



แบบแสดงความคิดเห็นเฉพาะกลุ่ม (Focus group) ต่อสภาพปัญหาและแนวทางการส่งเสริมกำกับดูแลการให้บริการโทรศัพท์เคลื่อนที่แบบโครงข่ายเสมือน (MVNO)

กำหนดระยะเวลาการรับฟังความคิดเห็นฯ ภายในวันที่ ๒๐ ตุลาคม ๒๕๖๖

We welcome the opportunity to herewith provide our comments to the NBTC MVNO hearing on problems, conditions and guidelines for promoting and regulating MVNO services.

We support the NBTC's vision to promote and support MVNO services in Thailand, and welcome important and necessary pro-competition regulatory measures to level the playing field for an efficient, innovative and competitive mobile market.

As such, we recommend in our comments, some adjustments and suggestions based on best practice, relating to the proposed changes and current situation.

In providing these comments, we believe, effectively provisioned and implemented, MVNOs will grow the overall market, and offer more innovative services and choices at better value for Thai consumers, enhance ICT skill-sets, create new jobs, investment and benefit the digital economy.

We would welcome the opportunity to discuss the comments in detail with the NBTC. If the NBTC requires any further information relating to any aspect of the comments.

Respectfully submitted by

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1. Issues in licensing, negotiations, and contract termination of MVNOs and MNOs.

Regarding: *Article 7: The licensee may refuse to wholesale mobile service only in the following cases:*

(1) The existing mobile phone network is not sufficient to support wholesale mobile services.

(2) Wholesale mobile phone service has technical problems that may cause interference with telecommunications business or cause disruption to telecommunications. The licensee who refuses to wholesale mobile phone services under paragraph one has the duty to explain or Show the reasons for the refusal to the NBTC within fifteen days from the date of refusal.

We suggest the wording in Article 7 should be more clear, that “wholesaler” refers to a Licensee with own network (MNO), including NT Plc., but not MVNA (no network).

For MNOs in case of (1) the max capacity should be mentioned beforehand in the MNOs Reference offer on their website. I.e., Requesting Party Limit: meaning the number of Requesting Parties with respect to which their aggregated forecasted traffic, at any point in time during the term of the Commitments is no more than 10% of the capacity of the MNO’s Network.

For this purpose, the limit of 10% of the capacity of the MNO’s Network shall be deemed to have been reached if the traffic volume on the MNO’s Network exceeds any of the following thresholds in any given month:

I.e.: X million voice minutes or X million MB or X million SMS.

To take account of future capacity expansions of the MNO’s Network, these thresholds shall be indexed according to the latest volumes provided to the NBTC for the whole mobile communications market whereby the base value for indexation shall be the latest volumes published. For this purpose, the thresholds shall be indexed on the day following the publication of the most recent volumes.

For MNOs in case of (2), If there was - or one such problem suddenly arises the MNO must immediately inform of such, and the timeline to fix the problem to the NBTC, and on its own wholesale webpage.

It should be noted that there could be a technical implementation limit i.e. only require the MNO to carry out the technical implementation of wholesale access for two MVNOs (or MVNA) at a time, and thus the technical implementation of Requesting Parties who have entered into MVNA or MVNO agreements with the MNO will be served a “first come, first served” basis.

Regarding: *Article 8: Wholesale of mobile phone services.*

Wholesale of mobile service may be refused only if there is insufficient service to provide wholesale service. Wholesalers has the duty to explain or show the reasons for such refusal to the NBTC within fifteen days from the date of denial.

Item 9: Mobile service wholesalers who are accused of not complying with the requirements in Item 6 or refuse to wholesale mobile services under Item 7 or Item 8 have the burden of proving that they have complied as specified in Article 6 - or if there is a reason for refusal according to Article 7 or Article 8.

Regarding article (8) and (9), A MVNA cannot have the same obligations as a MNO, as it does not have the access to manage – in whole, or in part - a network nor spectrum capacity.

An MVNA is an entity who, as a middleman takes on costs and chances associated with buying from MNOs and selling to MVNOs, and is therefore of course entitled to (like other any other company) to refuse clients, i.e., if the MVNA does not believe the MVNO client is capable of living up to its business plan, secure payment and continued funding - or lack the necessary skillset to operate a MVNO, which would otherwise harm the MVNA, MNO and end-users.

Likewise, the MVNO can also decline the MVNAs offer, and request access to a MNO instead.

Regarding: *Wholesale Mobile Phone Service Deals, Article 11: For wholesale offers the following services must be provided as a minimum.*

(1) Mobile phone service

(2) Public Broadband Multimedia Service

(3) Value-added Service of licensed telecommunications services such as SMS and MMS.

We suggest the following to be added to this section:

- wholesale access to the Networks for the origination and termination of circuit switched, SMS, packet switched data (including MMS) services;
- wholesale access to the Networks for the provision of value added services;
- location data for emergency call delivery services with respect to MVNO customers; and
- location data and real time CDRs for legal interception services with respect to MVNO customers.
- The MNO shall, at no extra cost, make available a copy of its mobile number portability (MNP) database as at the date of the MVNA/MVNO Agreement.

The technical specification for the services and the network access requirements should be made available from the MNO on request and without undue delay.

The above wholesale access services are available using the mobile network technologies which the MNOs use to deliver services to its customers from time to time (UMTS, HSPA, HSDPA, LTE, 5G, as well as GSM and GPRS to the extent available under its roaming arrangements).

The MNOs shall grant the MVNA/MVNO access to future evolutions in mobile technologies and/or new products based on existing technologies which were not offered by the MNO at the Effective Date (for example differentiated quality of service offers) within a reasonable period of the commercial launch of the new technology and/or new products by the MNO unless such access is not technically feasible, and subject to negotiation and agreement between MNOs and the MVNA/MVNOs of the terms and conditions (and, if applicable, charges).

Such period is not to exceed 8 weeks if the MNO is the first operator in the market to launch the new technology and/or new product or 4 weeks if the new technology and/or new product has already been commercially launched by a competing MNO in the market.

If the terms and conditions (and, if applicable, charges) for access to such future evolutions in mobile technologies and/or new products are agreed between the MNO and the MVNA/MVNO, such “service” will become a service under the MVNA/MVNO Agreement.

The MNO will consider all reasonable requests to provide assistance with respect to emergency call delivery services, legal intercept services, numbering and mobile number portability. The provision of any such assistance by the MNO shall be subject to separate negotiation and agreement between the MNO and the MVNA/MVNO of the terms and conditions (and charges).

The MNO shall consider reasonable requests for additional services. The provision of any such services by the MNO shall be subject to separate negotiation and agreement between the MNO and the MVNA/MVNO of the terms and conditions (and cost-oriented charges, taking into account the investment and operational expenditures made by the MNO and allowing for a reasonable rate of return on the investment and expenditures), and shall not form part of the MVNO Agreement.

2. Proposal issues and contract conditions between MVNO and MNO

Regarding: *Procedures and processes for negotiating wholesale mobile phone service contracts.*

Article 16. For buyers of wholesale mobile services who wish to purchase wholesale mobile services, a clear letter of intent must be made, and in good faith informing the mobile service wholesaler that the buyer intend to enter into a wholesale contract for mobile services in accordance with the conditions set forth in the mobile service wholesale proposal.

Article 17: Mobile service wholesalers are not allow to do the following:

- (1) Refusal to wholesale mobile service without reasonable legal reason.*
- (2) Neglecting, delaying, or causing delay in negotiating or concluding a wholesale service contract.*
- (3) refuse to provide or disclose correct and necessary information in wholesale mobile services.*
- (4) Set conditions on wholesale that are barriers to buyers of wholesale mobile services*

Items 18, 19, 20, 21, 22

We suggest the wording here, should be more clear, that “wholesaler” refers to a Licensee with own network (MNO), including NT Plc but not MVNA (no network).

There is no mentioning in this section of what will happen if there is a breach by the MNOs to the provisions. It should be made clear that a non-compliance may have serious consequences to the officers of the MNOs.

Likewise some provisions could be considered to be added, that encourages the MNOs to enter into agreements with MVNA/MVNOs.

Regarding Section 16 “*must prepare the letter of intent*” – and similar sections referring to letter of intent – we suggest changing the “letter of intent” to be “*Reference Access Offer (RAO)*” – a downloadable form at the MNOs website, (i.e. www.mno/wholesale.co.th), because a letter of intent is too loose (non-binding), and would otherwise cause too many false requests for the MNO.

In response to Sections 16, 18, 19, 20, 21, 22, the dedicated wholesale website at the MNOs should include:

1) This notification section *ขั้นตอนและกระบวนการเจรจาสัญญาการขายส่งบริการโทรศัพท์เคลื่อนที่ - “Negotiation Process and Procedures for Mobile Wholesale Agreement”* from the NBTC, to show that the MNOs recognize and adhere to the Notification.

2) *Guiding Principles* to be published on the websites of each of MNO, as well as on NBTC’s website in Thai and English.

3) A *Reference Access Offer (RAO)* form, as mentioned above:

- A downloadable form for the Requestor to fill-out with Requestors Information, and Confirm that they are the Requesting Party, whereas the Requesting Party means a MVNA or MVNO seeking wholesale access to the MNO’s network for the purposes of offering telecommunications services as defined in the notification and;
- They hereby Request to enter into negotiations with the MNO to become an MVNA or MVNO on the Network, based on the commercial principles and charges contained in the Reference Offer;
- That Requestor consent to a copy of the filled-out *Reference Access Offer (RAO)* being given to the NBTC, to monitor the MNO’s compliance with its Commitments, as well as to update the NBTC from time to time in relation to the negotiations.
- The completed and signed *Reference Access Offer (RAO)* - and any enclosure, is to be send by e-mail to the MNO. The Request Form must be duly completed and signed with the Requestors authorized signatories
- The MNO will confirm the receipt of the Reference Access Offer (RAO) form by return email, and the parties will be available to arrange to meet at a mutually agreed time.

4) The *E-mail and Contact Details* of the person responsible for RAO request at the MNO.

5) The Reference Offer which is subject to minor amendments, which may be required from time to time. i.e. capacity limits, contains further details regarding inter alia payment and security, implementation, forecasting, access to and use of MVNO customer information, numbering, privacy and data protection, use of the MNO's network, intellectual property and branding, compliance, limitations, liability and warranties, termination, and governing law.

6) A *Frequently Asked Questions (FAQ) Section* with regard to MVNA/MVNO Access.

Rates for MVNA or MVNO Access should be negotiated and determined based on the complexity of offering the service that the MVNA/MVNO requires, as no two MVNOs are the same. The rates would be determined by the size and volume of services forecasted by the MVNA or MVNO.

Other options for rates include, and are not limited to:

- individual per unit base rates for Circuit Switched, SMS and Packet Switched Data;
- for Packet Switched Data, the choice between fixed per unit pricing and tiered pricing;
- a volume discount scheme; and
- an additional XX% retail minus pricing option for data access SIM-only services.

All rates will be commercially negotiated and finalized before an MVNO agreement is signed.

The MVNA or MVNO must apply and enter into an MVNA or MVNO agreement with the MNO before the Wholesale Access Commitment expires.

It should be noted that there could be a technical implementation limit i.e. only require the MNO to carry out the technical implementation of wholesale access for two MVNOs (or MVNA) at any one time, and thus the technical implementation of Requesting Parties who have entered into MVNA or MVNO agreements with the MNO will be served a "first come, first served" basis.

3. Issue of number allocation for mobile phone virtual network (MVNO) service.

The NBTC's fee of THB 2,00 per number, per month, should be paused when the SIM is inactive - or while the number is being "cleaned" to re-enter the service.

With Thailand being a leading tourist destination millions of SIMs are being purchased for short usage, and then left in-active. As it is today these SIMs has to be open for incoming calls/SMS 90 days before being "cleaned" to re-enter service, which takes another 90 days.

Neither the MNOs nor the MVNOs should be paying the NBTC the numbering fee for the period, where these numbers are without usage and thereby not revenue for the MNO/MVNOs.

4. The issue of pricing of mobile virtual network services (MVNO).

Regarding: *Article 14: The licensee must determine wholesale compensation for mobile services to buyers of wholesale services.*

Mobile service must not exceed the average service rate offered per unit of each service according to usage rights. The work of every promotional item minus the following costs:

(1) Costs and returns arising from the retail service of the licensee, which have a rate of not less than thirty percent of the average service rate per unit of each service according to the usage rights of every promotional item.

(2) Other avoidable costs of the purchaser of wholesale mobile service which the purchaser of wholesale mobile services are paid to service providers other than the licensee who created the offer (if any).

(3) Telecommunications network connection costs paid by buyers of wholesale mobile services to telecommunications network connection service providers (if available)

The average service rate offered per unit of each service are according to the usage rights of every item promotes sales accordingly.

According to the criteria regarding define and supervise service rate structure on domestic mobile phones, NBTC will review percentages that reflect costs and returns. that arises from the retail service of the licensee every three years or as determined by the NBTC.

We supports commercial negotiation as being the overarching principle for MVNO provisioning. MVNO arrangements must be a win-win for both the MNO, MVNA, MVNO and consumers.

The NBTC suggested retail minus 30 approach, was at its introduction 19 years ago appropriate for the technology (2G/3G) available at the time, and in cases where at MVNO would be a pure reseller of the MNOs own price plan, with voice calls and SMS as the leading services back then.

Retail minus and Units of Usage (per Minute/Megabyte/SMS) has historically been the most common when calculating MVNO wholesale pricing. However, this approach has lost its relevance with the change from voice as the dominating service to a data-driven environment.

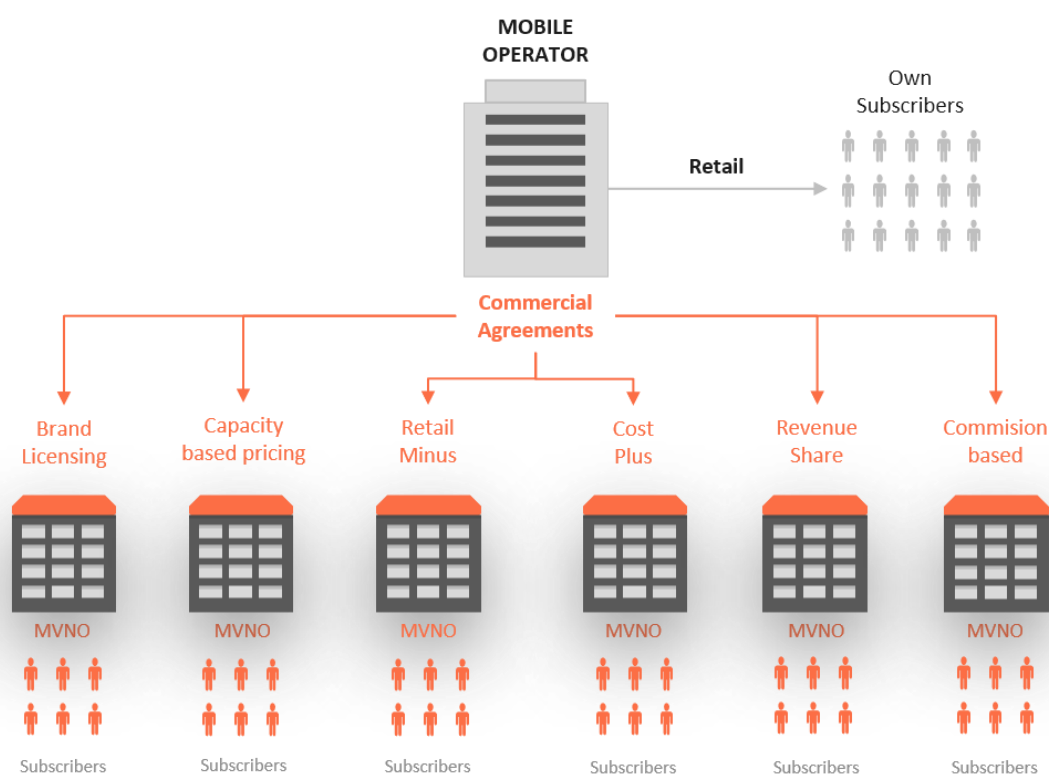
Much has changed from the days of voice calling being the dominating service, in example:

- The arrival of 3G/4G/5G made data the dominating service in most markets and as a consequence prices on data have dropped.
- The introduction of messaging apps resulted in SMS/MMS declining significantly, similarly Wi-Fi calling and VoLTE has also changed the interest and pricing on Voice services.
- IoT and M2M continues to change wholesale pricing models, as most of these are data-only. Furthermore, some of these service, might be huge in quantity but not in data usage – and/or no need for 24 hour access but can be processed during low capacity hours on the network.
- Cloud and Open RAN have provided lower costs for both the MNO and MVNA/MVNE/MVNO.
- Different MVNOs, bringing different elements themselves to the setup with the MNO (i.e. Full MVNO), as well as different service proposition (No two MVNOs are alike)
- 5G slicing demands another price structure, as it is a defined slice, vs. the whole network.
- The introduction and growth of eSIM has changed the cost structure (i.e. distribution)

In addition, MVNOs today (Medium, Enhanced, Full) are:

- investing significantly in, and providing some of their own components, taking on a higher level of risk than with the old form of wholesale agreement and;
- has its own pricing freedom and plans and;
- the types of commercial agreements between MNO/MVNA and MVNO has evolved.

Figure 1: MNO/MVNO types of agreements



In example, National Telecom (NT) and the MVNO Redone has been using the Revenue Share model for years already in Thailand.

The purpose of introducing MVNO competition into a market is to foster retail level competition and innovation, as described in NBTC's old and updated notification on MVNOs.

However, by its very nature, if the MVNO is locked into a wholesale price which reflects the host operators' retail minus 30, it creates a de facto limit for the MVNOs potential to discount retail prices, innovate new pricing and bundles etc., and thereby killing the affect MVNOs should have on competition and price level in the market, as it merely becomes a reseller of the host operator.

In addition, with the TRUE DTAC merger, as it include an operator whose associated companies are sitting on 95+ percent of the retail market, the cost savings the MVNOs can make in sale and distribution are further reduced in the supply chain.

MNOs can move the costs between different parts of their retail prices. When the retail minus approach is adopted on voice calls to MVNOs, there is a considerable opportunity for the host MNO to increase its retained margin on call types provided to MVNOs and thus discriminate against them.

MVNOs needs significant price flexibility in order to respond quickly to emerging technical and product developments and to offer customers innovative and segmented services at the earliest opportunity.

MVNOs are actually buying the excess capacity (waste product), that the MNO produce every day, which is typically around 40%. The payment MVNOs provide for such, are pure (and additional) profit to the mobile network operators and in addition helps the MNOs with their Environmental, Social, and Corporate Governance (ESG) by offsetting their wasted capacity.

We draw the NBTC's attention to the issue of the MNOs offering unlimited data to end-users while the MVNOs still have to pay per MB to the MNOs.

We also require the NBTC's attention to the issue of barriers to competition, set up by AIS, TRUE and DTAC at the National Telecom (NT).

NT is not in control of the pricing to MVNOs. It has to inform TRUE (850MHz), AIS (2100MHz) and DTAC (2300MHz), about each MVNO that want to get a wholesale agreement with NT and wait for a price from AIS, TRUE, DTAC on such.

In addition, NT needs to deliver information i.e. the MVNOs (or MVNA) estimated subscribers / connections, time for launch, segment, etc. to AIS, TRUE, DTAC, in order for them to give NT a price. On top of that price, NT also has to add its own profit.

As such, AIS, TRUE, DTAC are defacto in control (gatekeeper) of possible competition coming in via MVNOs on NT. In addition they gain information about the potential competition/business of the MVNOs, and due to the set up, the price arriving at the MVNOs and its end-users have increased to a level where it will never be able to compete on pricing, as they are paying wholesale + profit to AIS,TRUE,DTAC and well as a + profit to NT.

However, where an MVNO or MVNA has invested in and provide it own infrastructure and network elements, and has its own pricing freedom and plans, the host operator could be required to supply access services on a cost orientated basis and on non-price terms which are non-discriminatory, compared to the supply of similar services to the host operators competing retail operation. Cost-based access pricing, rather than retail minus, would be the appropriate approach for enhanced MVNOs with infrastructure components.

MVNOs also require interconnection for both national and international services on a non-discriminatory basis with sharing of both in-bound and out-bound revenues and reflecting, as appropriate, traffic volume discounts.

If an MNO is acting in bad faith or engaging in any form of anti-competitive conduct, or if after a reasonable period (say 1 month) of in-good-faith negotiations, a commercial agreement cannot be reached between the parties, it would be in the interest of the NBTC to intervene and assist the parties or, if necessary, adjudicate and make a determination appropriate in each circumstance or case.

The latter is important as there is a difference between the MNOs, (Significant Market Power, Spectrum availability, Coverage), the MVNOs (Thin, Medium, Full), and the service offered (End-users or M2M).

The appropriate solution from NBTC in case of dispute should be a backstop regulation in the event of no commercial agreement, which should encourages suitable wholesale agreements to be concluded.

By way of example, the NBTC could apply a number of tests, as used by the Norwegian National Telecom Regulator (NKOM) to determinate the appropriate solution between the disputing parties including:

- Testing if the MNO could operate profitably itself, if it used the disputed wholesale price agreement;
- a package-specific margin-squeeze test to ensure that MVNOs can operate profitably with a competing retail offer;
- a segment-specific margin-squeeze test to ensure that MVNOs can operate profitably with a portfolio of current (flagship) retail offers.

5. Quality of service (QoS) issues of MVNO services.

6. Issues/disputes regarding the provision of MVNO services.

7. Suggestions regarding problems and obstacles in MVNO services.

Regarding: *3.6 Changing the method for notifying cancellation of mobile service contracts. Licensee must send such information to the NBTC within 15 days from the contract cancellation. The contracting party must notify the NBTC at least 30 days in advance before terminating the contract so that the NBTC can determine any conditions or measures to prevent damage to the public and to protect service users.*

We advocate that the NBTC take a more pro-active approach to limit possible damages to end-users and stakeholders. The NBTC should issue a mandatory *Code of Practice Notification* regarding protection measures to follow (Protection Plan) - to all new and existing MVNA/MVNOs and host operators - in case of service termination.

The Protection Plan should include provisions covering the expiration, termination or suspension of the Agreement between host operator and MVNA/MVNO, and shall contain an adequate protection plan for MVNO customers and their payments, including processes and information to subscribers on refund process, number porting options, and the continuation of uninterrupted services.

The purpose is to provide a common standard with clear and relevant information to outline the responsibilities of the stakeholders (Host Operator, MVNA, MVNO, and NBTC) in the event that a service is terminated. The plan should ensure subscribers are automatically absorbed by the Host Operator (no end-user action or consent required) if the end-user choose not to de-activate or port out, three months after the announcement of service termination.

The following is an example of a standard based three months/three stages termination plan that includes the requirement to provide the relevant notices and information on the termination of service, actions and options to be undertaken:

Stage 1. Service Termination: Notify the NBTC three (3) months before the end of service;

Stage 2: Refund: Ensure subscribers' prepaid deposits are refunded accordingly; and

Stage 3: Continuity of Service: Ensure continuity of service to the subscriber after the end of the arrangement between the Host Operator and MVNO (or MVNA) service provider.

Table 1: Example scopes of 3 months termination plan.

STAGE 1	STAGE 2	STAGE 3
SERVICE TERMINATION	REFUND	CONTINUITY OF SERVICE
<p>MVNO issue a notice 3 months before termination to:</p> <ul style="list-style-type: none"> NBTC Host operator (or MVNA) Subscribers <p>Notice shall include:</p> <ul style="list-style-type: none"> Date of termination. Refund period for prepaid customers. Service continuity options. Contact information. MNP process. <p>Information to end-users shall be in both Thai and English language.</p>	<p>MVNO to provide:</p> <ul style="list-style-type: none"> The subscribers with the choice to port or terminate. Refund of unused prepaid deposit. Information on MNP. Weekly report to NBTC during the 3 month termination process. <p>Refund process to be completed 3 month after service termination notice.</p> <p>Information to end-users shall be in both Thai and English language.</p>	<p>Main concern for subscribers:</p> <ul style="list-style-type: none"> Continue to have access. Able to obtain refund. <p>Subscribers Service Continuity Plan</p> <ul style="list-style-type: none"> Subscribers who have not yet ported will automatically continue to have access. MVNO handover HLR and customer database to host operator. Host operator takes over the remaining customers. Utilization of remaining / transferred prepaid value. Submit final report to NBTC.

In addition and to minimize the impact on various stakeholders, the NBTC should publish a Service Cessation Alert Notice standard sample format, to be used for host operators and/or MVNAs to notify the NBTC, and one Service Cessation Alert standard sample to be used by MVNOs to inform the NBTC, affected customers and the public.

We draw the NBTC's attention to a similar standard introduced by the Malaysian Communications and Multimedia Commission (MCMC) in Malaysia, in its Mandatory Standard for the Provision of Services through a Mobile Virtual Network Direction No 3 of 2015.

8. Others

Major issue regarding MVNA/MVNOs access to spectrum a few months from now

Given that National Telecommunications (NT) – the only mobile network operator to actually give access to MVNA/MVNOs in Thailand - have to return their 850MHz, 2100MHz and 2300MHz spectrum to the NBTC by 2025

- How will the NBTC secure the current and coming MVNA/MVNOs access?
- How will the NBTC secure that MVNA/MVNOs can offer 5G services to their clients/end-users?

In addition regarding the AIS/NT 700MHz deal

Under the contract, AIS by AWN will build a 4G and 5G network on the 700MHz frequency band with 13,500 base stations within 2 years for NT to use in providing both 4G/5G mobile phone services to customers.

The network that will be built on the 700 MHz spectrum can support services to more than 2 million current customers AIS and NT says in its press material.

NT has its own customers, about 2 million of them and with AIS and NT taking up the capacity there is only space left for about 400,000 MVNO subscribers which is not even enough for one MVNO to reach financial break-even in the Thai market.

That leaves room for only about 400.000 MVNO customers which is not even enough for one MVNO. A MVNO investing THB 30-60 million in setting up in Thailand would typically see a financial break-even at around 500.000/600.000 subscribers.

There is also the important detail, that this network hasn't even been build yet. In addition there will be a change at the board of NT where it is unclear if NT will progress with this plan or return the 700MHz, as it still has no clear business model and the cost of running it to high.

We see the above problem as more urgent than any of the other issues in this reply, as it severely affects current MVNOs and companies considering investing in setting up a MVNO in Thailand, if they can't see any access to spectrum for their business a few months from now.

As part of the TRUE/DTAC merger, the NBTC set forth a couple of conditions involving MVNO and wholesale.

- What is the status of these conditions?
- Is there a timeline on each of these conditions?
- How does the NBTC monitor these conditions?
- Given the 12% reduction in retail pricing has the NBTC used this for the calculation on retail minus wholesale pricing as well?
- How much MVNA/MVNO capacity is available at the separate MVNO business setup on the merger?
- Are there any conditions attached to TRUE/DTAC's sub-brand "Finnmobile"?
- Is TRUE/DTAC's sub-brand "Finn Mobile" paying license fees like everyone else?
- When calculating the average retail price has the NBTC included the price of "Finn Mobile"?

NBTC's target with MVNOs

As mentioned we very much welcome and support NBTC's vision to promote and support MVNO services in Thailand. However the question is, what is the target of the vision. i.e. what are the KPIs and goal of NBTC in regards of MVNOs and the hearings that has been held.

- Is it the number of MVNO licenses awarded?
- It is the number of MVNO launched – if yes how many?
- It is the market share of MVNOs?
- What has the NBTC done to monitor and follow up (actions points)?

FULL MVNO

We advocate for an update to NBTC's types of MVNO ("Thin", "Medium", "MVNA"), and which network elements the MVNAs and MVNOs are allowed to have, by proposing that the NBTC allow for "Full MVNO/MVNA" in the market to reflect the changes that have taken place in technology, business models, and services.

The first MVNOs (MVNO 1.0) was mostly basic resellers who did not own any telecommunications infrastructure. They purchased airtime at wholesale rates from mobile network operators and resold wireless services (and other value added services) under their own brand to their subscribers.

However, as ITU points out in: Guidelines for the preparation of national wireless Broadband masterplans for the Asia Pacific Region 2013 (Page 24), MVNOs today (MVNO 2.0) have gone beyond simple resellers to being full MVNO/MVNA with own network elements (i.e. GGSN, SGSN, SMSC, IN, HLR/HSS, etc.) capable of providing a compelling mix of service to end users and M2M.

We draws the NBTC's attention to the regulatory decision on allowing "FULL MVNO" by its colleagues at:

The Info-communications Development Authority (IDA) of Singapore: "Framework for the allocation of spectrum for international mobile telecommunications ("IMT") and IMT-advanced services, for the enhancement of competition in the mobile market". ("the IDA Decision").

The Malaysian Communications And Multimedia Commission (MCMC) facilitates "Full MVNOs".

The Department of Telecom (DoT) in India, states in its guidelines for MVNO License", that the MVNOs are free to choose its business model (Full or Intermediate or Thin).

"Full MVNO" access is also mandated by the National Regulatory Authorities in EU/EEA Member States, with a strong focus placed on the ability for Full MVNOs to be able to:

- (i) switch between Host MNO networks,
- (ii) rely on multiple host MNOs in parallel,
- (iii) have full commercial autonomy on all retail markets and distribution networks, and

(iv) own their customer base, and not be subject to restrictions on changes in their shareholding structure, or selling the wholesale access rights they contractually acquired. In addition, the MNO license conditions provide for:

(v) technical non-discrimination in favor of MVNOs on quality of service, compared to the Host MNO's own services,

(vi) an explicit right for the Full MVNO to own and operate its own core network and its own interconnections with third party operators, and

(vii) reasonable economic conditions, compatible with effective and loyal competition on wholesale and retail markets.

We encourage the NBTC to consider these Regulatory Decision to facilitate the entry of “Full” MVNO/MVNA, which we consider is particularly important and relevant precedent for the sustainability of MVNOs in Thailand. Not only will this level the playing field, but also update the policy to get with the times, providing vital flexibility to MVNAs and MVNOs in establishing business models suitable for 5G, e-SIM, IoT/ M2M, NFV, etc.

Having its own networks elements the MVNA/MVNO will also be able to limit the response time on potential fraud, as well as adhere to new data-protection and legal intercept policies.

We cannot underline enough the need for NBTC to lift the restrictions on network elements a MVNO can have and allow the FULL MVNO model in Thailand.

The MVNOs in Thailand today are not able to process data information and is therefore operating their business in total darkness not knowing which initiatives works with the customers and which don't.

The control of the MVNO's own business is completely in the hands and eyes of the host operator. The lack of the Full MVNO model eliminates the chance of new innovative services in the market and the flexibility of MVNOs, as without it they depend entirely on the host operators willingness.

Eliminate NBTC's Double and Triple fees.

We suggest the NBTC eliminates its double and triple fees on service.

Today the MNO pay a licensing fee to NBTC of minimum 1.5% of annual revenue from selling airtime to the MVNA. The MVNA also pay up 1.5% of annual revenue from selling the same airtime to the MVNO, who also pay 1.5% of annual revenue from selling airtime to end-users.

As the MNO, MVNA and MVNO each have to pay the license fee, the same mobile service (airtime) ends up having triple fees when it arrives at the MVNOs and the consumers. This causes a serious price and margin disadvantage to the MVNO and disbenefits to the end-users.

Same issue occur, albeit only double fees, if a MVNO is buying wholesale directly from the MNO (without a MVNA). We suggest that the MNO pays the fee, since the MNO is the main beneficiary of the wholesale with no added costs, as these are now held by the MVNA/MVNO.

Maximum Retail Pricing

The NBTC introduced a maximum retail pricing cap in the market with lower prices on 4G services than 3G, and also changed from charging voice calls per minute to seconds. The construction of a new unified tariff regulation scheme has been underway for a long time. This transition should result in a regulation policy that corresponds to the current economic state and the convergence of technologies

- What is the status of the unified tariff regulation scheme?
- What is NBTC's maximum retail pricing on 5G?
- Which measures has the NBTC introduce to deal with charging voice per seconds instead of minutes?
- Why are the operators still allowed to charge per minute?
- Has the NBTC ever done any test on wholesale margin squeeze?

Prevention of “Win-back” Campaigns and “Chinese Walls”

- It is not an option to disregard the reality of the negative experiences for consumers and competing operators of aggressive win-back programs conducted in mobile markets.
- ‘Win back’ campaigns are judged by regulators as inconsistent with the competitive market.
- Consistent with progressive regulation in other countries, a total prohibition, but only for a pre-determined period (say 6 months), is the best way to prevent win back campaigns from undermining the competitive market and in particular, the launch of new services.
- Further, along the same line and consistent with present interconnect arrangements in Thailand, a host MNOs wholesale division must be prohibited from passing an MVNOs customer, network and traffic data to its retail division.

Further, in the same context as “win back” and consistent with present interconnect arrangements in Thailand, a host MNOs wholesale division must be prohibited from passing MVNOs customer, network and traffic data to its retail division.

A “Chinese Wall” arrangement is required not only as a safeguard against win-back. An incumbent host MNOs retail division can potentially derive significant competitive advantage from “mining” and analyzing their service providers, traffic forecasts, actual network traffic, customer calling patterns and other information and data, as well as any direct customer information they are required to obtain.

There are three types of penalty that have been imposed on operators for win back campaigns by a national regulatory authorities:

- 1) a warning;
- 2) a straight forward prohibition; and
- 3) a fine.

We believe and recommend, consistent with progressive regulation in other countries, that a total prohibition, but only for a pre-determined period, is the best way to prevent win back campaigns from undermining the competitive market and in particular, the launch of new services.

Publish information regarding MVNO and Wholesale on NBTC

The NBTC should launch a sub-category on its website with the policies, notification and information in relation to MVNO and wholesale. To encourage foreign investment, all the content should be available in at least Thai and English. In line with Thailand's entry in to ASEAN it was announced that acts, regulations and notification should be made available in English language as well.

In closing, we would welcome the opportunity to discuss the comments in detail with the NBTC. If the NBTC requires any further information relating to any aspect of the comments.