The Rise of the ‘Super’ MVNO?

Mobilise

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MVNOs come in all shapes and sizes

MVNOs are the middlemen of the wireless world. They buy wireless spectrum in bulk and resell it to their customers at low prices. In its simplest form a Mobile Virtual Network Operator (MVNO) is a Retail business that relies on the infrastructure and most other things provided by the wholesale Mobile Network Operator (MNO) which is purchased via a commercial agreement.

A MVNO can come in many types and can use as many or as few of the MNO services as they feel is required and will range from having its own OSS/BSS software where it would be responsible for billing its own customers to a smaller MVNO who may rely on the MNO to provide usage information for its customers that it can bill.

Although there is no universally agreed set of definitions, the MVNO Market is usually categorised into four models for such undertakings as follows:

1. Branded Reseller

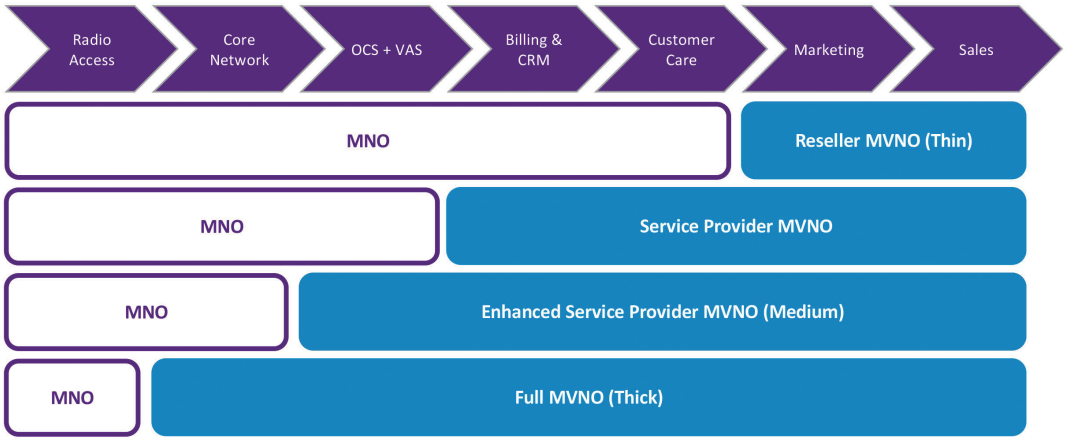
2. Service Provider (SP) or airtime reseller:
   The undertaking does not control any network element and makes use of the SIM cards of the MNO.

3. Enhanced Service Provider (ESP):
   The undertaking resells the services of the MNO and provides additional own services. They do not issue their own SIM cards, although they may re-brand the network operator's SIM cards.

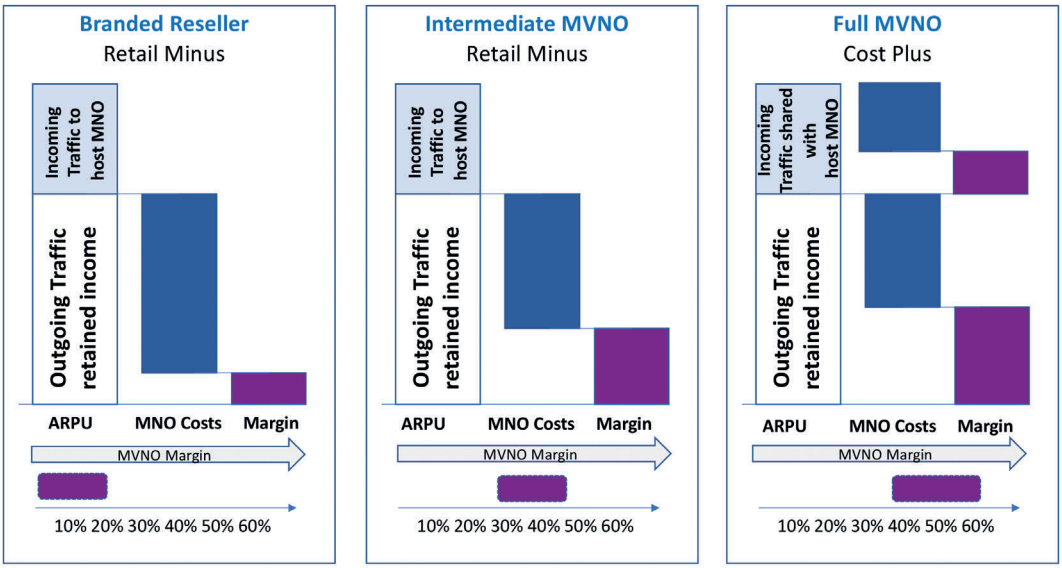
4. Full Mobile Virtual Network Operator (MVNO):
   The undertaking operates a physical network infrastructure comprising of, at a minimum, a Mobile Switching Centre (MSC), a Home Location Register (HLR) and authentication centre (AUC). A full MVNO has its own International Mobile Subscriber Identity (IMSI) code, its own Network Code (MNC), issues its own SIM cards and offers its own services to end users.

Depending upon the operational model required to deliver the required service to the target audience then the relationship between an MVNO and the MNO will also vary based on a differing requirement of the MVNO in terms of functionality needed.

This results in a further categorisation of the MVNO at the technology level to provide the services needed to deliver the desired proposition to its target audience, these are outlined below:



This variation in business models also results in differing specific economic impact on Margin capture (i.e. profitability) on a commercial basis:

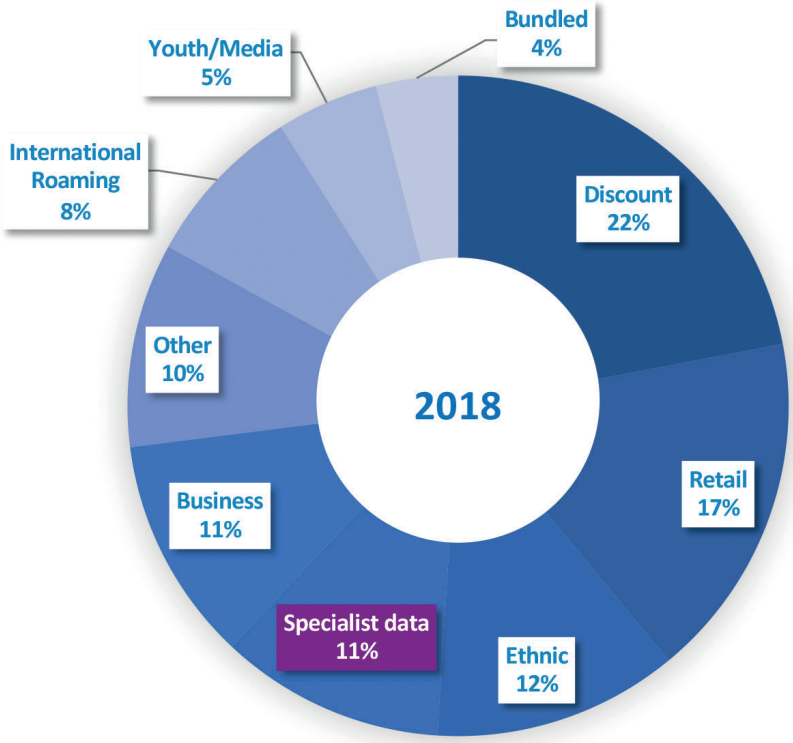


Having outlined the types of MVNO from a functional and Profitability perspective, we now consider the vertical segments that MVNO's can adopt. This is the true "Value Proposition" of the MNVO model in that they can range from Vertical Industry models, to Horizontal affinity groups and everything in between.

As can be seen, this variation in Business models results in a myriad of different outcomes across the range of MVNO markets, which are made up of large, medium, small and tiny companies with disparate identities and business models. Today there are over 1,400 MVNOs, branded resellers and sub-brands with business models varying from brand licensing, brand resellers, full MVNOs, light MVNOs, and operator-owned second brands acting as virtual operators, but have a common underlying premise, in that they all rely on "Segmentation" to target a specific group of customers as their USP. Historically, eight key customer segments have driven the growth in MVNO players across the world being:

1. Discount
2. Specialist data
3. Retail
4. Ethnic
5. Business
6. International/ roaming
7. Youth/ media
8. Bundled

In 2018 it was estimated there were nearly 1500 MVNOs with forecasts of nearly 2000 by 2025 with the biggest growth expected to come from specialist data rising to circa 20% of all MVNOs.

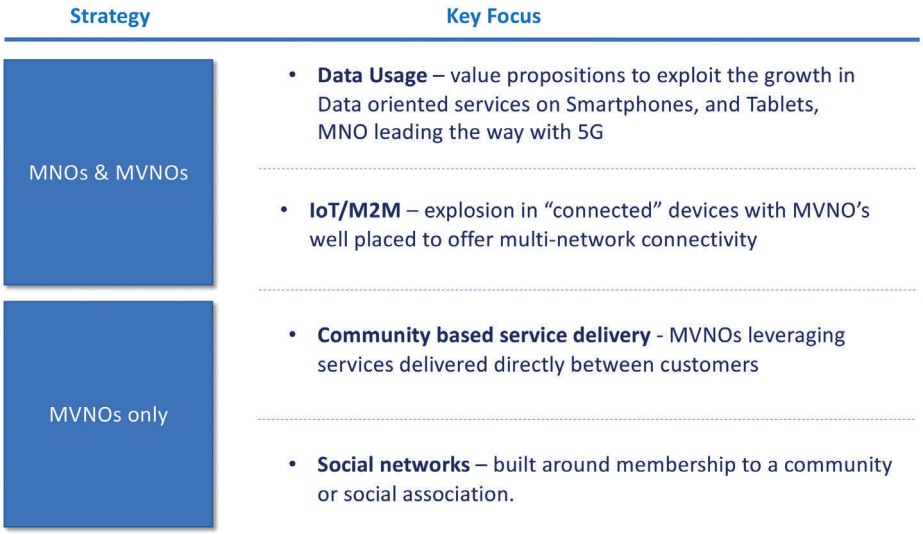


(Data source: Red Dawn Consulting Ltd.)

To add another layer of complexity to the equation, once an MVNO has identified an addressable Segment, there is also a need to create those complimentary elements that will deliver the key "Differentiation" in regards to the Proposition to that target audience. Some examples are:

Key assets	Description	Example
Segmentation	• Ability to target a specific market segment	VOXI by vodafone
Distribution	• Access to distribution channels	Poste mobile
Customer base	• Access to existing customer base for cross selling	TESCO mobile
Branding	• Leverage on Brand recognition	Virgin mobile
Efficiency	• Optimal operational capabilities	TELE2
Applications	• Access to innovative applications and content	Disney mobile
CRM	• Deliver a unique customer experience	giffgaff the mobile network run by you

Some further examples of where innovative MVNO business models developed around the explosion in Data usage and the way customers relate with themselves and the MVNO are:



All this needs to be considered in the context of how the emergence of the MVNO model in various markets worldwide varied based upon local factors.

In some markets, the MVNO concept came about as the result of regulatory intervention. Regulators wished to force established mobile network operators to offer wholesale access to their network to ensure robust market competition for consumers. In other markets, mobile network operators responded to market opportunities to offer their excess capacity at wholesale rates to other entities in an effort to bring in incremental revenue on what would otherwise be unused network capacity.

Mobile network operators believed that savings from not providing customer service and marketing would offset any revenue lost by selling network access at wholesale rates.

However, Not all MVNOs are created equal. As we have seen, MVNOs do not hold spectrum licenses and therefore a MVNO must have a contractual agreement with one or more mobile network operators to "host" their services with agreement to provide the necessary operational components.

Depending upon the nature of the MVNO, and as we have seen, the depth of integration with a Host can run from the "light" model to a "full Service" model where the MVNO provides not only the a service packages and prices, billing methods, customer care, marketing and sales but also some operational components that access the basic infrastructure of the Host including some of the network elements such as home location registers, switching centres, etc., but excluding the spectrum elements that use the Hosts base stations and transceivers. However, even this may change in the future with the advent of 5G network slicing.

It is this new dimension of "Network Slicing" that has the potential to open out the MVNO market pace even further. However, it is not only the technology aspects that have to be considered but also the regulatory environment.

As we have seen from the earlier markets that embraced the MVNO model, such as in Scandinavia, the regulatory authorities sought to introduce the MVNO model to drive competition into a market that was considered to involve significant market power which existed for early entrant mobile network operators in those countries. Regulators believed that the MVNO model would be a time efficient and cost-effective route for telecoms companies to enter the market and therefore bring increased competition for the benefit of the consumer. The MVNOs in Scandinavia ended up having a market share above 10%.

However, with the increasing maturity of the mobile markets this approach of price competition may not be as much as a key driver as in the past.

Network Separation and MVNOs

So, how have market conditions, given rise to the possibility of the “Super MVNO”? As we have seen, historically, MVNOs have gained traction by being at the right place at the right time.

For MVNOs to take off, whist the market composition and competition play an important role, so does the regulator interest and action on ground. The assets exploited by MVNOs are only as good as they are used. As in other business models, these assets should help the MVNO to build a sustainable competitive advantage. It is thus important to focus on the use of the asset complementarities and diffusion to make it difficult to replicate to not only gain that first over advantage but also to stay ahead of the competition.

Clearly operational efficiencies should not be underestimated in the cutthroat competition in the mobile telecom sector. Apart from improving the bottom line, often good execution capabilities are difficult to exploit.

An MVNO’s business relies on their ability to fulfil the underserved or even unmet needs of the market which traditional mobile network operators (MNOs) either don’t serve adequately (e.g. lower ARPU customers) or don’t find attractive enough (e.g. niche customers like immigrants with low spending capacity). Not only do MNOs today face competition from other telecom players but increasingly from tech companies and media players who are becoming major players thanks to the mobile internet growth. Faced with this competition and the underlying need to amortize the investments made into their networks, operators traditionally tried to retain the high value customers through contracts, unlimited data plans, and/or sophisticated high value handset portfolios.

This polarisation left several segments underserved and opened up an opportunity for MVNOs to adopt a segmented approach that targeted specific segments with distinct needs whilst providing the MNO’s with incremental wholesale revenues whilst they are able to focus on high-value customers. Today, most of the western European operators are open to MVNOs and/or have a wholesale strategy.

As more players enter a given market the competitive pressure increases, and market share growth slows down affecting profitability adversely. On one hand, the subscriber acquisition and retention costs have an upward pressure whereas on the other the revenue growth is slowing down. The irony of this is that with increasing MVNO penetration, MVNO’s are now facing some of the same issues of increased cost and reduced margins as their Host MNO’s and the need get more out of the customers or get more customers.

It is these pressures that have seen the growth in MVNO’s becoming the mobile “arm” of a media company who see mobile as the ideal way to get more from the customers by broadening their portfolio of services and use a MVNOs to fulfil the multiplay status by leveraging the technology and partnerships and come out with offers that combine Mobile and Internet.

It is this evolution into mobile by “Non-Telecom” companies where there is a growing awareness of the benefits of “structural separation” in the Telco industry as a result of financial and market pressures that is giving rise to the advent of the so called “Super” MVNO’s.

There is also a recognition that structural separation, is the optimal business model

The financial markets have long understood the opportunities arising from where the whole is less than the sum of its parts and have practised classic “asset stripping” deals over the years. But, there is also a recognition that structural separation, that is, the splitting of an integrated telco operator into two freestanding businesses: one that operates the network (i.e a NetCo) and one customer-facing entity (i.e a ServCo) is the optimal business model. This is not only because of the different nature of the two businesses technical verses commercial but also that the resulting separate units will perform better with more focussed management .

The concept of separation in the telecommunications industry is not new with a history of various “unbundling” projects but in most cases this has been driven by Regulatory demands on the grounds of improved consumer choice and commercial competition grounds often met with fierce industry resistance.

However, this may be changing with advent of 5G and its associated financial and market pressures driven by heavy infrastructure costs demanding fresh thinking, structural separation is becoming a more frequently discussed topic of major industry stakeholders.

Putting aside the wider considerations of the companies and their managements themselves looking breaking up a telco to create more value in the long-term it does raise the issue of will these new “ServCo’s” themselves in fact become “super MVNO’s?

Separation can take different forms, from just accounting separation (effectively an opportunity for creative accountancy and one practiced already by many Teleco’s) to physical separation either on purely technical (i.e. network) basis and/or where the wholesale and retail businesses are set up as stand-alone business units either commonly owned or as distinct legal entities.

To date, few Telco’s have considered such separation for a number of reasons ranging from market domination to technical and financial complexities with BT being a classic example of resistance in regard to the separation of its Open Reach business.

However, we have seen this changing as recently as 2018, Denmark’s TDC Group being acquired by a Macquarie Bank led consortium with structural separation being the key initiative with its forecast increased value creation justifying the takeover. At the same time Telecom Italia and Telstra announced plans to establish a separate infrastructure business unit.

At the same time the growth in the Tower Companies has accelerated the concept of separation as a means of realising capital inherent in the network and the creation of a pure network-infrastructure player can lower borrowing costs and improve capital management.

So, how will this effect the MVNO industry?

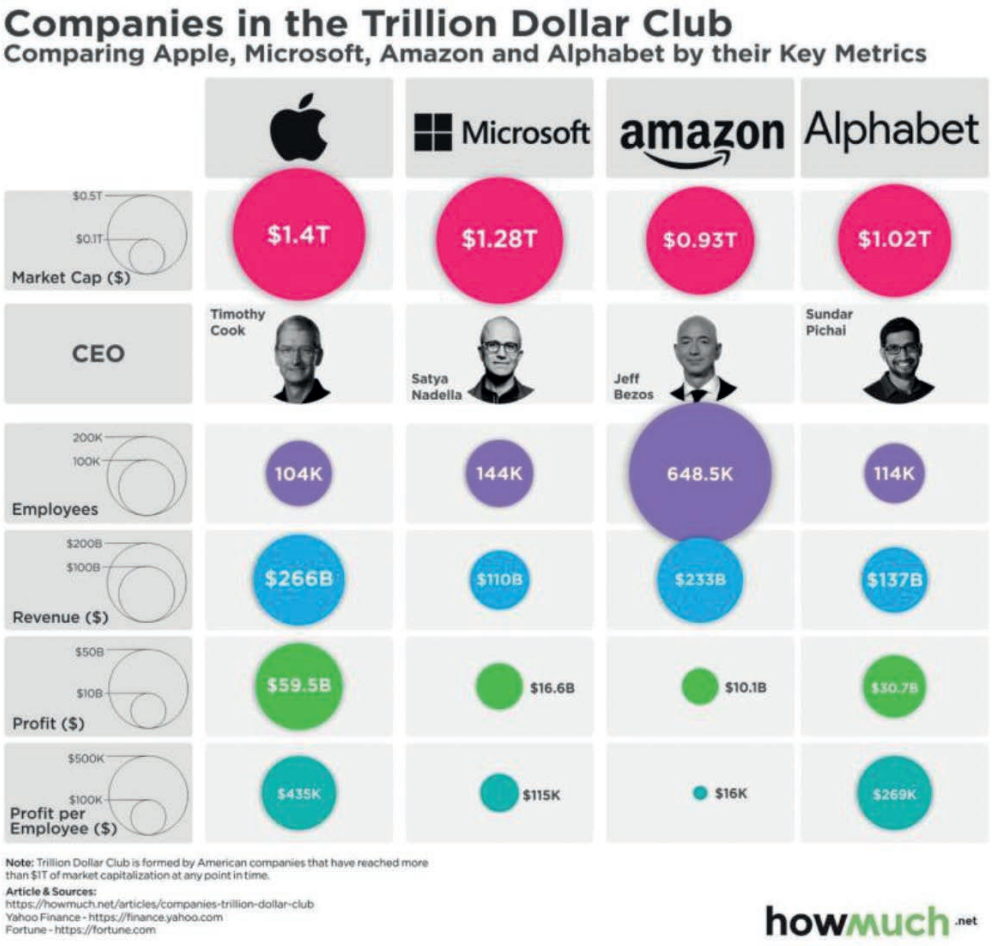
Well, since separation offer the potential to alter the existing market structure and as a result can increase retail competition this will find favour with most Regulators as a result of greater pricing and contracting flexibility.

A NetCo could also adopt an "host neutral" approach to grow its wholesale business with more than one operator as we have seen with IoT specific MVNO's aggregating demand from multiple customers requiring the maximum coverage. As mentioned, there is broad consensus that 5G will drive up the total cost of network ownership, given the massively increased densification of urban areas and a strong, independent NetCo and "neural host" it is arguably better positioned to support the industry's need than an integrated carrier. A recent McKinsey 5G survey found that 93 percent of chief technology officers expect increased network sharing to occur with the onset of 5G.

However, there are significant downsides to giving up their network ownership and ServCos could, for instance, face higher transaction costs in their day-to-day dealings with the NetCo and lose important advantages, such as the ability to apply similar preferential treatment in mobile through bundling and cross-subsidization and full control of certain types of product development that require deep integration into the network (for example, certain IoT use cases).

Whilst the case for Structural separation offers the potential for significant value creation, the risks and complexity of carving out deeply interconnected businesses are great as well with success depending upon the market and regulatory environment, however, these are the very areas in which MVNO's (as well as MVNE's and specialist advisors) already operate as ServCo's and are well versed in the commercial and technical aspects of working with host MNO's and are well positioned to take advantage of such changes.

If such a change of business model develops then we can see a situation where the large digital (mainly US) companies will find that their deep pockets and online technical expertise positions them to either acquire or establish such ServCo's. In looking at these U.S based tech companies already three of the four are very focused on mobile and it would appear obvious that such a Global MVNO play is a natural progression.



We have already seen how Alphabets Project Fi has evolved in Google Fi.

Source: AndroidCentral

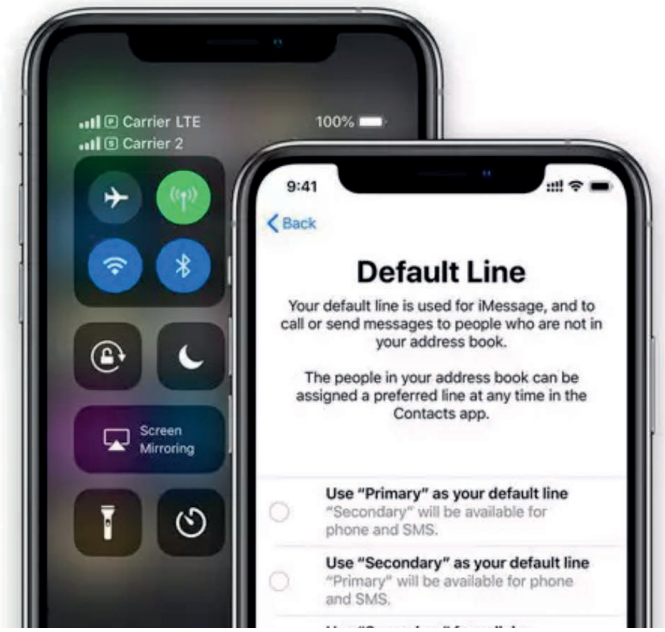
Whilst it does not call itself a MVNO the fact in the US, it gives users data service on three mobile networks (T-Mobile, Sprint and U.S. Cellular), which the users phone will intelligently switch between — it also uses Wi-Fi to make calls and send texts whenever available- so making it a multi Host MVNO.

Project Fi, when it launched in 2015, was originally exclusive to a single phone, the Nexus 6. Eventually things opened up with about a dozen supported phones from Google, Motorola and LG. When it finally dropped the "Project" status, Google Fi opened up to any unlocked phone — with some caveats, of course. The step from being a MVNO to a full ServCo for a company such as Google with all its resources and deep technology capability is just a matter of time.

Whilst at the same time Amazon with its Amazon Web Services business has quietly introduced Kindle devices with not only mobile connectivity but included the cost of that connectivity in the upfront price of the device effectively separating the user from any direct Telco relationship.

Whilst the Amazon Kindle was launched with one real aim: to bring people books. The Kindle was never designed to compete with tablets and sticking to this principle has allowed the Kindle to evolve through to the present day and excel at its task but has also swanned a range of true tablets as well as a short-lived phone.

However, what was notable was that in 2010 you could buy a kindle with 3G connectivity built in with a eSIM type solution and this has evolved to 4G and no doubt 5G in due course, so Amazon is another Tech Company well placed to become a full ServCo.



With Apple seemingly focusing its effort on the eSIM approach (as is Google) in order to reduce the dependence upon a physical SIM card for connectivity with their highly integrated ecosystem across multiple platforms. While global support for eSIM may be small now, a surge in eSIM devices could force MNO's to accelerate adoption. Such eSIM support will play into the hands of the likes of Apple as it will make it easier for customers to switch companies directly on their phones — maybe too easily, from the perspective of MNO's that fear they will lose the customer relationship and be turned into dumb data pipes.

For Apple it means being able to use this connectivity approach to help combat the high cost of their devices and maintain their premium status.

In conclusion

With the Global Mobile Virtual Network Operators market size valued at US$62.5 Bn and forecast to increase to over US$100 Bn by 2025, the Mobile Virtual Network Operator (MVNO) model is evolving, with all kinds of businesses realising the value in augmenting their offering through mobile services.

Traditionally, fuelled by surging consumer demand for mobile services, the digital transformation is reshaping businesses worldwide through new enterprise mobility models. The rapid adoption of cloud-enabled services, APIs and automation, as well as a rise in 'As-a-Service' platforms for communications and mobile networks, means that the nature of MVNOs is changing.

The new generation of MVNOs will show how it is possible to get the best of both worlds: the traditional mobile network operator characteristics of quality, reliability and scalability; but with faster time to market, lower CAPEX, and a range of value-add services to create more seamless user experiences.

This is an exciting new chapter in the global mobility story. While the market is constantly evolving, one thing is clear – there are now more opportunities than ever for forward-looking businesses to innovate and accelerate their growth through new mobile services.

About Mobilise

Mobilise was founded in 2011 by Hamish White, who noticed a gap in the market for a consulting company specialising in MVNOs and mobile technology. In response, he set up Mobilise Consulting, building upon his decades of experience in consulting for MVNOs and MNOs.

Mobilise Consulting now provides innovative mobile solutions to companies across the globe, enabling the realisation of corporate goals and new initiatives at low overhead. It offers consultancy services to MVNOs and others looking to enter the telecoms industry, including strategy, business casing, feasibility study, project management, solution architecture and service operations.

In 2015, Mobilise set up a new business unit, Mobilise Technology, which specialises in software development and providing connectivity and hybrid solutions to the telecoms industry. Mobilise rebranded the group to Mobilise Global in 2018.

About the Authors:

Paul Wade

Paul Wade is an experienced C-level Commercial and Business Development professional, well known in the MVNO industry, although now semi-retired, he maintains a close connection with Mobile Telco industry and his background, originating from his time at Vodafone leading the commercial teams for licence Bids, through to the founding of Smarter Mobile, a specialist SME MVNO and wireless solution provider in the UK, has given him a deep insight to the MVNO scene.

A frequent speaker at MVNO conferences, he led the acquisition of Family Mobile MVNO (originally set up for IKEA in the UK) and managed other MVNO projects in Canada, USA, Oman, Palestine and most recently, he was Strategy Consultant to the EcoRenew Group (Hong Kong) where he managed the acquisition of 3 UK companies, Mazuma Mobile (the UK largest mobile recycling company), ICT Reverse asset management (a leading UK data wiping and IT equipment disposal company) and iMend (a leading mobile device repair company) and where he also established EcoRenew Finance Limited, a specialist Mobile device finance company and obtained full FCA UK lending license for the group giving him unique insight to the wider mobile phone "eco system".

Hamish White

Hamish White is the founder and CEO of Mobilise and is a hands-on telecoms entrepreneur with 19 years' experience supporting Tier 1 & Tier 2 International Telecommunications Operators.

Before founding Mobilise he worked as a consultant launching and growing start-up telecoms companies primarily in the MVNO domain. This included the launch of 8 MVNOs across 5 countries.

His background is in technology, however his management experience spans the end to end telecoms value chain including in depth knowledge of sales & marketing, commercial, finance, operations and technology functions.

Hamish specialises in helping companies with digital transformation and establishing mobile app strategies.

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