

THAILAND PSMS

Product Paper

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For technical-related matters, please contact us at the number below:

Telephone: +603 2163 2100 (24hours)

Email: techsupport@macrokiosk.com

Website: www.macrokiosk.com

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Preface

The following document is a product paper of **MACROKIOSK**'s Thailand Premium SMS payment solution which is open for public and external viewing.

The purpose of this product paper is to inform its readers about the technical features and benefits of Thailand PSMS to our potential clients as well as educational material to the sales and marketing division of **MACROKIOSK**.

Besides just the benefits, the product paper will also explore some of the technical limitations of Thailand PSMS as well as some frequently asked questions regarding Thailand PSMS.

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Product Changelog

Version	Date	Areas of Amendments	Description
1.0	29/7/11	All Sections	▪ First Release
1.1	20/3/12	Section 3.1	▪ Added a new feature called 'MO Format'.
		Section 6.1	▪ Added a 'Note' on new MO Format.
		Section 7.1	▪ Information added for new MO Format.
1.2	10/10/12	Section 3.1	▪ Truemove Hutchison added into the Telco Coverage.
1.3	15/1/14	Section 3.1	▪ Shortcode changed to 4541xxx
		Section 7.2	▪ New known issues added.
1.4	20/5/15	Section 3.1 Section 6.2.1 Section 7.2	▪ MO option via WAP/Web added.
1.5	27/5/15	Section 3.1	▪ Truemove Hutchison removed.
1.6	28/9/15	Section 6.2	▪ Note added on Subscription service.
1.7	19/4/16	Section 3.1 Section 6.2.2.1 Section 7.2	<ul style="list-style-type: none"> ▪ New feature added in called 'MSISDN Forwarding' ▪ New Section added for MSISDN Forwarding. ▪ Known Issue added for 'MSISDN Forwarding'.
1.8	7/11/16	Section 7.2	▪ New note added on "Refld" for DTAC at Known Issue for "MSISDN forwarding"
1.9	2/1/18	All Sections	▪ Editorial Revision
		Section 3	<ul style="list-style-type: none"> ▪ Added WAP Opt-In user journey flow for Mobile Data ▪ Added WAP Opt-In Subscription user journey flow for WiFi
		Section 4.1	<ul style="list-style-type: none"> ▪ Added access level GUI ▪ Removed MO Billing
		Section 5	▪ Removed MO Billing
		Section 7.1	▪ Removed MO Billing remark
1.10	9/7/18	Section 2.2	▪ Updated AIS Opt-In Subscription Flow for Mobile Data – OTP flow

1.11	9/5/19	Section 2.5	▪ Added WAP Opt-In flow for Truemove H Mobile Data
1.12	13/5/19	Section 2.3	▪ Revised DTAC WAP Opt-In Flow for Mobile Data from Captcha to OTP
1.13	3/3/2020	Section 2.5	▪ Updated WAP Opt-In flow for TruemoveH Portal
		Section 2.6	▪ Added WAP Opt-In Flow for Truemove H

Section 1.0 – Introducing PSMS

1.1 - Overview

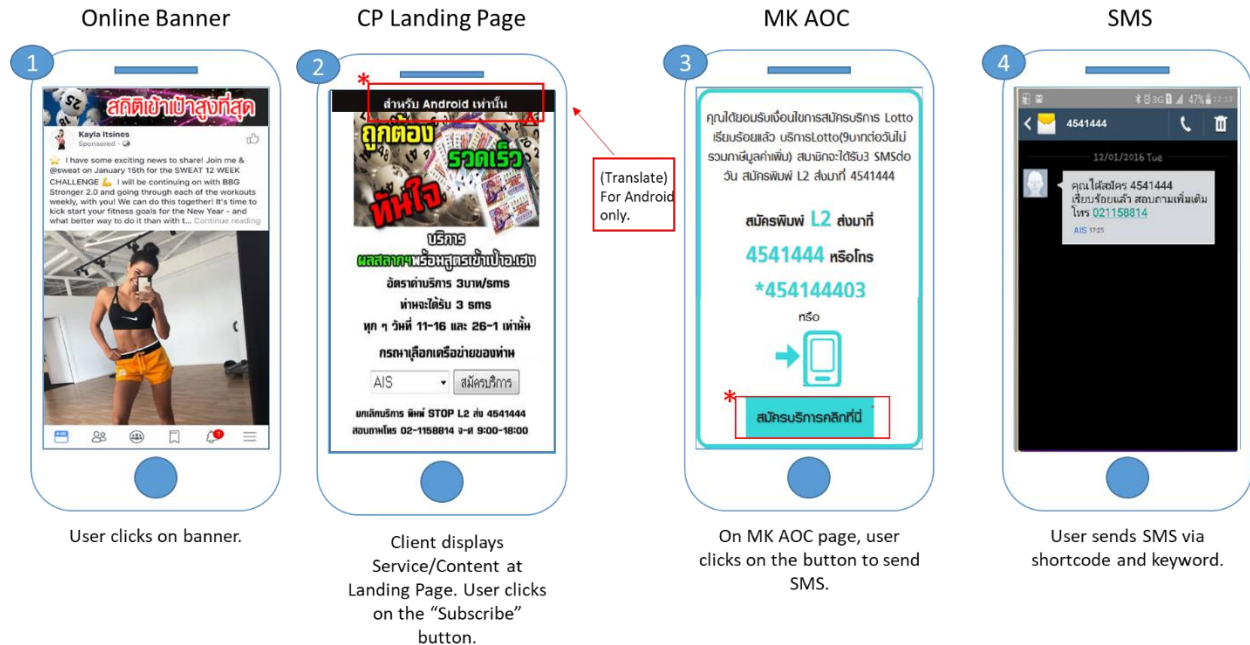
MACROKIOSK Premium Messaging Gateway offers global connectivity for content providers to provide premium SMS contents to mobile subscribers in an efficient and effective way. This network connection enables the delivery of multimedia or text contents through IOD and subscription services.

1.2 – Premium SMS Service Flow



Section 2.0 – User Journey Flow

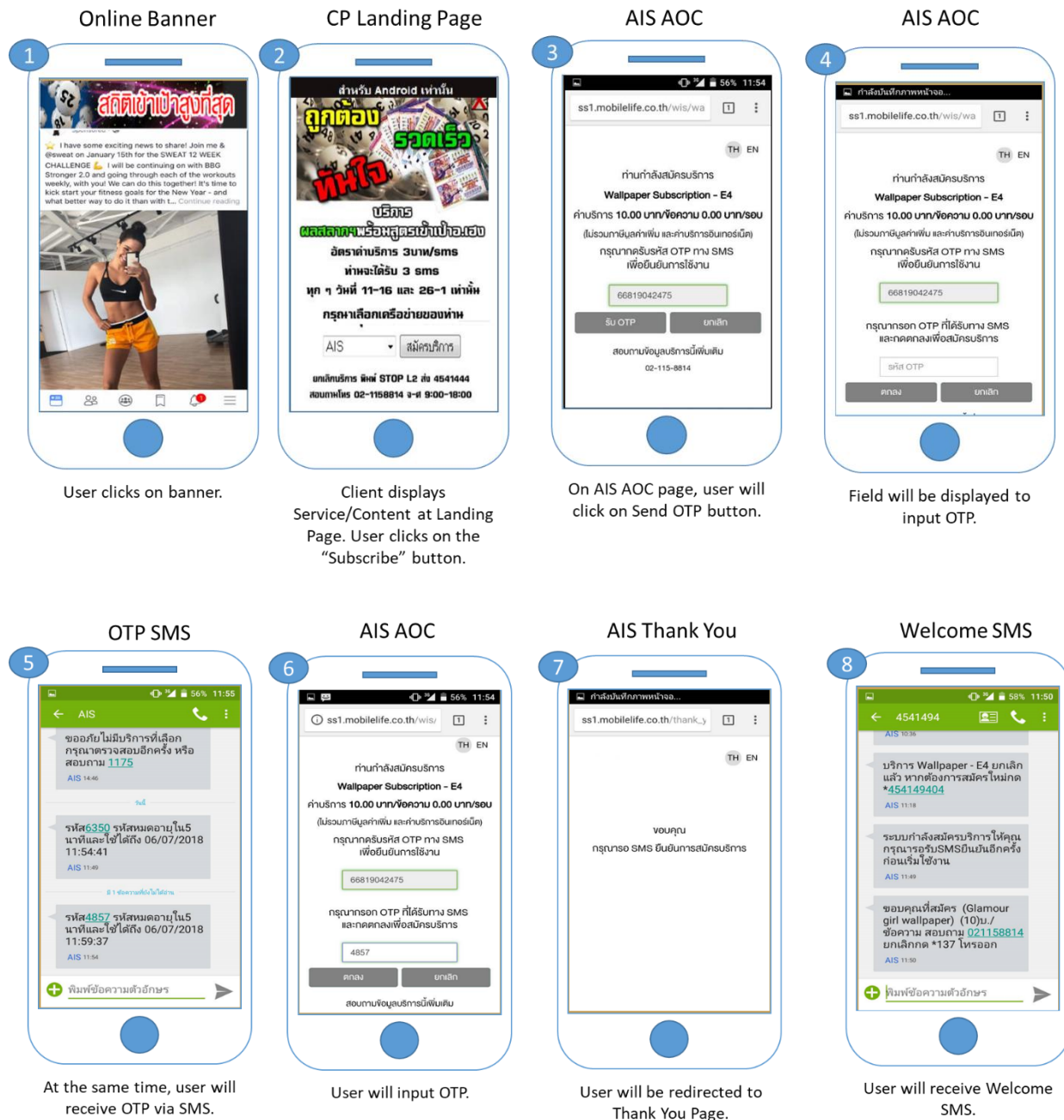
2.1 – AIS and TruemoveH WAP Opt-In Subscription Flow for WiFi



Note:

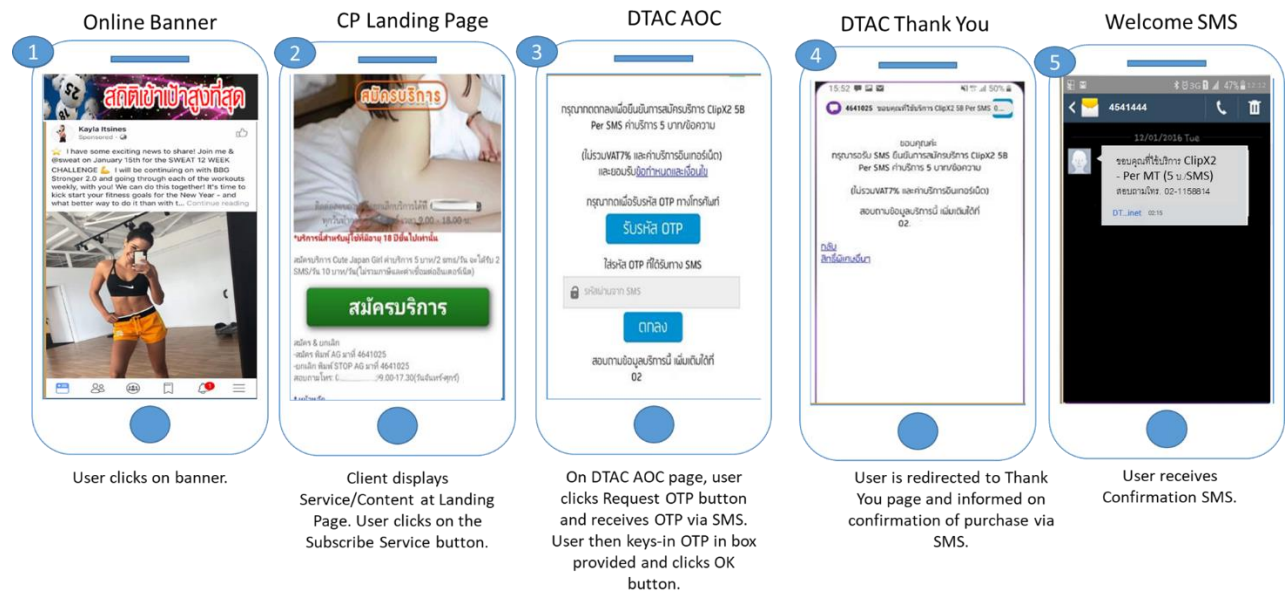
- If the CP service is only compatible for a specific OS, then the CP will need to state so accordingly at their Landing Page. E.g. For Android Only statement as shown in illustration above.
- For Android devices, users can click on the button provided at the AOC page to auto-compose the keyword message. This option does not apply for iOS devices in which users need to compose the keyword message manually.

2.2 – AIS Opt-In Subscription Flow for 3G (Mobile Data)

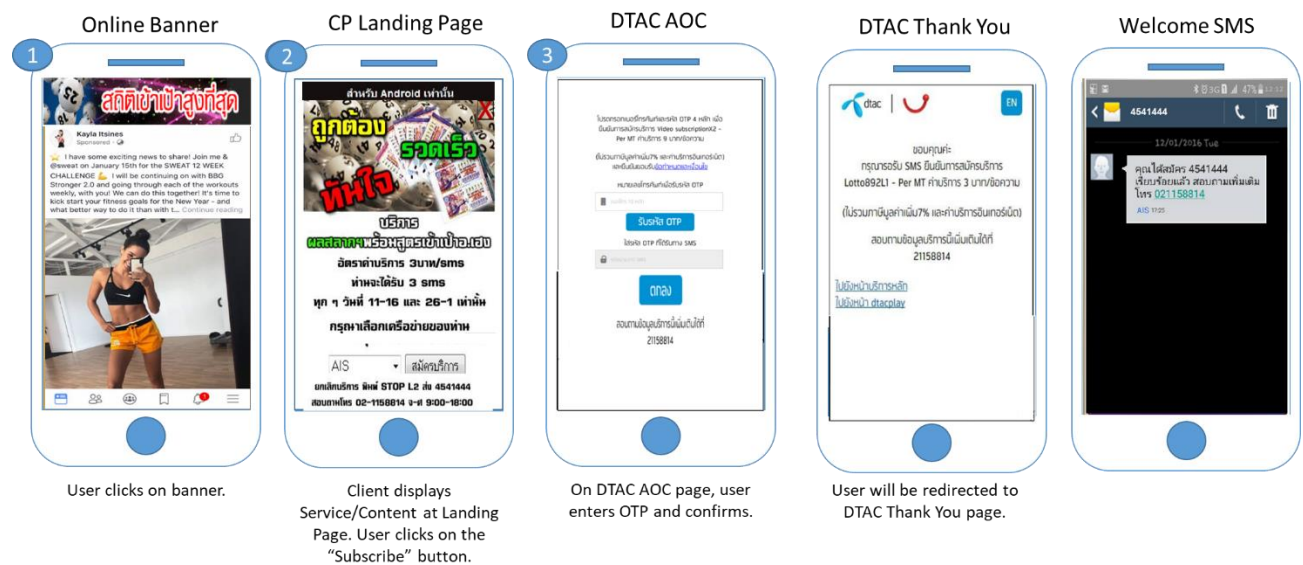
**Note:**

1. Mobile number is auto-appended in AIS AOC page.
2. OTP expiry time is of 5 minutes.
3. Telco selection field in CP Landing Page for Mobile Data flow is optional.

2.3 – DTAC WAP Opt-In Subscription Flow for 3G (Mobile Data)

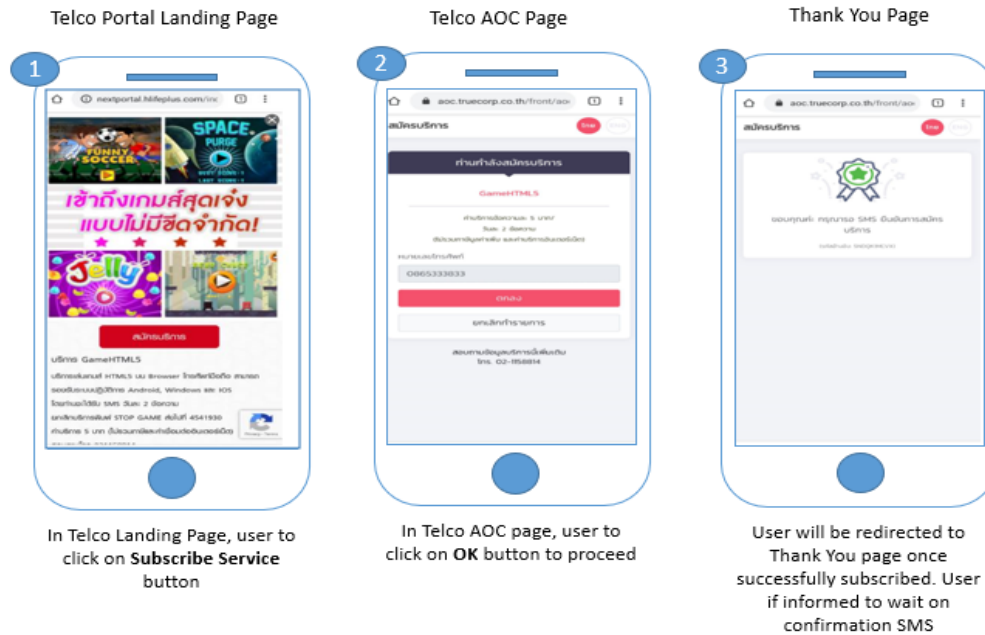


2.4 – DTAC WAP Opt-In Flow for WiFi

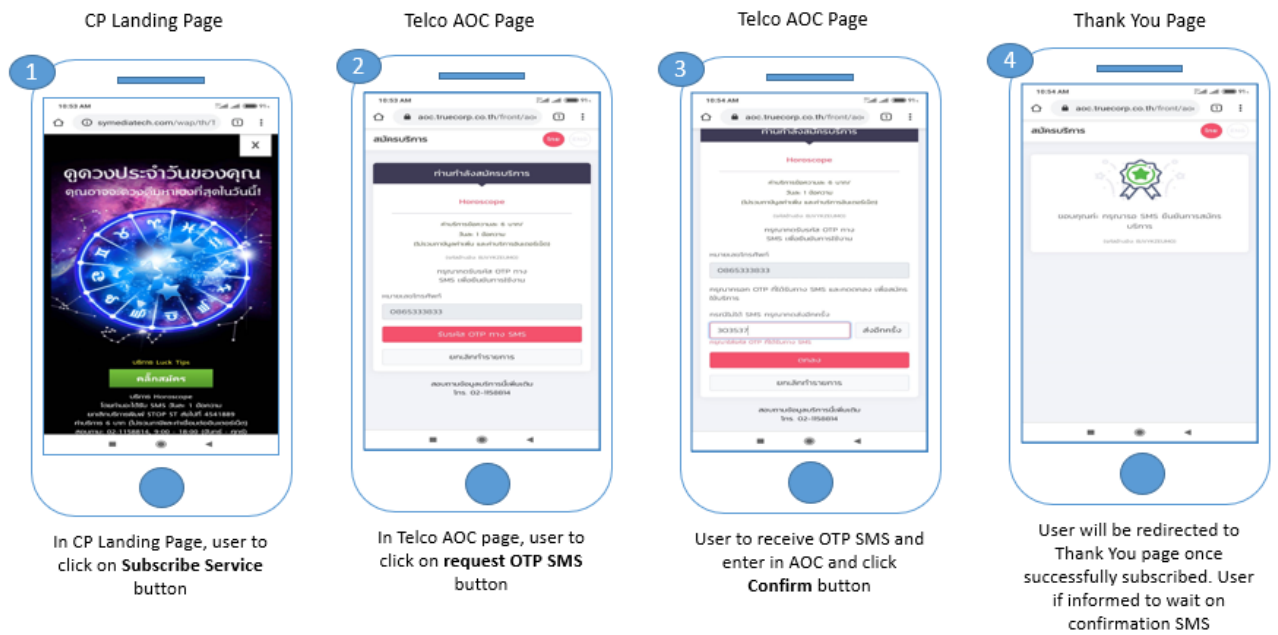


Note: WAP Opt-In is only applicable for subscription.

2.5 – TruemoveH Portal WAP Opt-in Flow for Mobile Data



2.6 – TruemoveH WAP Opt-in Flow for Mobile Data



Note:

1. The above WAP Opt-In Mobile Data flow for Truemove H is subject to Telco approval.
2. For the above WAP Opt-In flow, if user is on WiFi, user will be requested to switch to Mobile Data.

Section 3.0 – Product Feature Highlights

3.1 – Key Features

Feature	Description
HTTP	<ul style="list-style-type: none"> Supports HTTP request submission.
Content Format	<ul style="list-style-type: none"> Supports normal text content in: <ul style="list-style-type: none"> Roman (ASCII) Unicode Supports the display of: <ul style="list-style-type: none"> Binary (Ringtone and Picture) WAP Push (SI link)
Supports different MO options	<ul style="list-style-type: none"> Supports MO via SMS and WAP/Web mobile. * WAP/Web opt in is only applicable for subscription service.
MSISDN Forwarding option for WAP Opt in.	<ul style="list-style-type: none"> Simplified steps for End Users, as they don't need to key in their mobile number and Telco when subscribing for contents. *Applicable to All Telco <u>Benefits to Clients:</u> <ul style="list-style-type: none"> Identification of Business Referral Sources - Clients can track the source, from which the end users decided to subscribe the contents from. Increased Revenue - Simplified user experience will promote user to subscribe from Clients more often. This will increase client's traffic and revenue at the same time as well.
Supports different MO Format	<ul style="list-style-type: none"> Supports MO <i>with space</i> between keyword and variable Supports MO <i>without space between</i> keyword and variable
Post-paid and Pre-paid billing	<ul style="list-style-type: none"> Supports billing to Postpaid and Prepaid mobile subscribers.
Delivery Notifications	<ul style="list-style-type: none"> Receives real time acknowledgement for each message sent to Telcos. The DN statuses from DTAC for subscription service transactions are updated in MACROKIOSK database on a daily basis.
Supports Sender ID	<ul style="list-style-type: none"> Supports sender ID on MT broadcast delivery. <ul style="list-style-type: none"> AIS - requires 2 to 3 weeks of Sender ID approval.
Supports IOD service	<ul style="list-style-type: none"> Each MT delivered to mobile subscribers corresponds to each MO request received from mobile subscribers.
Supports Subscription service	<ul style="list-style-type: none"> Supports the delivery of a series of charged contents to the mobile subscribers over a subscription period.

Feature	Description
	<ul style="list-style-type: none"> ▪ Charging methods: <ul style="list-style-type: none"> ○ Charge-per-register ○ Charge-per-MT
Access Level	<ul style="list-style-type: none"> ▪ API and GUI access levels.
Telco Coverage	<ul style="list-style-type: none"> ▪ AIS ▪ DTAC ▪ Truemove Hutchison (TruemoveH)
Shortcode	<ul style="list-style-type: none"> ▪ 4541xxx (7 digits)
Billing method	<ul style="list-style-type: none"> ▪ MT Billing <p>Note:</p> <p>Refer to <i>Chapter 4.1 MT Billing</i> for further details on the billing method.</p>
Supports Web Based Reporting system	<ul style="list-style-type: none"> ▪ Offers simple user administration through web base reporting access.

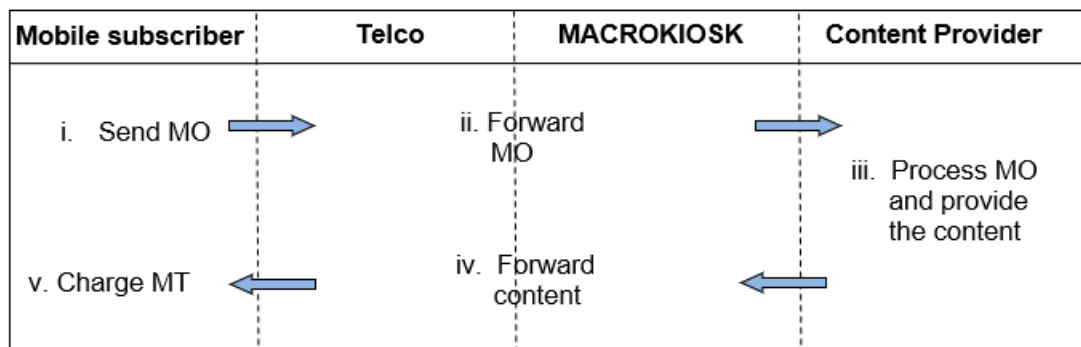
Note: The above features may or may not change with prior notice. Please check with your Global Business Consultant / Client Services for the finalized features prior to use.

Section 4.0 – MT Billing

4.1 – MT Billing

For MT Billing, the price points are based on MT tariff. Charges apply when mobile subscribers receive the requested contents.

The MT billing flow is shown in the diagram below:



- Mobile subscribers decide to purchase a content and send the MO request (e.g.: purchase of ringtones, wallpapers).
- Telcos forward the MO request to MACROKIOSK.
- Content Providers process the MO request given by MACROKIOSK and provide the content to MACROKIOSK.
- MACROKIOSK forwards the content to Telcos.
- Finally, Telcos deliver the charged contents to the mobile subscribers.
 - Refer to Section 5.1 for list of Price Points for the specific MT charges.

Section 5.0 – MO/MT Tariff

5.1 – List of Price Points

There is a variety of price points for MO/MT Tariff as shown below. The price points may vary and Telco approvals are required.

Service	Frequency	Charging Price Range (THB)	Content Type
Subscription	Daily	THB3 – THB20	Text, Monophonic, Polyphonic and Truetone, Ringtones, MMS, Java Games, and Themes.
	Weekly / Monthly	THB29 – THB50	
IOD	<Not Applicable>	THB3 – THB50	

Section 6.0 – Service Model

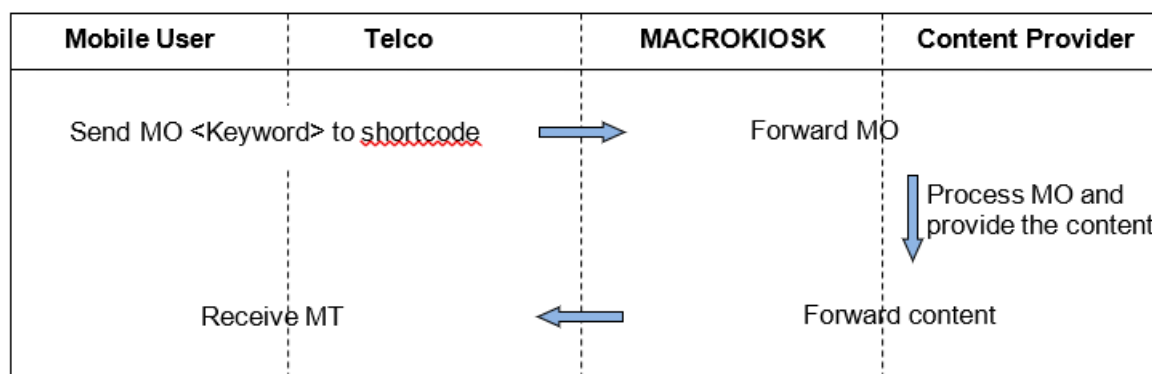
Premium SMS services in Thailand are delivered to mobile subscribers based on:

- IOD service
- Subscription service

6.1 – IOD Service

For IOD service, mobile subscribers will only receive the purchased content upon sending a purchase request.

The IOD service flow is shown in the diagram below.



Note:

a) The MO Format can support the following:

- I. MO *with space* between keyword and variable
 - II. MO *without space* between keyword and variable
 - Applicable for
 - ✓ MES API (2 way messaging)
 - ✓ MIS API (IOD only)
 - ✓ MES GUI Message Box
 - ✓ MIS GUI Message Box (IOD only)
 - Campaigns that has been setup with MO Formats (without space), will still be able to accept MO formats (with space). The space will be treated as a variable.
 - Clients are still required to register keywords prior to the launch of the campaign.
- iii) Please refer to Section 7.1 System Limitation on MO Format.

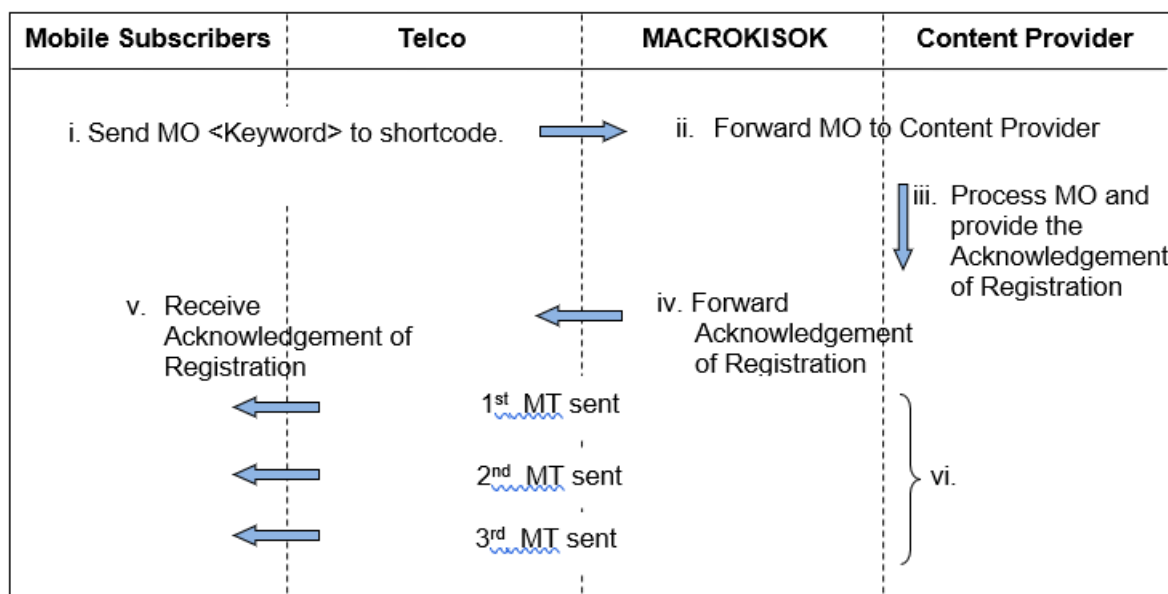
b) Refer to Section 4.1 MT Billing for further details on the billing methods.

6.2 – Subscription Service

6.2.1 – MO via Keyword and Shortcode

For Subscription service, mobile subscribers agreed to make an advance payment or being charged regularly in order to receive a series of mobile content over the subscription period.

The subscription service flow is shown in the diagram below. Example: upon confirmation of subscription, the content provider will deliver the contents to the mobile subscriber 3 times a week.



- Mobile subscribers send the MO request with keyword via a shortcode to subscribe to a content (e.g.: purchase of ringtones, wallpapers).
- MACROKIOSK receives the MO request from Telcos and forwards it to Content Providers.
- Content Providers process the MO request and provide the acknowledgement of registration to MACROKIOSK.
- MACROKIOSK forwards the acknowledgement of registration to Telcos.
- Telcos forward the acknowledgement of registration to mobile subscribers.
- Mobile subscribers will receive the contents at a frequency stipulated and declared in the SD.

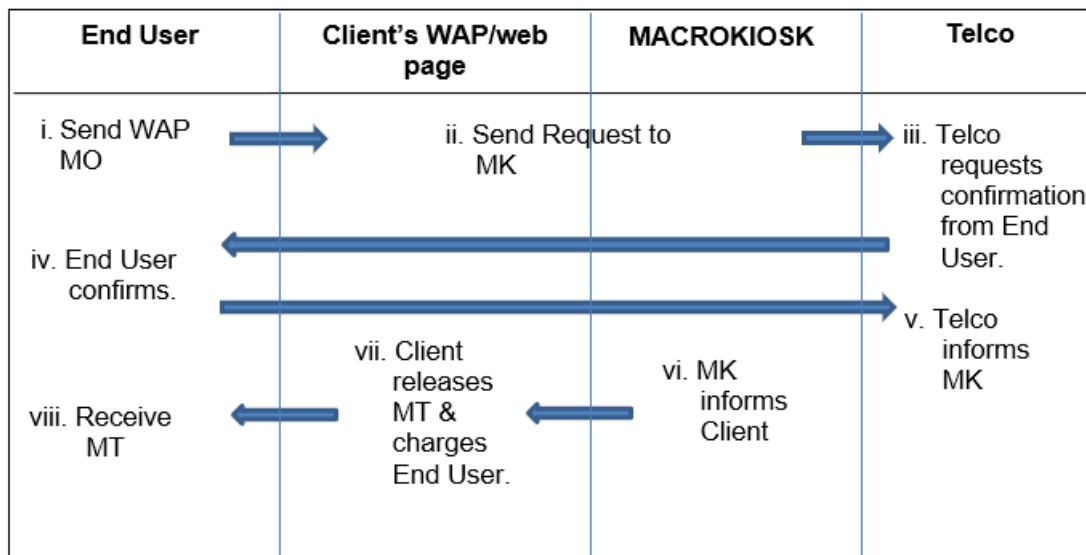
Notes:

- Refer to Chapter 5.1. MO / MT Tariff for the specific MO / MT charges.
- Subscription service supports the delivery of 1st premium MT immediately after the subscription is confirmed.
- Subscription service supports the delivery of 1 MT to many subscribers (only applicable to DTAC and AIS CDG).

- CP is only allowed to push 1 MT per day for Content MT which is more or equal than THB 8. This is regardless if the DN is successful or not. (For AIS, the MT can be re-sent, within the same day, if a failed DN is received. Once the DN returned is successful, the next MT must be pushed the next day).
- For content MT which is less than THB 8, CP is only allowed to push the next MT after 5 minutes.
- MT must not be pushed before 8am and after 8pm.
- Macro Kiosk will block a content MT that does not follow the rules (4 & 5) stated above.

6.2.2 – MO via WAP/Web Process Flow

The MO flow via WAP/Web is shown in the diagram below:



- End user sends a MO request via WAP/Web. The WAP/web page is handled by the clients.
- Client sends the MO request via WAP/Web to MACROKIOSK.
- MACROKIOSK sends the MO request to Telco. Telco requests a confirmation from the End user.
- End user confirms the MO request.
- Telco informs MACROKIOSK of the request.
- MACROKIOSK informs client to release the content.
- Client releases the content to the end user and charges him/her.
- End user receives content.

Notes:

- MO via WAP/Web is only for subscription service.
- This service uses MT billing.

6.2.2.1 – MSISDN Forwarding (Only Applicable for WAP Opt-In)

This is an optional method that clients can use for the WAP Opt In. If previously, clients had to prepare a field for end users to key in their mobile numbers and Telco (Refer to Fig 6.2.2.1-1 below), this will be unnecessary with the 'MSISDN Forwarding' option. This feature is applicable for DTAC, AIS and TruemoveH.



Fig 6.2.2.1-1

With this new option, end users just need to click 'Next' instead of keying in their mobile number. Telco can identify the mobile number and telco and perform the charging accordingly. Refer to Fig 7.2.2. 1-2.

Please refer to the Thailand Premium SMS API Specification to find out how to perform the back end integration for this option.

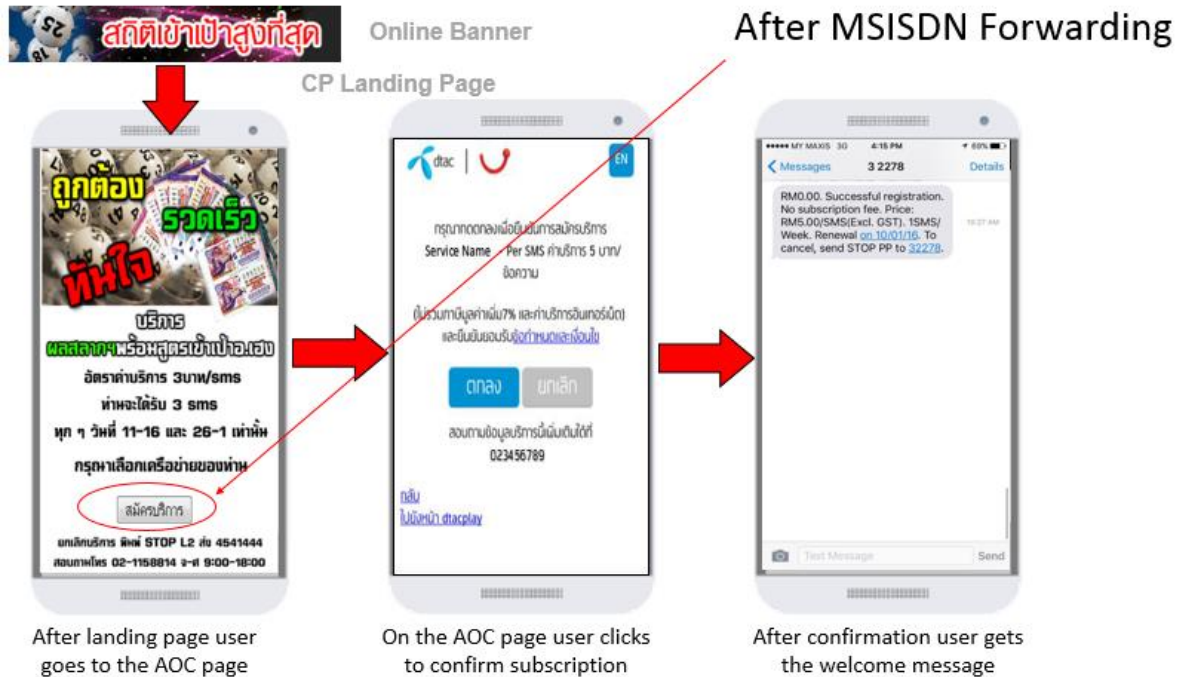


Fig 6.2.2.1-2

Section 7.0 – System Limitations and Known Issues

7.1 System Limitations

i) **MO Format**

- This feature is applicable to Thailand only.
- Supports dedicated shortcode/longcode only.
- Clients are responsible to filter all incoming MO (without space), to ensure if keyword and variable are in accordance to their campaign requirements.
- Clients can use only ONE MO format PER campaign, i.e. MO with space OR MO without space.
- For existing shortcodes which are running 'live' campaigns, the following must be done prior to changing the MO handling flow:
 - ✓ Live campaigns' must be frozen prior to changing the MO handling mode from (with space) to (without space). This is to avoid service interruption towards the incoming MO.

8.2 Known Issues

- The MO option via WAP/Web is only applicable to Subscription service.
- Please note the following actions when user de-registers the subscription by typing 'STOP MO' from *CP controlled shortcode*:

STOP MO performed from SMS channel

Client might receive the STOP MO *twice*.

STOP MO performed from DTAC web tool

Client will receive the STOP MO once.

Note:

'DTAC controlled shortcode' refers to the shortcodes that are running on DTAC's new system.

'CP controlled shortcode' refers to the shortcodes that are running on DTAC's old system.

'DTAC web tool' refers to the web portal owned by DTAC which allows unsubscribing by DTAC personnel.

MSISDN Forwarding

'MSISDN Forwarding' feature is only applicable for WAP Opt In users, on mobile data. End Users that connect via WiFi, will be directed to key in mobile number and select the Telco.

Unlike AIS & TruemoveH, which will provide the end user's mobile number to the clients, DTAC, will only provide the Telco ID.

Therefore, if clients want the MSISDN number of the end users, they have to request it from the End Users via their registration page and/or clients can match end users MSISDN number to their affiliate by using the RefId parameter in the WAP MO Request URL (Refer to section 4.1 and 4.2 in Thailand – etracker Premium SMS API Specifications document).

Glossary

Terms	Definition
API	<u>Application Programming Interface</u> The interface that a computer system, library or application provides in order to allow requests for services to be made out of it by other computer programs, and/or to allow data to be exchanged between them.
Content Provider	A person or company that supplies content in response to a message request.
DN	<u>Delivery Notification</u> A notification message returned to the sender to indicate the delivery status of each message transaction.
HTTP	<u>Hypertext Transfer Protocol</u> A protocol used to request and transmits files, especially webpages and webpage components, over the Internet or other computer.
IOD	<u>Information On Demand</u> A service provided to mobile subscribers for Premium SMS. A content (MT) is delivered to mobile subscribers only when a request (MO) is received from mobile subscribers.
MO	<u>Mobile Originator</u> A response / request message sent from mobile phones.
MO Tariff	<u>Mobile Originator Tariff</u> A price point charged to mobile subscribers for sending a request to Telcos.
MT	<u>Mobile Terminator</u> A message received on mobile phones. These messages are typically viewed by the recipient in their text message 'Inbox'.
MT Tariff	<u>Mobile Terminator Tariff</u> A price point charged to mobile subscribers for sending a request and receiving content from Telcos.
Premium SMS	<u>Premium Short Message Service</u> An option to purchase or subscribe to messaging contents provided by content providers, based on premium charges (i.e., charges that are in addition to standard messaging charges).
SD	<u>Service Description</u> A set of documents that describe the interface, the accessibility and the capability of a service.

SI	<u>Service Indicator</u> A string of characters (web site address) used to access a resource on the Internet .
System Limitation	Refers to MACROKIOSK's system limitation which may be further enhanced depending on client's requirements.
Known Issues	Issues that are beyond MACROKIOSK's control but highlighted to clients for their knowledge.

About MACROKIOSK



Founded in the year 2000, MACROKIOSK prides itself as Asia's leading mobile technology enabler – pushing the boundaries in Enterprise Mobility Solutions and Mobile Payment Services.

Humbly founded in Malaysia by three brothers, Kenny Goh, Henry Goh and CS Goh, MACROKIOSK has expanded its wings across 12 countries across Asia and beyond, with over 2000 clients from 37 different countries worldwide with Kuala Lumpur operating as its main headquarters. MACROKIOSK is deeply rooted in 18 different industries and counting.

Even as MACROKIOSK continues to expand and improve upon their wide range of enterprise and mobile payment solutions, their goal remains the same, which is to bring out the best of what their clients could offer with the use of ever evolving mobile technology.

Through over a decade's worth of contribution to the mobile solutions industry, MACROKIOSK has earned a plethora of accolades such as the Tenaga Nasional Berhad (TNB) Vendor's Choice Award (2014), the Red Herring Top 100 Global Award (2012), the Asia Pacific Entrepreneurship Award (2011), and the BrandLaureate Award (2011) to name a recent few.

As a company that deals heavily with telecommunication and often highly confidential material, MACROKIOSK upholds itself to deeply rooted principles of security, confidentiality and reliability. As such, MACROKIOSK has been awarded with a ISO27001:2005 ISMS Certification by TUV Rheinland, recognized as a Licensed Service Based Operator (SBO) by iDA Singapore, Licensed Nationwide ICP by MII China, and granted a Licensed ASP Messaging Class by MCMC Malaysia as well as being recognized as an MSC Pioneer Status company by MDEC Malaysia.

Notes