

# INTERPRETING THE TRANSITION TO DIGITAL TV AS A BUSINESS OPPORTUNITY

by David Tice

From consumer electronics companies to advertising agencies, a host of entities can reap windfalls from the 2009 switch to all-digital TV signals—if they play their cards right

Imagine all the television sets in more than 15 million homes, and at least one set in about 45 million other homes, showing nothing but “snow.” That worst-case scenario is highly improbable, but it does give a sense of the potential impact from the most significant change in television broadcasting since the introduction of color. And, as with every dramatic shift, this one also brings with it the opportunity for wise companies to create substantial new businesses around the change.

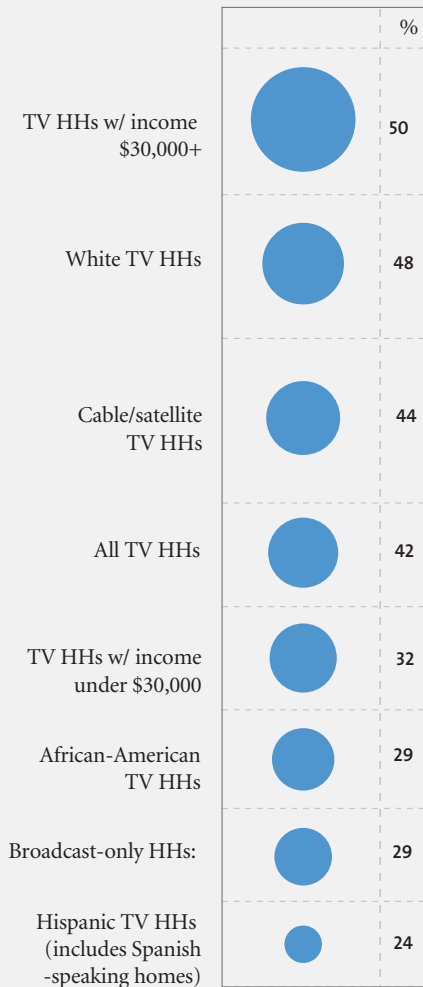
In February 2009, the long-awaited “digital transition” will take place—over-the-air television signals will no longer be broadcast on an analog standard, but will switch to a digital one. For many years, broadcast stations have been transitioning, broadcasting on both a digital and an analog signal; two and a half years from now, the analog signal will be permanently turned off.

Despite the significance of the transition, it will likely be transparent to most consumers, because cable and satellite television services will absorb the “shock.” However, to many stakeholders in the television business this transition presents a varied assortment of challenges and opportunities. Here is a brief look at the implications and business potential behind the transition to a digital TV standard—keeping in mind that this may also present a chance to learn the best ways to handle dramatic shifts in similar marketplaces.

## THE TRANSITION IN 200 WORDS OR LESS

Put very simply, the transition to a digital standard will enable broadcasters to do much more (deliver a high-definition television picture with Dolby™ sound) using a much smaller allocation of transmission bandwidth.

**CHART 1: CONSUMER AWARENESS OF DIGITAL TRANSITION IN 2009**



Source: The Home Technology Monitor™

Alternatively, they can use their bandwidth (or digital stream) to send out several broadcast channels at once, or any other combination of television, data, or other digital media.

The new standard is not compatible with existing analog TV sets, so consumers who depend on over-the-air (OTA) TV signals will

have to either get new digital TV sets or rely on signals “downconverted” from digital to analog through a converter box or a cable or satellite TV set-top box.

The discrete characteristics of the new digital standard mean that all stations will “move down” the channels we currently use, and the higher UHF television channels—52 to 69—will be auctioned off by the government for non-TV use. That auction is expected to create a windfall for the US Treasury.

### STAKEHOLDERS: AN OVERVIEW

It is simplistic to think of the stakeholders in this transition as being just the broadcasters and the audience. Those with a financial interest range from direct retailers (consumer electronics retailers and manufacturers, television service providers) to consumer marketers (agencies, advertisers) to those concerned with B2B issues (equipment suppliers to broadcasters and television services).

Tracing back from the home, the stakeholders in the digital transition include

- the audience member/consumer
- consumer electronics manufacturers and retailers, who provide televisions and converter boxes at retail
- television service providers, such as cable and satellite TV services
- manufacturers of the set-top boxes leased and/or sold by cable and satellite TV services
- local broadcast stations/affiliates, both commercial and public TV
- national television networks who provide programming to local affiliates

- the ad agencies and advertisers who buy network or local advertising time
- new entrants who hope to offer new services on the analog spectrum that is being given up by television
- and, of course, the government, which must oversee the change by the spectrum users, subsidize the transition for certain consumers, and make money by auctioning off the old analog spectrum

## CONSUMERS

Imagine your television is being taken away. If you are a household that only receives television using broadcast reception (currently about 18 percent of TV homes), your analog set will not show broadcast TV once the analog signal has been turned off. Your choice will be to buy a new, digital-capable TV set, subscribe to cable or satellite service, buy a converter box that will downconvert the digital signals to analog, or survive on your library of videotapes and DVDs.

It's not just broadcast-only homes that are being affected. More than 50 percent of homes with cable or satellite service report they have at least one set reliant on broadcast reception. Small sets, such as hand-held types people take to sports events, or small portables, may just go obsolete, since carrying around a converter box will not be an attractive proposition.

Earlier this year, in KN/SRI's annual survey for *The Home Technology Monitor*<sup>™</sup>, we asked consumers about the digital transition. Among all TV households, fewer than half (42 percent) were aware of the impending deadline, a proportion that was much lower (29 percent) in households that rely solely on broadcast TV. TV households overall reported an average of

1.3 sets used for reception of OTA broadcast signals, while broadcast-only homes reported an average of 1.8 sets.

While broadcast-only homes would seem to be the primary target of those marketing conversion options (new TVs, converters, or pay television subscriptions), they may be a difficult sell. These homes tend to be broadcast-only for one of two reasons: they have such low income they can't afford pay service, or they just don't put a lot of importance on television viewing. In either case, marketers should anticipate lower prices and margins from these consumers.

Additionally, the presence of a government-sponsored subsidy program for lower-income homes will mean scrutiny for charges of price gouging or otherwise taking advantage of this disadvantaged consumer group, which is at risk of losing its television lifeline.

## CONSUMER ELECTRONICS

Consumer electronics companies have also been coming to grips with digital television for a number of years. In fact, beginning in 2007, by law all TV sets sold must be digital-capable. However, their efforts so far have been mostly focused on high-end HDTV sets—not the types of sets that will be needed as low-cost replacements for either low-income families or for limited-use situations, such as portable sets. On the positive side, digital TV sets have made it into big-box retailers—a sure sign that digital television has hit mainstream.

CE companies will also be providing consumers with stand-alone converters that will downconvert digital broadcasts to analog. While this will be a sizeable market, and one subsidized by the government, it is also likely

it will be a very-low-cost, commodity market. Look for the major CE brands to leave this market to the minor or fringe brands.

As can be seen from the awareness levels, the education of the consumer and of salespersons at CE retailers needs to be enhanced (a responsibility that should really lie upon all upstream stakeholders).

Aside from sets, CE companies can look forward to a future where all TV equipment—DVD players, videogame systems, and so on—will be upgraded to digital standard. This is already being seen in the release this year of high-definition DVD players and the Xbox 360™ game system with HD output.

This will be a large opportunity, but consumers will need convincing their existing equipment needs to be replaced. It will not be helped by format battles, such as were experienced in the Beta versus VHS days of the VCR, and which are currently being seen in the new high-definition DVD players.



## TELEVISION SERVICE PROVIDERS AND THEIR SET-TOP BOX SUPPLIERS

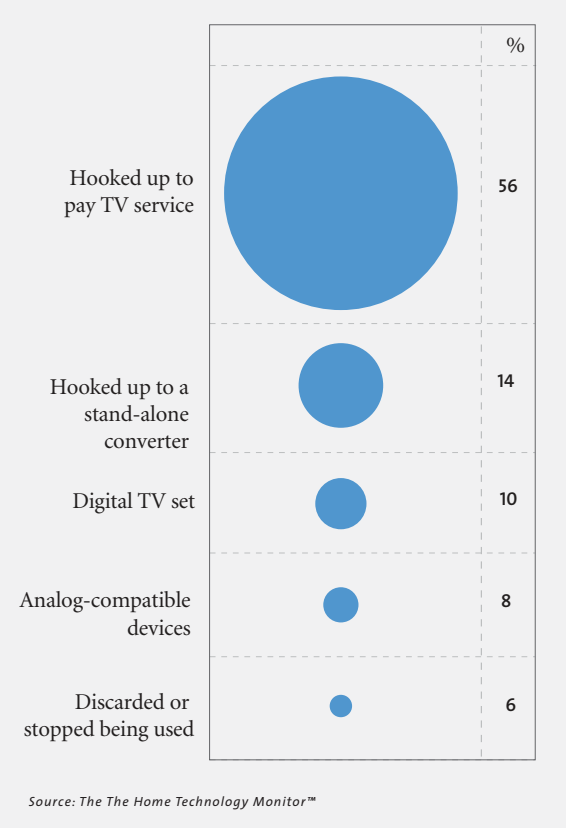
Television service providers—cable MSOs and satellite companies, as well as new entrants such as telcos—have important interests in the digital transition, also. One lies in offering the consumer a transition solution, since TV service set-top boxes are already capable of giving consumers a downconverted signal.

The transition may be the one way to get the remaining TV Luddites to convert to pay television. These may be low-value- subscribers, but they would be an opportunity for incremental revenue. The television services may need to have their suppliers provide very-low-cost set-top boxes in order to compete with the consumers' alternative of a cheap broadcast signal converter.

The other major aspect that still remains unresolved is the disposition of multicast feeds. Broadcasters will likely offer more than one television feed (a multicast) over their digital channel. Does a television service provider have an obligation to carry those signals (so-called "digital must-carry"), or should they only be required to carry the main network feed they were required to carry before? This is still being discussed among the broadcasters, the service providers, and the government.

Over the past decade, cable and satellite companies have been strong-armed to carry many new cable networks developed by the media conglomerates that own the national broadcast networks; this may be the time they turn the tables and demand a piece of the action for using their pipeline to support broadcasters' multicasting initiatives.

**CHART 2: HOW CONSUMERS EXPECT TO MAKE ANALOG SETS COMPATIBLE**



While the original vision of digital was to have all programming in HD, the reality is that, with the exception of primetime, many broadcasters will multicast—they will use the spectrum to broadcast multiple video feeds (for instance, the main network, a weather-only feed, and a news-only feed), or some combination of video plus data.

As noted above, the use and value of additional video streams will be greatly dependent on whether they are retransmitted by the pay television services in a broadcaster’s area. Also, broadcasters must be wary of using low-cost but low-value programming (for instance, home shopping networks or outdated syndicated fare) just to maximize their offerings. Their argument for digital must-carry will be hurt if they offer nothing more to the consumer than content already found on many cable networks.

Use of excess bandwidth for other wireless applications is an area where broadcasters have a potential to create revenue in partnership with entrepreneurs or new services—a topic which we will return to later.

**BROADCASTERS**

Network-owned and independent broadcasters have been in the front lines of the transition for many years. Many stations have spent millions of dollars to acquire the new antennas and systems required for digital broadcasting and are now transmitting on two signals, one analog and one the new digital. Indeed, the national networks’ owned-and-operated local affiliates have had to demonstrate progress towards the goal of digital conversion. After transition, only the digital broadcast will remain.

**THE TELEVISION NETWORKS**

The major national broadcast networks all have a stake in the transition also, beginning with their owned-and-operated local affiliates that have to start transmitting in digital. The networks must also provide adequate programming for all of their affiliates in the over 200 television markets in the US. Not all content will be in high definition, but it will need to be digitally compatible—for both technical and aesthetic reasons. Program production has indeed been moving to digital

for some time, if for no other reason than the advantages of digital editing and storage.

Looking forward past the initial transition, as more and more homes acquire HD sets and are exposed to its quality, all networks—broadcast or cable—will face increasing demand for programming with HD resolution. While much of the primetime broadcast network schedule is currently in HD, there is comparatively less available to the audience from the cable networks—a situation that is in many cases as much attributable to lack of channel space on cable/satellite providers as it is lack of content.

#### AGENCIES AND ADVERTISERS

Agencies have a dual stake in the digital transition. On the one hand, they will certainly be called in by several of the stakeholders noted above to help market to consumers their particular solution to the digital transition. This will result in incremental revenue for agencies.

On the other hand, savvy agencies will need to understand the implications of the new digital format for their clients—should commercials in HD programs be full HD? What are the implications for filming the creative? Is HD programming more engaging to the audience, and will that effect decrease over the years as HD becomes more commonplace? Should their advertiser clients invest in programming on secondary multicasts? And so on.

#### NEW SERVICES

Several start-ups have been attempted in recent years, by both large media companies and entrepreneurs, that would utilize broadcasters'

excess spectrum. One would use the spectrum to transmit a limited selection of cable networks to special receivers, thus emulating basic pay television service. Another uses the spectrum to constantly download movies to set-top boxes, which consumers would then pay to watch on a pay-per-view basis.

There are many potential services that intend to make use of not only underutilized spectra, but also the spectra released after the digital transition. In many cases, the released spectra are proposed to be used for wireless Internet or media applications—mobile media services, or WiMax (wide area wireless Internet). The entrepreneurs and venture capitalists who are funding these services are dependent on the old TV spectra being given up in a timely manner, and are paying large fees at government auctions to have the rights to that bandwidth.

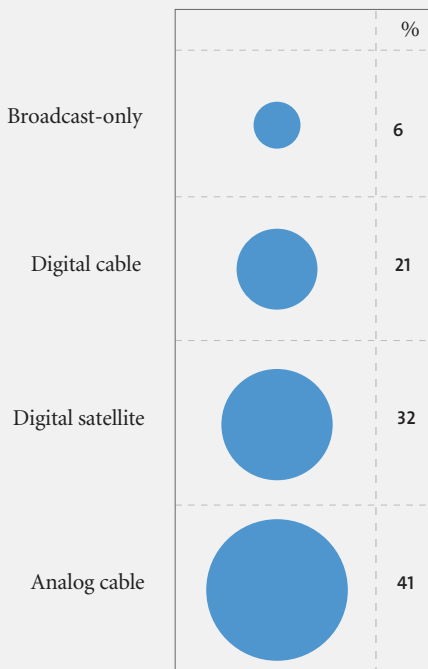
The most important research issues to these new services are gauging consumer interest and setting price points for services that may be new in concept and value. How best do you make a consumer understand something they've never experienced before, and that may be years away from actual implementation?

#### THE GOVERNMENT

The government has been responsible for stewarding the digital transition over many years, but it was only in 2005 that Congress finally got the parties involved to agree to the 2009 transition date. The government has a strong incentive to expedite the digital transition, as the sale of the old TV spectra is seen as a large financial windfall.

For those in Congress from areas more likely to be affected by the transition (those

**CHART 3: TV RECEPTION IN CURRENT HDTV/DTV HOMES**



Source: The Home Technology Monitor™

less affluent and less able to afford alternatives, or more rural with less access to pay-TV alternatives), the realization by constituents of the potential cut-off of television reception may result in some backlash. As a result, part of the money received from the spectrum auctions will go to subsidizing the purchase of converter boxes for those households most in need—those that are low income and reliant on broadcast reception only. These subsidies will be about \$40 per converter; however, converters are not on the market yet, nor are they priced, so the actual cost to consumers is still to be seen. Currently the US government expects to spend \$1 billion to \$1.5 billion on subsidies.

**OPPORTUNITIES AND CHALLENGES IN EQUAL MEASURE**

For a variety of stakeholders, the digital transition creates not just consumer revenue opportunities, but also chances to gain transactional advantage with other stakeholders upstream or downstream in the “television chain.” However, as seen in our outline of each stakeholder, many will be dealing with the need for business information on two fronts—both about the consumer and about the stakeholders that are their adjacent links in the chain. (For instance, cable TV operators will need to know how best to price their service to consumers as a transition solution, as well as understand the financial implications to broadcasters of multicasting in order to negotiate carriage terms.)

Taking the medium most engrained in our lives and forcing its evolution is a grand undertaking; only history will be able to show how successful the transition was, and whether it was something that should have been left to market forces rather than government agencies. It may very well be seen that the digital transition will occur without much notice by most consumers, much as “Y2K” passed without the feared havoc among computers. But like Y2K, a transparent transition can only come about because of the work currently being undertaken, or planned for, by the various stakeholders. ▀

*David C. Tice is Vice President, Client Service, and director of The Home Technology Monitor™ for Knowledge Networks/SRI. He can be reached at dtice@knowledgenetworks.com.*