Market Analysis

Business Model Collision Looms Closer for Service Providers

Abstract: As their historic mainstream revenue sources continue to come under attack from competition and technology alternatives, service providers must find new sources of revenue that will exceed the losses.

By Kathie Hackler, James Brancheau and Mike McGuire

Strategic Market Statement

Uncertainty surrounding content relationships and the climate of financial-risk aversion will inhibit significant growth of fiber to the x (FTTx) services until at least the end of 2005 (0.7 probability).
Business Model Collision Closer for Service Providers and Media

Telecommunications service providers are accustomed to making technology and investment decisions primarily based on capital expenditure (CAPEX) limitations, operational savings or regulatory requirements. As their historic mainstream revenue sources continue to come under attack from competition and technology alternatives, service providers must find new sources of revenue that will exceed the losses. To do so, they must reassess their position in the value chain and choose their strategies wisely or face total "commoditization." This means understanding all of the players in the value chain and understanding the various business-model changes taking place.

Gartner looks at the choices service providers are making in the consumer market and how they are choosing to defend or explore it.

Competition and New Technologies Set the Stage

Telcos Get a Taste of the Downside of Competition

Service providers are beginning to feel the pain as a combination of technology convergence, public policy and competitive pressure are having a demonstrable impact on revenue. Analysis presented in "How Wireline Carriers Can Limit Collateral Damage," AV-19-2793, still holds true as revenue from traditional voice services continues to decline worldwide (see Figures 1 and 2). Causes of the decline are competition, alternative technologies such as cable, mobile, broadband or VoIP, and (in some regions) regulation. As the figures indicate, growth revenue in data is still not significant enough to offset the decline in voice revenue, and mobile revenue has slim margins.

Tactics vary by company and by region, but the objective is the same: retain users and improve average revenue per user (ARPU). Actions include bundling products, discounting for term commitments, creating strategic partnerships, and channel strategies, and in some cases investing in new technologies or capabilities.

Mostly, these companies are trying to increase revenue with as little investment as possible. Increasing revenue by transporting and packaging entertainment content has long been an objective of the telecom industry. In fact, telcos in some regions of the world have recently introduced initiatives that are based on entertainment content. The difficulty with this objective has always been achieving revenue exceeding the infrastructure investment required (that is, fiber to the home), especially with the limited margin opportunity from the content providers.

Over the past five years, the deployment of asymmetric DSL (ADSL) and very-high-bit-rate DSL (VDSL) technologies have for the most part allowed telcos to forgo fiber-to-the-home investment and still provide "new" services. The issue they face is how long this infrastructure strategy will be successful.
Figure 1
Top Seven North American Fixed Service Providers' Revenue Trends

Source: Gartner Dataquest (November 2003)

Figure 2
Percentages of Operator Revenue

Source: Gartner Dataquest (November 2003)
Media Companies Lose Control

With telcos' revenue increasingly under pressure, media companies also are seeing their revenue declining. Digital technology and high-speed Internet access technologies have combined to create a new digital distribution paradigm, which the content owners no longer control. Before this phenomenon, two points of revenue control existed: the creation of the content itself and control of the media product itself (that is, book, CD, broadcast, newspaper).

Figure 3 shows the value chain that has been in place for 100 years overlaid with references to new middleware and carriage technology. Creators of content made money through sponsorships, distribution fees and usage fees, while, at the second point of control, the publishers, broadcasters, recording companies and so on made money through the transaction, subscription, advertising or usage fees. These two points controlled the money.

Content providers are beginning to see this model being challenged. Figure 4 shows how the points of control have shifted radically. If we consider, for instance, the interactive games industry, the drivers of that market are the players in middleware and appliances. In the mobile space, the carriers have a position of strength. And if you look at the Internet, it is...
difficult to find a level of the value chain that dominates, which is one of the challenges.

Figure 4
Content Convergence Value Chain

Indeed, in the case of the recorded music sector, peer-to-peer networks have caused their value chain to implode, and certainly movies are on the next threat horizon. At this point, most of the emphasis has been on legal and technological countermeasures rather than new business models or opportunities.

Although it will play out over a decade (see Figure 5), all content sectors will be affected by real-time digital distribution. Unfortunately, the music sector has had to deal with facing the full force of change without the benefit of experience in other traditional sectors. The film entertainment sector had the foresight to protect its digital content as it transitioned to digital. It also has content that is much more difficult to transport over today's consumer networks because of massive file sizes.
Television and advertising will also face major change as video on demand (VOD) and personal video recorders take hold. These devices will give consumers increasing control over viewing patterns and disrupt business models that rely on advertising. Radio and print may have more time. In radio, digital satellite broadcasters threaten to make locals obsolete in midsize and smaller markets. In the print sector, publishers have already faced the threat of online access and in five years will face a second threat with the consumer adoption of PC tablets, book readers and specialized appliances.

These new technologies and distribution models have spawned the need for digital rights management to protect media content, and until this problem is solved, the full economic benefit from ubiquitous deployment of broadband will not be achieved. What the industry is faced with is an "arms race" as content owners struggle to protect content and others try to share it.

**Carrier Choices to Monetize Content**

The quest for carriers remains bringing content to customers in a way that increases the telco’s revenue stream. Today, many customers are simply using their high-speed connections to access content directly over the Internet. Customers are going straight to the content producers themselves that have portals such as EA.com, iTunes, and Movielink, which will allow
users to download movies, music or content over the network. The carrier plays no role and benefits only indirectly by the demand this may create for high-speed access services.

The carrier who wants to monetize content typically considers three choices (see Figure 6):

- Become a content creator. Some have tried and failed. This strategy requires heavy investment, and carriers simply do not have the skill set. Investors are unlikely to be happy with this approach in the current environment. (Cable TV operators are doing this in some regions because they already have some content. Hong Kong’s iCable, which repackages local news, is an example.)

- Buy content or content rights or content-creating companies. This is also a "bull market" solution with heavy costs and no guaranteed payback.

- Partnering has been the choice of most providers because of the low upfront costs. The telco hosts the content on its network/portal, and in some cases, revenue is shared with the content provider. In most situations, each keeps its own revenue, but each partner benefits by increased demand for their respective part of the solution. Both strategies are emerging in various regions of the world.

A fourth choice is considered less frequently:

- Forget making revenue from the direct sale of content, and instead focus on the hosting aspect. In this scenario, the content provider is charged for enhanced performance, and features such as security and billing. This strategy isn't free. For instance, video demands huge storage facilities, and billing and operational systems would have to be modified.

The prevalent digital media landscape (see Figure 7) has yet to offer a road map for successful monetization for either the content owner or the transport provider. Hybrid relationships tend to focus on market development and channel partnerships more than new incremental revenue opportunities, as demonstrated by some of the examples of telco/media relationships to date.
Figure 6
Securing Access to Content

![Diagram showing the process of securing access to content with labels: Create, Buy, Partner, Host, Bypass Carrier (Movielink, iTunes, EA.com), Carrier, Package, Personalize, Filter and Bill. Source: Gartner Dataquest (November 2003)]

Figure 7
Prevalent Digital Media Landscape

![Diagram showing the prevalent digital media landscape with categories: Pipes, Hybrid, Content. Pipes: Comcast, Cox, etc.; Verizon, SBC, etc.; British Telecom, France Telecom, Deutsch Telekom, etc.; EarthLink, Juno, etc. Hybrid: AOL, MSN, etc.; SBC and DISH Network; British Telecom and Yahoo, etc. Content: Yahoo!, etc.; The Wall Street Journal, The New York Times, etc.; RealOne, etc.; iTunes, etc.; Movielink, etc. Source: Gartner Dataquest (November 2003)
Examples of Emerging Telco/Media Relationships

Revenue Sharing: Korean Broadband

The revenue-sharing model is probably the most advanced in South Korea, where broadband portals connected to the key broadband players such as Thrunet, Korea Telecom and Hanaro have relationships with hundreds of content providers. Much of this content is local in nature: pop music, local movies, Japanese cartoons, local cartoons, some older Hollywood movies and online education.

Movies are streamed to the desktop PC at 300 Kbps to 1 Mbps for $2 to $6 per 24-hour period.

The typical revenue-sharing model is a 50-50 revenue split on the revenue that comes from the consumer. Initially, the content providers wanted the revenue split more in their favor, but as the portals have become more popular, the content providers are recognizing this as a useful content aggregation model and have been willing to accept a more equitable share. However for the premium content, the revenue agreements generally favor the content owner.

Originally, much of this content was behind a "walled garden" and only the users of that particular access provider could access the content. However, the companies recognized that this approach cut them off from the broader emerging broadband consumer market. As a result, they dropped the walled garden in favor of portals that are open to all. So Thrunet's Korea.com can provide VOD equally to its own users and users of Korea Telecom and Hanaro.

In some cases, the telco may not deal directly with content providers. They may deal with a third-party service provider that deals with the content provider or acquires content on behalf of the telco.

The revenue-sharing model is providing some revenue to telcos, but the market is small. South Korea has very high broadband penetration — most of it above 1 Mbps and more than 1 million VDSL subscribers at 3 Mbps or above. However, from a content strategy perspective, the results so far are disappointing.

Overall Experience in Asia/Pacific

Carriers in the Asia/Pacific region were the first to experiment with delivering content over broadband, and, hence, in the vanguard of finding that, this is a hard business to get right. Hong Kong Telecom's iTV VoD service and Magix from SingTel, both launched in the late 1990s, were failures, attracting lackluster interest from consumers. With only poor-performing models to follow, other carriers have held back on similar full-scale rollouts of high-quality movie services.

However, a new wave of offerings have come this year. Of the more ambitious, Chunghwa Telecom in Taiwan is ready to roll out 20,000 lines of movies on demand using a set-top box with 3 Mbps of guaranteed bandwidth to the TV. PCCW (which now owns Hong Kong Telecom) is...
back with a pay-TV service, but not VOD. Other carriers are sitting on the sidelines, waiting for technologies and business models to mature.

**BT Yahoo: A "Smart Pipes" Strategy**

This strategy focuses on BT's core competencies (for example, network and subscriber management, contact center operations and billing) leaving media aggregation (content deals, ad sales, and so on) to Yahoo.

This is positive for both partners as it provides BT with entry-level media and drives demand for basic connectivity. It has the potential to reduce customer churn and is the least expensive and fastest path to market. The negative side is that it brings no incremental content revenue, and whether it is sustainable over time is questionable. If the relationship progresses to that of content aggregator for BT, there may be some long-term payoff. (In the United States, SBC has a similar relationship with Yahoo as part of its broadband portal strategy.)

**SBC/Echostar: Channel Partnership**

SBC recently announced a relationship with satellite entertainment provider Echostar to deliver a cobranded service for multichannel television services. This is an example of a telco using its channel capabilities and operational capabilities to create a content partnership without making an investment in transport infrastructure. Under the terms of the partnership, SBC will act as the single point of contact for customers wishing to order DISH Network services.

This relationship provides Echostar with a new potential channel for their DISH services, but the payoff for SBC may be more important. The cobranded television service allows SBC to fill out its product bundle to include entertainment without any incremental investment in transport infrastructure (that is, fiber) or the need to become a content aggregator. It's not clear if there is revenue sharing, although SBC has the latitude to set the price for the bundle.

This is a good short-term strategy, but the impact of the bundle vs. consumers buying the service on a stand-alone basis is yet to be determined since the product will not launch until the first quarter of 2004, when the operational support systems have been modified. (BellSouth has announced a similar relationship with DIRECTV to launch in the first quarter of 2004.)

The other two U.S. incumbents, Qwest and Verizon, have also announced agreements with satellite providers, but no integrated products have been created. This underscores the uncertainty of the telco/media long-term business model.

**MovieLink and BellSouth: Content/Transport "Relationship"**

MovieLink has shown that the major film studios are becoming more comfortable with the protection measures that are built into online distribution. MovieLink is a joint venture of Metro-Goldwyn-Mayer
Studios, Paramount Pictures, Sony Pictures Entertainment, Universal Studios and Warner Bros. Studios. MovieLink content offerings are drawn from the current releases and vast libraries of those studios as well as from those of Walt Disney Pictures, Miramax, Artisan and others, on a nonexclusive basis. The major drawback continues to be lack of portability for viewing on the television.

Although the agreement announcement touts a cobranded product, the actual effort seems more of a comarketing strategy built on the interdependence of speed of transport and content. MovieLink has created a portal for BellSouth ADSL users that allows users to preview trailers and offers fast downloads of movies from the site.

The MovieLink/BellSouth relationship is one more of convenience than strategy. It requires no incremental infrastructure investment by BellSouth, but once again, the downside is no revenue from content, which leads credence to this being a short-term strategy with marginal appeal.

FastWeb: A Glimpse of the Future?

FastWeb is Italy’s competitive fiber-to-the-home operator. It is deploying fiber in urban centers and building revenue through business services (60 percent) while skimming off high-value consumer customers (40 percent). It offers access speeds of 10 Mbps and TV and movies on demand. The downside, for now, is that it is available in few urban centers, primarily multidwelling units.

Its early success provides hope that a seamless high-quality bundle of telephone, high-speed data and VOD is a model worth emulating. A major question for FastWeb (like many providers) is when the capital markets will loosen up to the point of allowing the required investments in fiber (45 percent of the subscribers have ADSL at 4 Mbps). At this point, scale economies are still in the future, and the long-term revenue impact of the bundle against the infrastructure investment in fiber is still uncertain.

Bottom Line

Questions and Uncertainty Will Continue to Delay Fiber Business Plans

It is unclear what forms of converged or multimedia companies will emerge. Certainly the content providers’ preoccupation with protecting their content will delay or inhibit these new business models. GartnerG2 and the Berkman Center for Internet & Society at the Harvard Law School have advanced five scenarios for the future of digital media and copyright law, which are discussed in the GartnerG2 document "Five Scenarios for Digital Media in a Post-Napster World."

Still, with no technical solution on the near horizon, this issue will continue to inhibit robust new digital media delivery models, which means limited opportunity for telcos to capture margin from content.
Content-protection issues aside, telcos are concerned about how to match increased bandwidth with increased revenue. Operators should expect "bandwidth economics" to develop in a similar way as the economics of PC processing power — that is, there will not be a linear relationship between bandwidth and revenue at any given point, and steep price erosion must be expected.

Today, with a few exceptions, ADSL dominates worldwide as the infrastructure of choice in the telcos’ bid for the high-speed consumer market. Speeds range from 384 Kbps to 6 Mbps. Without high-quality premium content that gives consumers incentive to upgrade to potentially higher revenue-generating services, pricing has been kept low to build broadband market penetration and move users from dial-up.

While there are regions in which fiber has been deployed in scale, in most cases there has been some type of government intervention or requirement involved. FastWeb is one of the few examples of venture capital funding of telco fiber, and given the uncertainty of the capital climate, its long-term success is still in question.

Without a clear business model or success story to emulate, movement in this area will be cautious. Based on the lack of a specific revenue-generating service model, Gartner anticipates that telcos in most regions will continue to use a combination of four cautious infrastructure deployment strategies (depending on the market being targeted):

- Fiber is clearly the best choice for "greenfield" build-outs where no existing infrastructure is in place or where government subsidy is involved.
- Another option is ADSL2 and ADSL+2. Upgrade existing ADSL digital subscriber line access multiplexers (DSLAMs) for higher bandwidth (20 Mbps) over existing copper distribution networks. This can be implemented on a just-in-time basis. Meanwhile, VDSL is being deployed in some regions as an alternative, as we have already seen in parts of Asia/Pacific and Europe and in some independent operating companies in North America.
- Next-generation fixed wireless (licensed and unlicensed spectrum) is being used in areas where terrain and density are issues, such as rural markets.
- Relationships such as the telco/satellite partnerships provide a quick and inexpensive way to address vulnerable markets with a bundle that includes entertainment or those that may be hard to serve because of lack of density or terrain.

**Key Issues**

How can service providers capitalize on opportunities in content distribution, commerce and application rental?

What are the optimum business models for incumbent operators, alternative operators, ISPs and other carriers?
This document has been published to the following Marketplace codes:

TELC-WW-DP-0621