VIRTUALIZATION ENABLES NEW BUSINESS MODELS THAT POWER THE NEXT GENERATION OF MVNOs IN LATIN AMERICA

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INTRODUCTION

The market for Mobile Virtual Network Operators (MVNOs) in Central and South America and the Caribbean has been decidedly mixed of late and traditional operating models have hindered new entrants. Aspiring MVNOs need a new, virtualised model that uses the cloud to seize the considerable opportunities available in the region for targeted mobile and IoT offerings. Through the partnership of Antel and Tata Communications, the next generation of MVNOs can leverage Mobile Network-as-a-Service (MNaaS) to enter the mobile platform economy quickly, without having to invest up front in physical or business infrastructure

A POTENT MIX OF CHALLENGE AND OPPORTUNITY

The market for MVNOs in the Latin American and Caribbean region lags behind other key markets, but there is light on the horizon. A report on market share by GlobalData[1] indicates that MVNOs only represent 1.3% of the market in the region compared to 3.7% in Western Europe and 8.5% in North America. This is mainly due to economic instability and political uncertainty in some countries, and the continuing dominance of Telefónica and América Móvil who have a combined base of 425 million subscribers, about 62% of the total. Even if the predicted tripling in Latin American MVNO subscribers from 7.4 to 21.1 million between 2017 and 2022 transpires, the sector will continue to face challenges – as well as new opportunities.

Some countries in the region have recently made significant regulatory changes, opening up their markets to MVNOs, and providing an opportunity for new service providers to launch unique services and challenge the incumbents with new service models. A good example is in Mexico, where the shared network approach is changing the overall market landscape with several new MVNOs entering the market. On top of this liberalisation, the latest developments in virtualisation and cloud technology – combined with new business models – represent a great opportunity for new MVNOs to succeed.

THE LIMITATIONS OF THE TRADITIONAL APPROACH

Various factors have contributed to the limited success of the MVNO model in Latin America. The traditional in-country platform model, with all it entails, has not proved viable in many cases. It's essentially an uneconomical model pitched against strong competition. The incumbent mobile network operators can afford to compete aggressively on tariff, offering consumer triple-play and quad-play service bundles, which gives them a significant advantage over any new entrant MVNO.

Despite regulation designed to encourage MVNOs, it isn't easy in practice for MVNOs to secure capacity at reasonable wholesale prices. Even where MVNOs manage to buy capacity at a viable rate, incumbent operators can always use marketing promotions to retain their subscribers or win back those who have churned. In an environment like this, simply reselling capacity in an undifferentiated way quickly becomes uneconomical, especially when the MVNO has to carry the costs of marketing, sales, customer service and running their own BSS/OSS systems.

THE OPPORTUNITY OF A CLOUD-BASED MODEL

While MVNOs might have initially succeeded as low-cost discounters, that commercial model has proved to be unsustainable. The MVNO market has fragmented, with specialist MVNOs now serving specific segments and niche markets with a range of specialist communications services. There's an increasing desire among next-generation service providers, enterprises and OEMs to launch MVNO services, with some intending to focus on M2M, automotive, SME, youth or other sub-segments and interest groups. This new generation of MVNOs want to launch differentiated services that combine a cloud-based model, service integration via APIs, and web-based self-service, with relatively little actual communications infrastructure.

The Mobile Network-as-a-Service (MNaaS) model perfectly suits this new MVNO dynamic. It has all the potential of a Mobile Virtual Network Enabler (MVNE) model, with no need for infrastructure or software investment. It offers a commercial model that can be scaled up or down as required – making it economical to offer MVNO propositions for smaller markets, ranging from just a few thousand to several million subscribers.

The virtualised network functionality inherent in the MNaaS model makes it easy to create and launch MVNO services, and then orchestrate and develop them in life. Dropped calls and data sessions might have been forgiven in the old discounter model, but poor service and connectivity are no longer acceptable. A good user experience is now an essential requirement for MVNOs – and that extends to quality and coverage, not just price.

TOMORROW'S MVNOS REQUIRE MORE THAN TODAY'S MVNES CAN PROVIDE

While new MVNOs may have varying objectives and business models, there are several things they have in common:

- Their business needs to serve a clearly defined target market. Simply launching a low-cost MVNO is no longer enough – and even where cost is the differentiating factor, it comes with a very clear customer segment in mind.

- The MVNOs must have a unique and tailored service proposition, a strong brand, and enough marketing investment to make an impact in the market. This places existing brands, with existing customers, at a clear advantage.

- They need to understand how to use the power of online services for service and distribution, ensuring close alignment with the needs of the target customer segment.

For MVNO businesses to develop beyond their initial launch, they need to focus on global – not just domestic – connectivity to serve customers wherever they are, without depending on the roaming arrangements of the host MNO. The global access options provided by their MVNE platform must enable MVNOs to offer sustainable differentiated services.

Competing effectively at an international level requires efficient, scalable and cost-effective services. A variety of organisations have established MVNE offerings but don't allow the MVNO access to their business infrastructure, i.e. the BSS/OSS stacks that have direct access to global networks and incorporate multiple operator connectivity agreements.

MVNOs also need efficient and flexible charging, billing and settlement, with comprehensive BSS capabilities to ensure optimum service. They need access to security and fraud protection that can safeguard their customers and their business from ever-changing threats. Finally, they require partner management processes to ensure efficient, automated call and data session handling processes between the MVNO and their MNO host.

MVNO businesses need a combination of services to help them grow long after initial service launch and go beyond what the standard MVNE can provide.

Through the partnership of Antel and Tata Communications, the next generation of MVNOs can leverage MNaaS to enter the mobile platform economy quickly, without having to invest up front in physical or business infrastructure

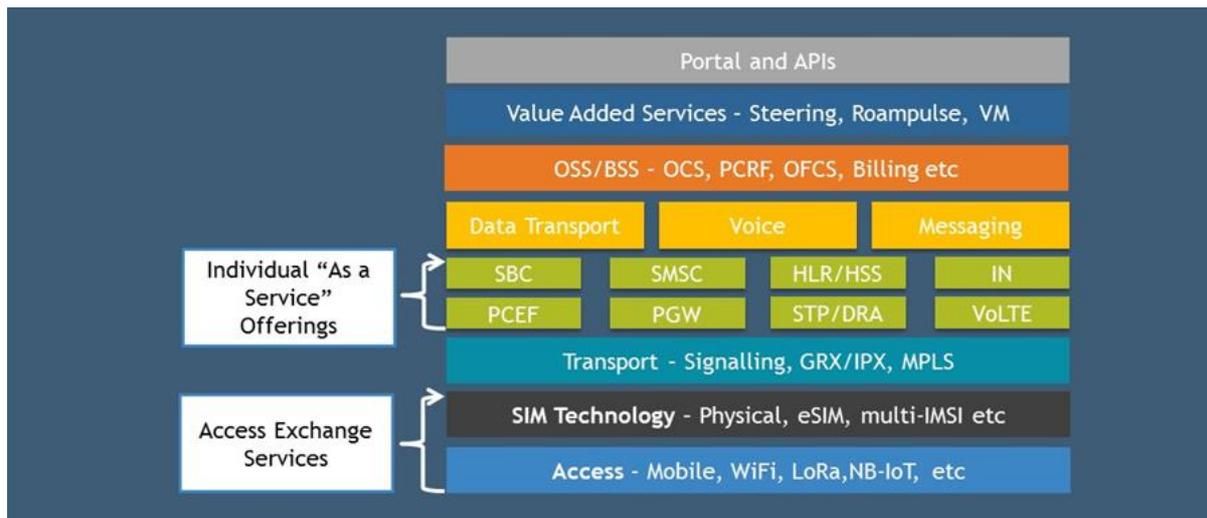## MNAAS – THE MVNO'S TICKET TO THE PLATFORM ECONOMY

The platform economy is an online service market that links customers with suppliers and combines web services with advanced analytics to create an infrastructure across which platform-based customer and IoT eco-systems can operate. MNaaS is a cloud-based service platform for developing and managing mobile and IoT applications via APIs, without the need to build and maintain a dedicated infrastructure.

The next generation of MVNOs in Central and South American and the Caribbean will be able to use the MNaaS model to participate in the platform economy. It will make it possible for them to pursue segments and services that haven't been economically viable until now.

It will take a shift in thinking to realise the full potential of the mobile platform economy through MNaaS, but the next generation of MVNOs and their customers will come to think of mobility in the same way we think of the world wide web and cloud

Anatomy of the MNaaS model - *The Antel and Tata Communications MNaaS model enables LatAm MVNOs to participate in the platform economy (see endnote for list of abbreviations)*

infrastructure today. MNaaS will enable MVNOs to offer their customers unrestricted access to applications, connected devices and data via mobile regardless of national borders.

There are over 900 network-based mobile communications service providers in the world. Most of them don't expose APIs to access their network or services. But using a MNaaS platform to expose network assets via APIs would open up access to a vast range of mobile services around the world.

THE PARTNERSHIP PAVING THE WAY FOR LATAM MVNOS

MVNOs in the Latin American and Caribbean region need a new operating and commercial model to help them realise the potential in their market. Antel and Tata Communications have joined forces to provide this. The partnership will enable a new generation of MVNOs to offer differentiated services by harnessing a combination of cloud platforms, API-based integration, flexible BSS/OSS and the agility of MNaaS.

Antel and Tata Communications deliver cloud-based mobile and IoT services using a business model that minimises risk and lowers total cost of ownership while accelerating time-to-market for the MVNO. This is possible through a unique approach to sharing commercial risk. The partnership combines Antel's world-class data centre and Latin American market knowledge with the Tata Communications' global

network reach to enable businesses to quickly deploy new mobile and IoT services across the region.

Using Tata Communications MOVE™' global mobility platform, Antel's MVNO partners can extend their own mobile network access agreements across the region, or work with Antel to negotiate mobile wholesale access. As a result, MVNOs of all sizes and across multiple market segments can now launch new mobile and IoT services without making large up-front investments in their own mobile infrastructure, network service management or go-to-market operations.

Cloud-based, fully automated and API-enabled, Tata Communications' MOVE™ platform simplifies and accelerates the roll-out of new mobile and IoT services for Antel's partners. Using proven experience in other markets, the platform can be tightly integrated with an MVNO's own business processes, eliminating the complexity of managing service activation, billing, promotions and value-added services.

In addition to the unique risk-sharing business model offered by Antel and Tata Communications, the partnership also offers in-country technical support, business planning, and proposition development. This comprehensive level of support lends the new MVNO critical mobile expertise during the planning and start-up phases, helping to secure the best opportunity for a successful launch.

CONTACT US

If you would like to know more about how Antel and Tata Communications can help bring your MVNO aspirations to fruition in Latin America, get in touch at http://www.tatacommunications.com/contact or at http://www.antel.com.uy/
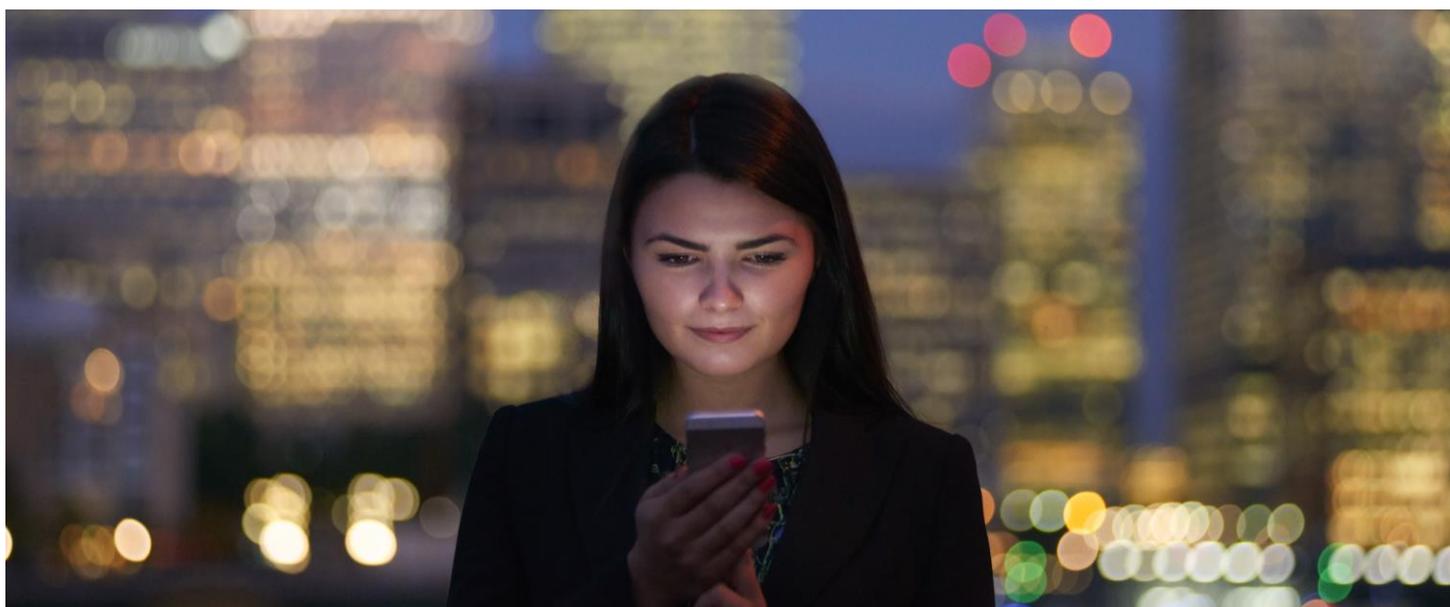
ABOUT TATA COMMUNICATIONS

Tata Communications is a leading global digital infrastructure provider that powers today's fast-growing digital economy. The company's customers represent 300 of the Fortune 500 whose digital transformation journeys are enabled by its portfolio of integrated, globally managed services that deliver local customer experiences. Through its network, cloud, mobility, Internet of Things (IoT), collaboration and security services, Tata Communications carries around 30% of the world's internet routes and connects businesses to 60% of the world's cloud giants and 4 out of 5 mobile subscribers.

The company's capabilities are underpinned by its global network. It is the world's largest wholly owned subsea fibre backbone and a Tier-1 IP network with connectivity to more than 240 countries and territories. Tata Communications Limited is listed on the Bombay Stock Exchange and the National Stock Exchange of India and is present in over 200 countries and territories around the world.

ABOUT ANTEL

Antel is the Uruguayan state-owned telecommunications company, which has a strong commitment to universalise broadband access and has taken firm steps to eliminate the digital gap, one of which is the current deployment of a nationwide fibre optic network. Antel currently provides Internet connectivity to a total of 78% of households across the country with more than 68% of those having fibre optic access. Antel was the first company in Latin America to provide customers with LTE technology and holds the third place in terms of mobile broadband speed in the Americas.

The brand-new tier III datacentre, strategically located between Argentina and Brazil, will position Antel as a regional connectivity and cloud services provider. The submarine fibre optic cable system connects the country directly with the United States. Through its consultancy, ITC SA, Antel has participated in many projects in different countries such as Colombia, Bolivia, Costa Rica, Ecuador and Paraguay, which has enriched its experience in the region.

For more information, visit us at www.tatacommunications.com or http://www.antel.com.uy/

LIST OF ABBREVIATIONS

APIs	Application Programming Interfaces
BSS	Business Support System
DRA	Diameter Routing Agent
eSIM	Embedded SIM
GRX	GPRS Roaming Exchange
HLR/HSS	Home Location Register / Home Subscriber Server
IMSI	International Mobile Subscriber Identity
IN	Intelligent Network
IPX	Internet Packet Exchange
LatAm	Latin America (Central and South America and the Caribbean)
LoRa	Long Range (IoT Wide Area Network)
MNaaS	Mobile Network-as-a-Service
MPLS	Multi-Protocol Label Switching
MVNE	Mobile Virtual Network Enabler
MVNO	Mobile Virtual Network Operator
NB-IoT	Narrowband Internet of Things
OFCS	Optical Fibre Communication System
OCS	Operator Communications Software Online Charging System
OSS	Operations Support System
PCEF	Policy and Charging Enforcement Function
PCRF	Policy Charging and Rules Function
PGW	Packet (Data Network) Gateway
SBC	Session Border Controller
SIM	Subscriber Identification Module
SMSC	Short Message Service Center
STP	Signal Transfer Point
VM	Voice Mail
VoLTE	Voice over Long Term Evolution

1. 'MVNOs in Latin America' quoted in Shaping the Latin American MVNO Market, Telecom.com
http://telecoms.com/opinion/shaping-the-latin-american-mvno-market/

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