-not-allowed	White listed msisdn cannot be charged	NO: never charge white listed MSISDN
sub_not_found	Customer subscription not found in Ermes	NO: CP must delete customer subscription
charging_failed	PULL charging is failed	CP should eval error-type (see charging error type details table par 4.5)
charging_not_executable	Charging not executable	NO (more info in the error-type header of the response)
sending_not_executable	MT sending not executable	NO (more info in the error-type header of the response)

4. ERMES API

4.1. API for SMS-MT sending (CP to ERMES)

A CP can send a textual SMS-MT to a customer through this API.

At the moment DSR to device are not enabled.

Request method: POST of type *application/x-www-form-urlencoded*.

Request BODY form's parameters:

text=<max 160 GSM7 default characters>

Header name	Description	Mandatory
cmd	Must be: sendSMS	YES
tx-id	Unique identifier of the send SMS request, generated by the CP (String maxlenen 50)	YES
msisdn	Customer mobile number with the international prefix in the format +cc (example for Italy +39)	YES
categ	Service category provided by ENG	YES
op-id	Operator id; must be one of: h3g, wind	YES
delivery-mode	Can be one of: 0 for caring, 1 for on-demand events, 2 for subscribed customers	NO (default: 0)
reason	Can be one of:: DEFAULT, PIN, REMIND, UNSUB, SUB, RENEW_SUB	NO (default: DEFAULT)
caring-type	h3g specific optional parameter; must be on of: WELCOME, GOODBYE, WEEKLY_REMINDER, MONTHLY_REMINDER, WELCOME_BACK; if valorized H3G sends a preconfigured text but CP must valorize also the text header with a dummy value cause it is mandatory	NO
op-auth-id	Operator authorization id for the subscription	YES(*)
content-type	Must be <i>application/x-www-form-urlencoded</i>	YES

(*) must be valorized when op-id is wind

NOTE:

text must contains only GSM7 chars; maxlen can be reduced using extended GSM7 chars as the Euro sign; to cover all GSM7 chars table we suggest to encode the body using the charset ISO-8859-15.

Request example:

POST /path-tbd/serviceEngine HTTP/1.1

Content-Type: application/x-www-form-urlencoded; charset=ISO-8859-15

Authorization: Basic Xsdksjdkkfj443kdw

sid: ENG_SERVICE_ID_TBD

cmd: sendSMS

tx-id: jksnmdjcn01928

msisdn: +393331122333

categ: /eng/categ/tbd

op-id: h3g

text=this is the text of the message

If ERMES returns an HTTP 200 response code, the headers will be:

Header name	Description	Mandatory
result	Can be one of: SUCCES, ERROR	YES
reason	Can be one of: invalid_request, op_sys_not_available, op_auth_denied, sending_not_executable	(*)
msg-id	Message unique identification long number in ERMES	(**)
error-type	See error-type values table below	(***)
op-response-code	Raw operator response code: see raw error codes tables (String maxlen 50)	NO
op-response-message	Raw operator response message (String maxlen 250)	NO

(*) present only when result is ERROR

(**) present only when result is SUCCESS

(***) present only when result is ERROR and reason is sending_not_executable

Response example:

Content-Length: 0

Date: Thu, 01 Mar 2017 16:28:41 GMT

Server: Apache-Coyote/1.1

result: SUCCESS

msg-id: 1220193

Guide for valorizing delivery-mode, cents and reason according to message type.

Message Type	delivery-mode	reason
WELCOME	2	SUB
GOODBYE	0	UNSUB
PERIODIC SUB REMINDER	2	REMIND
PIN OR OTP	0	PIN
GENERIC CARING	0	DEFAULT

Error-type values table:

Error-type value	Description
NOT_COMPLIANT	Sending failure: the request params are not compliant with the service configuration (CP must not retry)

4.2. SMS-MT delivery status notification (ERMES to CP)

In order to receive SMS-MT delivery status the CP has to provide an HTTP/HTTPS URL.

This URL will be shared during the integration phase.

Request method: GET.

Header name	Description	Mandatory
type	Will be: forwardDSR	YES
tx-id	Unique identifier of notification request: the same value provided by CP on SMS-MT send request (String maxlen 50)	YES
sid	ERMES service identification string (String maxlen 50)	YES
msg-id	Message unique identification number in ERMES: the same returned by SMS-MT send response (long)	YES
delivery-status	See delivery status details table below	YES
op-response-code	Raw operator response code: : see raw error codes tables (String maxlen 50)	NO
op-response-message	Raw operator response message (String maxlen 250)	NO

CP has to return an HTTP 200 response otherwise ERMES will retry to send the notification request.

Request example:

```
GET /path-tbd/cp-resource-tbd HTTP/1.1
authorization: Basic Xsdksjdkkfj443kdw
type: forwardDSR
tx-id: jksnmdjcn01928
sid: ENG_SERVICE_ID_TBD
msg-id: 1220193
delivery-status: ACCEPTED_BY_OP
```

Delivery status details table:

Delivery-status value	Level	Description
NO_ROUTE	QUEUING	Command failure caused by ERMES routing routes misconfiguration.
EXPIRED_IN_QUEUE	SMSC COMMAND	Delivery failure caused by message time to live expired in the outgoing queue.
COMMAND_FAILED	SMSC COMMAND	Delivery failure caused by a definitive error
DROPPED_BY_GTW	SMSC COMMAND	Delivery failed caused by a definitive error returned by the intermediary sms gateway
UNKNOWN_OP_RESPONSE	SMSC COMMAND	Unknown delivery result cause no response received sending the delivery command to the operator smsc
ACCEPTED_BY_OP	SMSC COMMAND	Delivery command accepted by operator smsc
REJECTED_BY_OP	SMSC COMMAND	Delivery command rejected by operator smsc (see op-response-code/op-response-message)
DROPPED_BY_OP	SMSC DSR	Device delivery dropped by the operator sms after accepting the delivery command (see op-response- code/op-response-message) (*)
DELIVERED_TO_DEV	SMSC DSR	Message delivered to the mobile device (*)
REJECTED_BY_DEV	SMSC DSR	Device delivery failed (see op-response- code/op-response-message) (*)

(*) will be received only if dsr has been requested

4.3. SMS-MO notification (ERMES to CP)

In order to receive SMS-MO the CP has to provide an HTTP/HTTPS URL

This URL will be shared during the integration phase.

Request method: GET.

Header name	Description	Mandatory
type	Will be: forwardMO	YES
tx-id	Unique identifier of notification request generated by ERMES (String maxlen 50)	YES
sid	ERMES service identification string	YES
op-id	Operator id; can be one of: h3g, wind	YES
msisdn	Customer mobile number with the international prefix in the format +cc (example for Italy +39)	YES
text	Text of the message	YES
datetime	Message datetime formatted as dd/MM/yyyy HH:mm:ss.SSS	YES

CP has to return an HTTP 200 response otherwise ERMES will retry to send the notification request.

Request example:

```
GET /path-tbd/cp-resource-tbd HTTP/1.1
authorization: Basic Xsdksjdkkfj443kdw
type: forwardMO
tx-id: ENG_SERVICE_ID_TBD_dydtc6632881
sid: ENG_SERVICE_ID_TBD
op-id: h3g
msisdn: +393331122333
text: this is the message text
datetime: 01/03/2017 15:54:32.763
```


4.4. API for customer charging (CP to ERMES)

A CP can charge customer through this API.

Request method: GET.

Header name	Description	Mandatory
cmd	Must be: charge	YES
tx-id	Unique identifier of the send SMS request, generated by the CP (String maxlen 50)	YES
msisdn	Customer mobile number with the international prefix in the format +cc (example for Italy +39)	YES
categ	Service category provided by ENG	YES
op-id	Operator id; must be one of: h3g, wind	YES
offer-mode	Must be one of: PUSH, PULL	YES(*)
cents	Price in Euro cents (must be > 0)	YES
op-tx-id	Operator tx id: can be valorized to retry a failed charging with error-type GENERIC_RETRY_SAME_TX (to avoid multiple billings)	NO
op-auth-id	Operator authorization id for the subscription	YES(**)

(*) if PUSH charging will be executed in an asynchronous way (so with a separate notification for the result); otherwise will be execute in a synchronous way with the result in the response

(**) must be valorized when op-id is wind

Request example:

```
GET /path-tbd/serviceEngine?sid=ENG_SERVICE_ID_TBD HTTP/1.1
Authorization: Basic Xsdksjdkkfj443kdw
sid: ENG_SERVICE_ID_TBD
cmd: charge
tx-id: jksnmdjcn01929
msisdn: +393331122333
categ: /eng/categ/tbd
op-id: h3g
offer-mode: PULL
cents: 30
```

If ERMES returns an HTTP 200 response code, the headers will be:

Header name	Description	Mandatory
result	Can be one of: SUCCCES, ERROR	YES(*)
reason	Can be one of: wl-msisdn-not-allowed, tx-already-executed, tx-already-expire, tx-already-requested, invalid_request, op_sys_not_available, op_auth_denied, sub_not_found, charging_failed, charging_not_executable	(**)
error-type	See charging error type details table (par 4.5)	(***)
op-tx-id	Operator tx id: can be used to retry a failed charging with error-type GENERIC_RETRY_SAME_TX (to avoid multiple billings) (String maxlen 50)	(****)
op-response-code	Raw operator response code: see raw error codes tables (String maxlen 50)	(****)
op-response-message	Raw operator response message (String maxlen 250)	(****)

(*) when the offer-mode is PUSH the SUCCESS result means 'take in charge': the charging result will be notified after in asynchronous way (see par 4.5)

(**) present only when result is ERROR

(***) present only when result is ERROR and reason is `charging_failed` or `charging_not_executable`

(****) present only when provided by the mobile operator

NOTE: `charging_failed` will be returned for PULL chargings; check `error-type`, `op-response-code` and `op-response-message` for further details about the problem.

Response example:

Content-Length: 0

Date: Thu, 01 Mar 2017 18:18:41 GMT

Server: Apache-Coyote/1.1

result: SUCCESS

4.5. Charging result notification (ERMES to CP)

In order to receive charging results the CP has to provide an HTTP/HTTPS URL.

This URL will be shared during the integration phase.

Request method: GET.

Header name	Description	Mandatory
type	Will be: chargingStatus	YES
tx-id	Unique identifier of notification request: the same value provided by CP on charging request request (String maxlen 50)	YES
sid	ERMES service identification string (String maxlen 50)	YES
result	Can be on of: OK, KO, UNKNOWN	YES
error-type	See charging error type details table below	(*)
op-tx-id	Operator tx id: can be used to retry a failed charging with error-type GENERIC_RETRY_SAME_TX (to avoid multiple billings) (String maxlen 50)	(**)
op-response-code	Raw operator response code: see raw error codes tables (String maxlen 50)	NO
op-response-message	Raw operator response message (if available) (String maxlen 250)	NO

(*) present only when result is KO

(**) present only if provided by the mobile operator

CP has to return an HTTP 200 response otherwise ERMES will retry to send the notification request.

Request example:

```
GET /path-tbd/cp-resource-tbd HTTP/1.1
authorization: Basic Xsdksjdkkfj443kdw
type: chargingStatus
tx-id: jksnmdjcn01929
sid: ENG_SERVICE_ID_TBD
resul: OK
```

Charging error type details table:

Error-type value	Description
EXPIRED_IN_QUEUE	Charging failure caused by command expiration in sending queue: CP can retry the charging sending a new request (without valorize op-tx-id parameter)
NO_CREDIT	Charging failure caused by not enough customer credit available: CP can retry the charging sending a new request (without valorize op-tx-id parameter)
SIM_TO_BE_DELETED	Charging failure: CP must delete all MSISDN subscriptions (CP must not retry)
SUB_TO_BE_DELETED	Charging failure: CP must delete the specific customer subscription (CP must not retry)
PRICE_NOT_VALID	Charging failure: price value is not valid/allowed for the service (CP must not retry)
OFFER_MODE_NOT_VALID	Charging failure: offer-mode is not valid/allowed for the service (CP must not retry)
NOT_COMPLIANT	Charging failure: the request params are not compliant with the service configuration (CP must not retry)
UNKNOWN_OP_RESPONSE	Charging result is unknown: (CP should avoid the retry for the transaction)
GENERIC_AVOID_RETRY	Charging failure caused by an operator error (CP must not retry)
GENERIC_RETRY_NEW_TX	Charging failure caused by a definitive operator error: CP can retry the charging (without valorize op-tx-id parameter)
GENERIC_RETRY_SAME_TX	Charging failure caused by a temporary operator error: CP can retry the charging (valorizing the op-tx-id parameter with the value received)

4.6. API for customer unsubscription (CP to ERMES)

A CP can unsubscribe a customer, from a service, through this API.

Request method: GET.

Header name	Description	Mandatory
cmd	Must be: unsubs	YES
msisdn	Customer mobile number with the international prefix in the format +cc (example for Italy +39)	YES
categ	Service category provided by ENG	YES
op-id	Operator id; must be one of: h3g, wind	YES
channel	Request channel; must be one of: WEB, WAP, SMS	YES
op-auth-id	Operator authorization id for the subscription	YES(*)

(*) must be valorized only when op-id is wind

Request example:

GET /path-tbd/serviceEngine?sid=ENG_SERVICE_ID_TBD HTTP/1.1

Authorization: Basic Xsdksjdkkfj443kdw

cmd: unsubs

msisdn: +393331122333

categ: /eng/categ/tbd

op-id: h3g

channel: WEB

If ERMES returns an HTTP 200 response code, the headers will be:

Header name	Description	Mandatory
result	Can be one of: SUCCCES, ERROR	YES
reason	Can be one of: invalid_request, op_sys_not_available	(*)
op-response-code	Operator error response code	(**)
op-response-message	Operator error response message	(**)

(*) present only when result is ERROR

(**) present only if provided by the mobile operator when reason is op_sys_not_available

Response example:

Content-Length: 0

Date: Thu, 01 Mar 2017 19:18:41 GMT

Server: Apache-Coyote/1.1

result: SUCCESS

4.7. Subscription notification (ERMES to CP)

In order to receive customer subscriptions, coming from the operators provisioning system, the CP has to provide an HTTP/HTTPS url.

This URL would be shared during integration phase.

Request method: GET.

Header name	Description	Mandatory
type	Will be: subscribe	YES
tx-id	Unique identifier of notification request generated by ERMES (String maxlen 50)	YES
sid	ERMES service identification string (String maxlen 50)	YES
categ	ERMES service category (String maxlen 250)	YES
op-id	Operator id; can be one of: h3g, wind	YES
msisdn	Customer mobile number with the international prefix in the format +cc (example for Italy +39)	YES
op-auth-id	Operator authorization id for the subscription (if available) (String maxlen 50)	NO
h3g-access-id	H3G specific information (if available) (String maxlen 250)	(*)
wind-sub-id	WIND specific information: is the same value passed in the query string parameter 'i' during activation phase	(**)
channel	Request channel; can be on of: SMS, WEB, WAP, SERVICE, OPERATOR	YES

(*) should be valorized only when op-id is h3g

(**) should be valorized only when op-id is wind

CP has to return an HTTP 200 response otherwise ERMES will retry to send the notification request.

Request example:

```
GET /path-tbd/cp-resource-tbd HTTP/1.1
authorization: Basic Xsdksjdkkfj443kdw
type: subscribe
tx-id: ENG_SERVICE_ID_TBD_dydtc6632882
sid: ENG_SERVICE_ID_TBD
categ: /eng/service-categ-tbd
op-id: h3g
msisdn: +393290011001
channel: OPERATOR
```

4.8. Unsubscription notification (ERMES to CP)

In order to receive customer unsubscriptions, coming from the operators provisioning system, the CP has to provide an HTTP/HTTPS url.

This URL would be shared during integration phase.

Request method: GET.

Header name	Description	Mandatory
type	Will be: unsubscribe	YES
tx-id	Unique identifier of notification request generated by ERMES (String maxlen 50)	YES
sid	ERMES service identification string (String maxlen 50)	YES
categ	ERMES service category (String maxlen 250)	YES
op-id	Operator id; can be one of: h3g, wind	YES
msisdn	Customer mobile number with the international prefix in the format +cc (example for Italy +39)	YES
op-auth-id	Operator authorization id for the subscription (if available) (String maxlen 50)	NO
channel	Request channel; can be on of: SMS, WEB, WAP, SERVICE, OPERATOR	YES

CP has to return an HTTP 200 response otherwise ERMES will retry to send the notification request.

Request example:

```
GET /path-tbd/cp-resource-tbd HTTP/1.1
authorization: Basic Xsdksjdkkfj443kdw
type: unsubscribe
tx-id: ENG_SERVICE_ID_TBD_dydtc6632883
sid: ENG_SERVICE_ID_TBD
categ: /eng/service-categ-tbd
op-id: h3g
msisdn: +393290011001
channel: OPERATOR
```


5. Operators peculiarities

5.1. H3g raw error codes

5.1.1. Charging raw errors codes

Code value will be indicated by the `op-response-code` header of the charging response or charging notification.

Code	Description	Action
1001	Error in transaction execution	
1002	Spending limit reached	
1003	System internal error	
1004	Residual Credit Check failed	
1050	Do not retry transaction for this user	User must be unsubscribed
1099	System internal error	
2001	System internal error	
2050	Do not retry transaction for this user	User must be unsubscribed
2099	System internal error	
3001	Error in transaction execution	
3002	Spending limit reached	
3003	System internal error	
3004	Residual Credit Check failed	
3010	Please retry credit reservation delivery	
3050	Do not retry transaction for this user	User must be unsubscribed
4001	Invalid username or password	
4002	XML Parsing Error	
4003	XML Content Error	
4004	Service ID or Service Name not recognized	
4005	Supplier ID (Msite ID) not compliant with service business schema	
4006	Serving Product ID not compliant with service business schema	
4007	Price not compliant with service business schema	

4008	Payment transaction not performed for MSISDN (no compliancy with service business schema)	
4009	Payment transaction not performed for MSISDN (no active subscription for the service)	User must be unsubscribed
4010	MSISDN deactivated on 3 network	User must be unsubscribed
4011	Payment transaction not performed for MSISDN: payment limit reached in current subscription period	
4012	Payment transaction refused: BILLING_TYPE not compliant with 43services business schema	
4013	Billing not allowed for this user – No welcome message sent	
4014	Billing not allowed for this user – CARING RULES NOT RESPECTED	
4015	Wrong MSISDN format	
4016	Billing not allowed for this user – SERVICE BARRED	User must be unsubscribed
4018	Family Filter is active for the customer	User must be unsubscribed
5001	Internal Server Error	
5002	H3G system timeout	
5003	H3G system error	

5.1.2. Messaging raw errors codes

Code value will be indicated by the `op-response-code` header of the SMS-MT delivery status notification.

Code	Description	Action
3001	Error recipient address length in the request (min 3, max 14)	
3002	Invalid username or password	
3003	No Account [account] associated to User [user]	
4001	XML Parsing Error	
4002	XML Content Error	
4003	Service ID or Service Name not recognized	
4004	Service ID or Service Name not paired with Account	
4005	Payment transaction not performed for MSISDN (no compliancy with service business schema)	
4006	Payment transaction not performed for MSISDN (no active subscription for the service)	User must be unsubscribed
4007	Price not compliant with service business schema	
4008	MSISDN deactivated on 3 network	User must be unsubscribed
4009	SMS MT - Body Text Keyword not present as specified in service business schema	
4010	Payment transaction not performed for MSISDN: payment limit reached in current subscription period	
4011	Billing not allowed for this user - No welcome message sent	
4012	Payment transaction refused: BILLING_TYPE not compliant with service business schema	
4013	Weekly Caring not set for this service	
4014	Billing not allowed for this user - CARING RULES NOT RESPECTED	
4016	Caring type not recognized	
5001	Internal Server Error	
5002	H3G system timeout	

5.2. Wind raw error codes

Code	Description	Action
1	Invalid Username/Password	
2	Connection not allowed from source address	
3	Permission denied to use this operation	
12	MT.Body# is out of MT.BodyCount range	
13	ServiceType not set to the requested operation.	
14	Invalid content source	
21	Msisdn Malformed	
22	Unauthorized Carrier	
25	Not Retryable Error	
28	MSISDN sim is child	
32	Problems connecting to carrier	
34	Content not delivered : MT.ContentID already exists	
35	Error Retryable	
37	Invalid operation/Service disable (Just for activation)	
44	MSISDN deleted	User must be unsubscribed
51	The maximum service amount was already reached	
53	The maximum charge retries was already reached	
58	The maximum monthly cap was reached	
60	The TARGET is already active	
63	MSISDN not authorized	
64	Service not found	
65	The TARGET is already deactivated	User must be unsubscribed
91	System closed	
92	Browsing timeout	
96	Internal database access error	
97	Timeout error	

98	Error processing the request: invalid parameter(s)	
99	Timeout Error	