

DIGITAL DIGEST

A Quarterly Journal Providing Market Research From Digital Tech Consulting



Digital Tech Consulting

FEBRUARY 2008

IN THIS ISSUE

Will U.S. Analog TV Shut Off Be Good or Bad for TV Industry Health? page 1

Are New Media Pipelines Worth a Writers Strike? page 2

Video Game Systems: A New Platform for Video? page 3

NEW RESEARCH

This market research digest is designed to give you a glimpse of some of the research that Digital Tech Consulting is preparing for publication. Here is some of the research currently available from DTC:

The End of Analog TV: The Opportunities and Inhibitors of the U.S. Digital TV Transition

Set-top Box Forecasts for Emerging Markets: Digital Cable, DTH Satellite and IPTV Platforms

For more information, please visit us online at: www.dtcreports.com.

Published by

Digital Tech Consulting, Inc.

Publisher

Myra Moore

Contributing Analysts

Antonette Goroch

Maya Jasmin

Myra Moore

Sean Wargo

214.915.0930

Fax 214.915.0931

www.dtcreports.com

Will U.S. Analog TV Shut Off be Good or Bad for TV Industry Health?

Now that the U.S. digital-to-analog (DtA) converter-box coupon program has kicked off, manufacturers, broadcasters, and pay-TV providers are closely watching consumer action to determine the impact of analog TV's shut off on ATSC receiver sales.

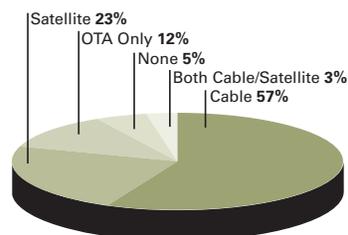
The reading of the converter-box sales tea leaves varies widely. Prognostications for coupon redemption range from an estimated 20 million to 33 million through March 31, 2009. Digital Tech Consulting's forecasts in its latest report *The End of Analog TV: The Opportunities and Inhibitors of the U.S. Digital TV Transition* peg ATSC set-top box receiver annual shipments at 18.5 and 15.7 million for 2008 and 2009 respectively. The vast majority of these will be for the DtA converter boxes. The estimate also includes DTH satellite STBs with ATSC receivers.

Given the number of over-the-air (OTA) households, pay TV households with more than one OTA-connected TV, and the decision by some suppliers to price DtA converter boxes so they will retail at \$40, it's likely that a large percentage of coupons that have been allocated for the entire program will be redeemed.

An examination of U.S. TV reception distribution illustrates the likelihood that at least 30 million converter boxes will be sold during the analog TV switch-off conversion period. Although only about 13 million U.S. households are estimated to be solely dependent on OTA reception, many cable and satellite households still have at least one television that receives programming through OTA broadcasts.

The Consumer Electronics Association (CEA) estimates that about 17% of households have at least one TV in this state of reception. That translates to about 19 million households. If we assume these households have approximately two such TVs, the total number of sets up for transitioning is around 38 million, most of them residing in antenna-only households. Put another way, the sets reliant on terrestrial broadcasts account for slightly more than 10% of the 330 million installed TVs in the U.S.

U.S. TV Reception Distribution



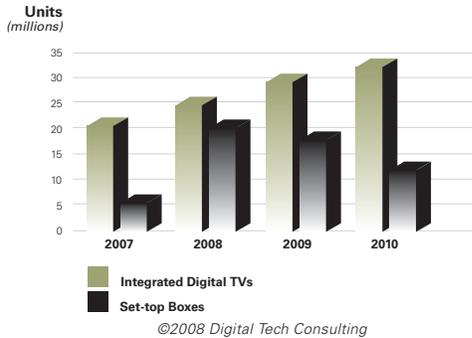
©2008 Digital Tech Consulting

DTC believes that the STB spike will be most dramatic later this year with a 250% increase in the number of STBs shipped into the distribution channel over 2007 estimated shipments (see chart at the top of the next page).

But slavish attention to DtA converter box sales overshadows a more lucrative opportunity that the end of analog broadcasts represents — the sale of TVs integrated with ATSC receivers. DTC believes the analog TV shut off will encourage many consumers to replace their analog sets with a new flat-screen set that also

receives OTA digital broadcasts. These sets, which don't require a rigid adherence to a set of government-mandated specifications on features and functionality, will be sold with greater profit margins than will the converter boxes. And this is where manufacturers and retailers will see the most sustainable performance after the shut-off date (see chart below).

Estimated Units Shipped for ATSC Integrated Digital TVs and Set-Top Boxes



In fact, given the decision by companies such as Echostar to offer to retailers a DtA converter box with a MSRP of \$40, there will be little or no profit upside to participating in this short-term market. Companies looking to build brand awareness will trade profit for the hope of building a brand. Echostar is offering a converter box that carries the little-known Sling brand. DTC's component and royalty costs analysis in the End of Analog TV report illustrates that companies that supply boxes retailing at or below the \$40 price will have very little room for a manufacturer mark up. And retailers will likely position the boxes as "loss leaders" in hopes of convincing consumers to forego the box and buy a more full-featured (and more profitable) integrated TV.

For more information on the U.S. digital TV transition, please go to DTC's web site at www.dtcreports.com where a detailed table of contents and list of figures is available for our latest report, *The End of Analog TV: The Opportunities and Inhibitors of the U.S. Digital TV Transition*. The new report contains detailed U.S. ATSC receiver forecasts, market-share estimates, and a detailed costs and royalty analysis.

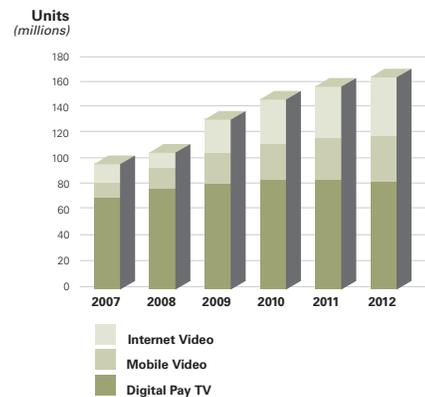
Are New Media Pipelines Worth a Writers Strike?

The TV and movie writers strike brings into focus some important questions about the nature and opportunities of new media pipelines. At issue is whether the writers should be paid a set royalty-revenue percentage for Internet- and mobile-delivered content, similar to the one paid for broadcast and cable TV shows.

The key question, of course, is: Are there profits in new media distribution platforms, or are they merely untested waters with questionable value? While in certain aspects this is a subjective question—profitable business practices rely on more than just a promising platform. A look at the state of these markets is revealing.

Our forthcoming white paper on the three main pipelines for personal/home video over the coming years compares the relative size and proportions of the digital pay, mobile and Internet premium content markets. What we found is that while digital pay TV via broadcast and cable/DTH satellite/IPTV is certainly the largest and most mature platform for video delivery, premium fee-for-content video delivered via mobile and Internet pipelines will see rapid growth over the next five years.

Pay Network Video Users By Screen: North America



Fundamentally, the growth of broadband Internet access has created a pervasive new mainstream pipeline for video delivery, fueling business models based on advertising, transactions and subscriptions. Between 1997 and 2007, broadband Internet homes have grown from fewer than 5 million to more than 250 million worldwide. In many countries, including the United States, Japan, UK, South Korea and Canada, broadband penetration has reached more than 50%, while broadband access is available in virtually every country worldwide. With downstream speeds generally in excess of 1 Mbps, these subscribers are able to receive a variety of video content both streamed and downloaded, which can be played and stored on a PC.

Meanwhile, broadband mobile networks, such as 3G and broadcast mobile TV have also emerged as a viable new mainstream pipeline for video delivery. Since the first 3G networks were launched in the late 1990s, there are now more than 150 million 3G subscribers worldwide with heavy concentrations in markets like Japan, Korea and Italy. Additionally, broadcast mobile TV networks, using standards such as DVB-H, DMB, ISDB-T and MediaFlo, have launched commercially in 2006 and 2007 with total viewers now reaching into the millions (the majority of these viewers are accessing ad-based free broadcasts). In some cases, the 3G and broadcast reception exist in a single handset and allow viewers to receive TV broadcasts, as well as on-demand clips and short-form programs.

Equally important, network optimized video-compression technologies, such as MPEG-4 Visual, VC-1 and AVC/H.264 have reduced the amount of bandwidth necessary to deliver high-quality video to devices. This is enabling the delivery of video content not just over new networks, like the Internet and mobile, but also expanding content offerings in traditional pay TV networks, such as a greater number of HD channels and larger on-demand libraries.

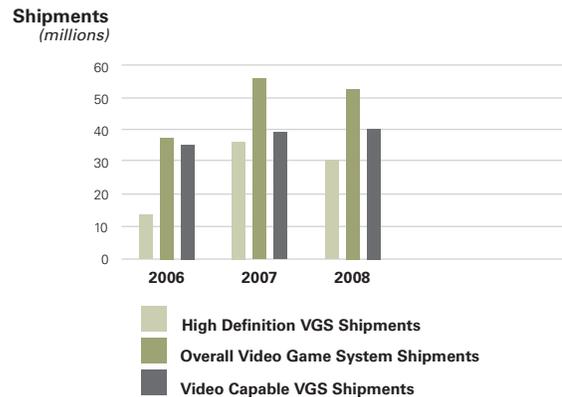
And the evolution of content delivery both in traditional and emerging networks is at the core of the writers strike. One thing is clear: The evolving multinet, multidevice reality for media delivery demands a rethinking of business practices across the board, not just with writer's contracts. Our research suggests that though digital TV will be the largest pipeline for pay digital media delivery for some time, both the Internet and mobile will see vast growth over the next five years and beyond, becoming important pipelines in their own right.

Video Game Systems: A New Platform for Video?

Video gaming has been rooted in our entertainment society since its inception years. Historically, the gaming world has provided escape via worlds of flying dragons, captive princesses or the antics of Italian brothers. But the video gaming industry is growing up by adding video capabilities, network connections, and other enhancements making a viable case for gaming systems as home media gateways.

DTC estimates that the current generation of the overall video game system market probably reached its annual sales-volume peak in 2007 and will moderate until the next-generation consoles are introduced. No formal announcements have been made of the next-generation consoles' capabilities but the trend is evident. Next-generation gaming will definitely offer more video support including some high-definition playback. DTC's current forecast, which doesn't take into account next-generation systems, estimates that by 2012 nearly 91% of video game systems will be video enabled.

Video Game Systems (2006-2008)



©2008 Digital Tech Consulting

Sony's Playstation series, including the portable device, and Microsoft's Xbox series are the players in the current video-enabled system market, and Nintendo will likely release a DVD-capable Wii over the next year. Initially, the primary avenue for high-definition video in the console arena was limited to the PS3's Blu-ray drive and the aftermarket HD DVD drive for the Xbox 360. However, with the recent update to its dashboard, the 360 itself is now capable of playing high-definition content. It will take some time before most 360 owners receive the upgrade, since it requires a subscription to Xbox Live, but the eventual impact should be substantial. With Blu-ray the seeming victor in the high-definition packaged-media format war, Microsoft's support of HD DVD in gaming systems may help keep the format alive for a bit longer.

The next couple of years are a golden opportunity for Microsoft to secure a stronger position as the console of choice for online gaming and multimedia enthusiasts. In fact, if digital video downloads become a viable alternative to prerecorded packaged media, Xbox Live could be an early beneficiary as it is one of the few hardware-supported online video services, particularly one that provides HD content. Nintendo stands as the potential disruptive force in all of this however, since some consumers, specifically more casual gamers, may choose the Wii over the Playstation or Xbox despite their high-definition video capabilities.

NEW REPORTS FROM



Digital Tech Consulting

The End of Analog TV: The Opportunities and Inhibitors of the U.S. Digital TV Transition

January 2008 US \$2,495

The end of analog TV is approaching swiftly, and the end of one era inevitably presents opportunity for the rise of another. In DTC's latest report "*The End of Analog TV: The Opportunities and Inhibitors of the U.S. Digital TV Transition*" we identify potential beneficiaries of the conversion, illustrate profit possibilities, and forecast receiver shipments within this new market. How will the savvy set-top box manufacturers and consumer-electronics retailers position themselves in this market and how are they preparing to capitalize on this windfall of opportunity?

In this report DTC forecasts and analyzes market drivers and consumer demand.

Set-top Box Forecasts for Emerging Markets: Digital Cable, DTH Satellite, and IPTV Platforms

July 2007 US \$495

In this report we look into this emerging market that saw record shipment levels in 2006. The report's research shows that a strong growth trend will continue throughout the forecast period (2007-2012) driven by gains in all three major pay TV delivery platforms. The report tracks forecasted growth based on world region, STB advancement, and pay TV platform. Additional analysis illustrates the significant differences between emerging markets such as China and India, and more mature markets such as the United States and Western Europe.

Digital Tech Consulting is a market research firm providing strategic information and analysis to help companies succeed in the consumer digital marketplace. To learn more about DTC and how our analysts might help your company, please visit us online at www.dtcreports.com or call 214.915.0930.

DIGITAL DIGEST

A Quarterly Market Research Journal From DTC



Digital Tech Consulting

918 Dragon Street
Dallas, TX 75207