

The MVNO model, global footprint and outlook

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Executive Summary

Mobile network operators (MNO) host over a thousand cellular service providers worldwide as of May 2012, according to Wireless Intelligence, comprising 812 Mobile Virtual Network Operators (MVNO) and 224 MNO sub-brands.

Our research shows that MVNOs are most prevalent in mature markets where market penetration has surpassed 100%. Europe is home to two-thirds of global MVNOs, followed by Asia-Pacific (125 MVNOs) and North America (90 MVNOs). By contrast, regulatory measures have held back the growth of MVNOs in markets such as the Middle East and Latin America.

Wireless Intelligence has identified eight MVNO categories: 'discount,' 'telecom,' 'media/ entertainment,' 'migrant,' 'retail,' 'business,' 'roaming' and 'M2M' (see glossary for definitions).

Our research highlights that discount and telecom MVNOs make up 45% of the global MVNO market, while 19% are owned by firms that come from adjacent industries (e.g. retailers, banks, TV or radio stations and magazines), leaving 36% of the market to specialised or niche service providers focused on segments such as business, migrants, M2M and roamers.

Media/entertainment and retail MVNOs each represent one out of ten MVNOs worldwide, and include well-known brands that resonate outside of the telecom industry such as Disney, Virgin or 7-Eleven. The diversity underlining these MVNO categories reflects the primary objective of the MVNO business model, which is designed to help MNOs attract additional demand and differentiate their offers without damaging their core brands. In addition, MNOs in some markets are switching from a single to multi-brand strategy (eg E-Plus in Germany or the French incumbent operators in the wake of new entrant Free Mobile).

Our study found that both MVNOs and multi-brand strategies are supporting operator connections growth, often offsetting organic quarterly declines. MVNO connections can represent less than 1% of MNOs' total connections in some markets (eg South Korea) and up to a third in others (eg the US). In several cases, MVNO activity is offsetting declines or flat growth in organic connections trends (eg T-Mobile USA and SFR in France, respectively).

However, this research highlights several limitations in the MVNO business model. Virtual providers can be entrenched in a marginal position (as seen in South Korea) as they are unable to offer significant device subsidies and often generate lower ARPU. Wireless Intelligence monitored the closure of almost 85 MVNOs over the past few years while 44 have been subject to merger and acquisition activity.

Our long term expectations regarding the global MVNO market identify a number of trends: an increase in the number of telecom, business and discount (mainly prepaid-centric) MVNOs in Latin America; an increase in the number of prepaid MVNOs in North America set to curb the dominance of contract offers; Middle Eastern and African markets to replicate the current structure of the Asia-Pacific MVNO market; a wider introduction of mobile broadband MVNOs specialised in voice and data offload via Wi-Fi as currently seen in the US.

Dashboard, MVNOs May 2012

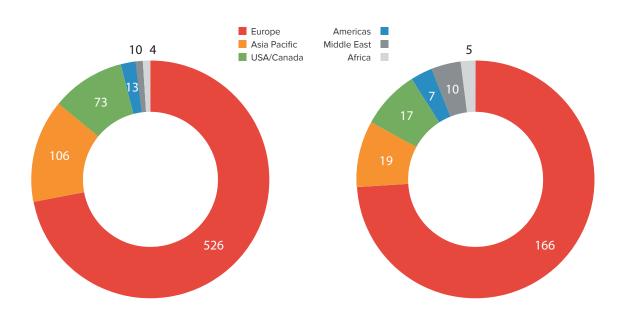


Figure 1: Global MVNO split by region Source: Wireless Intelligence

Figure 2: Global MNO sub-brand split by region
Source: Wireless Intelligence

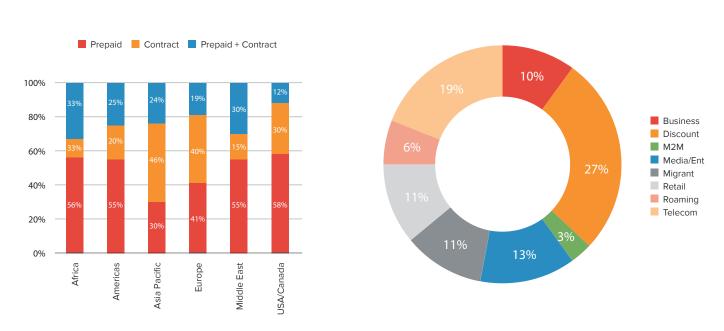


Figure 3: Global MVN/MNO sub-brand tariff segmentation

Source: Wireless Intelligence

Source: Wireless Intelligence

For definitions and classifications of each segment, see the glossary.

MVNOs: a European phenomenon?

Wireless Intelligence has identified 812 MVNOs across 57 countries worldwide as of May 2012. 65% are located in Europe, of which the vast majority (90%) are in Western Europe. Asia Pacific is home to 13% of the MVNOs worldwide, closely followed by North America (9%), while Latin America, the Middle East and Africa jointly account for only 3% of the total. An extra geographic category – labeled 'international' - has been added to classify MVNOs that have no network frontiers in the sense that they mainly target roamers and are not market specific (see glossary). This latter category accounts for 10% of MVNOs worldwide.

The top ten markets containing the most MVNOs represent 70% of the global MVNO total, namely Germany (119 MVNOs), the UK (74), the US (67), Netherlands (54), France (43), Denmark (43), Australia (42), Spain (29), Poland (23) and Belgium (21). Despite representing 20% of global connections, Russia (15) and China (2) jointly account for only 2% of global MVNOs.

With 119 MVNOs, Germany is by far the largest market for MVNOs worldwide, though not necessarily in volume or value terms. Together, Germany, the UK and France account for half of the MVNOs in operation in Western Europe. In contrast, 12 global markets are home to just one MVNO each, namely Argentina, Belarus, Bulgaria, Croatia, Cyprus, Fiji, Guam, Iceland, Jordan, Latvia, Liechtenstein and Luxembourg.

The limited presence of MVNOs to a quarter of countries worldwide is essentially due to regulatory decisions that allow the entry of MVNOs depending on market priorities, which include spectrum allocation, nationwide network coverage targets and competition levels. The presence of MVNOs is a phenomenon that mainly applies to saturated cellular markets as operators seek innovative ways to attract new customers. The average penetration rate among the 56 countries worldwide that host MVNOs stands at 128%. This phenomenon also explains the large predominance of MVNOs in Europe, which has the highest regional penetration rate globally (132%) and benefited from early regulatory support to establish MVNOs.



Figure 5: Global MVNO footprint Source: Wireless Intelligence

MVNO segmentation: from low-cost offers to niche providers

Wireless Intelligence has identified eight categories of MVNOs, namely discount, telecom, media/entertainment, migrant, retail, business, roaming and M2M (see <u>glossary</u> for definitions).

The dominance of low-cost and bundled deals

Discount and telecom MVNOs make up 45% of the global MVNO market (with an almost equal split), while 19% is owned by firms that come from adjacent industries (eg retailers, banks, TV or radio stations and magazines), leaving 36% of the market to specialised or niche service providers focused on several segments including business, migrant, M2M and roamers. In addition, 9% of global MVNOs across all categories offer data-only services through dongles, data cards or embedded devices (see glossary), of which the vast majority (80%) come from providers that offer contract-only tariffs.

Western European markets encompass half of both discount and telecom MVNOs (52% and 58%, respectively), and include the vast majority of global MVNOs in key categories: migrant (84%), business (75%) retail (70%) and media/entertainment (72%). Niche MVNOs in the specialised fields of M2M and roamers are almost entirely concentrated in the 'international' geographic category which comprises providers focused on global connectivity through multiple MVNO agreements and roaming hubs (see glossary).

Discount is a category that segments MVNOs focused on low-cost services and includes companies such as NET10 and TracFone in the US and Latin America, Easy Mobiles and PennySim in Asia Pacific, Budget Mobile and Happy Movil in Europe, as well as FRiENDi mobile and Yemba in the Middle East and Africa. Half of discount MVNOs are limited to prepaid services, while one third are contract-only and one sixth offer both tariffs. Furthermore, only 7% of discount MVNOs offer data-only services, two thirds of which are located in Western Europe and the remainder roughly equally split between Asia Pacific and North America.

Telecom is the second-largest category globally with 175 MVNOs, compared to 194 discount MVNOs. Telecom MVNO offerings form part of a range of telecom services such as fixed-line phone and broadband internet. This group includes providers such as UNE (EPM) in Latin America, M2 Mobile in Asia Pacific, TalkTalk and Tiscali in Europe, Hawaiian Telecom in North America - this category of MVNO is so far absent in Middle Eastern markets. In contrast to discount MVNOs, where the majority offer prepaid tariffs only, telecom MVNOs are largely focused on contract tariffs (72%). In addition, 10% of telecom MVNOs are data-only services.

Discount and telecom MVNOs include large providers in terms of connections such as the German-based groups Drillisch Telecom and freenet which are hosted by multiple MNOs and reached 2 million and 15 million connections in 2011, respectively. In addition, Tele2 reported 340,000 connections in Netherlands in Q1 2012 and half a million in 2011 in Norway (before acquiring Network Norway late last year). Among the latest additions to the list of discount MVNOs is Snowman launched by Onse Telecom in South Korea (hosted by KT) which targets the elderly, housewives, students and foreigners with substantial savings on international voice tariffs. The new entrant has bullish ambitions, aiming to attract 100,000 users by yearend and 1 million in five years.

A diverse base of virtual service providers

A wide array of companies and institutions with interests in varying industries, social movements and communities have forged MVNO agreements to expand their reach and diversify their offers. Most relevant examples include providers such as:

- Richard Branson's Virgin (Virgin Mobile) which is also involved in air and rail transport, finance, soft drinks, music, holidays, cars, wines, publishing, and even bridal wear
- Cinema and music industry players such as Disney Mobile and Universal Mobile (Vivendi)
- TV or radio stations such as M6 Mobile and NRJ Mobile in France or Halafoni in Oman
- Football clubs including AJAX Mobile, Benfica Telecom and Wolves Mobile
- Adult content providers such as Mobilking (MNI Mobile) or SIM69
- Providers aimed at religious communities such as 3 Genesis in Chile, CN Chama in Brazil and Salamphone in Malaysia which is branded as "the first ever Shariah compliant mobile operator"
- Environmental organisations such as Green Mobile and Earth Tones
- Self-branded MVNOs such as Cameroonian football player, Samuel Eto'o, who launched Set Mobile in early 2012
- Charity organisations such as the UK's Royal Society for the Prevention of Cruelty to Animals (RSPCA) that recently launched RSPCA Mobile, a provider focused on animal welfare charity

Similarly, retail MVNOs include a diverse range of providers from industries adjacent to the telecom industry such as supermarkets, banks and post offices. This category includes supermarkets and retail chains that largely dominate this segment, of which 7-Eleven, Carrefour, Tesco and Auchan are present across multiple countries. Providers from the banking sector include mBank mobile (Poland), Bankinter Movil (Spain), Cofidis Mobile and Ecureuil Mobile (both in France). In Europe, post office-owned MVNOs are also present in France, Ireland, Italy and Hungary. The vast majority of MVNOs in the retail segment are focused on prepaid tariffs while offers in the media/entertainment segment tend to be more diverse with 47% of MVNOs on prepaid tariffs, 31% on contract tariffs and 22% offering both.

It is important to note that even though the number of retail and media/entertainment MVNOs worldwide (82 and 75, respectively) is less than half that of discount or telecom MVNOs, both categories include large providers in terms of subscribers. In France, M6 Mobile (hosted by FT-Orange) reported 2 million connections in Q2 2011 while La Poste Mobile (hosted by SFR) had attracted 646,000 connections by Q4 2011, just six months after launch; in the UK, both Virgin Mobile (hosted by Everything Everywhere) and Tesco Mobile (hosted by O2 Telefonica) each had 3 million connections as of Q1 2012.

Business and migrant users are key MVNO targets

At the global level, segments specifically dedicated to business and migrant users number 95 and 100 MVNOs, respectively. Neither category is present in Africa or Latin America, and there are no business MVNOs in the Middle East. The latter addresses the needs of business and enterprise customers with almost all (91%) of these MVNOs focused on contract tariffs, while the opposite applies to migrant MVNOs that target migrant populations with international voice services built around prepaid-centric offers (85%).

Despite migrant and business MVNOs representing substantial shares of the MVNO market worldwide (12% each), they tend to be smaller providers in terms of connections. In the migrant segment, Lycamobile Group reported 131,415 connections in Denmark and 54,319 in Norway in Q2 2011, while Lebara Mobile Group – present in multiple countries – last reported 3.8 million connections in 2011. With regards to business MVNOs, Poland based Netia Group reported 91,027 connections in Q1 2012, similar to the TDC (Nordic) Group which reported 92,000 users over the same period.

M2M and roaming services a niche MVNO market, for now

11% of the MVNO market is dedicated to providers specialised in M2M and roaming services, with 34 and 57 providers worldwide, respectively. With the exception of Dell NetReady (Macheen) and G-BOOK (Toyota), all M2M MVNOs are contract-centric, while 68% of roaming MVNOs are prepaid-centric.

The latter category includes providers such as Reliance World SIM that describes itself as "a cost effective solution to stay connected with your family and associates across the globe when travelling abroad" and offers customers a "single SIM for over 160+ countries" with a permanent international number. Meanwhile, the M2M segment is characterised by firms such as Numerex which develops products and services in a number of areas, including security, government, telehealth, energy and utilities, financial services and transportation. The company has introduced a number of products, including asset tracking, telematics or industrial monitoring, which require access to mobile networks. Numerex reported 1.5 million connections in Q1 2012.

Region	Business	Discount	M2M	Media/ Ent'ment	Migrant	Retail	Roaming	Telecom	Total
Africa	-	1	-	2	-	-	-	1	4
Americas	-	4	-	3	-	-	-	6	13
Asia Pacific	14	33	4	5	8	5	1	36	106
Europe: Eastern	6	12	-	4	1	9	-	22	54
Europe: Western	71	100	-	54	84	57	4	102	472
International	-	-	28	-	-	-	52	-	80
Middle East	-	5	-	1	1	3	-	-	10
USA/Canada	4	39	2	6	6	8	-	8	73
Total	95	194	34	75	100	82	57	175	812

Table 1: Number of MVNOs by region and segment

Source: Wireless Intelligence

Region	Business	Discount	M2M	Media/ Ent'ment	Migrant	Retail	Roaming	Telecom	Total
Africa	-	25%	-	50%	-	-	-	25%	100%
Americas	-	31%	-	23%	-	-	-	46%	100%
Asia Pacific	13%	31%	4%	5%	8%	5%	1%	34%	100%
Europe: Eastern	11%	22%	-	7%	2%	17%	-	41%	100%
Europe: Western	15%	21%	-	11%	18%	12%	1%	22%	100%
International	-	-	35%	-	-	-	65%	-	100%
Middle East	-	50%	-	10%	10%	30%	-	-	100%
USA/Canada	5%	53%	3%	8%	8%	11%	-	11%	100%
Total	12%	24%	4%	9%	12%	10%	7%	22%	100%

Table 2: Share of MVNOs by region and segment

Source: Wireless Intelligence

Region	Africa	Americas	Asia Pacific	Europe: Eastern	Europe: Western	Int.	Middle East	USA/ Canada	Total
Busines	-	-	15%	6%	75%	-	-	4%	100%
Discount	0.5%	2%	17%	6%	52%	-	3%	20%	100%
M2M	-	-	12%	-	-	82%	-	6%	100%
Media/Ent'ment	3%	4%	7%	5%	72%	-	1%	8%	100%
Migrant	-	-	8%	1%	84%	-	1%	6%	100%
Retail	-	-	6%	11%	70%	-	4%	10%	100%
Roaming	-	-	2%	-	7%	91%	-	-	100%
Telecom	0.6%	3%	21%	13%	58%	-	-	5%	100%
Total	0.5%	2%	13%	7%	58%	10%	1%	9%	100%

Table 3: Share of regions by MVNO segment

Source: Wireless Intelligence

MVNOs versus multi-brand strategy

Wireless Intelligence has measured 224 MNO sub-brands, spread across 48 countries worldwide, of which 74% are located in Europe. This phenomenon differs from MVNO requirements in the sense that an MNO brand is wholly-owned and operated by the parent MNO network that it uses, albeit being frequently regarded as an MVNO in the eyes of consumers as it is marketed independently from the parent MNO. Such sub-brands include FT-Orange's 'Sosh' and Bouygues Telecom's 'B&You' in France, as well as Rogers Wireless' 'Fido' in Canada and Telenor's 'djuice' in multiple markets.

Half of MNO sub-brands are focused on prepaid tariffs, while contract-centric sub-brands account for only a quarter of the market along with those that offer both tariffs. This trend reflects operators' desires to attract new customers in lower price segments to avoid hindering their core value proposition and limiting marketing risks linked to price competition. This phenomenon mainly applies to saturated cellular markets – like MVNOs. The average penetration rate in countries that host MNO sub-brands stands at 126%.

With regards to categories, 37% of MNO sub-brands are classified as discount and 25% as media/entertainment. Interestingly, this trend once again reflects the focus on lower tariffs via discounted offers, it but also shows that MNOs are using sub-brands to add value though partnerships with well-known brand owners from other industries such as media/entertainment and retail. Within the media/entertainment and retail segments, a number of MNOs have used famous brands such as MTV, Red Bull, Financial Times, Virgin, eBay, ALDI, Tesco, Walmart and RTL. The share of sub-brands classified as 'telecom' (12%) clashes more directly with MNOs' core multi-play (fixed, mobile, broadband) offerings, which are critical to customer retention strategies.

In France, this MNO sub-brand strategy has been used to counter the recent launch of new entrant Free Mobile (Iliad) which caused the termination of over one million contracts at FT-Orange just one month after launch in January. FT-Orange introduced its web-only contract-free tariff (without subsidies) branded 'Sosh' which attracted 210,000 users in Q1 2012, partially offsetting the 615,000 net customer loss recorded during the quarter. Meanwhile, Bouygues Telecom's 'B&You' gathered 253,000 connections by Q1 2012.

Region	Business	Discount	M2M	Media/ Ent'ment	Migrant	Retail	Roaming	Telecom	Total
Africa	-	1	-	2	-	-	-	1	4
Americas	-	4	-	3	-	-	-	6	13
Asia Pacific	14	33	4	5	8	5	1	36	106
Europe: Eastern	6	12	-	4	1	9	-	22	54
Europe: Western	71	100	-	54	84	57	4	102	472
International	-	-	28	-	-	-	52	-	80
Middle East	-	5	-	1	1	3	-	-	10
USA/Canada	4	39	2	6	6	8	-	8	73
Total	95	194	34	75	100	82	57	175	812

Table 4: Number of MNO sub-brands by region and segment

Source: Wireless Intelligence

Region	Business	Discount	M2M	Media/ Ent'ment	Migrant	Retail	Roaming	Telecom	Total
Africa	-	20%	-	20%	20%	-	-	100%	100%
Americas	14%	43%	-	-	-	-	29%	100%	100%
Asia Pacific	5%	37%	-	-	11%	-	11%	100%	100%
Europe: Eastern	-	44%	-	-	17%	-	14%	100%	100%
Europe: Western	4%	32%	-	12%	14%	0.8%	13%	100%	100%
International	-	50%	-	-	-	-	10%	100%	100%
Middle East	12%	53%	-	-	24%	-	-	100%	100%
USA/Canada	4%	37%	-	8%	14%	0.4%	12%	100%	100%
Total	12%	24%	-	9%	12%	10%	7%	22%	100%

Table 5: Share of MNO sub-brands by region and segment

Source: Wireless Intelligence

The impact of MVNO strategies on MNO growth

MVNO strategies are attractive to MNOs for a number of reasons: to attract new customers through different brands; to increase or sustain their customer market shares in saturated markets driven by device replacement; to expand their portfolios of services to niche consumer segments; and to generate additional revenue from network leasing fees.

We have identified four benchmarks that indicate the contribution of MVNO activity on MNO growth, as well as the limits of the MVNO model.

Australia: Optus (SingTel) hosts the country's largest MVNO connections base at 1.1 million in 2011, compared to around 300,000 for Vodafone Hutchison and less than 100,000 for market-leader Telstra. Between 2010-11, Optus reported 444,000 total net additions and 232,580 MVNO net additions. The latter therefore represents half of the operator's annual net additions. Excluding the MVNO contribution, Optus' market share would shrink by 4 percentage points to 28%, and its 2011 total connections base would have grown by just 3% rather than 5% year-on-year.

France: All three incumbents – Orange, SFR and Bouygues Telecom – rely on MVNO strategies to boost their results - with the French MVNO market contributing just over 10% of the country's total connections on average last year. Over the period, FT-Orange's MVNO base grew by 20%, which increased the MVNO contribution by 2 percentage points to 11% of the operator's total connections. At SFR, the MVNO customer base grew by 93% to 2.4 million, helped by the successful launch of La Poste Mobile in May 2011. As a result, its MVNO contribution increased by around 5 percentage points to 10% of total connections, and represented 88% of yearly total net additions. Excluding the participation of MVNOs, SFR reported a flat annual growth (0.75%) with only 160,000 organic net additions.

United States: MVNO connections contributed to 33% and 26% of net additions in 2011 at Sprint and AT&T, respectively. MVNOs played a crucial role in Sprint's recovery during 2010 and 2011 by maintaining its market position and contributing to its 10% annual connections growth last year. Without MVNOs, Sprint would have reported only 7% growth in 2011. T-Mobile USA is another example of a struggling operator being helped by a substantial MVNO customer base. Last year, the operator reported a 2% overall decline in connections, but excluding its MVNO base - which grew by 22% annually – T-Mobile USA would have reported an organic connections loss twice as high (4%).

South Korea: MVNOs launched in March 2011 following regulatory approval and currently show a limited contribution with the exception of KT, which hosts almost ten times more MVNO connections than its competitors. This strategy is helping the second-placed operator narrow the gap with market-leader SK Telecom. Nevertheless, South Korean virtual network players are constrained by the limits of the MVNO model. The small volumes captured by these players mean that they are unable to match the high device subsidy levels offered by the incumbent MNOs - a prerequisite that drives device replacement in contract-centric markets. In addition, by mainly focusing on low-cost tariffs, the MVNOs generate lower ARPU which entrenches them in a long-term marginal position.

Country	Operator	Total connections	MVNO connections	% MVNO
Australia	Telstra	13,246,474	65,474	0.5%
Australia	Optus (SingTel)	9,409,000	1,129,080	12.0%
Australia	Vodafone Hutchison	7,022,000	298,000	4.2%
France	Bouygues Telecom	11,304,000	1,600,000	14.2%
France	Orange (France Telecom) 1	30,441,000	3,351,000	11.0%
France	SFR (Vivendi) 1	23,894,000	2,431,000	10.2%
Korea, South	SK Telecom	26,641,212	55,449	0.2%
Korea, South	LG Uplus	9,390,919	33,188	0.4%
Korea, South	KT	17,307,292	315,149	1.8%
United States of America	Sprint (Sprint Nextel)	55,021,000	4,358,000	7.9%
United States of America	T-Mobile (Deutsche Telekom)	33,185,000	3,569,000	10.8%
United States of America	AT&T Mobility	103,247,000	13,644,000	13.2%

Table 6: MVNOs as a % of total connections, selected operators, Q4 2011

Source: Wireless Intelligence

MVNO failures and closures

In addition to the limits of the MVNO model identified in markets such as South Korea, Wireless Intelligence has monitored the closure of 85 virtual networks over the past few years. Network closures can be linked to a number of factors, including:

- Competitive pressures
- Failure to attract enough demand (especially for niche providers)
- Lack of experience in the telecoms sector
- Inadequate business models
- Regulatory intervention
- Bankruptcy
- Parent firm restructuring its broader organisation

Wireless Intelligence also monitored 44 MVNOs that merged with larger groups or MNOs.

One of the most high profile MVNO failures was the US sports content provider, ESPN. Its parent company, Walt Disney Co., miscalculated a number of market-related factors when it launched 'Mobile ESPN' in Q1 2006: sport was a niche already covered by incumbent operators, while it was offering only one handset priced at US\$500 and distributed solely via Best Buy and online retail channels. Disney shut down the operation only eight months after launch as the MVNO failed to attract any substantial demand despite ESPN's core user base.

MVNOs that address limited niche demand and community groups also tend to suffer from small volumes and an inability to compete with larger providers in the longer term, eventually leading to bankruptcy and network closures. Noteworthy examples include Germany's 'SchwarzFunk' aimed at the youth market that went through two rebranding stages before closure; Denmark's 'GayMobile' launched by MVNO pioneer CBB Mobil, aimed at the gay

¹ Includes overseas territories

community; Belgium's 'Flair Mobile' and 'Femmes Mobile' dedicated to the female market, the result of a partnership between Proximus and Sanofa Magazine.

In Qatar, the regulator (ictQATAR) issued a decision in April last year forcing Qtel to close its Virgin Mobile service. The Supreme Council claimed that "Qtel Virgin Mobile services were marketed by the public to Qtel in a manner that was misleading or deceptive", that "Qtel had engaged in anti-competitive conduct and an abuse of dominance" and that the operator failed to comply with certain legal requirements.

A recent closure in the US is Best Buy Connect, which is shutting down its network on 1 June 2012. The MVNO only attracted 11,000 connections and its parent company recently announced that it is "re-evaluating the priorities of the newly formed Connectivity Business Group" therefore stopping the commercialisation of its mobile broadband devices distributed under its exclusive Best Buy-branded service. Similarly, Time Warner Cable's MVNO, branded 'Road Runner Mobile' – running on Clearwire's WiMAX network – closed in Q1 2012 following a decision by its parent company to put an end to its ill-fated partnership with Clearwire, which attracted less than 30,000 connections two years after launch.

Half of the MVNOs that have closed over the past decade (49%) were prepaid-centric, focused on discounted prepaid services, whereas 37% were contract specific and only 14% of them offered both tariff choices. The vast majority of closed MVNOs were located in Europe (68%) compared to 16% in North America and the remainder spread between the Middle East, Asia Pacific and the 'international' MVNO geography (see glossary).

What's next? The outlook for MVNOs

The vast majority of the MVNOs that launched between January 2011 and May 2012 are located in Europe (70%), on a par with the global MVNO footprint detailed previously. The Asia Pacific region is the second-fastest growing MVNO market (though not in volume or value terms), accounting for 12% of new global MVNO launches over the period, with 17 additional networks. The number of MVNOs is increasing in North America, a predominantly contract-based MNO market. We monitored 12 new MVNO launches over the period, which is a record compared to previous years.

However, Latin America, the Middle East and Africa have seen limited MVNO launches, mainly due to the regulatory restrictions which have held back the growth of MVNOs in their markets. As previously discussed, MVNOs are mainly present in mature markets as an innovative solution to address competitive pressures and saturated demand, yet several markets in developing economies could benefit from the introduction of MVNOs.

In Africa, most large markets in the Northern part of the continent (Tunisia, Morocco, Libya, Algeria and Egypt) surpassed 100% mobile penetration some time ago, along with Botswana (148%) and Gabon (145%). These markets are all home to three operators (with the exception of Gabon) in which an incumbent operator owns half of the country's connection base (52% on average), followed by a second operator that owns one third of the market, leaving only 15% to smaller players. The dominance of the top two operators in these markets (82% of total connections on average) could be reduced by the introduction of MVNOs, an option that is still to be considered by local regulators.

The same situation applies to countries and regulators in Latin America and the Middle East. We are monitoring a number of countries that are due to open up their markets to MVNOs following regulatory support, including Saudi Arabia, Egypt, Romania, Czech Republic, and eight countries in Latin America.

Our five-year outlook for the global MVNO market anticipates a number of trends:

- The introduction of MVNOs in saturated markets to boost competition as is currently happening in developing economies
- An increase in the number of telecom, business and discount (mainly prepaid-centric)
 MVNOs in Latin America
- Middle Eastern and African markets to replicate the current structure of the Asia-Pacific MVNO market
- An increase in the number of prepaid MVNOs in North America to counter the dominance of contract offers as market saturation approaches
- In Europe, greater initiatives from MNOs to move from a single brand to a multi-brand strategy (as per E-Plus in Germany or French operators)
- MVNOs focused on mobile broadband services will proliferate worldwide as MNOs are looking for innovative ways to mitigate data network congestion issues as demand for smartphone rises
- New MVNO business models focused on voice and data offload via Wi-Fi such as FreedomPop and Republic Wireless in the US are likely to set the tone if proven successful. Republic Wireless launched in November 2011 and trademarked its 'hybrid calling" service which it claims "is just like a hybrid car, only traditional carriers are the oil companies". The company hosted by Sprint charges users US\$19 per month for unlimited voice, messaging and data over Wi-Fi. A similar strategy is expected from FreedomPop which is marketing "100% free wireless broadband internet for all" and is expected to launch imminently. FreedomPop has already unveiled its iPhone shell which acts as a battery charger and a mobile hotspot connecting Apple's smartphone to Clearwire's WiMAX network. The company will reportedly charge users US\$0.01 per megabyte once their free bucket of 500 MB per month will be consumed.

Glossary

Definitions

MVNO A Mobile Virtual Network Operator (MVNO) provides a cellular service

through an agreement with a Mobile Network Operator (MNO) to

purchase wholesale network access but does not have its own licensed spectrum or own all of the infrastructure required to provide a cellular

service.

Sub-brand A brand is wholly-owned and operated by a parent MNO whose network

it uses but is frequently regarded as an MVNO in the eyes of consumers as it is marketed independently from the parent MNO. Brands may be used by MNOs through partnerships with well-known brand owners

from other industries such as media/entertainment and retail.

Classifications

Discount An MVNO whose main proposition is low-cost services.

Telecom An MVNO whose offering forms part of a range of telecom services

such as fixed-line phone and broadband internet.

Media/Ent'ment An MVNO associated with the media or entertainment industries.

Migrant An MVNO whose primary offering focuses on international voice

services.

Retail An MVNO associated with the consumer retail industry.

Business An MVNO whose primary offering targets business customers.

Roaming An MVNO whose offering is typically targeted at international travellers

through roaming agreements with MNOs across multiple markets.

M2M An MVNO that supports (embedded) machine-to-machine services.

Data-only An MVNO that offers data services through data cards, dongles or

embedded devices but does not offer cellular voice services.

International Geographic classification for MVNOs that provide global connectivity

to roamers or specialised global M2M services. International reach is achieved through multiple MVNO agreements and roaming hubs.

About the author



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Joss is responsible for operator forecasting, technology migration and the analysis agenda of the service as a whole. Before Wireless Intelligence, Joss worked at Ovum Ltd and for Motorola's Mobile Devices Division in the UK. He joined Motorola as a product analyst before managing its market intelligence activities in Europe. He holds an MA in International Business from Portsmouth Business School.

About Wireless Intelligence

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