


Don't be afraid

– there is money in broadband access

Driven mostly by fear of the “big black hole” of the internet, operators are betting their futures on higher-value services and content, striving to control the whole value chain as they did in the good old days. It is a losing battle. They can fight it, delay it and bundle everything that moves, but inevitably broadband must be a business on its own merits.

In this article, Klas Nordén explains why the winners are those who understand how to manage access and services as two different businesses, and who move towards providing fixed and mobile broadband internet access as a single offering.

 **THERE WILL ALWAYS** be demand for high-quality, low-cost broadband access, regardless of how it is bundled or packaged. Many operators, particularly mobile operators, seem to fear the “bit-pipe” role. They believe the future lies in new content and application services that are integrated with the access service. But access and services have different logics and business models, and we will definitely see a clearer split between them in the future.

This is already a reality in the fixed broadband world. Mobile operators can fight it, delay it and play a mega-bundle game, but inevitably the access offering must be a business on its own merits – with sustainable profitability. The “bit-pipe” business is interesting and profitable in itself.

As long as consumers are demanding pure internet access, so they can consume services any way they want, different players in the market will offer this access at low and attractive prices. It will be a commodity business in which cost efficiency and economies of scale will be important. The winning broadband strategies will involve different technological solutions, fixed and mobile, depending on market conditions and the assets at hand.

A solid strategy and the timing of investment will also be essential. Let's take a closer look at the market and different strategic options, based on different business models, driven by pure access revenue.

Rapid-growth market

The market is out there for those who dare to be different. Growth in both fixed and mobile broadband is expected to be extensive. The wireline broadband market is expected to double, with the number of worldwide subscribers to reach about 600 million by 2011. (See diagram on page 34.)

The market for wireless broadband access, based on dominating technologies suited for wide-area coverage, is forecast to grow sig-

nificantly in the next few years, with the total number of subscribers worldwide estimated to reach 900 million by 2011. (See diagram page 34.) However, a mobile 3G subscriber today is not really a mobile broadband customer. Most of them pay mainly for their voice subscriptions and have to be transformed into mobile broadband customers, as mobile voice revenues are likely to be threatened in the future, just as fixed voice is today. This will be a major challenge for mobile operators in the next few years, or they might be bypassed by fixed operators that will aggressively pursue opportunities to grow their fixed DSL business with complementary solutions for increased mobility, based on data-centric business models.

Less is more

An example of a successful commodity offering, with similarities to broadband access, is the energy business. Electricity is a commodity: everybody wants it, households and industry. Initially the value chain was fully integrated, with the same players providing even the light bulbs to consumers. Today the business model is simpler and the fact that everyone takes the simple access to power for granted has fueled a lot of new ideas and applications. Who would imagine all the innovation in home appliances and multimedia services we have around us in our everyday life if they all were to be provided by your power supplier? Despite the commodity role, quite a few utility players show healthy and sustainable margins.

There are many signs and examples in the market towards this development. Operator 3 is one telecom player that as one part of its strategy is simplifying its consumer offering and introducing pure mobile broadband based on a flat fee.

The recently launched X-Series, which includes convenient access to several popular internet services on the mobile phone, is

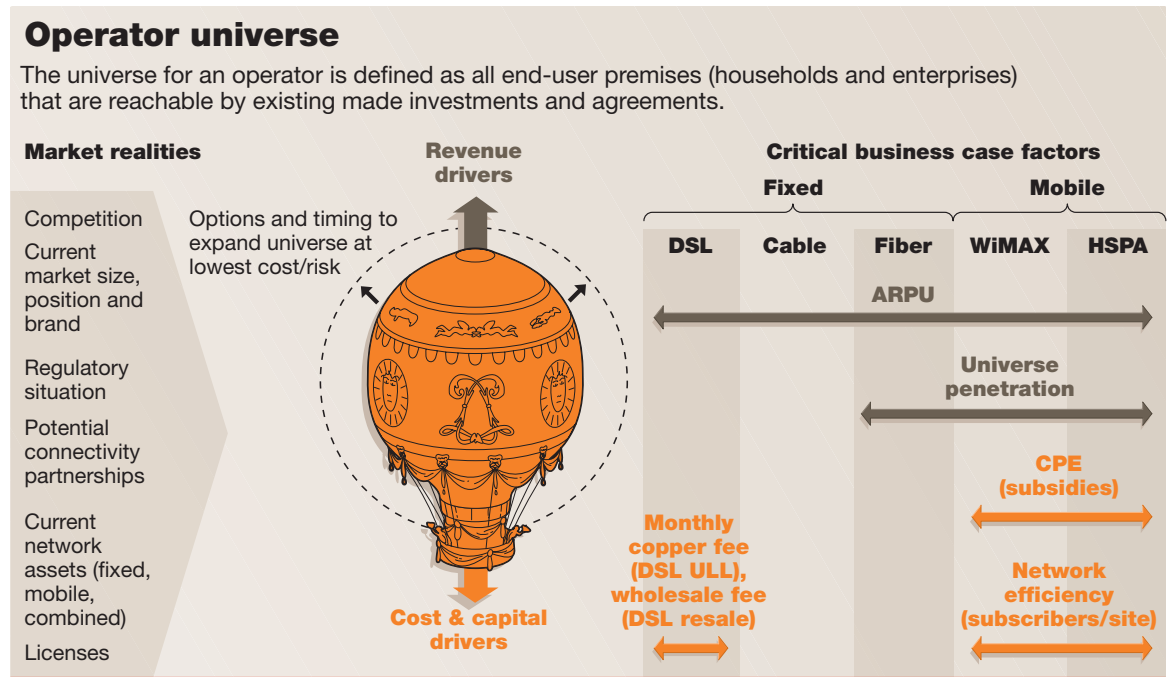




Klas' six commandments for a successful broadband business:

1. Take advantage of the bit-pipe role – broadband access is an attractive business in itself.
2. If consumers demand it, just offer broadband access. Manage broadband access and services separately, according to their different business logics and models.
3. Explore opportunities to differentiate through convenient access at home and elsewhere (integrating fixed and mobile) and for multiple devices.
4. Differentiate the access offering with related services such as customer care, quality of service, security and safe storage.
5. Focus on cost efficiency and economies of scale for sustainable margins – broadband access is or will be a commodity business.
6. Create a clear go-to-market strategy; timing of investment is essential. Winning broadband strategies will contain different technological solutions, fixed and mobile, depending on different market conditions and the assets at hand.

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based on a clear philosophy: what's free to use on the internet should be free to use via mobile broadband.

With the X-Series, 3 is obviously moving away from a per-minute, per-message, per-click, per-event or per-megabyte charging model and towards one that is much simpler. The company's management has said that forcing people into a "walled garden" of content and services in a mobile broadband world is wrong.

The 3 example illustrates the argument for simplifying the business model to win customers through a convenient offering and by focusing on cost efficiency and economies of scale.

Japanese operator eMobile is another operator that is differentiating itself by taking advantage of the bit-pipe role for mobile broadband, having realized that access and services have different logics and business models. With an attractively priced flat-fee mobile broadband service, eMobile combines two powerful opportunities by adding mobile broadband to its parent company's DSL offering, bundling or converging these services. (*Read the full eMobile story in EBR 01/06.*)

Business case drivers

The bit-pipe business (offering connection/access to the internet) is interesting in itself and in most cases the free cash flow looks attractive, both for fixed and mobile and combinations of both. We base this conclusion on analysis of a number of different markets and cases; DSL (incumbent, unbundled local loop and resale), fiber, cable, 3G (greenfield and High-Speed Packet Access upgrade) and WiMAX. WiFi has not been studied separately since it is mainly seen as an extension of the DSL case and it is hard to assess a comparable network deployment scenario. WiFi-hot-spot offerings will however exist in all markets, often in combination with other access offerings.

The success of any strategy and determining which technologi-

cal option is most favorable, is driven case-by-case based on the market realities (see figure "Operator universe"). Competition, current market size (population density), position and brand, regulation, potential partnerships, current network assets, available spectrum and licenses are some of the factors that need to be analyzed for every specific case.

Average revenue per user (ARPU) is the most critical success factor for any access business case. Sensitivity analysis for a typical case for mobile broadband shows that a 10 percent change in ARPU changes the accumulated cash flow over five years by 36 percent.

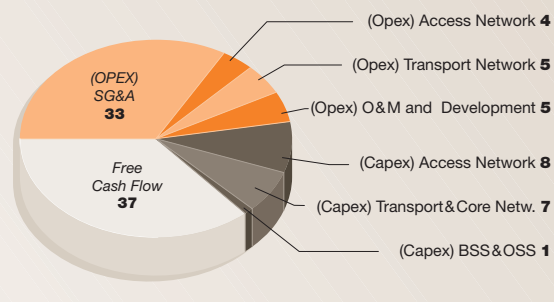
For mobile and fiber cases, market penetration is another critical success factor for the expected revenue development and efficiency of the investment. Within an existing fiber universe, the fiber case shows stronger free cash flow/sales than any DSL case, but expanding the fiber universe is expensive. Expansion depends on population density and the potential penetration. Wireless technologies might definitely be the preferred option in many areas.

Continuing the comparison between DSL and fiber, time-to-market for fiber expansion is slow compared with DSL and it is very capital demanding initially (high risk) which is a drawback when broadband demand is high. However, fiber shows high potential for rapid growth in the future, especially in urban and suburban areas, due to the quality of service (QoS) for high speeds that will be necessary for many future bandwidth-demanding and real-time-critical services (such as HDTV). The crowded tele-stations that limit DSL growth for non-incumbents will also spur growth in fiber-to-the-home (FTTH). Looking at the level of activity and the market momentum, this might happen at a faster pace than most analyst companies forecast. Again, timing of investment is crucial.

On the cost and capital side, key drivers of the mobile case are

Case example

Accumulated revenue, opex, capex and cash flow 2006–2010, Western European market, GSM upgrade to HSPA (2 Mbps downlink, 1 GB/month, average ARPU USD 46).



Customer Premises Equipment (CPE) subsidies. CPE subsidies also depend on the expected balance between traditional handsets and other devices, such as laptops with PC cards or embedded radio modules. So far, most operators seem to be reluctant to subsidize devices other than mobile handsets to drive sales and penetration.

Network efficiency (subscribers per site) is also a critical factor for the mobile broadband case. However, my personal view is that comparing WiMAX and WCDMA/HSPA/LTE (Long-Term Evolution) performance is not so much about technology performance for success in the long run, but rather about the market realities (available spectrum for different technologies, timing of 3G licenses and “go to market” business models) that will determine the market outlook. Players without a 3G license will most certainly evaluate all other options to offer mobile broadband. Timing and competition will determine the success and if there is room for further players.

For the DSL case, a key cost driver for all non-incumbents is the monthly copper fee (for unbundled local loop business models) and the wholesale fee (for DSL resale business models).

For GSM/WCDMA operators, upgrading with HSPA is a natural step to provide broadband and shows the most favorable business case. The business case example shows a favorable ratio between investments and free cash flow, resulting in a sound basis for profitability (see graph “Case example”).

Combining the networks

More and more bandwidth, fixed and mobile, enables more complete market offerings to increase customer convenience and service simplicity. Significant market activity proves this is already happening on a broad scale. Different operators have different starting points, but the natural first step is to offer both fixed and

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mobile broadband to build on existing consumer behavior and penetration of fixed broadband, and offer increased mobility.

One interesting example is French operator Iliad (second-largest ISP in France, branded as “Free”), which is targeting the market aggressively with its cheap broadband access offerings. Iliad has shifted from DSL resale to taking advantage of local loop unbundling and is now aggressively expanding with fiber (FTTH). The Iliad Group has also expressed interest in the fourth and final mobile telephony license in France. Iliad is, meanwhile, the only French operator with a nationwide WiMAX license. The objective is clear but there are different paths to get there.

The expected next step is to integrate these offerings into one. Consumer demand to be always connected is there. Some large players hesitate to take the lead in this direction due to the potential risk of revenue cannibalization, but it clearly offers a way to differentiate and take advantage of the assets at hand to increase market share and decrease churn.

With more and more consumers having multiple digital devices beyond mobile handsets, such as laptops, cameras, music and media players, the expected third step is to add access and different degrees of mobility to multiple devices. This offers great potential for operators but requires new business models since consumers are not willing to pay what they pay for a 3G PC card today, when they want to connect more devices. Offerings similar to “family plans,” but for devices, may appear if consumers want to add further devices to their basic subscriptions.

To summarize, consumer appetite for broadband is real. Providing broadband access is an attractive business in itself and shows significant potential. The winners will be those who dare to unbundle the basic access offering from other services and set prices that drive size to achieve economies of scale. Customers want simplicity, so let’s give it to them.

