SMS API –

Web Services with SSL SHA2 HMAC

Open API Version 1.7

Jul 2017

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Introduction

This API is used for send SMS in a simple method. All requests can pass via SSL internet with a fixed IP by Web Service with HMAC authorization.

API Protocol Specification

Web Services/SOAL via SSL

IP Requirement

Fixed IP and need to register.

WSDL

https://www.mds.ms/APIWSS/sms.wsdl

Schema

https://www.mds.ms/APIWSS/sms?xsd=1

HMAC Authorization

Authentication is the process of proving your identity to the system. Requests are allowed or denied in part based on the identity of the requester. Using the HTTP Authorization header is the only method of providing authentication information by this API.

Request headers for HMAC Authorization Example: (No line change in header, below line change only for readability.

Authorization: MDWS-HMAC-SHA256
Credential=Username,
SignedHeaders=sdate;SMS;destination,
Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc963176630326f1024

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Ref	Items	Details	Example
1	MDWS-HMAC-SHA256	The algorithm that was used to calculate the signature. You must provide this value. It will provide more algorithm for future enchantment. The string specifies MDWS WS Signature and the signing algorithm (HMAC-SHA256).	MDWS-HMAC-SHA256
2	Credential	Your username/access ID and the scope information.	Credential=Username
3	SignedHeaders	A semicolon-separated list of request headers that you used to compute Signature. The list includes header names only, and the header names must be in lowercase.	SignedHeaders=sdate;SMS; destination
4	Signature	The 256-bit signature expressed as 64 lowercase hexadecimal characters.	fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc963176630326f1024

SMS Sending API

Signed Parameters

SignedHeaders=sdate;SMS;destination

Function

```
public int send(String destination,
                String SMS,          String origination,   int type,
                String sendDate,     int returnMode,       int sentDirect,
                String udh,          int dcs,              String expireDate,
                String sendPeriodStart, String sendPeriodEnd, String userRef
                String dnc,          String validityPeriod)
```


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Parameters

No.	Parameter	Details
1	<destination/> (String)	Destination Address of this transaction. Country Code and area code is necessary. For example, 85298765432 (Hong Kong Mobile).
2	<SMS/> (String)	It is SMS content. For Unicode of each message should be equal or less than 70 characters. For ASCII of each message should be equal or less than 60 characters. If the message is longer than one message length, it will be counted as two messages. There is no SMS length limitation for each SMS. You can send SMS as long as you need and receivers still receive content at once, but the credit counting is difference. All symbols, space and newlines are counted. • Pure English: One SMS credit, 160 characters. It means that the message only can contain below characters plus change line character. ***0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz:;<=>?@$_ !"#%&'()*+,-./£¥èéùìòÇØøÅå Δ Φ Γ Λ Ω Π Ψ Σ Θ ΞÆæßÉ¤¡ÄÖÑÜ§¿äöñüà^{}\[~]|€*** You may also remind that below characters are two characters count for each. ***^ { } \ [~] | €*** If message is longer than 160, it is long SMS. Each SMS only can carry 153 characters, because some content used in protocol header. i.e. 160 length English message can fix into one SMS. But two SMS only can use up to 306 characters. • Mix Language: One SMS, 70 characters If message is longer than 70, it is long SMS. Each SMS only can carry 67 characters, because some content used in protocol header. i.e. 70 length Mix Language message can fix into one SMS.

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		But two SMS only can use up to 134 characters. All String is standard UTF-8 String.
3	<origination/> (String)	It is message origination address. All origination need to register before production.
4	<type/> (int) Values: 1	It is transaction type. It set to “1” indicate that it is text message.
5	<sendDate/> (String) Values: DDMMYYY hh:mm:ss	You can schedule the sending time of SMS. The format is “DDMMYYYY hh:mm:ss”, i.e. 04Apr2006 15:30:33. If you not use this parameter, the SMS will send immediately.
6	<returnMode/> (int) Values: 0, 1	Accept value 1 or 0. “0” – Return old return code. And return “0” when transaction successfully submitted. “1” – Return New return code. Return “Transaction ID” when transaction successfully submitted. This option only can use with single destination submitting. If multi-destination submitting is used, this option will be ignored and “0” will return when the submission is successful.
7	<udh/> (String)	(Optional, default: Empty)User Define Header. For Binary SMS message, it must be in binary HEX format. e.g. 05040B8423F0 for WAP push message.
8	<dcs/> (int)	(Optional, default: 0)DCS values for SMS encoding. It is decimal format. e.g. 245 for WAP push message.
9	<expireDate/> (String) Values: DDMMYYY hh:mm:ss	(Optional, for HTTP only. Default: never) You can set expire date of SMS. If SMS cannot send before this date, the SMS will be canceled and will not be sent. The format is “DDMMYYYY hh:mm:ss”, i.e. 04Apr2006 15:30:33. If you not use this parameter, the SMS will not expire.
10	<sendPeriodStart/> (String) Values: hh:mm:ss	(Optional, for HTTP only. Default: Any Time) You can set time period of sending SMS. It must use together with *<sendPeriodEnd/>*.If SMS cannot send between *<sendPeriodStart/> and <sendPeriodEnd/>*, the SMS will send on next day between *<sendPeriodStart/> and <sendPeriodEnd/> again*. The format is “hh:mm:ss”, i.e. 15:30:33. If you not use this parameter, the SMS will send at any time base on other parameters.

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		If only set *<sendPeriodStart/> without setting <sendPeriodEnd/>*, this parameter will be omitted.
11	<sendPeriodEnd/> (String) Values: hh:mm:ss	(Default: EMPTY: Any Time) You can set time period of sending SMS. It must use together with < *sendPeriodStart* />.If SMS cannot send between *<sendPeriodStart/> and <sendPeriodEnd/>*, the SMS will send on next day between *<sendPeriodStart/> and <sendPeriodEnd/> again*. The format is “hh:mm:ss”, i.e. 15:30:33. If you not use this parameter, the SMS will send at any time base on other parameters. If only set *<sendPeriodEnd/> without setting <sendPeriodStart/>*, this parameter will be omitted.
12	<userRef/> (String)	User Reference Number. Reference number for user local marking. It is not processed by system, but it can display on result of transaction API. Reference number can be any 20 characters long string. All String is standard Unicode String. For example, reference1. For HTTP protocol, it support multi-reference for multi-destination address submit at a once by using semicolon “;”. i.e. reference1; reference2.
13	<dnc/> (int) Values: 0, 1	Accept value 1 or 0. “0” – No Filter for all SMS “1” – Filter all DNC numbers from OFCA Reference: https://www.dnc.gov.hk/en/pub_general/rd/pub_home_en.html
14	**<**validityPeriod**/>** (String) Values: 6-72	Accept 6 to 72. It is time in hours. How many hours the SMS will store in the operators SMS Center before it give up to delivery. If the mobile is not ready to receive SMS, the SMS will stored in the operators’ SMS center and wait for the mobile ready. If the period over, the SMS will fail to delivery and return Expired status.

Return Code

Code”0” indicates transaction success.

Any other negative indicate transaction failed.

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No	Code	Details
1	0	Success with parameter: *returnMode*=0
2	>0	Success; Transaction ID with parameter: *returnMode*=1
3	-1	Wrong Destination
4	-2	Account Information/ No Credit for Destination/ username/ IP/ password incorrect.
5	-3	Content ID incorrect For binary SMS content only
6	-4	Destination not all correct For multiple submit mode
7	-7	Block by “OFCA Do-Not-Call” List Only Apply with parameter: *dnc*=1
8	-8	Wrong Origination All originations are required registration. It will return -8 if the submitted origination is not registered
9	-100	General Error/ Temporary Error It means that the submission cannot be handle by system at the moment. The message is suggested retry after few ten seconds with 3-4 times.

SMS Get Transactions API

Signed Parameters

SignedHeaders=sdate

Function

public String getTransaction(

final String startDate, final String endDate, final int TransID,
final String userRef, final String report)

Parameters

No.	Parameter	Details

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1	<startDate/> (String)	(Optional) Transaction Start Reading Date. If not exist or incorrect date is passed. The default date will be used. Default is Today with time “00:00:00”
2	<endDate /> (String)	(Optional) Transaction End Reading Date. If not exist or incorrect date is passed. The default date will be used. Default is Today with time “23:59:59”
3	<TransID /> (int)	(Optional) TransactionID from Send SMS API
4	<userRef/> (String)	(Optional) User Reference Number. Reference number for user local marking. It is not processed by system, but it can display on result of transaction API. Reference number can be any 20 characters long string. All String is standard Unicode String. For example, reference1. It not supports multi-reference for multi-transaction. If there is more than one identical User Reference, the latest transaction will be returned. Only one at most one transaction record return when using this parameter.
5	<report/> (int) Values: 0, 1, 2, 3	Default: 0 Value: 1, there will have three more column return as follow. Origination Address, Report Message, Report Date Value: 2, CSV Format with same format to value 0. Value: 3, CSV with same format with value 1

Return Code

All Transaction will return as XML formal

<cdr>

<record>

<transactionID>12345678</transactionID>

<destination>85298765432</destination>

<message>Message</message>

<SendDate>Mar 2 2010 5:01PM</SendDate>

<AddDate>Mar 2 2010 5:01PM</AddDate>

<ChargeUnit>1</ChargeUnit>

<IsCancel>0</IsCancel>

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<UserRef></UserRef>

<remarks>Demo</remarks>

</record>

</cdr>

Transaction columns title as below:

Transaction ID, Destination Address, Message, Report Sent Date from Operator, Add Date, Charge Unit, Is Cancelled, User Refer, Remarks

Note: Charge Unit – How many physical SMS will need for that transaction. It also used for billing on SMS. Is Cancelled – Please refer to Cancel Transaction API section.

Any other negative indicate transaction failed.

No	Code	Details
1	-2	Account Information/username/IP/password incorrect.
2	-100	General Error/ Temporary Error It means that the submission cannot be handle by system at the moment. The request is suggested retry after few ten seconds with 3-4 times.

SMS Get Transactions Report API

Signed Parameters

SignedHeaders=sdate

Introduction

This API use for getting Delivery Report from operators. But it is not all kind of SMS product has delivery report. It is according to your account settings only.

Function

```
public String getTransactionReport(
        final String startDate,        final String endDate,
        final int TransID,             final String userRef)
```


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or

public String getTransactionReportRef(

final String startDate, final String endDate,

final int TransID, final String userRef,

final int type)

Parameters

No.	Parameter	Details
1	<startDate/> (String) Values: DDMMYYY hh:mm:ss	(Optional) Transaction Start Reading Date. If not exist or incorrect date is passed. The default date will be used. Default is Today with time “00:00:00”
2	<endDate /> (String) Values: DDMMYYY hh:mm:ss	(Optional) Transaction End Reading Date. If not exist or incorrect date is passed. The default date will be used. Default is Today with time “23:59:59”
3	<TransID /> (int)	(Optional) TransactionID from Send SMS API
4	<userRef/> (String)	(Optional) User Reference Number. Reference number for user local marking. It is not processed by system, but it can display on result of transaction API. Reference number can be any 20 characters long string. All String is standard Unicode String. For example, reference1. It not supports multi-reference for multi-transaction. If there is more than one identical User Reference, the latest transaction will be returned. Only one at most one transaction record return when using this parameter.
5	<type/> (int) Values: 0, 1	(Optional) 0=Original, No User Reference; 1= Return User Reference

Return Code

All Transaction will return as XML formal

<cdr>

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<record>
<transactionID>12345678</transactionID>
<origination>85298765432</origination>
<destination>85298765432</destination>
<report>Message</report>
<ArriveDate>17/11/2010 15:45:48</ArriveDate>
</record>
</cdr>

Transaction columns title as below:

Transaction ID, Origination Address, Destination Address, Report, Report Date

Or if Type equal 1

<cdr>
<record>
<transactionID>12345678</transactionID>
<origination>85298765432</origination>
<destination>85298765432</destination>
<report>Message</report>
<ArriveDate>17/11/2010 15:45:48</ArriveDate>
<userRef>User Reference</ userRef >
</record>
</cdr>

Transaction columns title as below:

Transaction ID, Origination Address, Destination Address, Report, Report Date, User Reference

Any other negative indicate transaction failed.

No	Code	Details
1	-2	Account Information/username/IP/password incorrect.
2	-100	General Error/ Temporary Error It means that the submission cannot be handle by system at the moment. The request is suggested retry after few ten seconds with 3-4 times.

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SMS Cancel Transactions API

Signed Parameters

SignedHeaders=sdate;transactionID

Function

public String setTransactionCancel (

final int TransID)

Parameters

No.	Parameter	Details
1	<TransID />(int)	(Optional) TransactionID from Send SMS API

Return Code

All Transaction will return as XML formal

Return as below:

<*transactionCancel*><*status*>*Code*</*status*></*transactionCancel*>Any other negative indicate transaction failed.

Code”0” indicates transaction success.

Any other negative indicate transaction failed.

No	Code	Details
1	10	Cancel due to China SMS Network Protocol Error
2	9	Cancel due to China SMS Content Blocked Refer to Remarks for Details. Example Remarks: *Content Blocked by Operator. Related Word(预约)*
3	8	Cancel due to Invalid destination address
4	7	Cancel due to OFTA List
5	6	Cancel by System due to Number not exist

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6	5	Cancel by System due to MVNO not supported
7	4	Cancel by System due to expired
8	3	Cancel Executed
9	2	Cancel Not Executed
10	1	Cancel Pending
11	0	Normal – No Cancel Request Accepted
12	-1	Transaction ID not find/incorrect
13	-2	Account Information/username/IP/password incorrect.
14	-100	General Error/ Temporary Error It means that the submission cannot be handle by system at the moment. The request is suggested retry after few ten seconds with 3-4 times.

SMS Get User Balance API

Signed Parameters

SignedHeaders=sdate

Function

public String getUserBalance (
final int type)

Parameters

No.	Parameter	Details
1	<type/> (int) Values: 0, 1	(Optional) Type=1, it returns user cash balance; Type=2, it returns user SMS balance with details. Default is user cash balance

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Return Code

Balance columns title as below:

Type 1 – One column

<userBalance>

<record>

<balance>10</balance>

<expireDate>2010-06-18 14:59:27.607</expireDate>

<destination>China</destination>

<origination>Any</origination>

</record>

</userBalance>

Type 2 – Four columns

<userBalance>

<record>

<balance>10</balance>

<expireDate>2010-06-18 14:59:27.607</expireDate>

<destination>China</destination>

<origination>Any</origination>

</record>

<record>

<balance>2.0000</balance>

<expireDate>2010-09-03 15:43:50.23</expireDate>

<destination>Hong Kong</destination>

<origination>Any</origination>

</record>

</userBalance>

Any other negative indicate transaction failed.

No	Code	Details
1	-2	Account Information/username/IP/password incorrect.
2	-100	General Error/ Temporary Error It means that the submission cannot be handle by system at the moment. The request is suggested retry after few ten seconds with 3-4 times.

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Version History:

V1.7 – Jul 2017

1. *Typo and information fix.*

V1.6 – Jun 2017

2. *GetTransaction added CSV format.*

V1.5 – Jun 2017

3. *Initial release for SSL with HMAC authorization*

V1.4 – Oct 2011

4. *Added Wrong Origination Address Code (-8)*

V1.3 – Nov 2010

5. *Get Transaction Report Function with User Reference Field*

V1.2 – Nov 2010

1. *Get Transaction Report Function Added*

V1.1 – March 2010

1. *Get User Balance Function Added*
2. *Cancel Transaction Function Added*

V1.0 – May 2009

1. *Send Function*
2. *Transaction Retrieve Function*

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