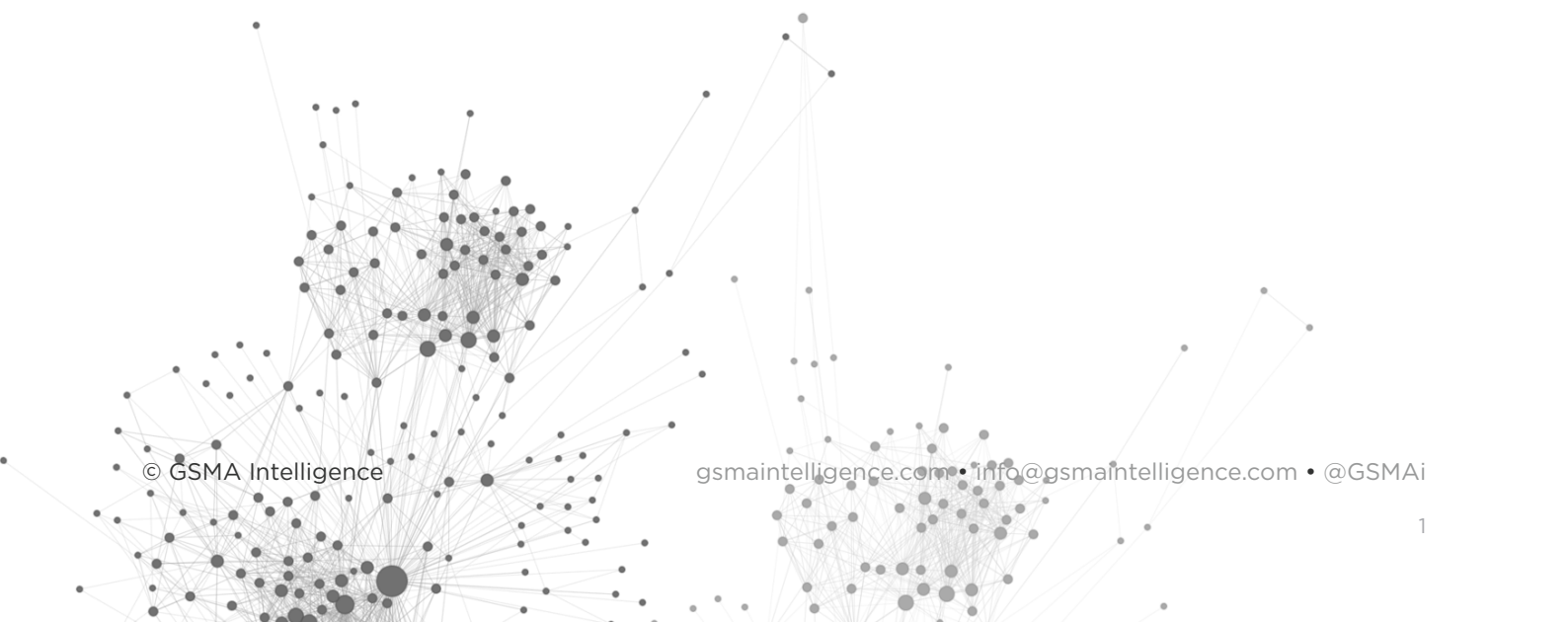




ANALYSIS

Tailoring mobile internet tariffs for prepaid users — a balancing act

December 2013



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In Q3 2013, mobile broadband connections in the developing region crossed the 1 billion mark, having overtaken the developed region in the previous quarter. By 2017, there will be 3 billion mobile broadband connections in the developing world, more than twice the amount in the developed world.

In recent reports focused on Asian and African markets, we explained that infrastructure deployment and device affordability are among the most significant factors limiting the adoption of mobile broadband services across developing economies. However, the range of data tariffs on offer is equally important for a cost-conscious population that is predominantly prepaid. In this report, we examine the increasing range of prepaid and hybrid data tariffs targeted at this burgeoning segment of the market in the context of balancing the twin goals of driving access and preserving return on network investment.

The mobile internet opportunity

The internet has become both a symbol and measure of the democratisation of information, evident in its de-facto ubiquity and expansion, with global penetration now around 35% compared to 23% in 2008. While much of this has been the result of rising PC penetration in developed regions such as Europe, the US and mature Asian countries during the 2000s, these are now nearing saturation, with growth shifting towards emerging markets. Since 2008, internet users have grown at a compound 19% per year across developing regions in contrast to the 4% in mature markets.

Significant headroom remains. The differentiating factor is that mobile is now the primary enabler of incremental internet users in the absence of widespread fixed broadband infrastructure. China – by far the biggest single market – now has 600 million internet users compared to 300 million in 2008 according to CNNIC. This is significant both in magnitude – its vast size means this is still under 50% of population – and technology, with MIIT recently reporting that close to 80% of internet users access via mobile. The same is true of other developing regions, with average penetration of 27% despite fixed broadband ownership remaining the confine of a small minority (under 10%).

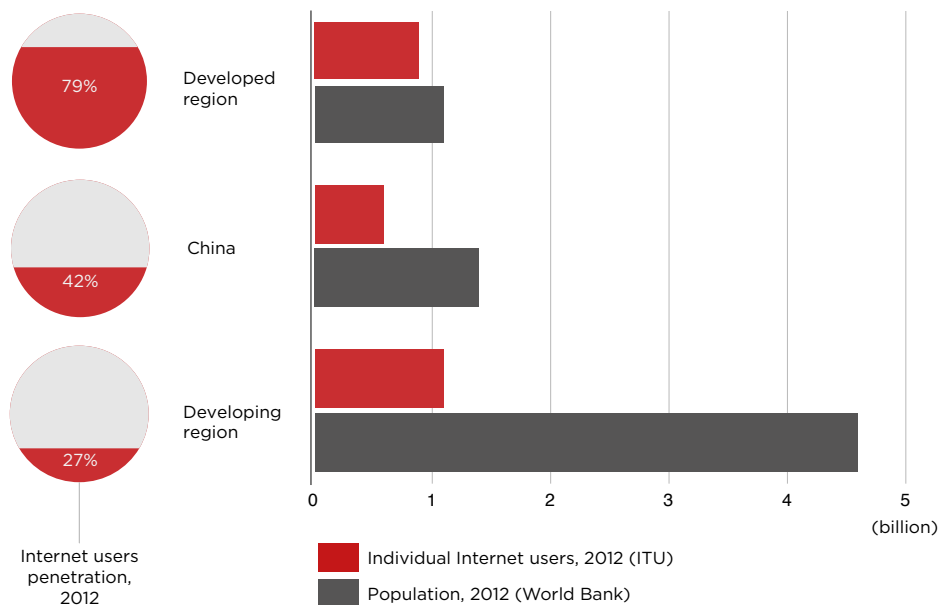


Figure 1: Internet penetration by region, 2012

Source: ITU, World Bank, GSMA Intelligence

The use of the mobile internet is happening regardless of access speeds. Mobile broadband connections in the developing world have crossed the 1 billion mark, overtaking the developed region in Q2 2013. Two thirds of all mobile operators across the developing region – representing 88% of regional connections – have commercially launched mobile broadband networks to date. While mobile broadband connections currently represent only 21% of total connections in the developing world, we expect this to reach 45% by 2017. However, a significant portion of mobile internet use has and will continue to come on slower speed 2G networks (see [Bangladesh: Asia’s untapped mobile broadband opportunity](#)). This is particularly the case where networks are still relatively underused, with operators able to shift usage between 2G and 3G depending on capacity stress.

The striking observation is that the regions poised to be the growth engines of the internet over the next five years – BRIC countries, Africa, Latin America and Asia Pacific – are predominately mid and low income with the majority of mobile consumers on prepaid plans. This is a very different scenario from the one of the last decade in mature markets (driven by the prevalence of contract users and subsidised handsets), which means the mobile operators must design data tariffs that are aligned with the economic realities of a predominantly mid and low income consumer base while preserving a return on investment.

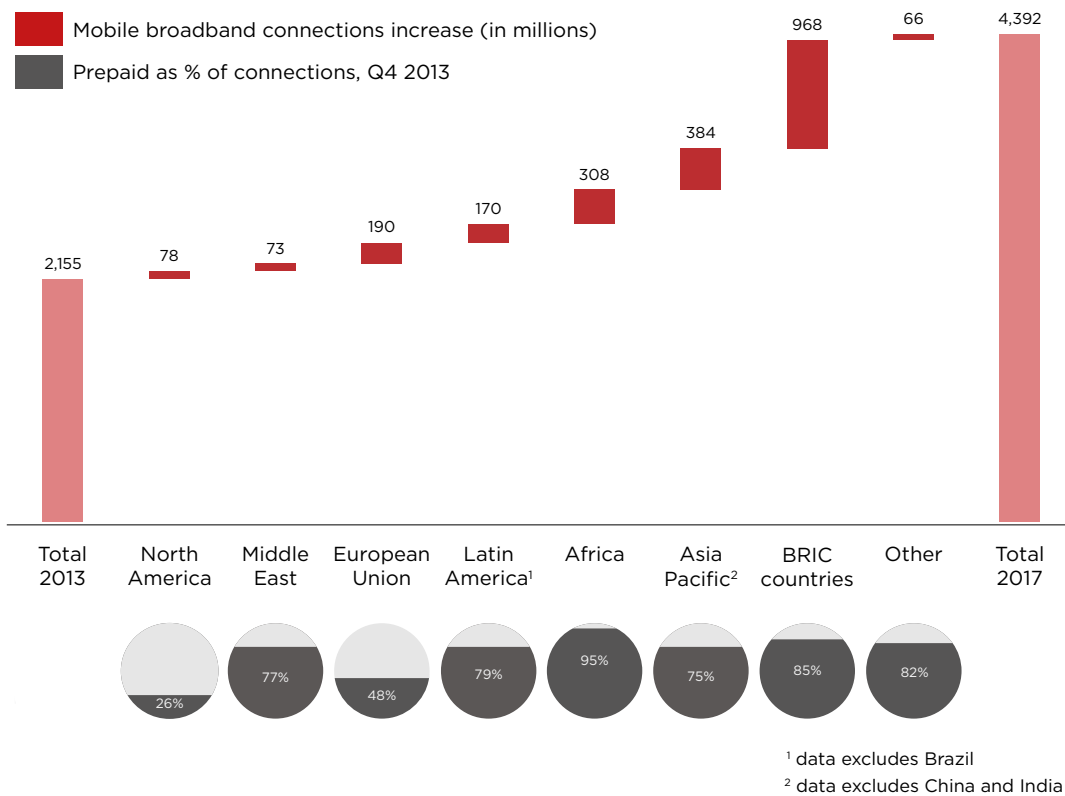


Figure 2: Mobile broadband connections increase and prepaid share of connections

Source: GSMA Intelligence

From prepaid ‘sachet’ data tariffs to hybrid plans

The availability of ‘sachet’ data tariffs is a key value proposition for prepaid users who want to consume data occasionally and on a ‘pay as you go’ basis. These tariffs have become very popular in Asia and Latin America, with some operators offering them on all device types (i.e., mobile phones and dongles) while others have so far restricted them to data devices.

Millicom – which operates under the *Tigo* brand – claimed in its last annual report that while handset subsidies play a key role in driving mobile internet adoption, it is also important to tailor mobile data packages to the prepaid consumer segment, which it claims is “a model more suited than postpaid to the needs of the vast majority of our customers in Central America”.

For example, in Bolivia, Tigo offers a choice of 17 prepaid data tariffs for consumers who want to access mobile internet on their handsets, and 12 tariffs for those who want access on their modems. Consumers can purchase and activate all of these tariffs via text message. Under its mobile handset data tariffs, the operator offers three time-based packages allowing consumers to consume data on an hourly basis (\$1 per hour for 500 MB allowance), daily basis (\$3 per day for 1 GB) and weekly basis (\$14 for 7 days and 5 GB allowance). In addition, Tigo offers nine different allowance-based data ‘sachets’ valid for 30 days, with data allowance ranging from 70 MB (\$3.60) to 20 GB (\$50). Finally, Tigo offers six different smaller data ‘sachets’ that last until 6am on the day following the purchase, with data allowance ranging from 55 MB (\$0.30) to 500 MB (\$1.40).

The introduction and popularity of hybrid plans across several developing markets also point to the importance of allowing cost-conscious prepaid consumers the ability to tailor their mobile packages.

In its latest annual report, Axiata explained how in mid 2012 its Malaysian operation launched its ‘Celcom First’ plan, a range of services including voice, data and WiFi that can be bundled across a contract-prepaid hybrid model. The operator described it as a “unique cross-product bundling mix” that allows customers to build packages to fit their product, price and usage needs. As such, customers are able to switch from contract to prepaid payment methods at a flat rate at any time – a pricing model that the operator claimed “has never been used in the industry before”.

Echoing this development in Asia, Millicom reported that it is “increasingly offering hybrid plans combining pre- and postpaid elements to meet customer demand” across its Central American footprint.

Tailoring internet services for cost-conscious prepaid users

The latent potential of connecting mid and low income customers to the internet via mobile is of interest both to mobile operators and internet players. As such, a host of partnerships have been formed between the two, most notably by subsidising access to the mobile internet on a short term basis (so-called ‘zero rating’).

In several countries, Facebook, Google and/or Wikipedia have established partnerships with operators that typically have a share of around 25% of the country’s prepaid market. The important point is that much of this access is coming via feature phones, on prepaid plans and through low data intensity services to minimise cost to the end user (for example, Facebook’s flagship mobile product is only one of several flavours offered in emerging markets, complemented by text-based versions on SMS and USSD) – in other words, these services are directly aligned to the nature of the customer base in these markets.

	Facebook	Google	Wikipedia
Service name	Facebook Zero	Google Free Zone	Wiki Zero
Number of countries	27	4	22
Number of operators (op-co's)	32	4	23
What do you get?	<ul style="list-style-type: none"> - Text-only version of Facebook - Scroll through text - Click on links-send messages 	<ul style="list-style-type: none"> - Search on Google - Send and read emails on Gmail - Stay connected with friends on Google+ 	<ul style="list-style-type: none"> - Text-only version of Wikipedia mobile site
Partners share of the prepaid market (connections)	37%	25%	19%

Table 1: Zero-rated landscape

Source: Facebook, Google Free Zone, Wikimedia Foundation, operator websites

It is hard to argue against zero-rating - technological shifts do not pause for competitive dynamics to settle, and the socio-economic benefits of information access (especially for mid and low income segments) are significant. However, it is representative of a wider challenge faced by mobile operators which aim to connect to the internet vast swathes of price-conscious consumer segments currently unable or for whom it would be very difficult to pay the prices commensurate with this access. This challenge is made more difficult for operators by the reality that internet players do not bear the bulk of infrastructure costs to facilitate networked internet access, although they most definitely do enjoy the benefits. While we believe this challenge can be mitigated by a careful positioning of the value proposition to consumers with transparency on the differences between different tariffs, constructive pricing can also play a role.

Offering higher network speeds while preserving value

As indicated earlier in this report, many users across the developing region still rely on 2G networks to access mobile internet services. While both Millicom and Axiata chose to structure their tariffs based on data allowance (i.e, consumption), other operators like Bharti Airtel in India make an additional distinction based on network speeds. Airtel notably reported that data connections represented around a quarter of its entire connection base as of Q3 2013, suggesting that around four out of five data connections were running on 2G networks as only 16% of its data connections base was 3G.

As such, Airtel offers three sets of prepaid data tariffs depending on whether consumers chose to access 2G, 3G or 4G network speeds, with striking differences in the range of tariffs on offer per network.

Depending on the telecom circle, Airtel offers up to 15 different 2G data tariffs with a validity of 1, 2, 3, 5, 6, 7, 9, 14, 15, 21 and 30 days, and data allowances ranging from 30 MB to 6 GB. Interestingly, the operator chose to mix in Facebook vouchers as part of its 2G data tariffs with, for instance, a package including 150 MB of Facebook access and 5 MB of 2G browsing access for \$0.50 (including service tax), valid for two weeks.

Meanwhile, Airtel offers six different 3G data tariffs starting with a ‘pay as you go’ voucher valid for 30 days at a rate of INR 3 per megabyte (\$0.05) - a fee more than three times cheaper than that of their 2G data tariffs once users have consumed their data allowance (INR 10 per megabyte, \$0.16). The other 3G prepaid data plans range from 300 MB to 10 GB data allowance, valid for a month. Lastly, while Airtel’s 4G data plans are only available on contract, the operator claims that it is pricing 4G plans at 3G prices with a range of add-ons (called ‘smartbytes’) that users can purchase to top-up their data allowance once they have reached the cap. These ‘smartbytes’ range from 1 GB to 10 GB and cost from \$3 to \$16.

While pricing 3G and 4G tariffs close to 2G rates in low-ARPU markets such as India helps to trigger greater demand for mobile internet services, it can theoretically undermine long term value creation and profitability of data services. Until now, mobile operators in developing countries have relied on voice revenue to subsidise low data tariffs. However, as data traffic is increasing almost exponentially putting further pressure on total cost, the challenge is to understand the marginal data cost that operators should consider when pricing new data tariffs in order to preserve margins.

In India, Airtel, Idea Cellular and Vodafone spent a joint \$13.4 billion in operating expenditure in 2013 and \$2.5 billion in capital expenditure, representing 83% of their joint total revenue, resulting in an EBIT margin of 12% on aggregate. 84% of service revenues came from voice services, while data services (excluding messaging) generated only 6% of revenue - half the amount invested in network infrastructure this year. Even if we can expect data revenue to overtake total capex in two years (if current growth rates are sustained), the increase in data traffic is set to add further pressure on total cost while voice revenue growth is likely to hit a ceiling as happened in developed countries.

This trend essentially shows that pricing data tariffs at the same levels as voice services and relying on voice revenues to subsidise expenditures on data services is not a sustainable model. Over the coming years, operators will have to consider their respective marginal data costs to effectively price their prepaid data tariffs and preserve margins.

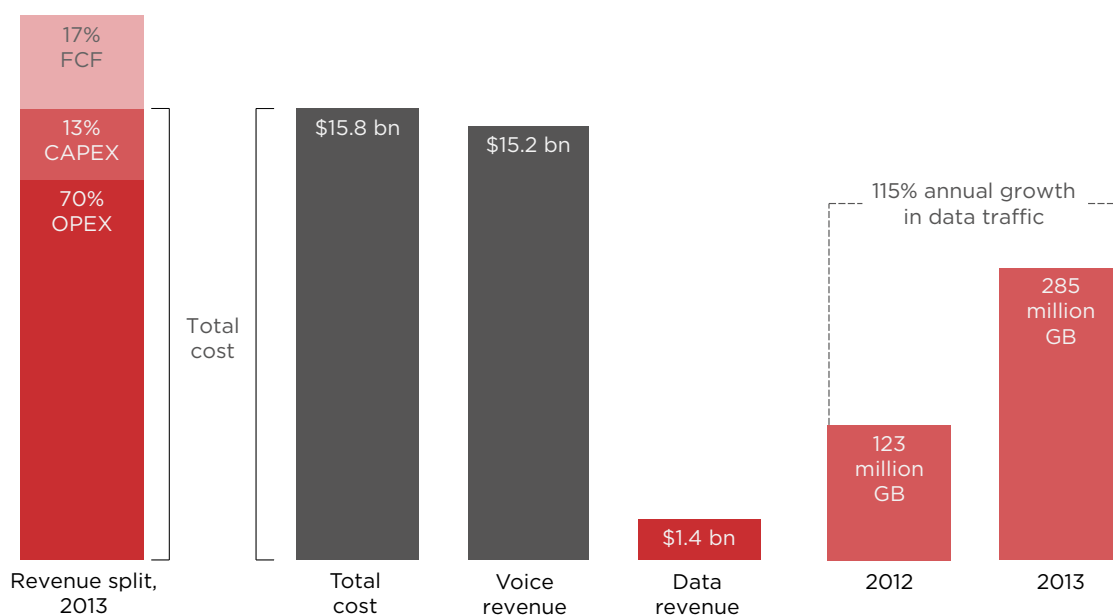


Figure 3: Limited data revenue contribution, India, selected operators (Airtel, Idea Cellular, Vodafone)

Source: GSMA Intelligence, (Q4 2013 estimates)

Glossary

Regional segmentation

GSMA Intelligence classifies developing countries and economies as defined by the World Bank. Economies are divided according to 2011 gross national income (GNI) per capita into low-income (\$1,025 or less), lower and upper middle-income (\$1,026–\$4,035 and \$4,036–\$12,475) and high-income (\$12,476 and over) (July 2012).

Countries that fall within the low- and middle-income brackets are then classed as developing markets. Note that this definition is subject to annual change as the income brackets and GNI per capita of each market are reviewed and if necessary, revised, by the World Bank at the end of June. Data is released 12 months behind the current calendar year.

ARPU

Average revenue per user refers to total recurring (service) revenue generated per connection per month in the period. Despite the acronym, the metric is strictly average revenue per connection, not per subscriber.

Total connections

Total unique SIM cards (or phone numbers, where SIM cards are not used) that have been registered on the mobile network at the end of the period. Connections differ from subscribers such that a unique subscriber can have multiple connections.

Mobile broadband

GSMA Intelligence classifies the following network technologies as mobile broadband networks: CDMA2000 1xEV-DO (Rel. 0, Rev.A/B), WCDMA HSPA, TD-SCDMA, LTE, TD-LTE, AXGP, WiMAX, LTE Advanced, WiMAX 2. Connections pertaining to these technologies are aggregated to form mobile broadband connections.

Opex

Total operating expenditure incurred in the period, of which: cost of sales, cost of equipment, cost of services, cost of selling, general and administration.

Capex

Total capital expenditure incurred in the period, including both intangible and tangible assets.

FCF

Free cash flow can be calculated by subtracting Capex from EBITDA. This metric represents the cash that a company is able to generate after the expenditure required to maintain or expand its asset base.

USSD

Unstructured Supplementary Services Data is a protocol used by GSM cellular telephones to communicate with the service provider's computers.

About GSMA Intelligence

GSMA Intelligence is the definitive source of global mobile operator data, analysis and forecasts; and a publisher of authoritative industry reports and research.

Our data covers every operator group, network and MVNO in every country worldwide – from Afghanistan to Zimbabwe. It is the most accurate and complete set of industry metrics available, comprising tens of millions of individual data points, updated daily.

GSMA Intelligence is relied on by leading operators, vendors, regulators, financial institutions and third-party industry players, to support strategic decision-making and long-term investment planning. The data is used as an industry reference point and is frequently cited by the media and by the industry itself.

Our team of analysts and experts produce regular thought-leading research reports across a range of industry topics. It is led by Tom Johnson – Head of GSMA Intelligence – and Hyunmi Yang – GSMA's Chief Strategy Officer.

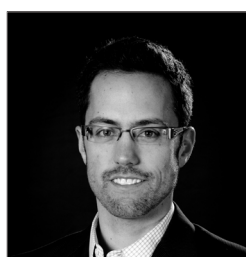
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