

MVNO OBSERVATORY

Annual Report on the UK Market

Piran Partners
Spring 2014





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Company Number 08594227

Foreword

I didn't realise back in 2003 when I became the first Chief Executive of Tesco Mobile and took on the challenge of creating the first major retail mobile virtual network operator in the UK market that it would spawn so many new businesses.

Over 240 MVNOs and sub-brands now exist in the UK, with nearly every year since 1999 having seen new MVNOs launch. Today customers of MVNOs represent nearly 16% of the total market and MVNOs serve many different sectors, brands and markets.

Low barriers to entry, a vibrant set of enablement providers, willing mobile network operators and a desire to strengthen relationships with customers has created many more MVNOs than I could ever have imagined.

The keys to success though haven't changed, and unfortunately many of the new businesses will inevitably fail because they simply aren't meeting the basic requirements: one in four have already gone by the wayside.

The essential ingredients are a relentless focus on and understanding of the customer, a strong distribution capability and a means of creating true loyalty, allied to a network partnership model which allows a cost effective service to be delivered.

The ease of entry for brands and service companies has meant too many MVNO's have been created without these key ingredients being put in place from the start.

UK MVNOs' market share is not particularly high compared to that of other European countries, and so clearly has potential for further growth – but it will be the strong who thrive and grow. And as the market evolves towards high speed data and unlimited tariffs the traditional MVNO model will need to evolve if they are to create long term sustainable businesses.

Our Spring 2014 MVNO Observatory is an excellent review of the state of the UK MVNO market since 1999 right to the present day. It sets out the key statistics, the key commercial and operating models and details of all MVNOs past and present. Looking forward it identifies new areas for growth, but also the challenges facing the senior executives of MVNOs and their host mobile operators alike as the telecoms landscape continues to evolve.

The MVNO Observatory is the product of Piran Partners' 10 years of experience helping MVNOs and mobile operators worldwide, plus primary research and insight. This is the first annual report, which we hope will become invaluable in tracking the progress and evolution of this dynamic market.

As Chairman of Piran Partners I am proud that we have advised and helped launch many of the businesses highlighted in this report. We have the capabilities, insights, tools and people to advise and help MVNOs position themselves for success, and ensure they too can take on the characteristics of the successful few.

Andy Dewhurst
Chairman Piran Partners
April 2014

Over 240 MVNOs and sub-brands now exist in the UK, with nearly every year since 1999 having seen new MVNOs launch



The UK MVNO market is one of the most dynamic and yet reliable statistics are hard to find

A growing market

In the last 15 years the overall UK mobile market has grown three-fold driven by pre-pay, increasing affordability, the launch of Three and new competition in the form of mobile virtual network operators.

Since the launch of the first mobile virtual network operators – Virgin Mobile in December 1999 – MVNOs have taken an ever increasing market share. Today Piran Partners estimates that 15.6% of the market by volume is served by some 248 MVNOs. And they account for 12.4% of the UK's £15.9 billion mobile revenues.

This is the first annual report covering the UK MVNO market. Its aim is to provide a reliable source of MVNO statistics and key performance indicators and provide a comprehensive review of the industry and its evolution.

The UK MVNO market is one of the most dynamic and yet reliable statistics are hard to find – unlike the French and Italian regulators – Ofcom does not provide separate information on the MVNO market.

This report brings together data from a wide range of sources: from mobile operators, MVNOs and public sources such as Ofcom and annual reports. Confidential data has been anonymised and, where appropriate, data has been consolidated to show more complete industry trends.

What's in a name?

There are many different definitions of what makes an MVNO. These often focus on the division of the value chain activities between the MVNO and the provider of wholesale mobile services, or the depth of technical integration. Though this may be important to the service delivery model or sustainability, ultimately it is the customer's perception that is key.

Customers do not consciously buy an 'MVNO' service. Rather customers choose to buy a non-mobile operator branded mobile service with its own products and retail pricing, and interact with the service's website, or people or customer care. In our opinion if these conditions are satisfied then to all intents the mobile service provider is operating as an MVNO (even if really a sub-brand of the parent mobile operator like GiffGaff, or a joint venture such as Mobile by Sainsbury's with Vodafone, or Tesco Mobile with O₂).

The split of activities between the MVNO and wholesale provider and ownership of technology is then about ensuring that the MVNO can deliver its differentiated services cost effectively and efficiently.

Over the years as the mobile market has matured, specialist Aggregator (MVNA) and Enabler (MVNE) players have emerged to enable MVNOs and mobile operators alike to target increasingly niche customer segments, and reduce the hard work associated with establishing an MVNO.

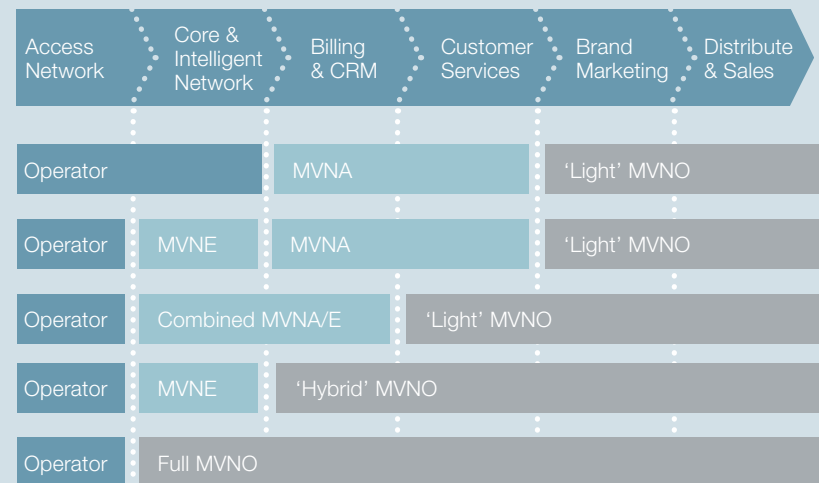
Aggregators act as ‘middle-men’ between the mobile operators and potential MVNOs for the re-sale of wholesale services. This permits smaller MVNOs – whose scale typically precludes entering into direct negotiations with the mobile operator – to obtain wholesale mobile minutes, texts and data.

Enablers provide the systems, processes and technology to enable MVNOs to produce SIM cards, activate and bill their customers.

In practice companies such as Transatel, Cognatel and Viacloud act as both MVNA and MVNE, providing a full suite of services to their MVNO customers. In this way the MVNO can focus on sales and marketing and the customer proposition, leaving the day-to-day operations to the MVNA / MVNE supplier.

Who does what in the value chain?

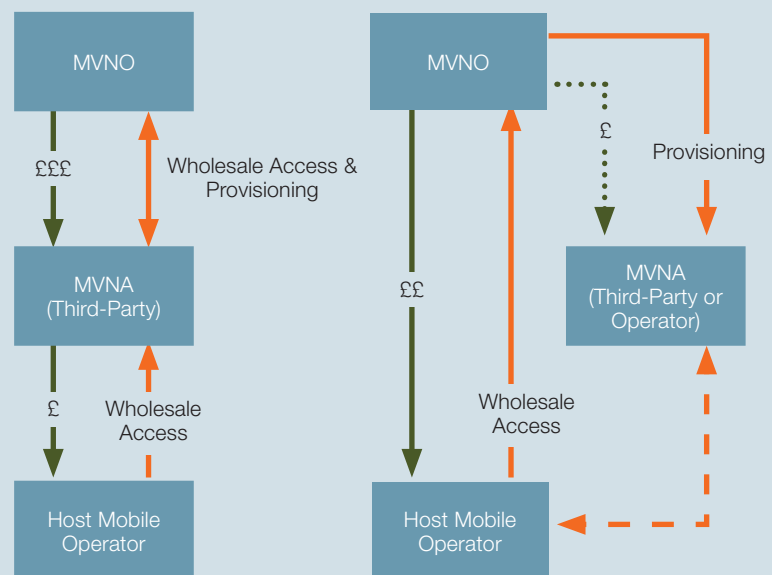
Different types of models



Source : Piran Partners

Commercial & operating models

MVNA & MVNE models



Source : Piran Partners

In parallel mobile operators have also begun investing in their own in-house MVNEs to provide dedicated stand-alone platforms for their larger MVNOs. The aim has been to simplify the management and technology roadmaps of their retail and wholesale business units.

The commercial and operating models really depend on the host operator, its MVNE and MVNA partners and the operational needs of the MVNO.

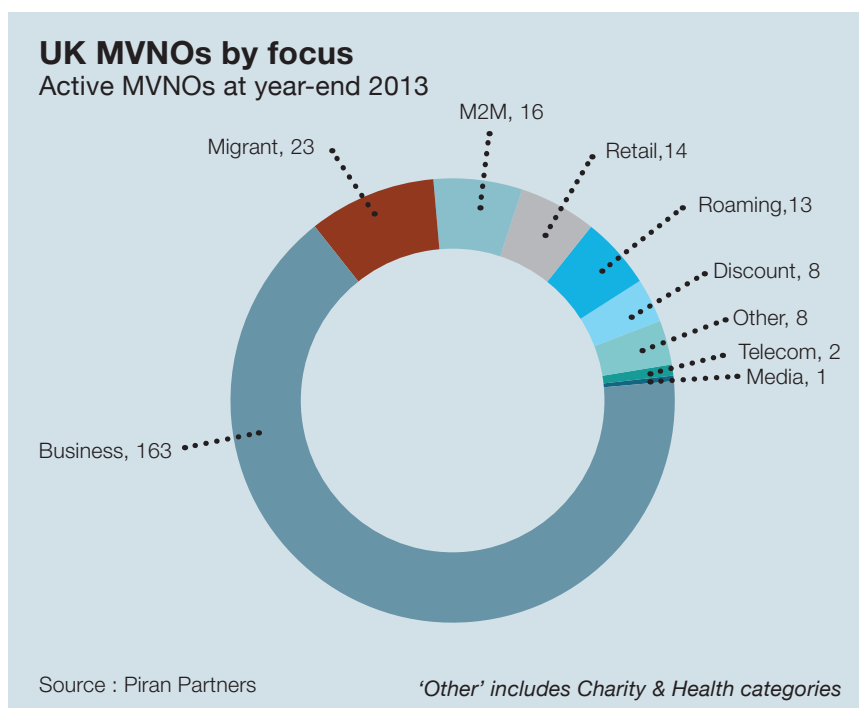
...ultimately having a simple proposition that solves customer needs is what counts

And the winners are...

In Piran Partners' experience all successful MVNOs share a number of common traits: a deep understanding of their customers, focus on the cost to acquire and serve, plus ownership of the key customer 'touchpoints' including brand, customer care, pricing and propositions.

A supportive mobile network operator partner also helps. But ultimately having a simple proposition that solves customer needs is what counts, backed by a strong distribution capability and excellent customer service.

In the last three years there has been an explosion in the number of business-to-business focused MVNOs, together with migrant and machine-to-machine MVNOs.



Based on our review of the market the number of active MVNOs, including sub-brands and joint ventures, at the end of calendar 2013 is 248.

We define an active MVNO as one where there is evidence of sales and marketing initiatives and a current website.

Of these 248, the majority are business-to-business focused (163), followed by migrant (23), machine-to-machine (16) and retail (14).

However the retail, migrant and media MVNOs – those typically the longest established – dominate total subscriber numbers.

Virgin Mobile and Tesco Mobile have, between them, over 5 million mobile customers, with international long distance migrant MVNOs Lebara and Lycamobile over 1 million ‘active’ customers each.

O₂’s sub-brand GiffGaff has nearly a million customers too, with Talk Mobile – not to be confused with TalkTalk – approximately 750,000. These six account for 75% of all MVNO subscribers.

Other large MVNOs include BT Mobile with 500,000 small, medium and large enterprise users, plus another 150,000 machine-to-machine (M2M) SIMs.

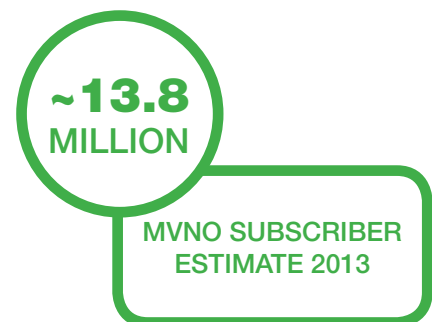
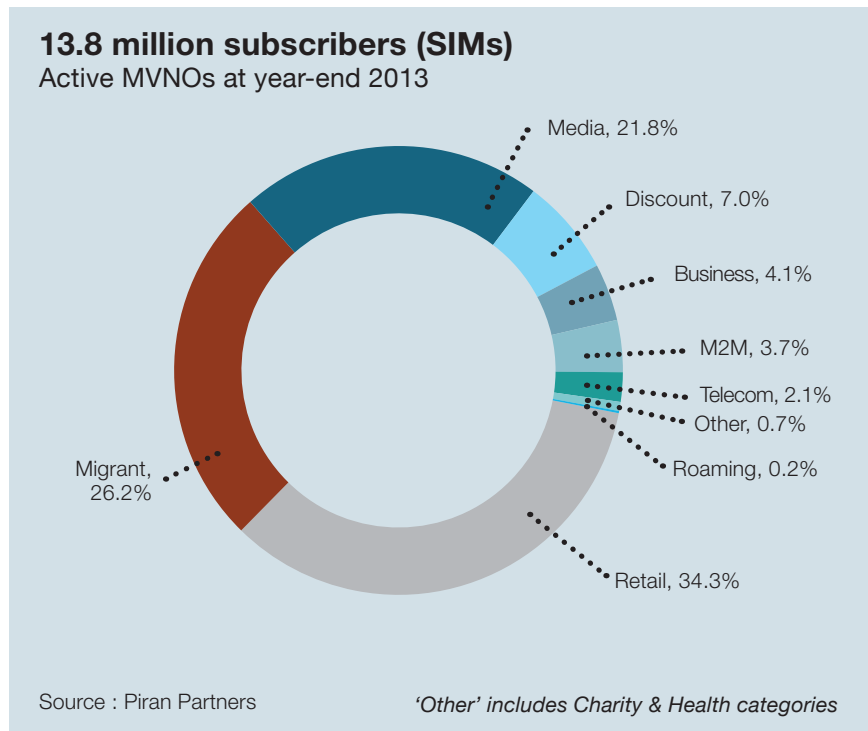
Based on Piran Partners’ primary research we estimate that there were 13.8 million subscribers (or SIMs for M2M) at the end of 2013.

Full details may be found in the Facts and Figures section.

Of course most MVNOs do not publish their figures, and definitions of ‘active’ subscribers vary widely especially in the pay-as-you-go (PAYG) market.

The most successful MVNOs have stood the test of time by evolving their service offers and maintaining their reputation for value, or customer service, or rewarding loyalty, or the breadth of their offer with the increasing move to bundle products.

Scale, and to an extent first mover advantages, have also helped them overcome the natural challenges.



... retail, migrant and media MVNOs dominate total subscriber numbers

And the losers...

Failures are frequent. Although Piran Partners believes that MVNO opportunities are still expanding, creating a sustainable MVNO business is far from easy and many MVNOs have not been able to do so.

Historically, one in every four MVNOs has gone out of business. Even the most solid business proposition will need to adapt to rapidly changing customer, market and regulatory changes.

...one in every four MVNOs has gone out of business.

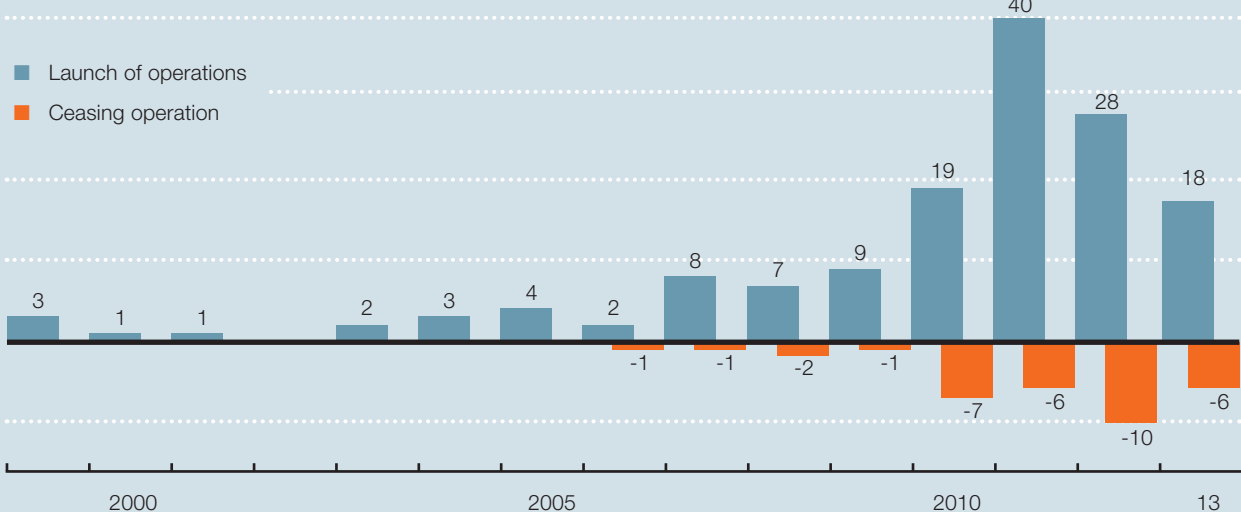
For example the regulated decline in mobile termination revenues (MTR) severely impacted PAYG offers, as users typically receive more calls than they make. When MTRs were high the 'hidden' income derived from these incoming calls helped sustain margins. And as PAYG is typically the route to market for most MVNOs these changes impacted all – but more so those offering domestic retail services such as Asda Mobile.

Further back EasyMobile and Blyk went out of business not necessarily because of their concept – offering value through using the internet as the channel to market to reduce costs, or using advertising to subsidise tariffs to 16 to 24 year olds respectively – but from market failure.

In other words the proposition wasn't as meaningful to the target customers given other offers available more generally at the time (in Easy's case), or a critical mass of advertisers couldn't be built to fund airtime costs (Blyk). Interestingly this is likely the case with Ovivo, a data-only advertiser-funded MVNO, which as of March 2014 has just announced it is going out of business leaving some 50,000 customers to find a new provider.

More successes than failures

MVNO launches & ceasing operation by year



Source : Piran Partners

excluding Gamma's MVNO launches (132 since 2011)

Other failures can be attributed to systems failures where the product, service or systems don't work properly. It is rumoured that USA MVNO AMP'd failed to collect monthly bills from 50% of its 175,000 customers.

Of course most failures are a combination of external and internal factors – in many cases self-inflicted – ultimately relating to the profitability of the business and compounded by a lack of scale.

At least in the UK, where MVNOs and host operators enter freely into commercial agreements, UK MVNOs do not have to contend with a regulatory environment mandating MVNO access. In such circumstances – common in the newly opened markets of the Middle East – having a reluctant host operator is an additional hurdle to overcome.

Given the sheer number of smaller MVNOs in the UK we anticipate further market failures during the next few years, especially in the migrant segment.

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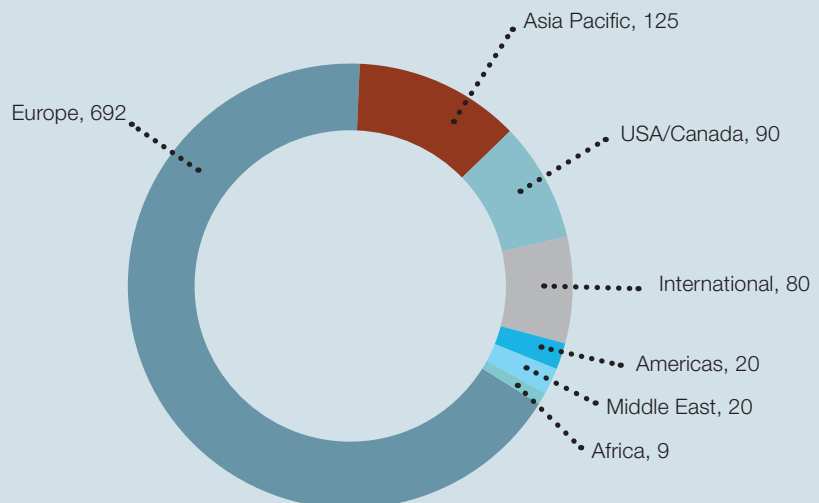
The UK in comparison

Globally there are over 1,000 MVNOs and operators' sub-brands¹, with MVNOs most prevalent in mature markets where penetration exceeds 100%.

Europe is home to over two-thirds of global MVNOs (692), followed by Asia-Pacific (125) and North America (90).

By contrast, markets such as China, the Middle East and Latin America are only just beginning to see the emergence of MVNOs, partly held back by regulatory measures and the maturity of their domestic markets.

MVNOs & sub-brands by region
812 MVNOs and 224 sub-brands, May 2012

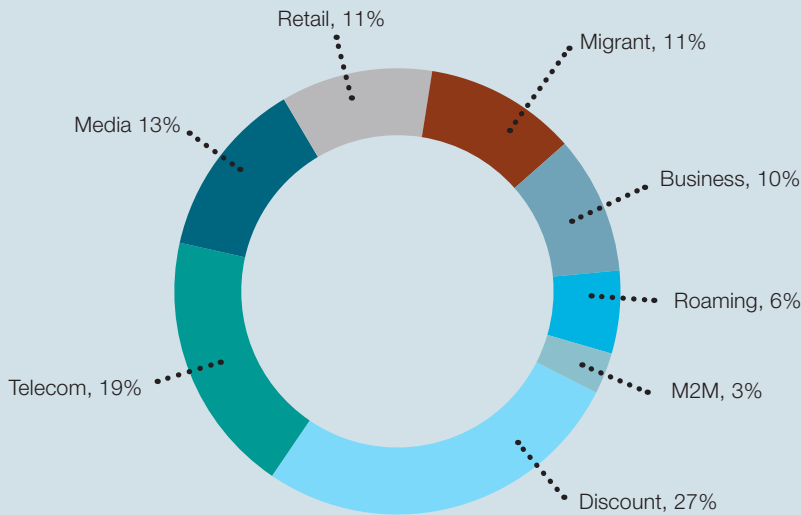


Source : Wireless Intelligence May 2012

¹ Source: Wireless Intelligence, May 2012

Global MVNOs by focus

812 MVNOs and 224 sub-brands, May 2012



Source : Wireless Intelligence May 2012

Globally discount, telecom and retail-focused MVNOs dominate: in contrast to the UK where business, migrant and M2M MVNOs now lead. However these differences reflect the maturity of the UK's MVNO market, its substantial migrant and ethnic population and the recent arrival of specialist business-focused MVNAs.

In most markets, the first MVNOs to come to market are typically launched by retailers and brands with substantial existing customers or footfall. And these have often been launched in partnership with a second or third-tier mobile operator where such MVNOs have proved an effective route to driving incremental revenues and market share.

Worldwide, MVNO subscriber penetration varies widely – from less than 1% of connections in some markets such as South Korea, through to over a third in others such as Germany.

By our calculations USA-based MVNOs have approximately 20% market share if M2M connections are included, with TracFone, owned by América Móvil, by far the largest.

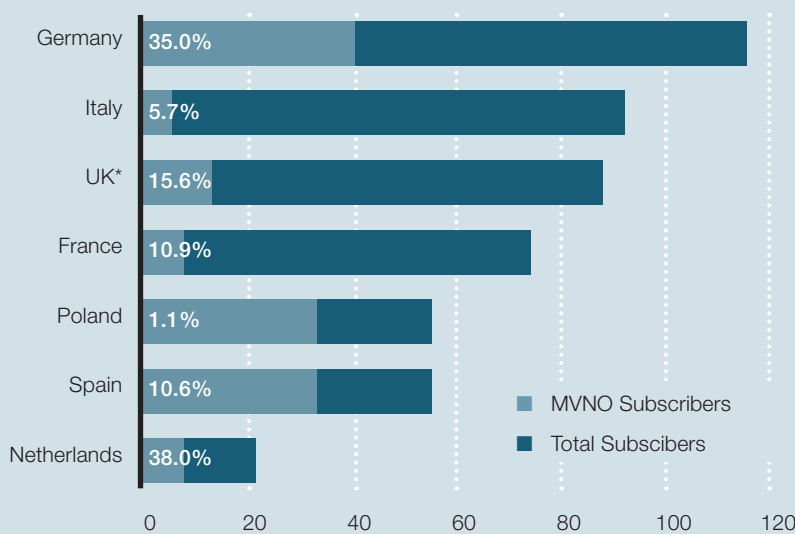
Compared to Europe the UK's 15.6% MVNO subscriber penetration (10.6% excluding sub-brands and joint ventures) is in the middle of the range.

15.6%

2013 ESTIMATED
UK MVNO MARKET SHARE

MVNOs' market share mid-2013

Selected EU countries, millions of subscribers



Source : Piran Partners, National Regulators

Dutch MVNOs, including the operators' sub-brands, have a 38% market share according to OPTA, the Dutch regulator; whilst German MVNOs on the same basis have a 35% share.

In comparison Italy and Spain have 5.7% and 10.6% respectively, with these markets dominated by a few big MVNOs such as Poste Mobile in Italy and Jazztel in Spain. Poland, that is only just beginning to see MVNO activity, has a miserly 1.1% of mobile customers using MVNOs' services.

Interestingly the number of MVNOs in a country is not necessarily related to the country's population. For example Denmark with a population of only 5.6 million – but one of the earliest to embrace the MVNO concept – has 7.5 MVNO operators per million population, whilst the UK using the same metric has 4.0 per million.

However this later statistic is skewed by the business-to-business 'MVNOs' Gamma Telecom has signed to their platform – without these the equivalent metric is 1.9 MVNOs per million.

So by both market share and number of MVNOs the UK looks ideally placed to see further MVNO growth.

But where will this come from?

Future growth opportunities

In the short term Piran Partners sees continued growth for existing MVNOs such as BT Mobile and TalkTalk, offering triple and quad-play offers to their existing base, and for well-established MVNOs such as Tesco Mobile. Plus 2014 should see the launch of the long awaited Post Office and SSE mobile offerings.

Interestingly the business-to-business market is seeing growth from completely new-to-market subscribers as enterprises invest in dedicated mobile phones for their employees. The advent of fixed mobile convergence and unified communications (as typified by Microsoft's Lync product) plus tablet computing is driving businesses to seek providers who can provide a complete single-source service at a lower cost.

Denmark with a population of only 5.6 million has 7.5 MVNO operators per million population ... the UK 1.9 per million

... over a million customers are rejected every year having failed mobile operators' credit checks

Gamma exemplifies such a provider today, but we anticipate other fixed line players such as 6DG and Daisy to move into the own-branded mobile arena to complement their offers and provide the level of technical and service integration not available today from the major operators.

In the medium term the continued migration of PAYG customers to post-pay will run into the challenge of how credit can be offered to consumers with poor or thin-credit history but wanting a subsidised smartphone.

We estimate over a million customers are rejected every year having failed mobile operators' credit checks. Though many will never pass any form of check, any provider who can 'crack' this challenge may be able to tap into new revenue streams. High street retailers with MVNO operations, such as Carphone Warehouse (Talk Mobile) or Phones 4U (Life Mobile), are well placed to expand into this market. Or even new entrants such as Bighthouse who already serve this customer segment.

And further out we also see three new growth areas – areas where MVNOs may be ideally positioned.

One is the planned migration of Airwave's TETRA emergency 'blue-light' services to 4G which is at the heart of the Home Office's new Emergency Services Mobile Communications Programme (ESMCP) due for launch in 2016.

An MVNO-like model especially to cover the geographic not-spots is a distinct possibility, or to provide the core 3GPP (still to be standardised) emergency services functionality for group and push-to-talk. Airwave currently serves 300,000 plus users, and interestingly has just announced their own MVNO in partnership with Transatel on the EE network.

Two is continued growth in M2M services. Ofcom estimate a market of 4.9 million SIMs². Add in the growing demand for new vertical industry applications and the internet-of-things and M2M shows real potential. Any MVNO that could consolidate today's fragmented market, offering core services and the ability to switch network providers would be a game-changer.

Third, the advent of LTE and WiFi offload technologies, such as HotSpot 2.0, EAP-SIM and IP Flow Mobility allowing selective forced handover of data and Voice over LTE (VoLTE) onto WiFi, means that hybrid operators / MVNOs may find new opportunities.

² Ofcom Communications Market Report 2013

BT's acquisition of urban 2.6 GHz LTE spectrum plus their network of WiFi nodes, TV sports' rights and MVNO migration to EE that must include national LTE roaming point the way towards an all-data and Voice-over-IP (VoIP) world.

Can the market really grow?

Of course the key question is whether the UK market can continue to support this number of MVNOs and grow despite the opportunities identified?

Today the UK is a highly dynamic market for MVNOs – given the sheer number of MVNOs serving business, charity, migrant, retail and roaming customers. And as noted UK MVNO penetration is not particularly high, by large country EU-comparison.

However much of the growth in the last 5 years has come from the Tesco Mobile joint venture and O₂'s GiffGaff, plus exceptions such as TalkTalk and migrant MVNO Vectone.

The smaller MVNOs have been less successful. And we suspect that both Lycamobile and Lebara – previously the stellar growth MVNOs – have seen falls in their 'active' customers since the peak a few years back.

Ultimately it comes back to the fundamentals of what makes for a successful MVNO – a proposition that resonates with the customer, a cost effective channel to market, brand awareness, service and simplicity. Given there are still a number of key segments that remain under-served and new market opportunities we believe the future is still healthy.

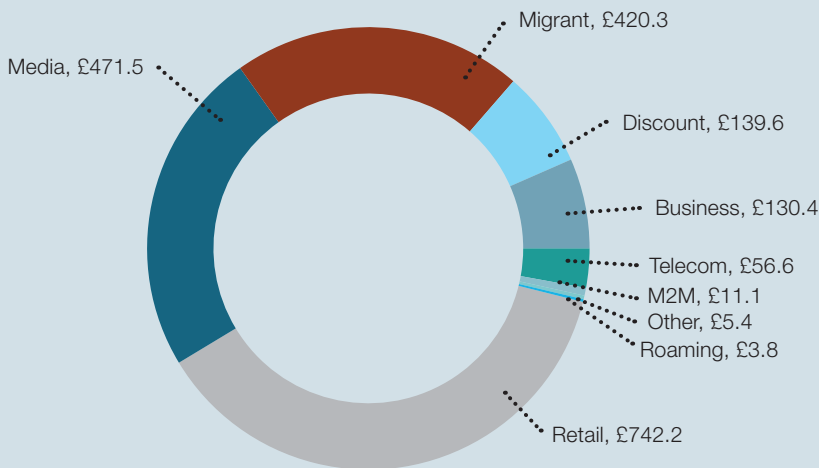
If these new segments take off, and historic under-performers such as BT Mobile and ASDA Mobile can successfully rebuild their consumer bases, then in our opinion there is no reason that the UK can't continue to see MVNO subscriber growth.

And if we start seeing a model where MVNOs get bought by their host network operators, as has happened in the USA and Netherlands, entrepreneurial activity will ensure new entrants come to market.

Today the UK is a highly dynamic market for MVNOs ...

£1.98 billion of revenues

Estimated active MVNOs' revenues, 2013



Source : Piran Partners

'Other' includes Charity & Health categories

Facts and figures

Calculating the revenues arising from MVNO activity is difficult, especially as few details are published.

However by making a number of assumptions of the typical Average Revenue per User (ARPU) by segment we estimate MVNOs' revenues in 2013 were £1.98bn.

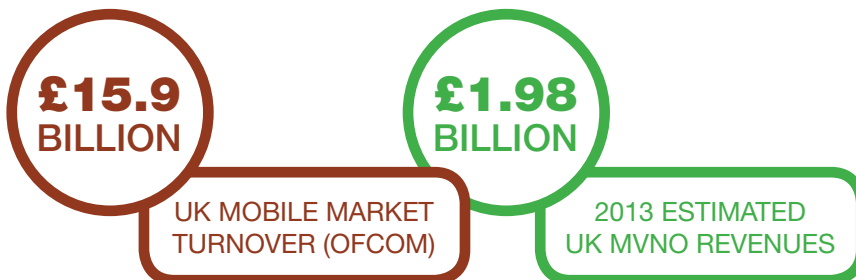
This is equivalent to 12.4% of the Ofcom-reported total mobile market turnover of £15.9bn. The lower revenue percentage, versus the market share, reflects the dominance of migrant and low-end PAYG ARPU users in the MVNO market.

Looking at this market, the majority of MVNO operations are actually hosted directly or indirectly by Vodafone, though if Gamma's resellers are excluded then Three has the most.

The situation is clearly different when the number of subscribers are counted. Here O₂ is the clear winner thanks to its joint venture with Tesco, Lycamobile and the GiffGaff sub-brand.

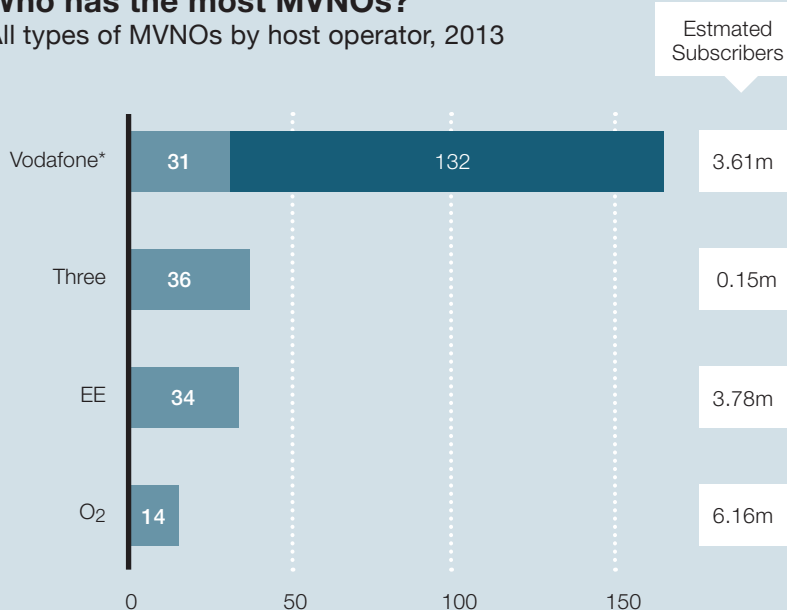
Counting independent MVNO subscribers only, EE's legacy T-Mobile agreement with Virgin Mobile adds substantial subscribers.

And this will only increase during 2014 as Asda Mobile and BT Mobile complete their transitions to the EE network away from Vodafone.



Who has the most MVNOs?

All types of MVNOs by host operator, 2013



Source : Piran Partners

* including Gamma's MVNO (132)

As noted, the advent of MVNAs has driven a substantial increase in the number of MVNOs and allowed operators and MVNAs alike to address cost effectively smaller scale opportunities.

Today, with the exception of O₂, all mobile operators have at least two MVNAs. Transatel and Viacloud on EE; Cognatel and Gamma on Vodafone, and; aql and x-Mobility, amongst others, on Three.

This hasn't prevented different commercial and operating models from continuing to co-exist, with a mix of joint-venture, full MVNO, and MVNA-enabled MVNOs in the market.

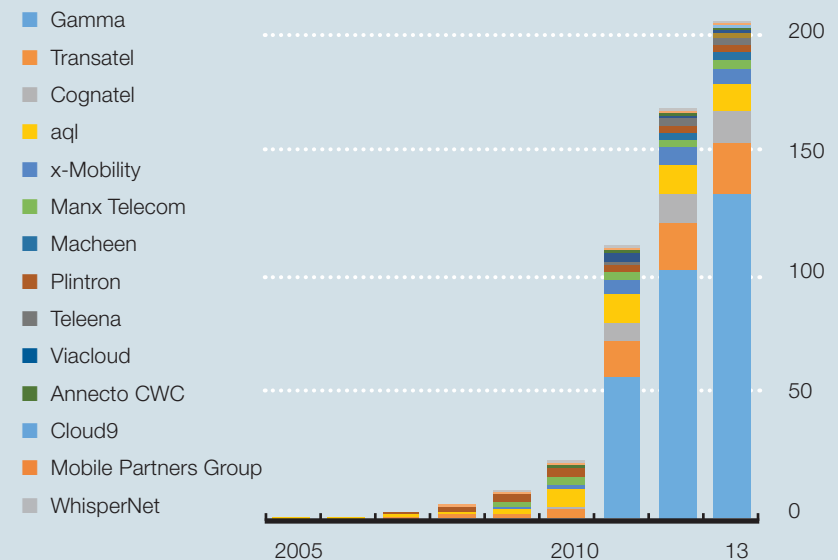
One of the challenges mobile operators have had is the difficulty of separating the retail product and technical roadmaps from the separate needs of the wholesale group. Inevitably challenges arose as the two groups had to negotiate over investments and priorities.

Ultimately this has led Vodafone, O₂, and recently EE, to invest in their own internal MVNE platforms. This gives the wholesale groups the independence to pursue opportunities without recourse to the retail-side of the business.

Of course this doesn't prevent group strategy from influencing wholesale's fate. Nowhere more so than with the advent of LTE.

The rise of the aggregator & enabler

Cumulative active MVNOs using MVNAs & MVNEs

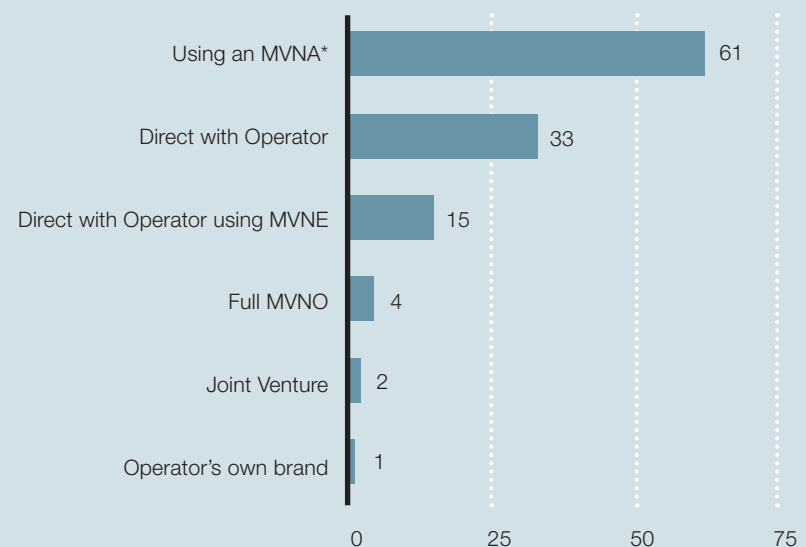


Source : Piran Partners

...with the exception of O₂, all mobile operators have at least two MVNAs

Different commercial & operating models

Active MVNOs in 2013



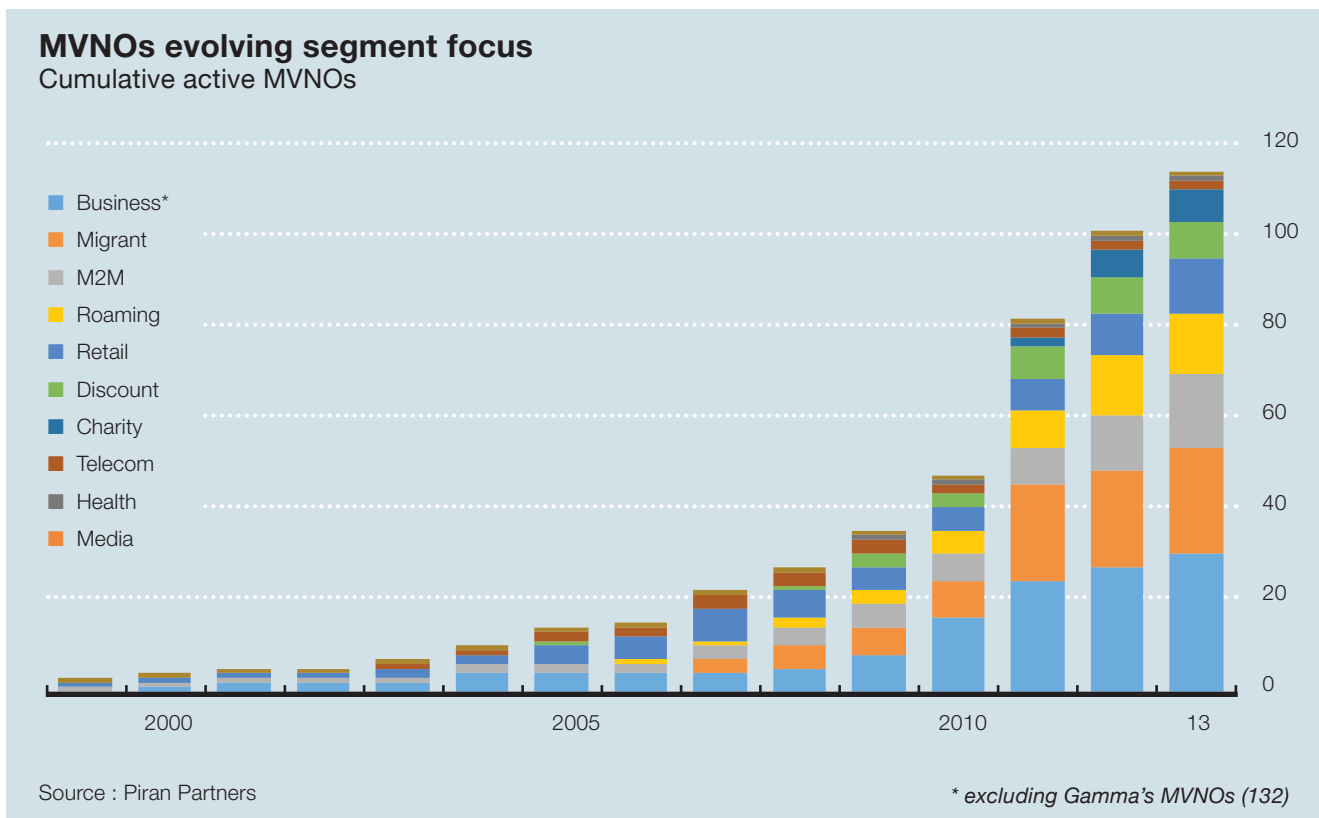
Source : Piran Partners, National Regulators

* including Gamma's MVNOs (132)

At present only EE and O₂ is offering LTE to its MVNOs – and then selectively. Three has stated LTE will be available, whilst Vodafone has, we believe, taken a strategic decision not to offer wholesale LTE to its partners. If this continues this may ultimately drive many of their MVNOs to contemplate migrating to a new operator.

Over time the market focus of MVNOs has changed from more generalist retail or migrant offerings, as exemplified by Tesco Mobile and Lycamobile, towards increasingly niche markets such as health-care and charity offers.

And the rise of fixed-mobile convergence is driving a new wave of business-focused MVNOs capitalising on Gamma’s aggregation capabilities amongst others.



Summary

The UK mobile market remains an attractive one for new MVNOs and 2014 will see further growth in absolute subscriber numbers and new entrants. Though we expect to see a few failures too as MVNOs fail to adapt to the changing market and lack of scale impacts profitability.

Already this year Airwave has announced their new MVNO, and the Post Office is expected to launch their services complementing their existing telecommunication offers.

We anticipate growing MVNO subscriber growth as providers, such as TalkTalk, use mobile increasingly as a retention tool as part of attractively bundled quad-play offers, as well as a way to win an increasing share of consumers' spend. Though the challenge is always whether mobile and telephony, broadband and TV are truly complementary. Mobile purchasing decisions are typically individualistic – driven as much by the handset choice as the tariff – whilst telephony, broadband and TV is more of a household as a whole decision. Virgin Mobile has struggled in past years to increase its mobile subscriber base.

BT Mobile will complete its transition to EE – so too Asda Mobile – and we expect to see BT re-enter the consumer market with a quad-play product complementing their recent sports rights and LTE spectrum acquisitions and extensive WiFi network.

Amongst mobile operators EE and O₂ will become the leading proponents of wholesale, as Vodafone decides to concentrate on its joint venture with Sainsbury's and MVNA partners and continued integration of Cable & Wireless. The lack of wholesale LTE will be even more telling for Vodafone's MVNOs going forward.

Commercially the advent of LTE will put more pressure on MVNOs' economics and in turn drive mobile operators to look at their wholesale data pricing. Current wholesale rates will not be economically sustainable as data growth takes off. Already Three is quoting its typical user consumes over 1.1 GBytes of data per month. Throw in unlimited fixed price plans and MVNOs will need to understand the profitability of their customers and focus on the cost-to-serve as never before.

About us

Piran Partners was founded in 2005 and since then has been active worldwide helping MVNOs and mobile operators alike. Clients include Zain, China Telecom, Wavecom, Asda, Airwave, Vodafone, Nokia Siemens Networks, Truphone, BT and Telefonica.

In the UK, Piran Partners helped Mobile by Sainsbury's and Lebara secure their commercial agreements amongst others. And we have been instrumental in the launch of three of the UK's four MVNAs, securing agreements for Viacloud, Cognatel and Gamma.

As part of our Virtual Partnership Programme (VPP™) framework, Piran Partners' Insight & Optimisation practice helps telecoms providers and MVNOs develop, grow and sustain their businesses.

Our clients turn to us to answer and solve their key commercial challenges. Be this to understand the profitability of existing propositions and how they can be improved, through to commercial and operational benchmarking of what 'good looks like', or to understand the key trends in the market.

And in a world of big data, making sense of all this information is hard. Piran Partners helps turn insight into action, understanding customer behaviours and creating new propositions to improve profitability, reduce churn and improve customer satisfaction.

We have a range of services to help at all stages of growth from the very first idea, through the deal, growth, and ultimately re-negotiating phases.

Profitability Analysis: For BT Mobile, Zain, Gamma Telecom and others we analyse their structured and un-structured customer data to provide senior management real insight. And more importantly provide actionable recommendations for optimising profitability.

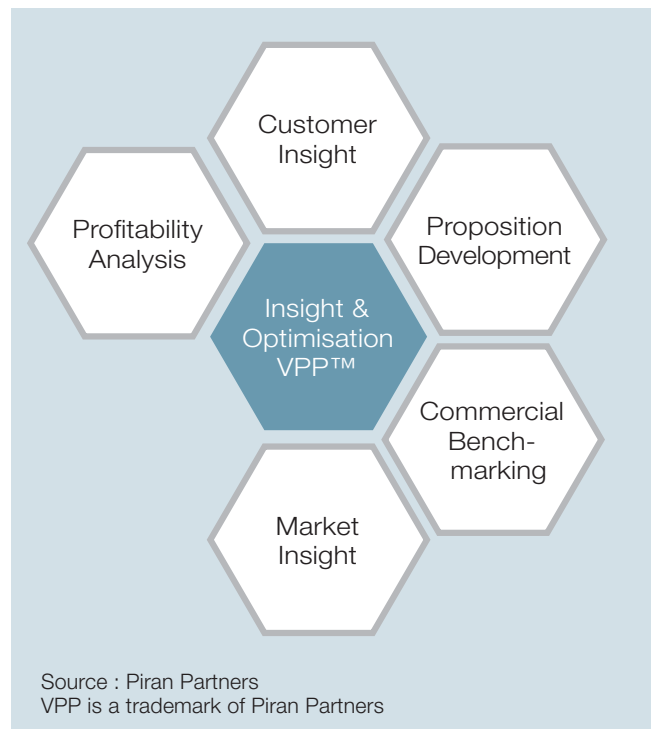
Customer Insight: For telecom service providers, especially MVNOs, understanding the dynamics of customers is vital.

Prior to launch this can mean understanding the target customer needs, identifying the right

channels to market, developing appropriate commission structures and accurately profiling their likely traffic usage. Post launch customer insight helps understand customer satisfaction, or identify issues throughout the customer lifecycle.

Proposition Development: Proposition development is an iterative process, but the outcome must be a product and service offering where the service, quality, pricing, branding, customer care, supporting technology and contractual elements are coherent and reinforce one another throughout the customer lifecycle.

Too many propositions are 'me-to' and do not manage the customer touchpoints and are let down by poor in-life customer experience.



Piran Partners' proposition wheel framework helps develop compelling propositions focusing on the customer engagement with the service throughout their journey.

The framework was developed by the founders of Piran Partners and has been used extensively, and successfully, with clients across many different industries.

Commercial Benchmarking: What does good look like? Are the costs of core telecommunication services or customer care too high? Our commercial benchmarking process offers an independent audit of current costs and commercial agreements, together with recommendations for securing improvements.

Ensuring that an MVNO's wholesale costs remain competitive over the agreement's lifetime, especially in today's highly competitive and regulatory environments, is crucial. Piran Partners' expertise in launching new MVNOs with some of the world's largest mobile operators means we understand wholesale supply-side dynamics intimately.

We regularly undertake commercial audits and develop supplier negotiating strategies on behalf of our clients to drive profitable improvements.

Market Insight: As competitors' strategies evolve and new technology impacts business models, making sense of these changes and determining what's important or not can be difficult.

Piran Partners provides bespoke market and technology insight and recommendations. We aim to craft our reports to our clients' needs to help answer their strategic challenges.

For example should an existing triple-play media-provider add mobility to their product mix? Would such an approach help defend against aggressive moves by a new entrant in their core TV business?

Or does ownership of LTE spectrum plus an extensive network of broadband and WiFi assets represent a market game changer, with a significantly lower cost base allowing this competitor to change the rules?

For more information on our services, please visit www.piranpartners.com **or** info@piranpartners.com

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About the authors



Recognising the increasing convergence of mobile, retail and financial services Piran Partners appointed **Andy Dewhurst** as non-executive chairman in early 2013 to lead the next phase of our growth.

As the former CEO of Tesco Telecoms and Tesco Mobile, and previously the Founding Director of Tesco Bank (formerly Tesco Personal Finance), Andy has created some of the world's leading Retailing Services businesses.



Erick O'Connor is the Head of Mobile and is the founder of the business. He previously held senior management positions at Motorola's global GSM Infrastructure group as well as at Inktomi. The purchase of Inktomi by Yahoo! in 2002 led

Erick to co-found and raise funding for DotDash, the first pan-European MVNO to address corporate customers.

Erick started his career in 1985 with Cable & Wireless. Erick holds an MBA from the University of Bath and a BSc from City University in Electrical & Electronic Engineering. He is a Chartered Engineer.

Directory of MVNOs (1999 to 2013)

ID	MVNO Name	Sector	Year of Launch	Cease	Operator	Partner	Partner Model
1	360 Mobile www.360-mobile.co.uk	Discount	2011		Three	N/A	MVNO
2	4net Technologies www.4net-technologies.co.uk	Business	2012		Vodafone	Gamma	MVNA
3	Abica Mobile www.abica.co.uk	Business	2011		Vodafone	Gamma	MVNA
4	Aether Mobile www.aether-mobile.com	Roaming	2010		EE	Cloud9	MVNA
5	Afri Mobile www.afrimobile.co.uk	Migrant	2012		Three	N/A	MVNO
6	Age UK My Phone www.ageuk.org.uk	Charity	2012		Vodafone	Cognatel	MVNA
7	AllPay Mobile (ET Telecom) www.allpaymobile.net	Discount	2013		Vodafone	Cognatel	MVNA
8	Amazon Kindle www.amazon.com	M2M	2009		Vodafone	WhisperNet	MVNE
9	Andrews & Arnold www.aa.net.uk	Business	2009	2012	Three	N/A	MVNO
10	Andrews & Arnold www.aa.net.uk	Business	2013		O ₂	N/A	MVNO
11	Anvil Mobile www.anvilmobile.co.uk	Business	2011		Three	aql	MVNA
12	Apollo	Migrant	2011	2012	EE	Transatel	MVNA
13	Arkessa www.arkessa.com	M2M	2013		Three	N/A	MVNO
14	Asda Mobile mobile.asda.com	Retail	2007	2014	Vodafone	N/A	MVNO
15	Asda Mobile mobile.asda.com	Retail	2013		EE	Amdocs	MVNE
16	Axis Telecom axisforbusiness.co.uk	Business	2010		Orange	Transatel	MVNA
17	Banana Mobile (Shebang) www.banana-mobile.co.uk	Discount	2012		Orange	Transatel	MVNA
18	Bemilo www.bemilo.com	Retail	2012		Vodafone	Cognatel	MVNA
19	Blyk	Retail	2007	2009	Orange	N/A	MVNO
20	Boy Better Know Mobile (Freedom Talk)	Retail	2011	2012	Three	Annecto CWC	MVNA
21	BT Mobile business.bt.com/business-mobile/ mobile/	Business	2004		Vodafone	N/A	MVNO
22	BT Mobile business.bt.com/business-mobile/ mobile/	M2M	2004		Vodafone	N/A	MVNO
23	Cable & Wireless	Telecom	2008	2010	Orange	N/A	Full MVNO

ID	MVNO Name	Sector	Year of Launch	Cease	Operator	Partner	Partner Model
24	Cloud9 www.cloud9mobile.co.uk	Roaming	2010		EE	N/A	Full MVNO
25	cMobile (Catalyst, Shebang) www.cmobile.co.uk	Charity	2011		Orange	Transatel	MVNA
26	Consega (The Voice Factory) www.consega.com	Business	2011		Three	aql	MVNA
27	Cortel Telecom www.cortel.co.uk	Business	2011		Vodafone	Gamma	MVNA
28	CTExcelBiz (China Telecom) www.ctexcel.com	Migrant	2012		EE	Transatel	MVNA
29	CyCell	Retail	2011	2013	Vodafone	Cognatel	MVNA
30	Dalya Mobile Migrant	2011	2013	Vodafone	Cognatel	MVNA	
31	DataWind www.datawind.com	M2M	2012		Vodafone	Macheen	MVNE
32	Delight Mobile (Mundio) www.delightmobile.co.uk	Migrant	2011		EE	N/A	MVNO
33	Dell NetReady www.dell.co.uk	M2M	2012		O2	Macheen	MVNE
34	Desi Mobi	Migrant	2010	2011	Vodafone	N/A	MVNO
35	Dialog Vizz www.dialogvizz.co.uk	Migrant	2011		Vodafone	Cognatel	MVNA
36	DidaMobile	Migrant	2011	2012	Three	N/A	MVNO
37	Digital Spring Mobile digitalspringmobile.co.uk	Charity	2012		Vodafone	Cognatel	MVNA
38	Dobrytel www.dobrytel.com	Roaming	2012		Vodafone	Teleena	MVNA
39	Donate Mobile www.donate-mobile.com	Charity	2012		Vodafone	Cognatel	MVNO
40	DotMobile	Retail	2005	2008	Vodafone	N/A	MVNO
41	Eastel Mobile	Migrant	2012	2012	Vodafone	Cognatel	MVNA
42	EasyMobile (TDC / Telmore)	Discount	2005	2006	T-Mobile	N/A	MVNO
43	Econet Wireless (bought IDT) www.econetmobile.com	Migrant	2011		Orange	Transatel	MVNE
44	Epian Mobile	Migrant	2010	2010	Three	N/A	MVNO
45	Family Mobile (Mobile Partners Group) www.yourfamilymobile.co.uk	Discount	2008		T-Mobile	Mobile Partners Group	MVNO
46	Freedom Talk (Annecto Telecom, CWC) www.freedomtalk.co.uk	Discount	2011		Three	Annecto CWC	MVNA
47	Fresh Mobile (now Talk Mobile)	Retail	1999	2010	T-Mobile	N/A	MVNO
48	Gamma Resellers (50 MVNOs) www.gamma.co.uk	Business	2011		Vodafone	Gamma	MVNA
49	Gamma Resellers (36 MVNOs) www.gamma.co.uk	Business	2012		Vodafone	Gamma	MVNA

ID	MVNO Name	Sector	Year of Launch	Cease	Operator	Partner	Partner Model
50	Gamma Resellers (30 MVNOs) www.gamma.co.uk	Business	2013		Vodafone	Gamma	MVNA
51	Gamma Business Communications gbc.gamma.co.uk	Business	2009	2011	Three	N/A	MVNA
52	Gamma Business Communications gbc.gamma.co.uk	Business	2011		Vodafone	Gamma	MVNE
53	G-Call (Viacloud) g-callmobile.com	Migrant	2013		EE	Viacloud	MVNA
54	GiffGaff www.giffgaff.com	Discount	2009		O ₂	N/A	Own Brand
55	Globalcell Mobile	Migrant	2008	2010	Orange	Transatel	MVNE
56	Globalgig (Voiamio M2M) www.globalgig.com	Roaming	2012		Three	N/A	MVNO
57	GlobalSIM (GeoSIM) www.globalsimcard.co.uk	Roaming	2012		EE	N/A	MVNO
58	Globe Telecom (Philippines) www.ukglobetelc.om	Migrant	2013		EE	Transatel	MVNA
59	Go Mobile (Shebang) www.gomobile.co.uk	Retail	2012		Three	N/A	MVNO
60	Gradwell Mobile www.gradwell.co.uk	Business	2010		Three	aql	MVNA
61	GT Mobile (Lycatel) www.gtmobile.co.uk	Migrant	2010		O ₂	Plintron	MVNE
62	Gteq Mobile www.gteq.co.uk	Business	2010		Three	aql	MVNA
63	Highland Network www.highnet.com	Business	2012		Vodafone	Gamma	MVNA
64	HoIP Telecom www.hoip-telecom.co.uk	Health	2009		O ₂	Manx Telecom	MVNA
65	HP Mobile Connect (Cubic Telecom) mobileconnect.cubictelecom.com	M2M	2013		EE	Cubic Telecom	MVNA
66	HP Technology www.hptechnology.co.uk	Business	2012		Vodafone	Gamma	MVNA
67	iCard mobile www.icardmobile.co.uk	Migrant	2010		Vodafone	Cognatel	MVNA
68	iComplete SIM (White Fluffy Cloud) icomplete.com	Business	2001	2011	Three	aql	MVNA
69	IDT Mobile	Migrant	2007	2010	Orange	Transatel	MVNE
70	Indigo Networks (Indigo Telecom) indigotelecom.co.uk	Business	2012		Three	N/A	MVNO
71	Intechnology Managed Services www.intechnology.co.uk	Business	2012		Vodafone	Gamma	MVNA
72	iPass www.ipass.com	M2M	2010		EE	Transatel	MVNA
73	iVittaMobile (Seafarers) ivittamobile.com	Roaming	2011		Orange	Transatel	MVNA

ID	MVNO Name	Sector	Year of Launch	Cease	Operator	Partner	Partner Model
74	Janet 3G www.aql.com/janet3g	M2M	2011		Three	aql	MVNA
75	Juice Mobile (Juice Telecom) www.juicetelecoms.com	Business	2011		Vodafone	Gamma	MVNA
76	Kcom (Kingston Telecoms) www.kc.co.uk	Business	2000		O ₂	N/A	MVNO
77	Kite Mobile www.kitemobile.co.uk	Migrant	2011		Three	N/A	MVNO
78	Kontakt Mobile www.kontaktmobile.co.uk	Migrant	2011		Vodafone	Cognatel	MVNA
79	Lebara Mobile www.lebara.co.uk	Migrant	2007		Vodafone	N/A	MVNO
80	Lenovo Mobile Access mobile.lenovo.com	M2M	2012		Three	Macheen	MVNE
81	Life Mobile (Phones 4U) www.lifemobile.co.uk	Retail	2013		EE	Transatel	MVNA
82	Loop Voice And Data www.loopvoiceanddata.co.uk	Business	2012		Vodafone	Gamma	MVNA
83	Lyca Mobile www.lycamobile.co.uk	Migrant	2008		O ₂	Plintron	MVNE
84	Manx Telecom www.manxtelecom.com	Roaming	2010		O ₂	Manx Telecom	MVNA
85	Matrix Cellular www.matrix.in	Roaming	2011		EE	Transatel	MVNE
86	Maxroam (Cubic Telecom) www.maxroam.com	Roaming	2012		Vodafone	N/A	MVNO
87	Midshire Mobile www.midshiretelecom.co.uk	Business	2011		Vodafone	Gamma	MVNA
88	MobiData (Voiamo) www.mobi-data.co.uk	M2M	2013		Three	N/A	MVNO
89	Mobile by Sainsbury's www.phoneshopbysainsburys.co.uk/mbs	Retail	2013	Vodafone	N/A	JV	
90	Mobile Partners Group (Family Mobile) www.mobilepartnersgroup.com	Retail	2006		T-Mobile	N/A	MVNE
91	Mobile World (now Talk Mobile)	Retail	2005	2007	T-Mobile	N/A	MVNO
92	Mobius Networks www.mobiusnetworks.co.uk	M2M	2013		Three	N/A	MVNO
93	Natterbox www.natterbox.com	Business	2012		EE	Transatel	MVNA
94	NeoWave www.newowavedist.com	Business	2010		Three	aql	MVNO
95	netfuse Mobile www.netfuse.net	Business	2013		O ₂	Manx Telecom	MVNA
96	Nomi-Mobile	Migrant	2007	2011	O ₂	Plintron	MVNE

ID	MVNO Name	Sector	Year of Launch	Cease	Operator	Partner	Partner Model
97	Now Mobile www.nowpayg.co.uk	Migrant	2010		EE	Transatel	MVNE
98	Nutshell Mobile	Retail	2010	2011	Three	N/A	MVNO
99	Opal Telecom (CPW then TalkTalk Business)	Business	2008	2010	T-Mobile	N/A	MVNO
100	Opus Business Systems www.opus-telecom.co.uk	Business	2012		Vodafone	Gamma	MVNA
101	Ovivo Mobile	Discount	2012	2014	Vodafone	Cognatel	MVNA
102	Ownfone myownfone.com	Retail	2013		Vodafone	Cognatel	MVNA
103	Pinnacle Technology Group www.pinnacletechnology.co.uk	Business	2013		Vodafone	Gamma	MVNA
104	Podsystem (Roaming M2M) www.podsystemm2m.com	M2M	2011		Three	x-Mobility	MVNA
105	Priyo Mobile	Migrant	2011	2012	EE	Transatel	MVNA
106	QQ mobile (Annecto Telecom, CWC)	Migrant	2011	2012	Three	Annecto CWC	MVNA
107	RM Mobile (Ryan & Marc)	Business	2011	2011	EE	Transatel	MVNA
108	RSCPA Mobile (Shebang) www.rspcamobile.co.uk	Charity	2012		Orange	Transatel	MVNA
109	Samba Mobile (Retail Data) www.sambamobile.com	M2M	2012		Three	x-Mobility	MVNO
110	Shebang www.shebang.net	Retail	2012		Three	N/A	MVNO
111	Silver Cloud Mobile silveclouddatasolutions.com	Business	2012		Vodafone	Gamma	MVNA
112	Sim4Travel (Truphone)	Roaming	2006	2013	Vodafone	N/A	MVNO
113	SIMFINITI (Annecto Telecom, CWC)	Discount	2011	2012	Three	Annecto CWC	MVNA
114	Simplecall Mobile (Zamir Telecom) www.simplecallmobile.com	Migrant	2011		EE	Transatel	MVNA
115	Simplecall Business (Zamir Telecom) www.simplecallbusiness.com	Business	2011		EE	Transatel	MVNA
116	Skyrack Technology (The Voice Factory) www.skyracktelecom.com	Business	2011		Three	aql	MVNA
117	Smart Pinoy www.smartpinoy.com/uk	Migrant	2012		Vodafone	Teleena	MVNA
118	Smarter Mobile www.smartermobile.com	Business	2012		Three	N/A	MVNO
119	Soccertel www.soccertel.co.uk	Discount	2011	2013	Three	x-Mobility	MVNA
120	Stan Mobile	Migrant	2011	2012	Three	x-Mobility	MVNA
121	Steam Communications www.stream-communications.com	M2M	2010		Three	N/A	MVNO
122	Talk Home www.talk-home.co.uk	Migrant	2012		EE	Transatel	MVNA

ID	MVNO Name	Sector	Year of Launch	Cease	Operator	Partner	Partner Model
123	Talk Mobile (Carphone Warehouse) www.talkmobile.co.uk	Retail	2007		Vodafone	N/A	MVNO
124	TalkTalk (TalkTalk Group) www.talktalk.co.uk	Telecom	2007		Vodafone	N/A	MVNO
125	TalkTalk Business (TalkTalk Group) talktalkbusiness.co.uk	Business	2010		Vodafone	N/A	MVNO
126	Team SIMs (Shebang)	Charity	2011	2012	EE	Transatel	MVNA
127	Telappliant www.telappliant.com	Business	2010		Three	aql	MVNA
128	Teleware www.teleware.com	Business	2011		Vodafone	Teleena	MVNE
129	Telfoni www.telfoni.com	Migrant	2011		Three	x-Mobility	MVNA
130	Tesco Mobile www.tescomobile.com	Retail	2003		O2	N/A	JV
131	The One Point www.theonepoint.co.uk	Business	2009		Three	aql	MVNA
132	The People's Operator www.thepeoplesoperator.com	Charity	2012		EE	Transatel	MVNA
133	The Phone Co-op www.thephone.coop	Retail	2011		Orange	Transatel	MVNA
134	The Voice Factory www.thevoicefactory.co.uk	Business	2011		Three	aql	MVNA
135	Thistle Telecom Networks www.thistlenetworks.co.uk	Business	2012		Vodafone	Gamma	MVNA
136	Timico www.timico.co.uk	Business	2004		T-Mobile	N/A	MVNO
137	Tismi Mobile tismi.com	Roaming	2013		Three	N/A	MVNE
138	Titan Telecom www.titantelem.com	Business	2011		EE	Transatel	MVNA
139	ToggleMobile (Lyca) www.togglemobile.co.uk	Roaming	2011		O2	N/A	MVNO
140	TomTom www.tomtom.com	M2M	2008		Vodafone	N/A	MVNO
141	Toucan Mobile (acquired by Tiscali)	Telecom	2005	2008	T-Mobile	N/A	MVNO
142	Transcomm (RAM Mobile Data, acquired by BT)	M2M	2007	2010	Vodafone	N/A	MVNO
143	Truphone www.truphone.com	Roaming	2008		Vodafone	N/A	Full MVNO
144	TXI (The Voice Factory) www.txitd.co.uk	Business	2010	2013	Three	aql	MVNA
145	TXI (The Voice Factory) www.txitd.co.uk	Business	2013		O2	N/A	MVNO
146	Unicom (Universal Utilities) www.switchingon.com	Business	2010		Orange	Transatel	MVNA

ID	MVNO Name	Sector	Year of Launch	Cease	Operator	Partner	Partner Model
147	Unify Mobile www.unifygroup.co.uk	Business	2011		Three	N/A	Full MVNO
148	Uni-tel Mobile www.uni-tel.co.uk	Discount	2009		Three	x-Mobility	MVNA
149	Uros Mobile www.uros.com	Roaming	2012		Three	x-Mobility	MVNA
150	Utility Warehouse (Telecom Plus) www.utilitywarehouse.co.uk/mobile	Telecom	2003		T-Mobile	N/A	MVNO
151	Vectone (Mundio) www.vectonemobile.co.uk	Migrant	2009		O ₂	Plintron	MVNE
152	Virgin Mobile www.virginmobile.co.uk	Media	1999		T-Mobile	N/A	Full MVNO
153	Vizz Africa www.vizzafrica.co.uk	Migrant	2011		Vodafone	Cognatel	MVNA
154	Vizz Roshan www.vizzroshan.co.uk	Migrant	2011		Vodafone	Cognatel	MVNA
155	Voicetec Systems www.voicetecuk.com	Business	2010	2013	Three	x-Mobility	MVNE
156	White Mobile www.whitemobile.com	Migrant	2012		EE	Transatel	MVNA
157	Wildlife Mobile (Digital Spring Mobile) www.wildlifemobile.co.uk	Charity	2013		Vodafone	Cognatel	MVNA
158	Wireless Logic www.wirelesslogic.com	M2M	1999		Vodafone, O ₂ , EE	N/A	MVNO
159	Worksmart Technology www.worksmart-uk.com	Business	2011		Vodafone	Gamma	MVNA
160	WorldSIM www.worldsim.com	Roaming	2009		O ₂	Manx Tel- ecom	MVNA
161	XLN Telecom www.xlntelecom.co.uk	Business	2011		Vodafone	Gamma	MVNA
162	X-on www.x-on.co.uk	Business	2013		Three	x-Mobility	MVNA
163	YooZoom www.yoozoom.co.uk	Business	2011		Three	aql	MVNA
164	Zam Zam (Viacloud) www.zamzam.com	Migrant	2013		EE	Viacloud	MVNA
165	Zest4 www.zest4.com	Business	2011		Vodafone	Gamma	MVNA

Notes:

1. Where an MVNO has migrated from one network operator to another, each launch of operations is recorded.
2. An MVNO is recorded as having ceased operations if it has either a) gone out of business or; b) as part of a migration to another network has closed down its previous operations with the original network operator.

Definitions (Sector):

- **Business:** Enterprise-focused mobile telecommunications providers (example: XLN Telecoms).
- **Charity:** Charity-focused providers, with a share of profits donated to charity (example: RSPCA Mobile).
- **Discount:** General-market providers, with a discounted mobile offering (example: GiffGaff).
- **Health:** Health-focused providers, using MVNO in a health-care related application (example: HoLP Telecom)
- **M2M:** Machine-to-machine providers for vertical industrial applications, as well as embedded data connectivity for devices (examples: BT Mobile, Amazon Kindle).

- **Media:** Media and entertainment-focused providers (example: Virgin Mobile).
- **Migrant:** International long distance providers, targeted at ethnic and migrant populations (example: Lebara).
- **Retail:** General-market retailers and brands (examples: Asda Mobile, Life Mobile).
- **Roaming:** MVNOs focused on reducing the cost of roaming (example: Truphone).
- **Telecom:** Telecommunication-focused providers (example: Cable & Wireless).

The rise of triple and quad-play offerings and online-only service providers, is increasingly blurring the distinctions between Retail, Media and Telecom providers.

Definitions (Partner Model):

- **Full MVNO:** MVNO has entered into a full MVNO agreement with the Operator. MVNO runs its own core network, has its own number range and is responsible for all activities (example: Truphone).
- **JV:** MVNO is a joint venture with the Operator with both parties

contributing assets to the joint venture including personnel (example: Mobile by Sainsbury's)

- **MVNA:** MVNO purchases its wholesale services, and other related services if required, from a third-party aggregator (example: Age UK / Cognatel)
- **MVNE:** MVNO has entered into a direct arrangement with the Operator for wholesale services, but uses an enabler to provide provisioning and core MVNO functionality (example: Dell NetReady / Macheen)
- **MVNO:** MVNO has entered into a direct arrangement with the Operator for wholesale services and provisioning (example: Lebara)
- **Own-brand:** MVNO is actually a sub-brand of the Operator (example: GiffGaff).

Branded resellers:

Branded resellers purchase their mobile services from a provider, typically under a retail-minus commercial arrangement, and are purely responsible for sales, marketing and branding. These five resellers were launched by Team SIMs in 2011 – an MVNO using Transatel as their MVNE.

ID	MVNO Name	Sector	Year of Launch	Cease	Operator	Partner	Partner Model
1	Doncaster Rovers (Team SIMs)	Charity	2011	2012	Orange	Transatel / Team SIMs	Reseller
2	Swansea City (Team SIMs)	Charity	2011	2012	Orange	Transatel / Team SIMs	Reseller
3	Newcastle United (Team SIMs)	Charity	2011	2012	Orange	Transatel / Team SIMs	Reseller
4	Preston North End (Team SIMs)	Charity	2011	2012	Orange	Transatel / Team SIMs	Reseller
5	Wolves Mobile (Team SIMs)	Charity	2011	2012	Orange	Transatel / Team SIMs	Reseller

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