

ANALYSIS

Needed: Content Revenues to Fund Broadband

BY KEITH MALLINSON

The free Internet business model is very appealing to consumers, but it's untenable if geographic and socioeconomic reach, speeds, capacity and frequency of use are all to be substantially increased.

My June column in *Wireless Week* predicted that – with 4 billion cell phones worldwide – history would repeat itself by providing broadband Internet access to 3 billion people consuming 20 Gbytes of data per month on personal devices by 2020. My proviso was a dramatically lower cost per bit transported.

Cost reduction is only half the story. Network investments and operational costs for universal broadband require content and advertising revenue shares, as well as subscription or usage fees.

EXISTING ASSETS

Internet connectivity is provided relatively cheaply to 1.7 billion users worldwide with mostly shared and occasional access via PCs. This is on the back of existing phone lines, cable TV connections and in many cases in conjunction with bankrupt fiber from the likes of WorldCom, Global Crossing and 360networks. Some second owners purchased fire-sale fiber for as little as pennies on the dollar. For telcos, broadband subscription revenues from DSL have provided financial salvation by making up for the steep decline in voice revenues.

Major infrastructure builds need carrier cash cows to finance them. Phone network construction was mostly funded by high-priced monopoly calling rates prior to deregulation in the 1980s and

1990s. Cable TV network construction was paid for by content-based charging from dominant suppliers. New fiber-based builds such as Verizon's FIOS for faster access and increased capacity are also crucially dependent on content revenues in subscription bundles, without which investment would not be forthcoming.

With my cable or satellite TV subscription, I cannot avoid paying for content I do not consume because it is bundled with what I do want. What a contrast with Internet, where most content is free.

HIGH COSTS

Increasing Internet capacity and speeds to tens of megabits per second and expanding its reach to half or more individuals worldwide via personal smart devices with pervasive access will be very costly. Deutsche Telekom's CEO Rene Oberman recently cited McKinsey's estimate of Euro 50 billion (\$73 billion) to roll out fiber across Germany to its 82 million population and Euro 200-300 billion for the whole of Europe. On this basis, it would cost three trillion dollars to reach half the world's 6.7 billion population. Whereas costs would be rather more including terminals

and given the much lower population densities worldwide, the extensive deployment of wireless, including HSPA+ and LTE, rather than just fiber, will help minimize expenditures.

The mobile Internet is still embryonic with less than 300 million broadband users worldwide using EV-DO and HSPA. Until about a year ago, few used it much at all but subscribers paid handsomely nevertheless. As user demand increases, the infrastructure investments and operational costs are escalating.

To date, carrier returns on 3G investments have been mostly from voice services. It will take many more years before payback is achieved on large 3G investments, including \$150 billion for spectrum in Europe. Whereas mobile broadband can exploit these existing assets, additional spectrum, cell sites, fiber backhaul and new equipment will also be required.

PICKING UP THE TAB

Mobile data transport revenue growth is insufficient to offset ARPU declines as subscriber penetration increases and as prices decrease. The world's average cellular user spends around \$17 per

month, including \$3 on data with mostly SMS. Internet use generally costs because pay-as-you-go dominates. Revenue potential from subscription and usage – with either increased APRU (i.e., mobile broadband on the first device) or increased penetration (with multiple device ownership) – is limited. Even just a few additional dollars per month for data transport will be tough to achieve across 3 billion users. Amounting to around \$100 billion per annum, that would not be enough to fund a multi-trillion dollar capital investment plus operations.

The broadband Internet providers – with fixed or wireless access – need to seize a significant chunk of the \$500 billion globally in advertising plus more in electronic media, including broadcasting, film, home video, games and music. In the United States alone, motion picture, sound recording and broadcasting industries excluding cable distribution had revenues of \$200 billion and Internet services accounted for an additional \$58 billion in 2008. Whereas communications network providers are increasingly the delivery channel, very little of these revenues are accrued to them. Revenue sharing is appropriate because extended Internet access, increased speeds and capacity will expand advertising, content and commerce markets.

The social and economic benefits with billions of mobile phone users are enormous. So, too, it will be with pervasive broadband Internet access on personal devices. ●

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