VNOAI

Ref: VNOAI/REG/TRAI-CP/Unbundling Date: 29.10.2020

To

The Advisor (NSL)

Telecom Regulatory Authority of India

Mahanagar Doorsanchar Bhawan,

Jawaharlal Nehru Marg,

New Delhi- 110 002.

Sub: Consultation Paper No. 7/2020 dated 20.08.2020 on "Enabling unbundling of Different layer through Differential licensing".

Sir,

This is in reference to the above-mentioned consultation Paper dated 20.08.2020. In this regard, VNOAI is submitting herewith submitting the question wise response of the consultation paper on behalf of all VNO's members of VNOAI . The same may kindly be considered.

Best Regards,

For Virtual Network Operators Association of India

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VNOAI

VNOAI's Response to Enabling Unbundling of Different Layers Through Differential Licensing

Q1. Do you agree that in order to attract investment and strengthen the service delivery segment, Network services layer and Service delivery layer needs to be separated by introducing specific license for Network Layer alone? Please justify your answer.

Background

Yes there is urgent need to strengthen the service delivery segment from the present UL License which is a Composite License with Network Layer and the Service Layer under the one UL-License. Moreover as in the UL regime the spectrum is separated from the earlier License which used to be bundled along with spectrum. Now all the UL License holders have already hived off there Towers etc to the registered IP-License holders. Now as the 4G and 5G technologies are evolving and and it requires huge investments on Network therefore the Service Delivery present model of "One Size Fits All" concept need to be changed to provide customised services for various segments of the customers. It will fulfill the requirements of digitisation of the all sectors of the economy and provide reliable service to the end users.

In support of our above contention we are providing full details and justification for the separation of SERVICE Delivery from the Network Layer and we will demonstrate what are the advantages for the hiving of the Service Delivery by the UL License holders in India:-

There is a Need for Separation of Network Services Layer and Service Delivery Layer to:

a. Attract Investment and Innovation, delivering widespread availability of services;
b. Sustainable competition, delivering choice, quality and affordable prices;
c. Empower consumers, able to take advantage of competitive markets and;
d. Targeted regulations where necessary, deregulation elsewhere.

1. Earlier the spectrum was delinked from the license, Passive infrastructure IP-1 already delinked from Core Network. Recently TRAI also recommended certain more Active elements to be included in the IP-1 Licenses. With a long term foresight DOT also issued UL-VNO Licenses in 2016 with a vision to make service delivery as a separate platform. But unfortunately the VNO Model has not picked up in Mobile sector due to absence of any mandate to private TSPs and their non cooperation resulted in nonstarter of the said model yet. As we know that 4G technologies is being upgraded to 5G technology in near future therefore there is dire need to delink Core Network from the Service Delivery platform inorder

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to save cost and efficiently deliver all the services and applications seamlessly without any burden of legacy levies and costs associated with the current combined setups .

2. As on today all the TSPs are managing their active, core network and service delivery and putting huge legacy costs on the whole system .It needs huge investments and recently due to the huge legacy licensing dues both the core networks linked with service delivery is suffering. Consumers are uncertain to get the best of services which they are supposed to get .Consumers have no choice as currently products are based upon **"One Size fit all"** concept they have to buy the services as is where is basis. Currently TSPs can't provide the variety and hand holding to the end consumers. Whereas if their are multiple Service Delivery operators(VNOs) they can provide variable type of packages based upon the niche segments of the population and consumer gets value for their money.

3. *As per the Prime Minister's vision of "Digital India" DOT recognized requirements of digital services as captured in the NDCP 2018 [Para 2.1(b)(v)] in which it is aptly recommended "Enabling unbundling of different layers (e.g. infrastructure, network, services and applications layer) through differential licensing" as a means of "Reforming the licencing and regulatory regime to catalyse Investments and Innovation, and promote Ease of Doing Business".*

Therefore inorder to realize the full potential of these futuristic digital technologies which ride on data services. It require revisiting of the existing licensing and regulatory regimes of the voice centric networks and splitting them into three layers to create the environment conducive for enabling seamless delivery of innovative digital services.

A. Need to Unbundle the current UL License into three parts Specific for

- Network Layer (IP-1)
- Core Network Layer
- Service Delivery Layer (VNOs).

1. **Network Layer (IP-1)**:

The IP-1 already hived off by all the TSPs and all the Passive Network elements are in the IP-1 category. Recently TRAI has recommended on 13-03-2020 for the enhancement of the scope of the IP-1 service providers in order to facilitate further the investments savings of the TSPs and avoid duplication of the telecomm resources. By enhancing the

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scope of the IP-1's it is visionary recommendations of TRAI in view of future technologies like 5G where there will huge requirements of infrastructure.

2.Core Network Layer:

In the Core Network layer as the technologies are changing very fast and there are big chances that the ROI on the previous technologies like 3G,4G not yet materialised and the TSPs have to invest in 5G technologies. Therefore there will be a requirement of the huge investments on the new technologies for the upgradation of the Core Network .If the TRAI recommendations on IP-1 issued on..... are accepted thus the scope of the IP-1 will also be enhanced. It will be big relief for the TSPs investing in the 4G/5G technologies.

2. ServiceDelivery Layer (VNOs) :

TRAI in its wisdom had recommended in 2015 for the UL-VNO license for unbundling of the Service Delivery Layer and DOT has issued Guidelines for UL-VNO in May '2016.But due to various reasons pertaining to the surrender of various licenses and consolidation of the Indian Telecomm market with M&A activity the private operators could not focus on the need of the VNOs in their existing business model. They are continuing creating own infrastructure and deliver the services to the end customer. One more fact is that unconducive Licensing conditions prescribed by DOT to VNOs at par with existing UL licensees are not viable for the VNOs. There is high cost of the Licensing like AGR and Bank Gurantees which are deterrent for any entity to sustain in such a Licensing regime. (Although only one entity took UL-VNO License and had agreement with PSU Operator but the same also not able to pick up).

It is high time that all the stake holders need to rework their business models which is **"One Size Fit All Model"** in line with the international practices where MVNOs are playing a big role in serving the requirements of each segment in the delivery of their services to the niche market segments . For the incumbent operators there is a huge cost saving of the Subscriber Acquisition Cost (SAC)and Subscriber Retention Cost (SRC).The MVNO will give cost savings and good EBITA margins of the incumbent MNOs. In the following presentation we try to give justification for the MVNO Model in India for the Service Delivery:-.

A. Doctrine of Essential Facilities

The notion of sharing active infrastructure or its service delivery is not unique to the telecommunication sector but usually cuts across sectors which are critical for a given

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economy, such as railways, roadways, etc. ***The concept of sharing of infrastructure and country's natural resource like spectrum has its origins in the "Doctrine of Essential Facilities" which evolved in the United States in the 20th century***. This doctrine was shaped by the judiciary in the 1912 decision in *United States vs. Terminal Railroad Association of St. Louis*, which was a dispute involving certain railroad companies which owned both the railroad terminal as well as the only bridge link to the terminal.

For a new firm to enter the market, it would necessarily require access to both this terminal and the bridge linked to this terminal. However, the incumbent operators denied access to this infrastructure on the ground that it would give way to competition; they argued that the new entrant ought to build its own infrastructure. The court noted that this was a case of monolithic. For the application of the doctrine of essential facilities, the following aspects must be considered:

i. the facility should be "essential" and using the natural resource of the country;

ii. it would be practically infeasible for the competitor to duplicate the essential facility;

iii. the denial of access and use of the facility to a competitor by the monopolist is primarily to maintain status quo and thus would contribute to deadweight loss;

iv. providing access to the competitor (VNO) will result in no direct loss to incumbent except possible loss of market share; and,

v. access to the essential facility is in public interest.

Financial Benefits to Incumbent Operator UL Licensee (MNOs) in hosting MVNO as Service Delivery Operator

An obvious benefit for incumbent operators MNO is that the sharing of infrastructure is an additional source of revenue that can accrue on account of saving on **(SAC)Subscriber Acquisition Cost and subscriber Retention Cost (SRC).** Telecom companies, which had invested heavily in setting up network infrastructure to cope with the increasing subscriber base, have realized that there are benefits to sharing the network infrastructure with other players. As a result, some of these companies have hived off their infrastructure segments into a separate business. For example, in 2007, Bharti Airtel hived off its tower business into Bharti Infratel, which currently provides infrastructure leasing and services to interested telecom service providers.

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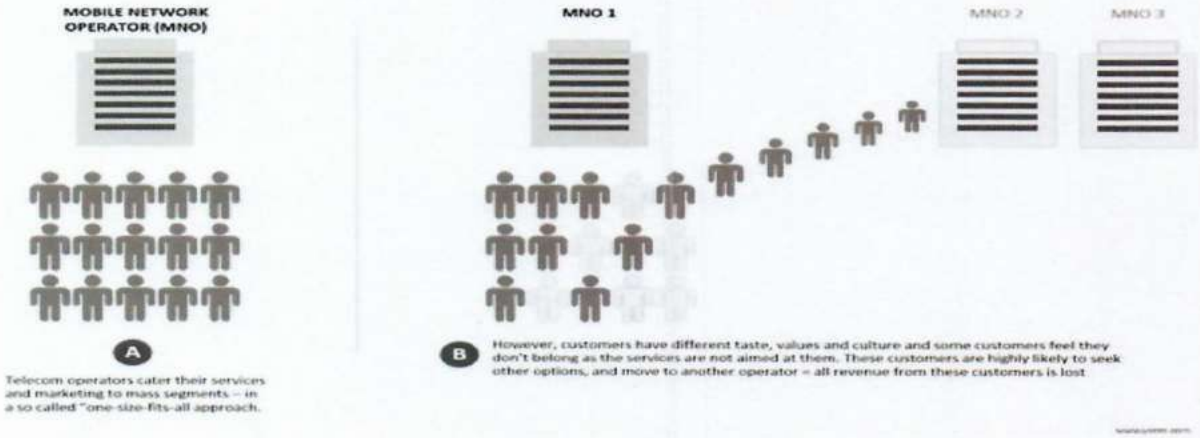
Similarly if the incumbent operators share their Service Delivery Platform also to a SDO or a VNO they are going to be benefitted in the short term and long term.

Telecom operators cater their services and marketing to mass segments – in a so called "One-size-



fits-all" approach. However, as customers have different taste, values and culture, some customers will feel they don't belong to the MNO from him they have no choice and that the services are not aimed at them.

These customers are highly likely to seek other options, and move to another operator thus **Revenue from these subscribers is lost.**

Thus if MVNOs comes into picture as a Service Delivery Platform by using the services of a Telecomm Service Provider then how the emergence of MVNO will create value for the subscribers and the parent MNOs as explained in the foregoing pages.

MVNO IN TELECOM

This is where the value of partnering with an MVNO comes in. A MVNO will typically target niche segments where the telecom operator has less success, and thereby act as a magnet/filter, avoiding customers to churn to the competitors.

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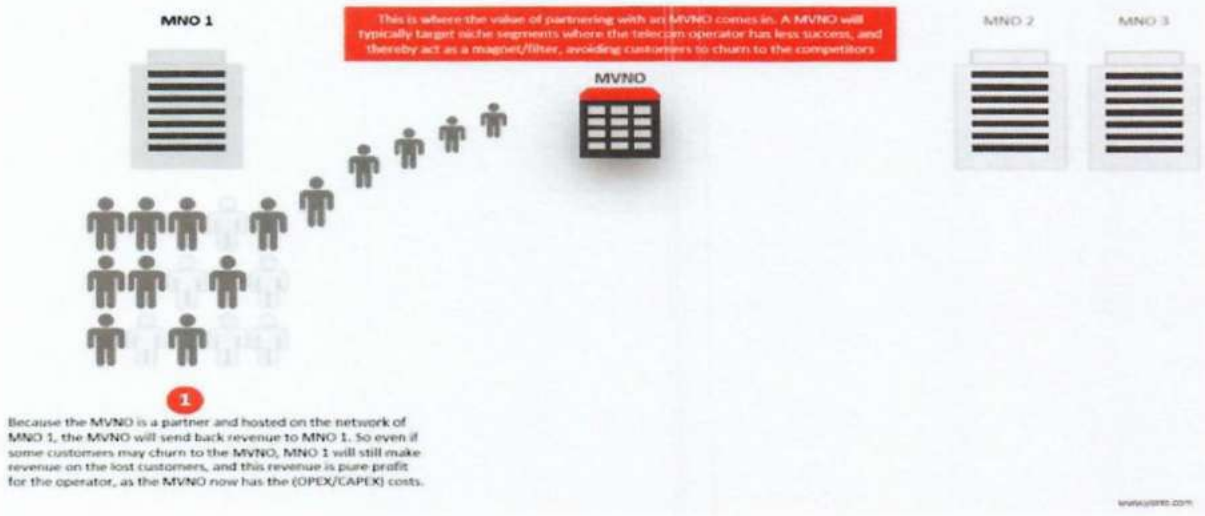
How MVNO add Value by partnering with MNO

Because the MVNO is a partner and hosted on the network of Telecom Operator 1 (MNO1), the MVNO will send back revenue to Telecom Operator 1 from these churning customers.

So even if some customers from Telecom Operator 1 decided to churn to its MVNO, Telecom Operator 1 would still make revenue on these lost customers, and this revenue would be pure profit for the operator, as the MVNO now has the associated (OPEX/CAPEX) costs e.g.: Marketing costs, Customer acquisition costs, Handset subsidies, Value-added services costs and ongoing Customer maintenance costs, etc.



The other Telecom operators have the exact same problem, that some of their users feel they don't belong, and will look for other alternatives. This creates a second traffic of revenue to operator 1, who partnered with the MVNO, as the MVNO takes on some of these churning customers from the MNO-2 and 3 and these churned customers will seek other alternatives of MVNO with MNO-1.

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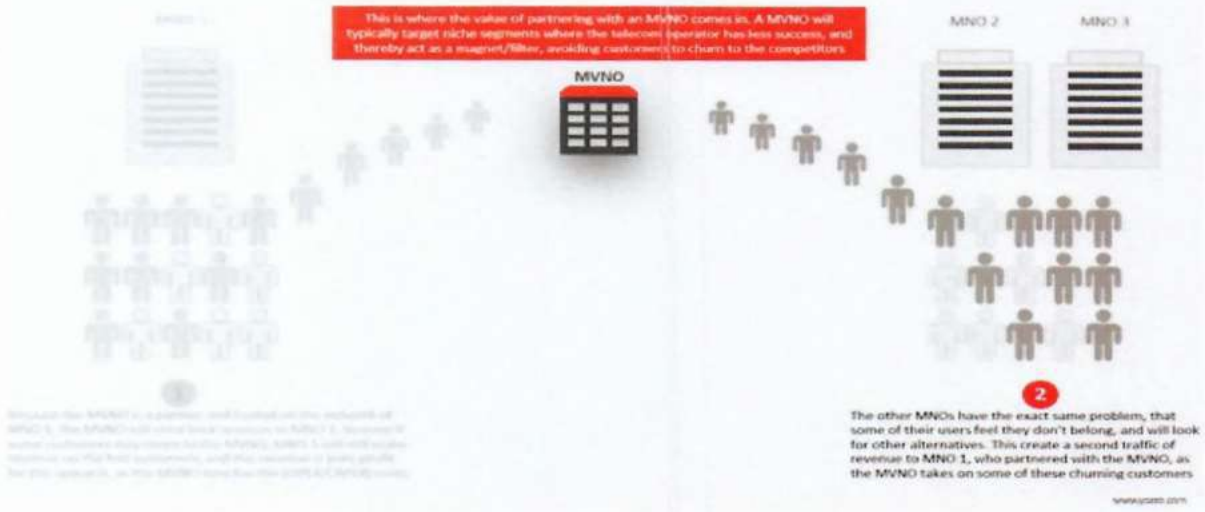

MNO-1 (With MVNO) **MNO-2** **MNO-3**

MNO-1 hosting MVNO on its Network

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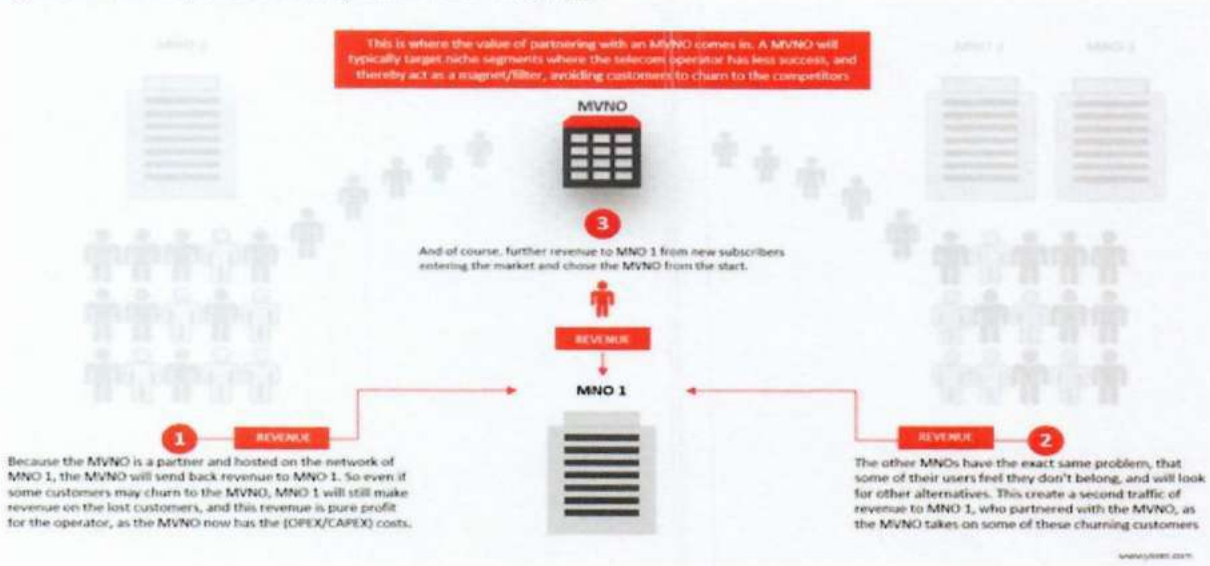
The MNO-1 who is hosting MVNO will have three revenue streams as below:-

Figure 5: The MVNO provides the host operator with 3 revenue streams



KEY TAKEAWAYS

- If a customer on the host operator churns to the MVNO, it is highly likely that the customer would have left anyway.
- It is better that the customer churns to a MVNO on the MNO's network, than to the competitor, because the MNO will still make revenue from the lost customer via the MVNO partner.
- If the customer churns to the competitor or a MVNO on the competitor's network, all revenue from that customer will be lost.

MVNO and MNO Partnership from a Single Brand to a Multi brand.

MVNOs often come with a strong brand, and a niche focus that provides the mobile operator the means to minimize the impact on churn. Partnering with, and including MVNOs into its marketing mix, the mobile operator can achieve revenue from specific market segments where the mobile operator hasn't been successful.

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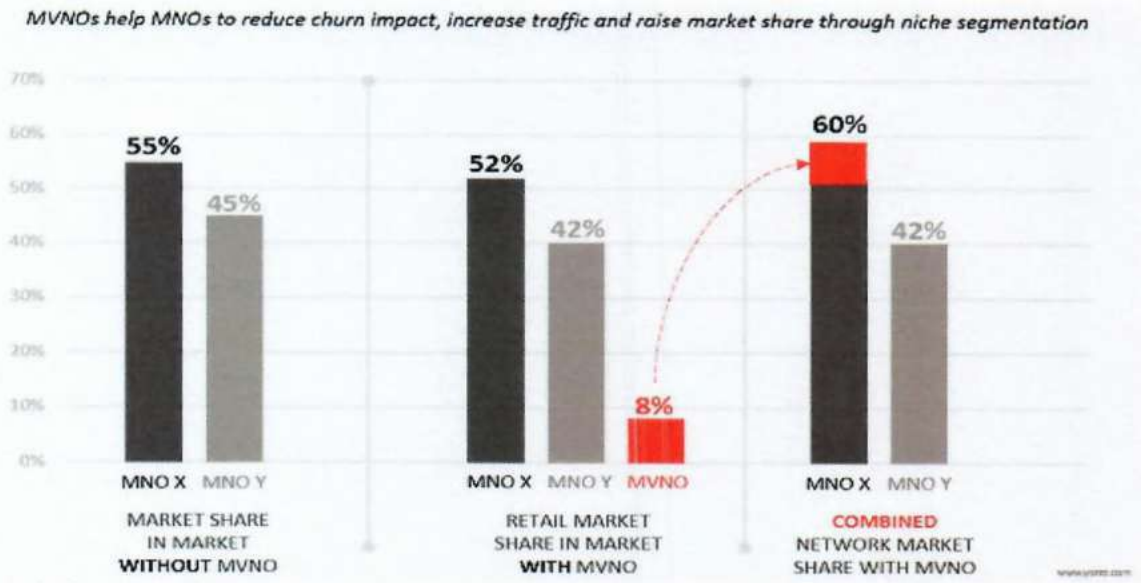
In saturated - or near saturated markets, as organic growth wears off, competition becomes a quest for market share, and this challenge leads MNOs to seek for MVNO partnerships to sustain the overall market growth.

MNO market share without, and with MVNO



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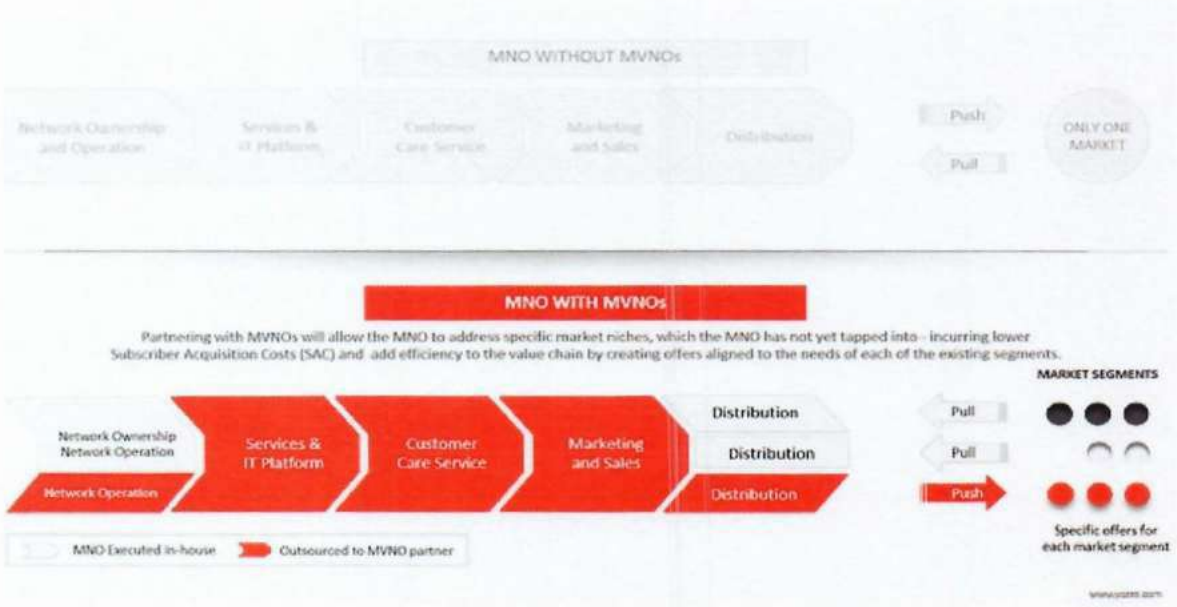
Partnership of MVNO and MNOs to Address Niche Markets

Partnering with MVNOs will allow the MNO to address specific market niches, which the MNO has not yet tapped into - incurring lower Subscriber Acquisition Costs (SAC) and add efficiency to the value chain by creating offers aligned to the needs of each of the existing segments.



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Multi Brand Approach and Multi Segment Approach.

The multi-segment, multi-brand approach is not new, but built on experience from other industries such as the automotive industry. Today, the automotive market is heavily segmented and most car manufacturers actually own multiple automotive bands, each focused on a specific market segment with the product tailored for the unique needs of that segment.

Volkswagen's shift from a single brand to a multi-brand, multi-segmentation.

FROM A SINGLE BRAND MNO TO A MULTI-SEGMENTATION MVNO STRATEGY

One of the key competitive advantages of brands is that they have a thorough knowledge of their users, allowing them to cater to that segment in a far more personal, relevant way than MNOs can, and the strategy has been adopted by various MNOs around the world.

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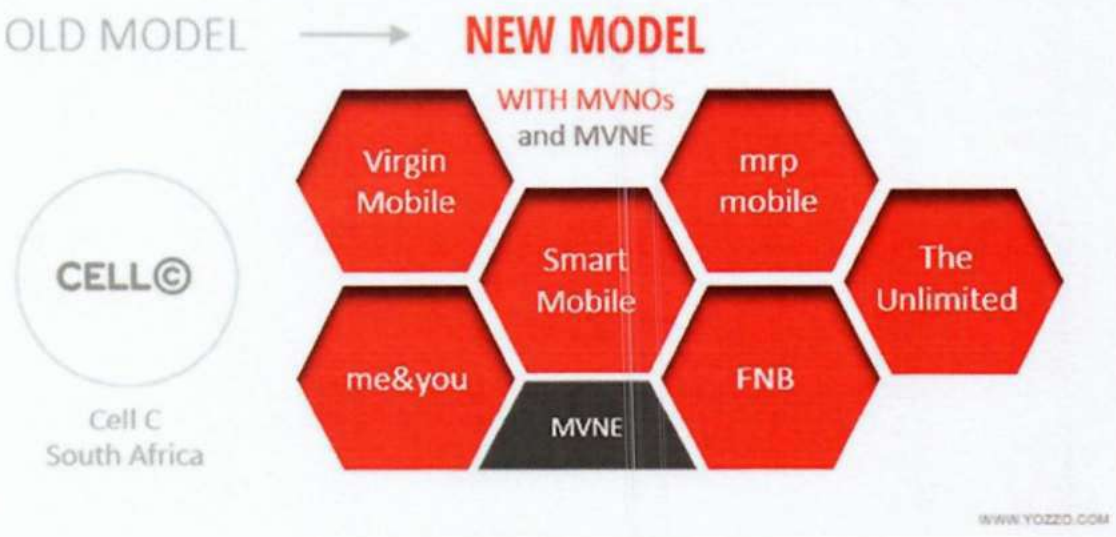
SOUTH AFRICAN MNO CELL C's MVNO MODEL

In July 2016, Cell C revealed that it's MVNO partners had managed to attract more than a million customers. Cell C's had invested in a MVNE platform, which allowed them to launch MVNOs in a very efficient manner.

- The MVNO own the customer
- Services are offered under the MVNO brand
- The MVNO design and decide the tariffs
- Customer relation is managed by the MVNO
- The MVNO is in charge of marketing, distribution, customer insights **Cell C CEO Jose Dos Santos:** "*Cell C has created a focused strategy to embrace sound partnerships with exceptional brands. This has allowed us to grow the MVNO base substantially.*"

MNO CELL C's multi-segmentation MVNO model



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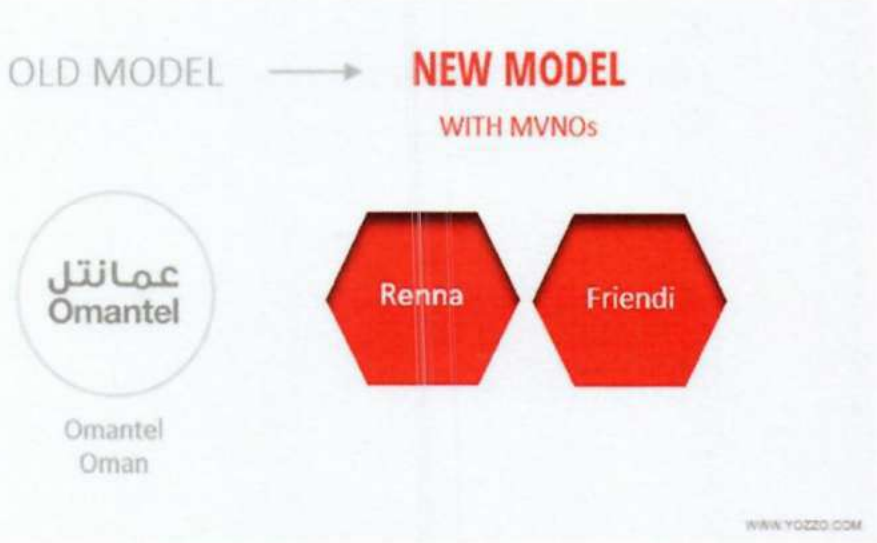
OMANTEL'S MULTI SEGMENTATION MVNO MODEL

Omantel's statement on key achievements on collaboration with MVNOs

- Demonstrated Omantel's intention to develop the telecom sector
- Minimized the risk of new direct competitors
- Gained network market share with no Subscriber Acquisition Cost and slowed competitor's growth
- Addressed specific/niche market segments through MVNOs
- Introduced a new business stream via Wholesale operations
- Utilized idle network capacity on Omantel network.
- Became a "case study" example of MNO/MVNO success.

In 2014, Omantel was selected as one of the top three wholesale MNOs in world

Omantel's multi-segmentation MVNO model



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FINANCIAL BENEFITS to MNOs FROM MVNO COLLABORATION

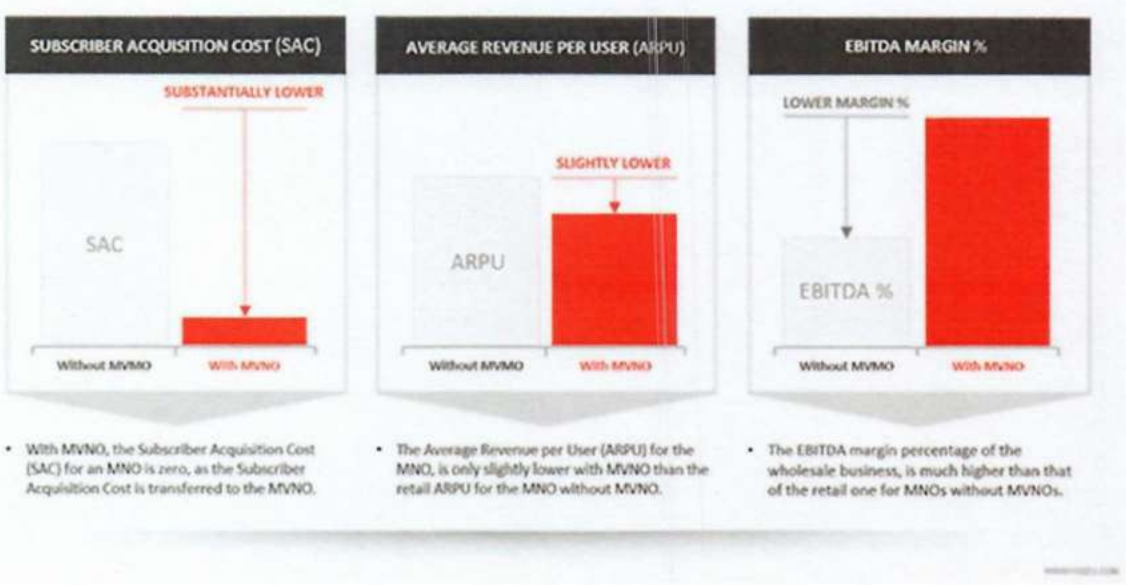
Besides being a source of growth, MVNOs are creating a significant advantages for the MNOs in terms of improving its business profitability

With MVNO, the Subscriber Acquisition Cost (SAC) for an MNO is zero, as the Subscriber Acquisition Cost is transferred to the MVNO.

The Average Revenue per User (ARPU) for the MNO, is only slightly lower with MVNO than the retail ARPU for the MNO without MVNO.

The EBITDA margin percentage of the wholesale business, is much higher than that of the retail one for MNOs without MVNOs.

MVNO creating advantages for the MNO in terms of business profitability



For the MNO, the EBITDA margins for customers acquired by the MVNO is 3 times the margin from retail MVNOs help MNOs to drastically improve their EBITDA margins by reducing Subscriber Acquisition Cost (SAC) costs with only a slight reduction in Average Revenue per User (ARPU) .

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MVNO / MNO BENEFITS CONCLUSION

Network operators are continuously investing heavily into spectrum licenses and infrastructure to keep up with demand and new technology. These new investments are resulting in capacity which needs to be fully utilized as much and as soon as possible. A MVNO strategy can fill this gap and generate economies of scale for better network utilization.

A MVNO partnership brings the following benefits and opportunities for the mobile operator.

- **Financial Benefits**: New revenue streams • Higher margins • Quicker return of investment • Reducing costs (increasing the EBITDA).
- **Strategic Benefits**: Niche segment tapping • Use MVNOs in segments where the competitor is strong • Obtain greater share of the total market traffic • New distribution channels, reach new consumers in un-served/underserved market segments.
- **Operational Benefits**: Network utilization • Share business processes to increase overall performance.
- **Marketing Benefits**: Minimize churn • Grow market • Cross-sell • More value, innovation and choice for the end-users • Saved retail costs can be used to increase customer retention.

MVNO's offer general benefits, main ones being:

- **Designed for your need.** Mobile Operators often offer generic services, trying to serve millions of consumers and businesses with a standardized approach. MVNO's focus on specific segments in the market, offering customized plans designed for that segment, whether it's consumers (youth, travellers) or business (workforce, WAN networking, IOT etc.)
- **Service Focus.** Since there is no large workforce and investment required to build and maintain networks, MVNOs can fully focus on serving customers and have a higher customer satisfaction compared with Mobile Network Operators.
- **Lower Price.** For same reasons above, MVNO's are generally able to offer lower pricing and better benefits compared to MNO's.

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MVNOs were originally invented to extend mobile network operators (MNOs) capacity to sell plain vanilla service.

MVNOs built up-to-date technical infrastructures and, therefore, are more agile. For this reason, MVNOs are now best positioned to address some specific communities' needs and deliver segmented services to niche market verticals.

To take advantage of this era of community-based services, MNOs need MVNOs to target more communities.

What are the advantages of partnerships between MNOs and MVNOs?

- MNOs are focused on technical capacity deployment, customer acquisition and retention.
- Thus, MNOs see MVNOs as the right partners to add value to their radio network and coverage, while sharing the risk of a specific business case on a given market opportunity.
- By trusting MVNOs to address specific niches, MNOs can enlarge their customer base while remaining focused on their core business.

What are the opportunities and obstacles for expanding into emerging markets?

- In developing countries, MVNOs, as much as MNOs, foster the rise of new innovative services, shortening the path to development through mobile banking, co-working and self-learning.
- This trend is often supported by the national regulatory agencies and, broadly, a free and competitive telecom market can leverage innovation and information.

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What would you like to see out of regulatory environments?

- First: openness.

The regulator shouldn't reduce the technical freedom of MVNOs and should enable them to deal with their own Home Location Register (HLR) and Home Subscriber Server (HSS), which are databases of subscribers. Besides, the regulatory environment must prevent MNOs from differentiating the treatment of MVNO customers compared to their own customers (e.g. by reducing the quality for MVNOs).

- Second: equal treatment.

The expansion of innovative telecom services (such as MVNOs) shouldn't be slowed down. Improved declaration processes (with better tools and a better transparency) has to be a goal.

The keys to MVNO success Based on extensive market research and its experience working on a variety of MVNO launches and MNO wholesale strategies, McKinsey has identified five key success factors for MVNOs.

- Exploit brands and market segmentation.
- Companies that launch successful MVNOs often make use of existing marketing assets like media and telecoms brands
- Customer databases
- Channel infrastructure.
- They strive to create a unique brand positioning and value proposition in order to attract target clusters such as specific ethnic groups or demographic cohorts like millennials. This typically means identifying emerging niche markets that lie beyond the reach of traditional marketing approaches or are too costly to serve or address using a conventional business model. To attract these niches, companies should set aggressive segment-targeted pricing strategies and develop specific distribution tactics that might involve sales kiosks or point-of-sale (POS) displays in gas stations or local stores.

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- Build MNO relationships. Forging a win-win agreement with an MNO will play a key part in any MVNO's success. A good contract with a network operator that is easy to renegotiate if it becomes necessary to switch network hosts is essential. The mobile player needs to ensure that the final contract is adaptable enough to meet Largely a 21st century phenomenon, mobile virtual network operators (MVNOs) have already evolved through three waves of development. The first took place in the early 2000s, when mobile penetration ran below 80 percent and voice was the only real offering. Retailers and companies with strong brands sought new incremental revenue opportunities and prepaid plans tended to dominate. Players traded on their retail presence and brands, offered basic products, and took advantage of their low cost positioning.

- The second wave happened during the second half of the 2000s with higher voice penetration and with the appearance of 3G technology and mobile data applications. MVNOs were new companies striving to create small pockets in the market, attempting to differentiate themselves from mobile network operators (MNOs) by offering low-cost foreign calls, data, or subscriber identity modules (SIMs) in subsidized markets. The latest wave in the mobile virtual network evolution has attracted large players with even bigger market share ambitions (e.g., over 5 percent).

- Today's MVNOs (defined broadly as non network operators) typically capture between approximately 10 and 40 percent of the business in developed markets. Western Europe in particular has evolved into one of the most mature regions for MVNOs, with Germany, Denmark, Norway, and Switzerland leading the way . Many emerging markets will offer major growth opportunities in the near future. For example, analysts predict MVNO subscribers and revenues need to accommodate data offerings. Based on forecasted traffic patterns and offerings, the MVNO needs to develop a detailed understanding of the impact any wholesale-level variables could have on its business plans. What's more, any wholesale rate agreement should have built-in protections against price-cutting actions by the host network. For instance, MVNOs need to develop agreements that guarantee that the effective wholesale rate will be lower than the agreed-on rate or the host's retail rate minus a given percentage. Doing so will prevent the host network from reducing its own customer-facing prices below those it negotiated with the MVNO. One MVNO made sure its target segments were not on its MNO partner's radar screen as future opportunities and ensured that any cannibalization risk between the offerings of the two operators was low. It also confirmed that the profit pools associated with targeted segments were sizable

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enough to accommodate strong MVNO growth while also benefiting the MNO, which could not capture these customers by itself. Beyond this, the company successfully modeled the data requirements for its content-rich proposition. Consequently, the virtual operator was able to structure the contract through a "take or pay" approach that rewarded it with lower fees overall if it reached its targets – which the company did thanks to its up-front analysis and careful execution.

Regulatory support needed for MVNOs:

- The regulator shouldn't reduce the technical freedom of MVNOs and should enable them to deal with their own Home Location Register (HLR) and Home Subscriber Server (HSS), which are databases of subscribers.
- Besides, the regulatory environment must prevent MNOs from differentiating the treatment of MVNO customers compared to their own customers (e.g. by reducing the Quality of Service for MVNOs).
- Regulators need to provide own LRN and Numbering resources so that there is no technical issue regarding over dependency on the MNO network capability.
- Regulators Need to Mandate the MNOs to provide unhindered, non discriminatory access to MVNOs in a strict time frame.

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MVNO Business Essentials

MVNO FUNDAMENTALS
Market environment

Different reasons are behind the market entry opportunity for MVNOs in a market reaching maturity...

Maturity of the market

- In markets that have reached maturity, differentiation from competitors is an increasing challenge since mobile services progressively become commodities.
- In such competition environment, the growth in customer base comes necessarily from cannibalization strategies implemented by the existing competitors

So What?

The fight for the market share

- Well-established Mobile Network Operators (MNOs) are exposed to an erosion in its market share due to the effect of increased competition coming from saturation, as mobile communications business becomes a pure market-share game.
- Appropriate wholesale strategies to be implemented by the MNOs will be crucial to maintain its growth despite the market saturation

The MNOs can address the challenges associated with market maturity through reaching wholesale agreements (MVNOs) with selected local partners

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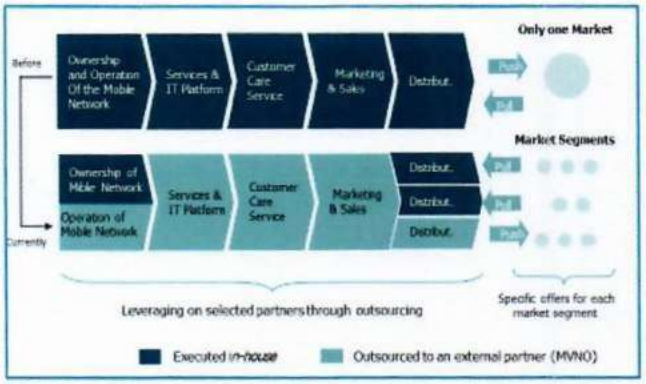
MVNO FUNDAMENTALS
The Wholesale Business for MNOs (I)

The challenge brought by market saturation leads MNOs to seek for MVNO partnerships to sustain the overall market growth...



...by creating offers aligned to the needs of each of the existing segments

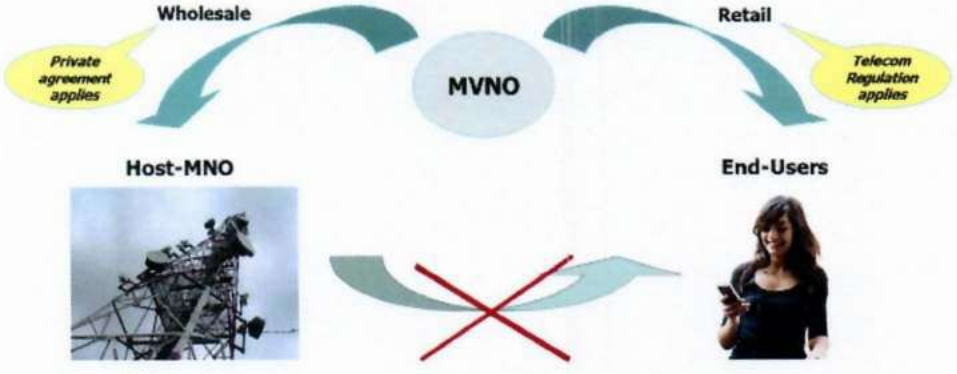
...by dividing the value chain and allowing the entrance of new players through:

- ✓ Radically reducing costs **(increasing the EBITDA)**
- ✓ Reach new consumers in market segments not yet tapped into **(new distribution channels)**

MVNO allow MNOs to address specific market niches which they have not yet tapped into, while bearing lower Subscriber Acquisition Costs (SAC) —so adding efficiency to the whole value chain

MVNO FUNDAMENTALS
The Wholesale Business for MNOs (II)

So, the Mobile Virtual Network Operator (MVNO) business relies on two key relationships to be established...



... which have to be efficiently managed over the time in order to succeed

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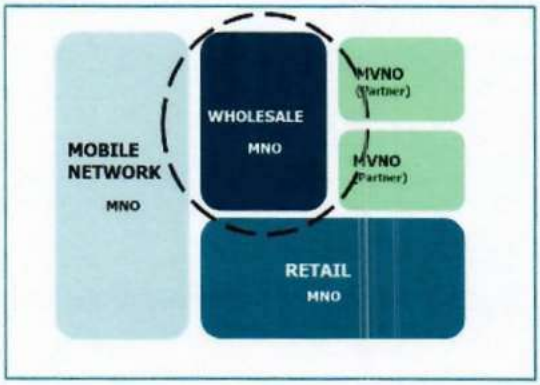
MVNO FUNDAMENTALS
The Wholesale Business for MNOs (III)

...the wholesale business has to be understood by the Host-MNO as a reinforcing of the retail offer to address market niches not served by itself yet

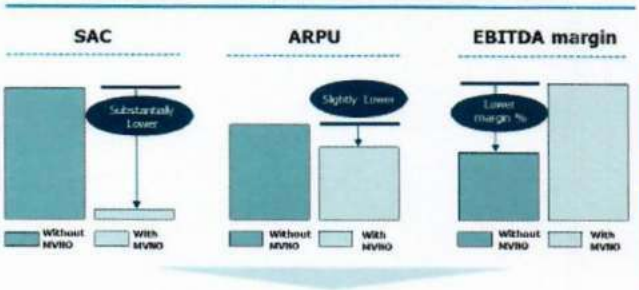


MNOs should follow a combined strategy, maintaining its current retail business and additionally targeting complementary market segments through selected MVNO partnerships

MVNO FUNDAMENTALS
The Wholesale Business for MNOs (IV)

How do MVNOs bring value for the Host-MNOs and for the overall mobile market chain?

IMPACT OF MVNO BUSINESS ON Host-MNO´s FINANCIALS



- The **Subscriber acquisition cost (SAC)** in the wholesale business for an MNO is zero, due to it falling on the MVNO.
- The **Average Revenue per User (ARPU)** in the wholesale business is only slightly inferior to the ARPU of the retail business for the MNO.
- As a result, the **EBITDA margin** of the wholesale business is much higher than that of the retail one for MNOs.

For the Host-MNOs, the EBITDA-margin coming from Wholesale customers is 3x greater than the one from retail clients

MVNOs help MNOs to drastically improve their EBITDA margins by reducing SAC costs with just a slight reduction in ARPU

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MVNO FUNDAMENTALS
MVNO market-entry strategies (II)

As a matter of fact, MVNOs all around the world have implemented a variety of strategic approaches, always depending on the specific market segment they intend to address

MVNO OPERATIONAL MODELS
Functional model Characterisation

There are several options for MVNOs to build and manage the required infrastructure over the Host-MNO radio access network...

FUNCTIONAL MODELS	Branded Reseller	Service Provider	Enhanced SP	Full MVNO
Radio Spectrum				
Switching				
IN Platform				
Numbering Resources				
SIM Card				
Billing/Rating				
Pricing				
Provisioning				
Care				
Own Brand				
Distribution				

Core network & Service Layer/OSS

BSS/CRM

Branding, Sales & Marketing

MVNO owns | MVNO may or may | MVNO does not own

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MVNO OPERATIONAL MODELS
Margin Analysis

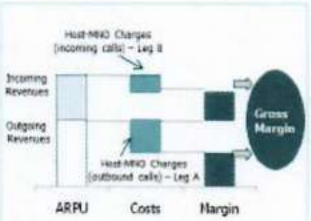
MVNOs can be classified broadly into three (3) main functional models, each with its own economic implications on the business to be implemented...

Branded Reseller

- SIM does NOT belong to the MVNO
- MVNO has no control over retail pricing and does not invoices the subscriber for the mobile services
- No regulatory obligations apply to the MVNO –as it does not own the subscriber
- MVNO negotiates a revenue sharing with the Host-MNO along with a commission per client acquired (activation fee)
- Revenues from both inbound/outbound traffic are collected by the Host-MNO at both retail/wholesale levels

(Enhanced) Service Provider

- SIM belongs to the MVNO but numbering range belongs to the Host-MNO
- Regulatory obligations apply to the MVNO
- MVNO has partial control on the production and full control on the retail prices of the mobile services (voice, sms, data, VAS) provided and directly invoices the subscriber
- Revenues from outbound traffic are collected directly by the MVNO from the subscriber(retail)
- Revenues from inbound traffic are collected by the Host-MNO at a wholesale level



Full MVNO

- Both SIM and numbering ranges belong to the MVNO
- Regulatory obligations apply to the MVNO
- MVNO has end-to-end control on the production of the mobile services –as it owns and operates the IT platforms
- MVNO has full control on the retail prices of the mobile services provided and directly invoices the subscriber
- Revenues from both inbound/outbound traffic are collected by the MVNO at retail/wholesale levels

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Q2. Should the Network Services Layer licensee be permitted to take the Service Delivery Category licenses and provide the service? If yes, what kind of restrictions and safeguards are required to be built, in order to protect the competition and innovation in service delivery segment? Please justify your answer.

Network Layer Licensee may be given option to take the Service Delivery License also.It is the business call for the Network Layer Licensee to take Services Delivery Layer and get the value from the Service Delivery Layer.

But in our opinion there are many factors in the present UL(VNO) Licenses pertaining to the Regulations and Licensing which discourage any MNO to opt for the separation of the Service Delivery layer from the Network Layer.

There must be such Regulatory conditions which shall be conducive and show value to any existing MNO to separate out its Service Delivery Layer into a separate entity. The Existing Regulatory regime prescribed to a VNO in India are copy paste of the UL License which are not conducive at all for any entity to off load or separate the Service Delivery from the Network Layer. The VNOs who works on thin margins are loaded with the same AGR, License Fee, SUC and huge Financial Bank Guarantees as prescribed to the UL License holder(Network Layer License Holder).There is no business case for any entity to provide Service Delivery in such conditions.

VNOAI Recommends:

AGR/Financial Bank Guarantees and SUC which are applicable in the current UL(VNO) Licensee which is a service delivery Operator must be replaced by the applicable GST on the sales of the services.

Suggested Safe Guards:

In case the Network layer License Holder separates its service delivery into a separate entity then following are suggested as safeguards:

a. Access to any Licensed Service Delivery Operator to be provided without any discrimination and unhindered in time bound manner.

b. No degradation of all QOS parameters viz. a viz. its own service delivery and other service delivery to be maintained.

c. Regular audits and checks to be prescribed and done by the independent auditors to verify the all the Network Related parameters.

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Q3. Whether certain obligations should be imposed on the existing Unified Licensees, and other measures should be taken to encourage UL licensees to provide their network resources to VNO licensees particularly in mobile service segment? Please suggest the measures in detail.

Doctrine of "Essential Services" which makes the usage of Spectrum a Natural Resource of the Country for the optimum usage for the benefit of all the stake holders and consumers at large get better competitive pricings at affordable rates and UL(VNOs) are provided time bound unhindered access by the UL-Licensees in India.

As stated above a UL Licence holder is under national obligation to provide connectivity to the Network utilising Spectrum a Natural Resource of the country in view of the requirement of the consumer to protect the competition and avoid any monopolistic exploitation by the limited operators utilising the Country's Natural Resource. Government need to take care of the best interests of the consumers.

In case the current Licensing Terms and Conditions are made conducive for the growth of the VNO industry by abolishing the AGR,SUC and FBGs etc.The market will definitely will be encouraged to do investments in the VNO business .

The current UL-License holders also will find value in sharing the infrastructure with VNOs as they also save on the SAC, Marketing Cost and Customer retention cost. Although this is cost saving for the UL-License holders by selling the capacity in Whole Sale and there may be likely marginal drop in ARPU but they will get better EBDITA margins.

Once a UL-License holder visualises the better financial benefits by sharing the Network infrastructure and increase of Whole Sale Revenue definitely they will be encouraged to provide connectivity to VNOs.

Global Case Studies

Global case studies show that there is a mixed experience of the countries where it is mandated and where it is not mandated. There are many countries where mandating by Regulators was needed to sustain the Competition in view of M&A activity and consolidation of the Telecomm Market from Multi Operator to Three Operator Market in order to avoid exploitation of the reduced competition by the new monopolistic emerged three market scenario..

VNOAI on behalf of all VNO Licensees and based upon their practical experience for last four years the Licensor/Regulator need to evaluate and take into account the recent experience of

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UL(VNOs) and review the existing Regulations and License Guidelines and align them with business model of the VNOs as being done across the world the VNOs work on thin margins. Provide conducive working model available for a VNO to work as a service delivery operator in India. It is suggested a close monitoring of the mechanism be done by the DOT and TRAI at least for first five years how the Market dynamics work in such a scenario in India and subscribers get the benefit of competitive prices and various products catering to their need in the country. It should not be that the present market where the concept of **"ONE SIZE FITS ALL"** continues and give limited choice to the subscribers and consumers are the mercy of the monopolistic operators.

Q4. In case network layer and service delivery layer are separated by creating separate category of licenses, as proposed in Q1;

a) What should be the scope for Network layer license and Service Category licenses?

Firstly, as explained in length in response to Q No 1, the license terms should be applicable only for the Network Service Provider (UL- Licenses) utilizing the national resource of Spectrum and doctrine of usage of spectrum as Essential Service be recognised. All the Regulatory and Licensing Guidelines be framed on the basis of **"Doctrines of Essential Services"**. Under this doctrine there is a right of the consumer to access the scarce national resources at the competitive prices and as per their requirements. There must be a choice available to the consumer and it should not happen that he has to go by the **"ONE SIZE FITS ALL"** products being sold at the moment across all over the country by the existing TSPs.

Scope of Network Layer

- The MNOs may be subject to all the coverage and QOS obligations associated with the Network.
- They shall also be mandated to provide time bound unhindered non discriminately access to their networks to the prospective VNOs. There shall not be any discrimination between MNOs own Service Delivery and VNOs.
- Proper checks and monitoring and audits needs to be in place to avoid such a scenarios and to avoid anti competitive behaviour of any MNOs.

The services delivery providers should be subjected to a simple registration with DoT similar to the IP-1 Registration which is very successful since its prescription since last few years.

The prescribed AGR,SUC and License fee needs to be abolished for VNOs and they need to be asked to pay the GST on the sales only.DOT needs to align the VNO Guidelines based

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upon the IP-1 registration Guidelines as VNOs are not Spectrum owners and they are only reselling the MNO services to end customers. Once the concept of GST is adopted the VNO will pay the GST on the sale of services.No other AGR/SUC be levied. The license Guidelines are needs to be aligned with the business model of the VNOs.

Obligations of VNOs.

- Only QOS for the Billing
- QOS for Customer support
- On the part of VNOs and only light touch regulations to be prescribed specific to the VNOs based upon the business model and operational model on which they work.

b) Out of various responsibilities and obligations enumerated in Unified License, what should be the respective responsibilities and obligations of Network layer licensees and Service delivery category licensees? Please elaborate with justifications.

Responsibilities and Obligations of Network Layer

- Various responsibilities and obligations enumerated in the existing Unified License should be applicable for Network layer licensees as they are the owners of Spectrum.
- Besides these extant responsibilities of the Network Layer (MNOs) there shall be additional responsibilities and obligations to provide unhindered, discriminated access to all the VNOs at par with its own Service Delivery in case if it is providing the Service Delivery also.

Responsibilities and Obligations of Service Delivery Layer

As Service delivery Operator it has to deliver the services to the end consumer and take care of the requirements of each customer segments and full fill all the customer satisfaction regulations and Directions issued by the TRAI from time to time .A service delivery operator has got obligations towards the customers and he need to full fill all the regulations prescribed by TRAI pertaining to customer support from time to time.

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c) What mechanism should be put in place to regulate the access to network services of Network layer licensees by the service delivery Category licensees? Whether certain obligations should be imposed on Network layer licensees to provide the network resources in a time-bound, transparent and non-discriminatory manner?

- As service derived out of the usage of spectrum which is Natural Resource of the Country and the service derived from it is **"Essential Service"** therefore mandatory obligations should be imposed on Network layer licensees to provide the access to the network in a time-bound, transparent and non-discriminatory manner to the service delivery providers (VNOs).
- In India already similar provisions of mandate is there for the ***Submarine Cable Station Access providers*** to provide time bound unhindered access to all the Licensed ILDOs. It is working very well since its inception and all the licensed entities have the unhindered access to the National Natural Resource.
- Also for the new Network Licensee there is mandate to the incumbents to provide interconnection to their networks in time bound manner.

d) What incentives (for example, lower license fee, lower SUC, etc.) could be provided to Network Layer licensees in the new unbundled licensing regime to encourage the investment in the Network layer? Please justify your answer.

Abolition of current AGR/License Fee and SUC and move to one GST Tax.

Govt. of India has adopted newer taxation regimes for simplifying business environment. Already Government of India has amalgamated large number of taxes prevailing in the country into a one Tax of GST .A similar approach should be adopted for the telecom sector as well wherein a simple administrative Fee of 1% of the Audited Gross Revenue on the basis financial results of the TSP should be charged annually in addition to the GST that is levied on the sale of services.

Thus it will eliminate all the complications of the existing old legacy system which was required when the Telecomm Licenses were bundled with the spectrum and when all Licenses migrated from fixed license fee regime to the Revenue Share Model and therefore AGR and SUC were applicable.

As now spectrum is unbundled from License and the cost of spectrum is derived through the open auctions at market driven competitive prices therefore there is no need to keep on

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charging on the basis of the legacy Revenue Sharing Regime. As Telecomm being the vital Essential infrastructure of the country whole economy of the country dependent on the Telecomm infrastructure. Advent of new Digital Technologies and AI making the industry to improve its production processes and can compete Globally.

Therefore, new modified Licensing regime as suggested above will catalyse the investments in this very important vital **Essential Infrastructure** of the country to make it really Global Industrial Power.

e) Whether the existing Unified Licensees should be mandated to migrate to the unbundled licensing regime, or the new regime should be introduced, while keeping the existing regime continued for existing licensees till the validity of their license, with an option of migration?

Yes, the existing Unified Licensees may be given option to migrate to the new regime in certain timeframe similar to when initially all old CMTS Licenses TSPs migrated to UL Licenses. ***But they must be prescribed to follow the new guidelines of providing unhindered mandatory and time bound access to the service delivery (VNO) operators.***

f) Whether existing VNO licensees be mandated to migrate to service delivery category licenses as per unbundled licensing regime?

Yes, the existing VNO licensees should be mandated to migrate to service delivery category registration and as the current VNO License regime has not worked especially for Mobile sector the current Financials terms prescribed for these Licensees in 2016 UL-VNO License Guidelines be modified.

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g) Whether service delivery category licensees be permitted to parent with multiple Network Service layer licensees? Please justify your answer.

Yes, the existing VNO licensees should be permitted to parent to two Network Service Providers.

<u>There are two possible solutions in Mobile for Dual Parenting</u>

Type 1:

If the regulation allow for dual or multi parenting of NSO's for VNO, VNO can buy the airtime, SIMs (MSISND/IMSIs) from respective NSOs. VNO will maintain the consumers based on the respective NSO SIMs and no switchover between NSOs is possible from the consumer prospective.

Type 2:

Additionally, If the VNO allowed to act as semi Full MVNO i.e VNO's granted with Number resources (MCC/MNC and CCNDC) independent of NSOs, VNO will have freedom to integrate with multiple NSOs in the same Circle and provide the services to the consumers. Consumer will be allowed to switchover to different NSOs which are partnered with VNO wherever they found better coverage.

The technical feasibility and SIM related issues can be assessed based upon the existing roaming arrangements are existing between various operators. It need deep examination by the TEC and evaluate how all the technical parameters of the Network will work in such scenarios.

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