

White Paper: Broadband Television

Taking Advantage of the Broadband Television Window of Opportunity



Highlights:

Understanding the transformed value chain and the converged customer

Lessons learned by early entrants and business models that work

Technology enablers and constraints

Introduction

As the broadband content industry grows, MSOs, content providers and other broadband businesses face a potential sea change in which integration, innovation and consumer empowerment drive future growth. The transformation of value chains, business models and technology is underway, with businesses moving rapidly to win the converged consumer. Broadband availability has created content revolution that fuses the best elements of the television experience with the interactivity and consumer control that energized the Internet. With new deals and partnerships shifting the competitive landscape each day, a “wait-and-see” approach won’t pay dividends in this aggressive environment. Neither will a blind rush into new markets; rather, cautious experimentation in which firms test strategies and implementation options is the course IBB recommends and has proven with our clients.

Companies that capitalize on strategic windows of opportunity today will gain market advantage for years to come. Now that high-speed data services from MSOs and Telcos can provide multi-megabit Internet connectivity to over half of US households, a new opportunity exists to create new kinds of content and distribution businesses. We believe this is a highly disruptive development, and while the outcomes are still unclear, this paper hopes to illuminate some of the competitive dimensions of this evolving industry segment and provide recommendations for taking advantage of the opportunity.

Opportunities and Challenges in the New Value Chain

At the heart of this transformation is the new value chain that is reshaping how content makes its way from a broadening range of sources to its destination, wherever and whenever the consumer demands it. In our work with clients, we have begun to develop a picture of which companies will profit as producers and packagers begin to offer Broadband TV services directly to customers.

As competitors consider such emerging business models, new over-the-top entrants such as Google, Yahoo! and Apple’s iTunes are working to disrupt the traditional content-distribution matrix. Apple alone reported more than 35 million video downloads since it opened its iTunes video store in October. iTunes now sells more than 220 TV shows and more than 75 movies. Apple’s upcoming iTV player, meanwhile, promises to bring iTunes to the emerging IPTV environment with an in-home console that could create even more potential for value chain transformation. Making Apple so influential is the iPod’s undisputed dominance in the portable market. Although MSOs are advantaged in their facilities-based video and VoIP platforms, integrating wireless connectivity to an in-home console which seamlessly integrates with Apple’s stable of media-friendly products could present a formidable disruptive force to cable operators seeking to dominate in the nascent quadruple-play business.

While new entrants are rapidly striking deals with traditional media outlets, there is a dawning recognition of the power of user-generated content and online communities of interest. Google’s \$1.65-billion bet on the popular YouTube video sharing site is an example of how the broadband video value chain is transforming. YouTube users avidly consume amateur videos alongside unlicensed Hollywood fare, caring little about whether members of the content value

chain are appropriately compensated. Part of the explanation is generational; YouTube's young user base tends to reject traditional linear programming in favor of non-linear "contextual" media. Now, among older demographics, perceptions are shifting as well. The linear cable television business remains robust, but no longer do people automatically seek entertainment through traditional channels. And while YouTube takes down copyrighted material when rights holders complain, that's little solace to many content owners who feel violated by the loss of control that such this distribution model suggests. All of this creates tension between content creators, aggregators and distributors as they try to forge advertising and subscription models that generate adequate revenue for all partners involved. We believe the value chain is presently in a tenuous balancing act and has several changes in store before settling on a sustainable structure.

Understanding the Converged Consumer

Broadband content is a young industry with rapidly shifting fortunes. But its prospects have occupied the minds of entertainment and Internet executives for years. While past efforts at broadband video sputtered for lack of adequate quality and broadband penetration, the 2006-2007 timeframe is shaping up as a key inflection point. The converged consumer is no longer a theory or dream for industry executives; it is a near-term reality. As evidence, consider a number of catalysts that are only now conspiring to push broadband TV into the consumer mainstream (see sidebar, *Key Growth Drivers*).

In light of these factors, content and distribution companies must understand that consumers are increasingly unwilling to passively wait for messages to reach them—whether advertising, entertainment or information.

The old content economy bound by schedules is making room for an "attention economy" in which consumers expect immediate satisfaction. Business strategy from gaining "share of wallet" to seizing attention-based "share of day" from consumers, who increasingly exhibit little tolerance for clunky experiences online—they want a high-quality experience. Today's entrants are in an excellent position to capitalize on these trends, but they must move fast. Of course, users are consuming more video content than ever, suggesting that the size of the overall pie will increase at the same time as market share is redistributed to innovators. For MSOs and telcos, who actually own infrastructure and exert gatekeeper control over the last mile to

Key Growth Drivers

- Increased broadband connectivity
- Higher bit rate encoding and better quality
- Unique broadband content and increased promotional efforts
- Near-ubiquitous video software (WMP, Flash)
- Increased convergence and connectivity between TV, PC and mobile
- Demand from consumers for interactive, collaborative content
- High profile initiatives by Apple, Google, Disney
- Increased convergence and connectivity between TV, PC and mobile; IP based STBs
- Advertiser dissatisfaction with DVRs, lack of performance transparency and lack of targeting on traditional platforms
- Improved content security

consumers' homes, the goal is to integrate broadband content in the context of multiplatform services. One example is the growing practice of "broadband windowing" in which content owners make fare available in the broadband world soon after or simultaneously with its release in other "old media" formats (such as theatrical or DVD release of movies, or season premieres of hot TV shows in the linear TV environment). Not only can content aggregators ensure that viewers are able to interact with content from anywhere and from any device, but opportunities also exist to augment content in ways that increase consumer retention. This "stickiness" drives higher ARPU and loyalty.

Lessons from the First Movers

Before determining a course of action, it is important to review the lessons learned by the first movers in the emerging broadband-content space. These nimble players seek to capture mindshare and market share before telcos or cable operators are able to consolidate their power. In the area of downloadable movies and other professionally produced content, CinemaNow, MovieLink.com and Vongo have established a workable model, but user adoption has been lower than expected. User-generated content, meanwhile, has grown rapidly on social networking and community sites such as YouTube and Myspace (now owned by News Corp.). As evidence of the fickleness of converged consumer, Myspace growth has begun to level off—the lesson is that business models and features must respond rapidly to shifting customer demands, because alternatives are readily available.

Portal and search-engine players, including Yahoo! and Google, are trying to meld user-generated and professional video content into overall video destinations. Google, in particular, rapidly tests new business models that put more pricing power with individual producers. The more structured alternative has been Apple's iTunes site, which offers \$1.99 video downloads from popular sources such as Fox's hit TV show "24" and ABC's equally popular show "Lost." Partly because of its embedded base of devoted iPod users, iTunes has become the most successful premium video download destination on the Web. We believe prices will settle in the range that iTunes sets; the other business model which will gain traction in 2007 will be an "all you can eat" streaming subscription offering.

Microsoft's Windows Media Player 11 offers video and audio downloads and will soon try to match iTunes and other sites with automatic desktop placement. In addition, traditional cable programmers such as Viacom's MTV brands and Disney-owned brand ESPN have launched new subscription-based models to give

Lessons Learned By Early Entrants

Provide customers with unique and tailored content not available anywhere else

Understand that bandwidth limitations can have significant impacts on content delivery, cost, customer satisfaction

Combine current, archive & user generated content into a unified storefront/portal

Strive for quality, simplicity & ease of use in all user-facing content delivery platforms

Maximize the long tail to leverage catalog content in an innovative way

Understand the multitude of technology & delivery options

Renegotiate content licensing, revenue sharing & advertising/sponsorship

users access to myriad video and music options. MTV's Urge product will work in concert with Windows Media Player 11 while ESPN's newly launched multimedia player combines several services—ESPN360, ESPN Motion and its online pay-per-view offerings—into one comprehensive application. Meanwhile, Microsoft's MSN and Time Warner's America Online are increasingly offering multimedia content as a value-added service augmenting their Internet access services.

These services are transforming the landscape in multiple ways. First, broadband-video services directly challenge the traditional video consumption model tied to TV sets in the living room. By giving users the means to access such content on their PCs, the game changes considerably for advertisers and content providers. And while advertisers struggle to determine where to spend limited ad budgets (on TV commercials, interstitial and banner Web ads or video spots embedded in broadband video content), content providers must consider how their broadband strategies can co-exist with traditional distribution channels such as cable and satellite. Cannibalization, it seems, is inevitable. However, there is little evidence to suggest that cannibalization results in lower viewership overall. In fact, we believe the contrary: HBO's use of video-on-demand, for example, has resulted in higher usage and retention in VOD vs. non-VOD households. Downloadable episodes of hit shows online can bolster fans and viewership when the first-run episodes air on the TV platform as fans get up to speed with storylines online and then tune in when subsequent episodes premiere live on television before being made available online.

For all the excitement over ad-supported and pay-per-view broadband content, we believe the true moment where this new distribution channel will cross over to the mainstream is when consumers can easily view PC content over the TV and on mobile devices.

Technology Enablers and Constraints

Broadband content players face great challenges, not least of which is an Internet infrastructure that still lacks a cheap, reliable way to handle millions of high-quality broadband unicast multimedia streams. Indeed, the primary hurdle continues to be that elusive last mile to the customer's home.

Growing numbers of broadband customers with ever-increasing expectations of stream quality (soon to include HDTV) are putting an enormous strain on existing networks. New initiatives by telcos to deploy fiber closer to or directly into consumers' homes is expected to ease some of this burden. MSOs, having just completed major upgrades to deliver digital content and high-speed data services, will inevitably face a new round of upgrades in light of the telcos' encroachment into their most lucrative markets. For MSOs, new standards such as DOCSIS 3.0 could bring about a fivefold increase in data rates, which will help them compete with Verizon's FiOS and AT&T's Lightspeed offerings. Also looming on the horizon is the reclamation of analog channel capacity, largely enabled by the 2009 analog broadcast spectrum giveback, which will free up enormous capacity on the cable infrastructure.

New data distribution platforms such as peer-to-peer models that ease capacity burdens will also play an important role. The BitTorrent peer-to-peer distribution protocol breaks large

data files into small chunks that can be reassembled from many individual PCs in a widely distributed system. In May 2006, Warner Bros. Home Entertainment became the first major studio to sign a deal with BitTorrent Inc., which maintains the protocol, leveraging the company's peer-assisted delivery system for the electronic sell-through of motion picture and TV content in the U.S. Kevin Tsujihara, President Warner Bros. Home Entertainment Group, called the BitTorrent technology “elegantly designed.” Other content owners will soon follow Warner Bros.’ lead, creating a more efficient distribution architecture for broadband video downloads.

We believe that despite these advances, MSOs, telecom and content players face continuing constraints. First, the logistics of customer support and service in this new delivery model require different skill sets than the typical customer-service call to an MSO or occasional programming-related inquiries for cable networks. In the broadband video world, service and content providers will need to guide customers through software platforms, and cope with quality-of-service (QoS) issues that are beyond their current level of expertise. Furthermore, content providers are ill-prepared to wade in sophisticated digital rights management (DRM) waters. Independent producers, for example, may request stronger DRM schemes than those provided for network-owned content, or vice versa. Different DRM schemes for different content sets create additional complications for aggregators. One prevailing question is whether aggregators will handle such functions in-house or outsource them to other providers. Despite the immediate benefits, outsourcing obviously involves its own share of trade-offs, making the decision one to be carefully considered. Further, the availability of real-time metrics will present opportunities for companies skilled in customer analytics such as Amazon, and a threat to those companies that fail to integrate insight into business processes. Finally, interoperability between broadband video platforms remains a key challenge; we believe standards will emerge within the next 12 to 18 months.

Business Models

Early players and power brokers will try many new business models before settling on those that are most effective. The next few years will be crucial; players will need flexible strategies to succeed. Some will partner for mutual benefit, others will build their own platforms. Still others will simply acquire established sources of audiences or content as News Corp. did when it purchased MySpace in 2005. The obvious benefits include the ability to offer new services and content as well as the ability to leverage new assets on an established platform. News Corp., for example, gives MySpace profiles to its own movies and TV shows (and associated characters) to promote those assets on the page that MySpace’s more than 120 million users must access before signing in to their profiles. Making this model work demands a great deal of internal cross-functional cooperation. Such actions serve a dual purpose by making the online experience more compelling, while steering customers back to traditional media (movies, TV shows). At the same time, traditional media can direct consumers to the online channel for a more interactive experience built around the same properties. This symbiotic cross-marketing further suggests that broadband video can be an additive—rather than cannibalistic—phenomenon.

Meanwhile, some traditional players are investing more resources into online properties at the expense of traditional programming. NBC Universal’s “NBCU 2.0” initiative, for example,

will cut costs and jobs related to its linear TV division and redirect resources into its online properties. This highlights the fact that ad dollars are rapidly shifting online, as metric-happy advertisers demand a level of accountability difficult to achieve in the linear, 30-second-spot environment.

Four broadband TV business models seem most likely to emerge:

The New Content Provider (ESPN, WWE, Anime) has a direct relationship with the user and seeks to own a niche, hosts a Web site with servers and content management, and mass markets itself for maximum exposure. It makes money through subscription, pay-per-view and advertising, using multiple channels.

The New Aggregator (MovieLink, JumpTV, Vongo, MySpace) promotes itself as “master of the medium” and hosts an Internet store front complete with servers and billing systems. Subscriptions, pay-per-view and ad sales drive its revenues through a specific, direct channel.

The Media Superstore (Yahoo!, MSN, Google, AOL) provides seamless integration with a broader set of content, including search functions, hosted servers and billing/payment systems. The idea is to leverage an already recognizable national brand while still using subscription, pay-per-view and advertising to make money.

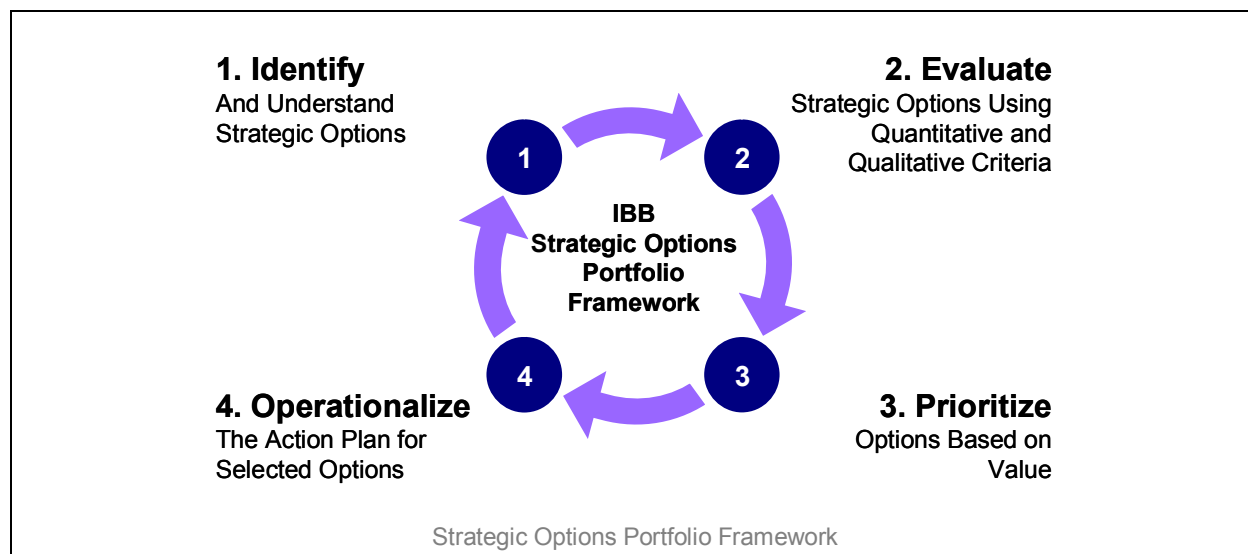
The Multichannel Operator (Comcast, Time Warner Cable and AT&T) packages its broadband TV content with other services, including traditional TV. Cross-promotion and branding become a key part of such a model, which also relies on increasingly bundling products across multiple platforms to create user convenience and keep customers from defecting to alternative providers.

A hybrid of proven business models is likely to win. For example, a cable operator or telco may be content to break even or even lose money on broadband TV if doing so helps reduce churn for its overall bundle of products (video, voice, data and mobile). For these facilities-based players, compelling content becomes more of a value-add than the primary profit driver. A pure-play broadband TV provider, however, cannot fall back on video, voice or Internet access services; it must make money from broadband TV alone or as part of a larger strategy to build an Internet community.

We believe this competitive dynamic could become immensely important as over-the-top content providers take on facilities-based providers. MSOs and telcos may face a lower threshold for success than pure-play entities. In addition, some over-the-top players that focus on user-generated content may be able to find unique sources of revenues—such as those stemming from search engines. In those cases, ad revenues would include paid search placements similar to the kind of sponsored links now found on Google’s standard search. The extension of that revenue model to broadband TV appears likely within the next six to twelve months.

Whether through search or more standard display advertising, though, ad-based revenue models appear to trump commerce-based business models in the broadband TV world.

In fact, growing ad revenues could change the broadband TV game considerably. So far, neither over-the-top players nor traditional content owners/distributors have made a major push to produce original content specifically for the broadband environment—partly because of the enormous production costs currently borne by TV advertisers who pay millions for 30-second TV spots. As a result, most broadband TV to date is derived from content created for the linear TV environment and repurposed for corporate websites or aggregators such as iTunes and Google. Changing ad models could help big media find business models for broadband-only content—but the road remains uncharted and uncertain. For now, there is a surfeit of amateur-produced video “shows” through services like YouTube. While few make money, some shows are already emerging from the pack in a similar fashion to what has occurred in the blogging and podcasting spaces over the last two years. Traditional media outlets could eventually find competitors producing ad-supported shows from garages and basements everywhere. While such fare may never match the production quality of major media companies, this type of content could be to cable what independent films are to Hollywood: not an immediate threat, to be sure, but nonetheless a competitor for consumer attention, as well as a potential partner in some instances. In the meantime, however, business models remain in flux.



In this dynamic environment, the approach to executing business strategy should be portfolio driven, iterative and rapid, using a strategic options evaluation model (see sidebar, *Strategic Options Portfolio Framework*).

Strategic Assets and Partnerships

The approach to evaluating strategic assets and potential partnerships should use the same portfolio-driven strategy. Partnerships seek to fill critical gaps in the value chain and facilitate direct to customer distribution. Acquisitions that seek to gain strength in weak areas are also likely. But any such deals must proceed only after both sides have carefully and honestly evaluated the strategic, organizational and technology strengths of the other. MSOs, for example, may find that some content partnerships aren't worth pursuing because the revenues involved aren't worth the risk of investment. Other content deals, however, may in fact

help a facilities-based provider reach demographics that otherwise would be difficult to access—and the resulting long-term benefits could be compelling. In the end, broadband TV providers must take decisive steps—whether through a smart portfolio of acquired assets or through a strategic group of partnerships—to ensure they are well positioned for the inevitable growth of broadband TV as a revenue-generating source for the future.

At the same time, MSOs and telcos building broadband TV platforms must be careful. Many vendors that claim broadband TV experience have in fact yet to prove themselves in the space, and making the wrong partner choices can significantly reduce scalability and slow integration. Of course, the difficulty in finding fruitful partnerships and acquisition targets shouldn't lead to an insular policy in which companies feel compelled to build only from within. Smart companies that perform due diligence and carefully select partners will win the broadband TV battle.

Operations Transformation

Any company that wishes to be a viable player in the emerging broadband TV space must either transform its operations to take advantage of these new realities or set up a separate entity with the focus and expertise to execute a larger vision. That requires enabling decision-makers with the information and decision authority necessary to make bold changes. It also requires coordinating disparate departments into a cohesive force that can move forward together. Process automation, as well as the design of robust, flexible and connectable architectures, can also help MSOs and telcos prepare their networks for the broadband TV revolution.

Success ultimately rests with execution, including rapid deployment of strategic initiatives, candid evaluation of strengths and weaknesses, clearly defined monetization strategies, careful evaluation of partners and vendors, and, of course, the active involvement of key thought leaders toward the organization's goals. Only through such a focused and relentless march—surrounded by a knowledgeable team and experts able to help manage risk—can players find victory in what will only become a more competitive marketplace.

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