Next stop for operators

As informatization sweeps the globe, operators face unprecedented pressures to transform their operational models in response to a radically changing landscape in terms of services, traffic, infrastructure, revenue structure, and the value chain. With TTM expectations ever increasing, operators’ readiness is being tested across the board as they explore new routes to sustainable development at the infrastructure, platform, and application level.

By Cindy Zhou

A changing telecom market

According to Total Telecom, the globe’s top 100 operators have seen steady annual revenue growth of 7 to 9% over the last two years, with competition intensifying in both developing and developed markets. For three consecutive years, the top 20 operators have accounted for 68% and 69% of the revenue and profit, respectively, taken by these 100 leaders.

However, for the twenty operators currently among the Fortune Global 500, net profits slipped by 1.6% compared to 2011, to an average of 7.6%, thanks to high O&M costs, hefty handset subsidies, low-value traffic, and a lot of unrecouped investments.

Big data

Smartphones have been a major contributor to this profit stagnation. For Q2 2012, global smartphone shipments surged 42.1% year on year. In its August 27, 2012 issue, TIME magazine published the results of the TIME Mobility Poll (a Qualcomm survey of 5,000 respondents in eight countries), which revealed that 25% of respondents checked their mobile phones at least every 30 minutes. British respondents spent only twelve minutes a day on voice calls, versus two hours spent doing other things, with that ratio shifting to 20 versus 80 minutes in China, respectively.

Gartner expects that entry-level smartphones (those costing roughly 100USD), as a proportion of overall mobile phones in use, will grow from 15% in 2011 to 40% in 2016, no doubt further boosting mobile traffic growth through their sheer number. With annual growth at 50%, monthly mobile data traffic volume per user is estimated to reach 2.5GB by 2015, or a staggering six zettabytes (six billion gigabytes) in total. The volume, variety and velocity of all this data demand more stringent requirements for operators’ network infrastructure, data management, data mining, and support system.

Revenue structure

Operator revenue structure is also in flux as users shift their communications towards OTT channels, with voice calls’ percentage of overall ARPU dropping 0.6% each month, according to Huawei statistics. Text messaging, a former cash cow, is now gradually giving way to instant messaging (IM) services. In Europe, for every 10% increase in smartphone penetration, USD1.5 billion in revenue is lost from voice and SMS. In response, most operators offer a fixed voice package with unlimited minutes to protect their traditional revenue.

Data services, on the other hand, are on the rise in terms of proportion of revenue, at an estimated 45% clip, with 30% of this revenue on average being dumb pipe revenue (voice and simple Internet connectivity). Clearly, more pipe revenue is needed, and operators are responding
with forays into tiered traffic plans and data sharing schemes that encompass multiple terminals.

For the next five years, value-added services such as RCS, online payment, online advertising, M2M, and location-based services are likely to be the most profitable businesses for operators, accounting for 10% of their revenue, with their EBIT percentage nudging twenty. Though operators lag behind OTT players in mobile TV/video, messaging, IM, and social networking, there are still many new opportunities up for grabs.

Other streams lie in system integration and network-based ICT services such as data center management, security, and network & application design, which will provide 15% of the total revenue for operators.

**The next move**

While OTT providers are flexible, innovative, and without baggage, operators have advantages in economies of scale, backed by vast amounts of network infrastructure. By leveraging their core competencies in infrastructure, bandwidth, subscriber base, sales channels, and charging platforms, operators can explore three areas for market opportunities.

**Pipe construction and operation**

Operators need to expand and better leverage their pipes, but new directions are needed if they wish to avoid repeating past disappointments.

- **Network sharing**

  As early as 2001, operators such as Deutsche Telekom, France Telecom, Vodafone, HGC, TeliaSonera, and Telenor implemented network sharing plans. In 2008, this movement gained momentum, as it began to move beyond the sharing of passive facilities (base stations, power supply gear, transmission equipment) to other areas such as the radio access network (RAN) and core network facilities. Tele2/Telenor and PCCW/HGC are sharing their RANs for LTE construction, leading to over 25% reductions in LTE network costs per GB of data moved.

- **Wi-Fi offload**

  Wi-Fi is an inexpensive solution for mobile traffic offload, making it a key element in any operator’s mobile network strategy. In 2011, there were 1.5 million public Wi-Fi hotspots, and this figure will rise to 5.8 million by 2015, as over 60% of mobile devices will use this technology. As Wi-Fi becomes a greater part of wireless networking, operators must mind such issues as security authentication, network transfer, and RF interference.

- **Improved QoE**

  As smartphone users surge and always-on services multiply, operators need a smart pipe that not only optimizes the traditional KPIs, but also assures end-to-end
QoS by tilting resources toward higher-value networks/services/terminals. However, they will also need to better visualize traffic management while implementing smart policy control, among other measures, to make certain that the user experience better matches its price (a smarter pipe).

• **Cloud IDC**

As the mobile Internet increasingly becomes a part of our lives, demand for mass storage, digital data processing, and disaster recovery/backup are driving a 60% compound growth rate for cloud computing, which is supported by Internet data centers (IDCs). This is where operators, with their inherent advantages in network resources, can establish a defensible position. An increasing percentage of operators are working in this area, either upgrading their legacy local IDCs, providing IDC services for expanding enterprises, or setting up advanced IDCs in emerging markets. Rather than just lease out equipment or bandwidth, operators are moving into diversified portfolios that involve network security and the leasing of tailored resources and other value-added services.

**Improving QoE**

It is estimated that voice, as a basic service, will drop below 2% of overall pipe traffic within the next few years, giving way to video, music, social media, and gaming. As markets develop, users start focusing on value as opposed to price, and their experience is the primary driving force behind operator efforts to create it.

Vodafone, AT&T, Orange, and DT all have made user experience a key element of their business strategies. Vodafone plans to refurbish 75% of its 2,200 stores worldwide for a more “experience-led store design” where customers enjoy “a consistent and flawless experience.” AT&T, on the other hand, has launched a Mobile Share Planner tool, which helps users estimate current data usage and recommends which AT&T Mobile Share plan to select.

E-commerce channels are another important area of user experience. By improving the online buying process, Vodafone Australia has enhanced the overall customer experience to recover lost sales opportunities. They found that over 60% of visitors who filled a shopping cart at their site would eventually commence check out, but 80% of them abandoned the process. A later survey would show that 32% of those who abandoned a sale did so in favor of going to the store for more information. Vodafone Australia responded by supplementing product content with customer ratings/review and online purchase incentives. Call center information was also provided onscreen during browsing, with a live webchat option offered via email in the event of an abandoned checkout. The company would determine that 75% of these emails were opened, with 15% of them directly resulting in a recouped sale. Overall, this program yielded a 7% net increase in online sales.

Another route to improved user experience and reduced churn is service tailoring and precision marketing. A good example in this area is Google, which has taken in over USD30 billion in ad revenue over AT&T’s network alone (accounting for one-third of its pipe traffic). However, telcos hold copious amounts of subscriber data, which can be mined to find out who the high-value subscribers are. In fact, some operators have already taken approaches such as portal customization, lifecycle management, user management process optimization, and a 360-degree user view to extract more revenue from user data.
China Mobile has the world's largest base of users, reaching over 690 million of them in Q3 2012; 90 million of its subscribers are considered high-value (monthly ARPU of 200 RMB or above) while 500 million take up the middle ground (20 to 200 RMB per month). To retain its advantage, the company has set up user tags as per the five major sources of call centers – the Customer Relationship Management (CRM) system, Business Intelligence (BI) system, service usage records, base stations, and the core network. In some regions, it has successfully launched precision marketing campaigns based on 48-hour user behavior analysis, which has increased VAS push and ad acceptance rates by 10.8% and 6%, respectively.

Life beyond telco

SoftBank is an industry pioneer and a striking example of how an operator can do much more. The company has been number one in Japan for five consecutive years in terms of net acquisitions, and has been tops worldwide with a 13% annual revenue growth over the same period among mobile operators. What is less apparent is the company's position as an integrator and controller across its value chain, as is its aim to be number one in mobile Internet in Japan.

To reduce churn and keep customers thumb-happy, SoftBank has launched a three-year contract package aimed at young people that offers a low tariff of JPY980 (just one-fifth of its average ARPU) with unlimited on-network calls, while a JPY9,975 (USD125) early termination fee dissuades these youngsters from a quick break-up.

SoftBank also invests heavily in its infrastructure. Since taking over Vodafone K.K. (Vodafone Japan) in 2007, the operator has expanded its base stations ten fold, while simplifying its IP-based network architecture to reduce cost and adding Wi-Fi sites (totaling 200,000, number one in Japan) to guarantee speed and user experience. To promote Wi-Fi takeup, it made compulsory agreements with each smartphone user that offers Wi-Fi access at twice the speed of its competitors, whenever possible, at a price that is very competitive.

Terminals are also vital to SoftBank's mobile Internet strategy. In 2008, the company introduced the iPhone to Japan exclusively, bringing in two million net high-end subscribers. SoftBank also joined hands with industry giants such as Yahoo! and Twitter to launch terminals preset with their applications. This past October, the company released its winter 2012/13 device lineup, with LTE access possible for every one of its models. It also announced SmartTV at the same event, which will deliver streaming video content to television users in the home starting in December, a month which will also see the launch of UULA, a music and video distribution service the operator has developed with Japanese media group Avex.

However, despite all these other efforts, SoftBank positions mobile content as its major revenue source. By synergizing a wide range of content such as ads, search, and auctions via Yahoo! Japan's mobile portal, it extends its reach into the mobile Internet, providing rich content options along the way.

The operator has also established partnerships with industry leaders to explore local market potential. In May 2012, SoftBank announced a joint venture with PayPal, launching a credit/debit NFC product dubbed PayPal Here in Japan, a market with 4.7 million small businesses. Currently, the operator's data ARPU accounts for 65% of its total, once again the highest in the world.

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