

Advisory Report

Digital Home Services in 2009: An Evolution, not a Revolution



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■ Summary

A tough economy, market saturation and an overall lack of technical innovation will all contribute to 2009 as a year of gradual evolution rather than one of revolution in the digital home services market. In some ways, the 2009 evolutionary stage has been set by technology advances that took shape in 2008 while in other ways, market forces in 2008 beyond technology will affect competition. In one example of technology evolution, commercial video programming delivered from the Internet to the TV set is now available on dozens of devices, such as those from VUDU, Apple and Netflix. However, business issues (e.g., limited content and monetization) and technology limitations (e.g., ease of use) still stand in the way of an Internet TV revolution. In another example, time-shifted video over the broadcast TV network moved beyond the domain of standard video on demand (VoD) with Time Warner Cable's "Start Over" feature and with Microsoft Mediaroom's "Reverse Gear" over IPTV. Yet the carriers' cost for VoD servers in the absence of a way to better monetize dated programming puts a business case limitation on unlimited program caching.

Market forces beyond technology in 2008 will create a "cause and effect" on competition in 2009. For example, as service providers increase broadband speeds to differentiate their Internet services, they also fostered an environment ripe for "bandwidth hogs" to create network congestion—a factor that must be elegantly addressed in 2009 as the number of "hogs" multiplies. While technology advancements and consumer demand allow two steps forward, business issues and technology limitations bring digital home services one step backward, thus creating an environment for a gradual evolution while prohibiting a service revolution in the near term. This report will provide topical analysis of five digital home service issues, providing guidance that will characterize the digital home market in 2009 and beyond.

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■ Current Perspective

Digital Home Services in 2009: An Evolution, not a Revolution**Broadband Becomes the Foremost 2009 Triple Play Differentiator**

Telcos have the upper-hand with more choice of voice price plans (e.g., unlimited calling, local flat rate and “lifeline” service), but the cable companies and telcos have largely the same voice feature sets available (e.g. call waiting, call forwarding, etc.). Most competitors also offer equivalent video programming choices (e.g. local networks, HBO, ESPN, etc.) although MSOs typically have more price plan options than telco TV offers and telcos temporarily have more broadcast HD channels available. Triple play bundle pricing between competitors is generally close within a given market for similarly featured packages. So the remaining “big ticket” differentiator between competitors’ triple play bundles becomes the broadband service’s value based on speed and value-added features like security and home-network support. Service providers should also take care not to compete on raw speed alone lest they be relegated to being a “dumb pipe”; rather value added services like in-home networking support and built-in security features should feature more prominently to differentiate broadband services.

One way that broadband became further differentiated in 2008 was with the introduction of professional services supporting in-home networks and service attached devices. In August 2008, AT&T introduced its ConneCTech program and Verizon followed suit with its own Expert Care program in October 2008. However, with the liquidation of Circuit City stores supplying Verizon with fire-dog support services for Expert Care puts a crimp in the Verizon support service. And Cisco’s introduction of its Media Hub device in January 2009 at CES makes it easier for consumers to manage their own network with their own customer premises equipment.

Whether through service provider supplied professional services like AT&T’s ConneCTech or with service attached software like the Cisco Linksys EasyLink Advisor (LELA) found on its new wireless routers and Media Hub, 2009 will see an increase in the importance of making home networking easier. One trend to watch: with the entry of premise device features that more easily manage the home network, service providers will eventually be challenged to offer the same features that are easy to use in the long term. So for example, service providers will one day need to be able to offer the same home networking management features offered today by Cisco LELA.

Growing Residential Broadband Demand Will Force Carriers to Re-open Usage Limit Policies

Usage caps may solve the issue of fair access, but they also present a problem with customer expectations unless the usage cap is raised as the number of “heavy users” grows. For example, Comcast estimates that up to 99% of its users in 2008 would not exceed its 250 GB threshold since they would need to download over 124 standard definition (SD) movies to violate the cap. The rise of downloading HD movies will make the usage cap less effective since a1080p HD movies can require seven to ten times more network bandwidth compared to a typical SD movie download.

Given the increasing popularity of Internet delivered video in general and in particular the demand for HD content, the 1% of today’s “heavy users” will undoubtedly grow—forcing carriers into more elegant options to protect their broadband network. Service providers need to offer better and faster high speed Internet connections, and simultaneously maintain profitability. Given the importance of broadband differentiation to the whole

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triple play, carriers must wisely choose their usage limit policies in a way that grows their customer base. One option to thresholds and usage is to provide upgraded classes of service within a speed tier, similar to the approach used with business grade IP-VPN service classes. However, if service classes are used then carriers will be challenged to properly craft the solutions and educate their customer base since residential broadband today is marketed based solely on speed with the consumer perception of relatively unlimited access. One big unknown is how government regulations around net neutrality might evolve with a new FCC chair, larger Democratic party congressional majorities, and a new presidential administration with aggressive views on improved broadband access.

Telcos Will Continue to Lose Wireline Voice Customers in 2009

As was the case in 2008, the incumbent telcos will continue to lose voice customers in 2009 as subscribers churn to cable providers' bundles that include unlimited calling plans. And consumers will increasingly substitute a wireless phone for their wireline service—especially when plans like the Boost \$50 monthly pre-paid offer have such a compelling value proposition that includes unlimited domestic calling.

Although unlimited calling from wireline providers ranges from \$30 to \$40 a month, the additional mobility, messaging and Web access benefit may help fence-sitting cord-cutters opt for wireless plans. According to the Centers for Disease Control report on wireless substitution released in December 2008, in H1 2008 some 17.5% of U. S. consumers have “cut the cord” to the traditional home phone and now use their mobile phones exclusively for all calls.

2009 Internet Video Remains Underwhelming, but Carriers Must Still Enter the Fray
Time Warner Cable deployed a service in October 2008 that brings Web content and interactivity directly to the TVs of Oceanic Time Warner Cable subscribers in Hawaii. Verizon conducted technology and user trials in 2008 to bring Internet-delivered video onto televisions connected to its FiOS service. And AT&T's IPTV-based U-verse infrastructure has “over the top” capability already built in. So the issue isn't one of waiting on network technology; rather service providers seem to be waiting for the right business model to turn the bandwidth expense of Internet video into a profit center paid for with subscription fees, advertising revenues or both.

Competing with network service providers, content aggregators such as Netflix, Blockbuster, HULU, VUDU and Amazon have working business models and network infrastructure to offer Internet-delivered video. And content providers like Disney, News Corp, and Viacom are also moving to directly supply profitable entertainment over the Internet. Although cable operators and telco TV will try to cling to the traditional video delivery business models, they must eventually compete with the content aggregators and content providers. Consequently, by building on 2008 technology progress, in 2009 service providers should begin to offer their own competing “over the top video” that can be monetized. While the 2009 profitability may be underwhelming, network services providers need to move now so they can be prepared to compete with the “non-network” content providers already offering commercial video across the Internet because Internet-delivered video is significantly increasing in popularity.

4G Wireless Progress Will Enable Mobile Video Popularity Post-2009

Clearwire's transaction with Sprint completed in 2008 and the subsequent launch of the 4G wireless broadband networks put in the lead to deliver 4G mobile broadband. In the

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short term, Clearwire will offer mobile broadband and mobile VoIP, eventually enabling high quality mobile video. However, 2009 will be a building year for all 4G players. Verizon has plans to deploy Long Term Evolution (LTE) networks starting in 2009. AT&T will likely follow Verizon's LTE lead in 2010, although AT&T claims its planned 2009 wireless network upgrades will meet the needs of the mobile broadband market. Once up and running to supply mobile Internet connectivity, 4G networks can be used to deploy mobile video.

However, big pieces to make mobile video outside the home as good a standard definition video viewed inside the home are still missing. First, content providers and content aggregators are still pretty much focused on delivering just a few minutes' worth of standard definition video (mobile HDTV is years away from reality as a commercial success). In part, these content providers are still waiting for more widespread 4G / LTE wireless network availability and for a wider range of video friendly 4G handsets and 4G mobile video terminals. The network operators are also waiting for handsets and, in Clear's case for more "mobile video" content and applications supplied by its cable company partners. Meanwhile, mobile handset operators are waiting for 4G network deployments before they commit to launching dozens of next-gen handset models that would otherwise sit on the shelf waiting for a 4G network. Nevertheless, over the next 12 months 4G wireless networks and handsets will move from the labs to limited commercial success, enabling mobile video popularity post-2009.

Recommended Actions**Recommended Vendor Actions**

- Verizon should not sit back and rest on its FiOS broadband laurels. While FiOS high speed Internet may be the fastest game in town, cable operators are catching up in the speed race with DOCSIS 3.0 deployments. FiOS has also won out in consumer ratings for customer service over cable. However with Circuit City's firedog tech support arm now in liquidation bankruptcy, Verizon must quickly secure a new in-home professional services partner to fulfill Verizon's Expert Care vision of customer care.
- AT&T must execute well on its extensive menu of ConneCTech service options to keep up its good name—a high stakes gamble when considering, for example, that AT&T is taking on the complexities of PC repair service, home network installation of multiple broadband-enabled devices, along with remote PC and phone support for digital products like digital cameras and MP3 players. When it comes to providing home theater installation, AT&T can minimize its risk with its pre-installation design consultation options, but installing a TV, in-home audio system, video components and gaming console may prove challenging to an AT&T work force that is supplemented by a contractor labor pool.
- Cable operators should continue to hammer at DSL services as "slow" through marketing campaigns, while concurrently moving toward DOCSIS 3.0 to increase broadband capacity that AT&T and Verizon cannot meet with a DSL or VDSL infrastructure. Cable operators that don't already offer a "low-end" broadband option to meet the telcos' competitively priced DSL offers should do so, especially to capture the value-conscious shopper in these tough economic times.
- Cable companies need to step up their value-added support service options, especially since AT&T and Verizon both now offer support services that beat any cable company's

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customer care experience. Cable companies are at a disadvantage to extend in-home support, because they already rely heavily on outside contractors to install basic services. These companies should train their installation and maintenance force to support more than a triple play bundle with a focus on extending their capabilities beyond a simple PC Internet hook-up.

- Clearwire should work with Sprint and other cable investors to deploy the MVNO data service quickly and then lay the network foundation for mobile video since video will become the next major differentiator beyond 2009. For the cable players in the near term, WiMAX-based services represent a relevant and missing wireless service element to take on the likes of incumbent local wireline providers such as Verizon and AT&T who already have a quadruple play and integrated wireless / wireline services strategy.
- Although standard video programming is largely the same between telco TV, satellite operators, and cable companies, cable operators should move with all possible speed this year to deploy their switched digital video infrastructure and then move forward with additional HDTV broadcast content to counter the AT&T U-verse and Verizon FiOS HDTV capacity. Today the telcos and satellite providers can rightfully claim more HD channels than the local cable providers.

Recommended User Actions

- Consumers need to be aware that, even without a bundle contract, they will find it hard to extricate themselves from service bundles because of a la carte prices. When a customer cancels one service, the price for remaining services tends to increase, reducing the potential for cost savings. Before signing onto a bundle, consumers should add up their monthly expenses on communications services and decide whether a bundle is right-sized for them and really costs less over time.
- Consumers should be aware that once promotional prices expire for a la carte and bundled services, they may see their monthly bills increase by as much as 50%. Once the promotions expire, consumers should consider churning to an alternate provider if they cannot negotiate ongoing savings with their current provider.
- Consumers that cut off their cable TV services because they prefer online video services must be conscious that the large amount of bandwidth they use monthly through their broadband connection already is or could soon be limited. Service providers fear that if the majority of consumers prefer downloading movies in the future, these movie downloads could create a crippling bandwidth crunch. Time Warner Cable is trialing a new pricing structure in its Beaumont, TX market to better control allotted bandwidth through monthly data caps. AT&T is also trialing a similar pricing scheme in Reno, NV. And Comcast, which also imposes a 250 GByte usage cap, has also instituted a rate-limiting policy by discovering a congestion problem and calculating the best course of action to preserve a fair share of broadband access for all customers.
- AT&T in-region customers should consider AT&T's ConneCTech service plans as a viable option for remote and in-home tech support for their computers, peripherals, home network set-up, and home theater installation. The company's prices and support service options are very competitive to similar programs offered by Best Buy's Geek Squad and other in-home professional services. AT&T offers the added benefit of controlling its own core and access network, so it can more readily find and fix broadband and video network problems, whether in the home or outages in the delivery network.