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What's a Terrestrial Broadcaster To Do?

Late last year a number of broadcast professionals from around the world gathered in Shanghai to address the subject of the future of broadcast TV. The stated goal of The Future of Broadcast TV group is to foster worldwide collaboration for future TV broadcasting technologies and business models within a rapidly converging landscape.

A tall order no doubt, but one that needs to be addressed if the terrestrial broadcast community is to survive the shifting ground otherwise known as “the digital dividend,” as well as the cries of obsolescence that threaten its existence. It may sound overly simplistic but the ability to adapt is what will determine the fate of broadcast television.

But adapting can't be confined only to terrestrial broadcasters. Rules for the most efficient use of spectrum, which in part are justification for the re-arranging of spectrum ownership, shouldn't be reserved for only veteran spectrum holders. Point-to-point transmission for all traffic and content to smartphones isn't an efficient use of spectrum, either.

This fight wouldn't be occurring if not for the spectacular success of ultra-converged devices like smartphones and tablets. So if convergence can take place on the device, why can't it take place on the transmission side? If we really want to make the most efficient use of spectrum, wouldn't it make sense to use transmission techniques that best suit individual applications and their related content? Say, cellular transmission technology for voice, text, multiway audio and video communication; IP for select media streaming; and broadcast transmissions for live events and HD video content?

Putting aside, for a moment, the eye-roll inducing naiveté of this premise that doesn't consider entrenched business models, current infrastructure, or the complexity and hyper political nature of forming government communications policy, it is already occurring incrementally on the device side.

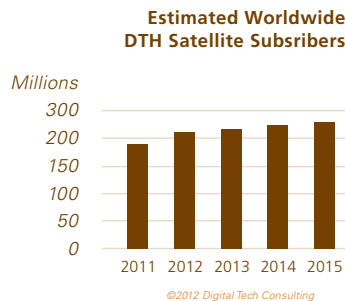
In Europe and Asia there is a respectable market for receivers that tune one or more broadcast transmissions (satellite, digital terrestrial, for example) with IP streaming to offer more programming choices. IPTV operators have been combining QAM and IP delivery for some years now. And in Japan, smartphones receive cellular, IP and digital terrestrial signals.

Placing multiple tuners into a single device does little to improve efficient use of the spectrum, but it does illustrate an important point. There's not a good reason why each transmitted piece of content to a single device must travel over a single type of transmission. The current balkanized approach to spectrum allocation doesn't always take into account which transmission technologies are most appropriate for various types of communication or content.

Continued on next page

How can terrestrial broadcasters capitalize on this premise? In short, the broadcast industry must develop technology that will combine the efficiency of point-to-multipoint transmission with the ability to store and randomly access content as seamlessly as one can on a smartphone or tablet. And, future success may also depend on a willingness to narrow the types of programming transmitted over terrestrial broadcast infrastructure to live events and HD programming. Lastly, broadcasters may need to adopt other types of transmission technologies for delivering other kinds of programming. Although worldwide collaboration for developing universal technologies and business models is a tall order, there is no better time for the broadcast industry to make the effort.

Sunny Days for Satellite TV



2012 should shape up to be a strong year for the satellite TV market. DTC estimates that over 212 million subscribers will be enjoying direct-to-home (DTH) satellite TV services this year. Subscriber growth is expected to be strong through 2016, reaching 268 million subscribers worldwide.

Success, as they say, has a thousand fathers and in the case of satellite TV there are indeed multiple drivers of growth. Underlying it all is the rising tide of pay TV services, generally driven by growth in the emerging markets which has pulled tens of millions of people into the pay TV market. DTH satellite services have benefited in emerging markets where “last mile” infrastructure is lacking and alternative services, such as IPTV, are not as developed.

One of the biggest question marks for satellite TV going forward is the Middle East. Satellite TV is well established in the region but it could represent fertile ground for additional growth. Demographically, the Middle East has one of the youngest populations in the world - a youth bulge that helps explain, in part, the revolutionary tumult that has gripped the region. Revolutions aside, this bulge will eventually contribute to the formation of new TV households in the region (in contrast, regions like Western Europe and Japan will see new household growth slow on the back of lower birthrates).

There is, of course, downside potential too. The so-called “Arab Spring” may result in general political economic liberalization - which would be a boon to pay TV competition, lifting all boats. But it may degenerate into disorder or worse, drying up foreign investment capital and lowering economic growth for the region (the Egyptian economy, for instance, has fared poorly since the overthrow of former President Hosni Mubarak). Satellite providers still seem bullish, with multiple launches scheduled for the next three years that will expand regional capacity, but events could still overtake industry optimism.

In the saturated U.S. and Western European markets, where the overwhelming majority of TV viewers already subscribe to a pay TV service, gaining subs is less about adding new households than poaching customers from rivals. In the U.S., the two primary DTH satellite providers have embraced a technology pitch to court consumers with more advanced hardware in the home for multi-room, and multi-screen, video delivery. Dish has pinned its hopes, and an aggressive marketing campaign, around its new Hopper and Joey set-top box (STB)/client solution - a 2TB hard drive, six tuner DVR with a smaller, MOCA-based client box for extra TVs. DirecTV has its own multi-room server offering that it began rolling out last year in addition to a partnership with Samsung to enable the latter's Smart TVs to connect to DirecTV without requiring a STB.

Dish appears to want to break the traditional price-war cycle that characterizes pay TV competition in the U.S., but American consumers are likely to remain price-sensitive when it comes to their pay TV options. While “cord cutting” has proven to be more media hype than reality, those consumers that do pare back services are primarily doing so because their existing service is too expensive - not because it offers too few bells and whistles.

Digicams vs. Smartphones: It's the Processor, Stupid

At the recent Grammy Awards, a host of teens pressed up against the protective barriers as the Foo Fighters performed on a stage outside the Staples Center in Los Angeles, where the main ceremony was being held. Many in the crowd recorded the Foo Fighter performance with arms held high clutching their video recording devices.

Except in most cases, the video recording device being gripped was not a digital camera or camcorder, but a smartphone.

Welcome to the nightmare world faced by the digital camera business.

Cold sales numbers tell a potentially fatal story. In 2011, an estimated 121 million digital cameras were shipped worldwide, the fourth straight year of either no growth or a decline in sales.

By contrast, in 2011, smartphone sales rose to 440 million, a 36% jump in shipments compared to 2010 and the fourth straight year of double-digit growth.

Most of the lopsided digital camera sales dilemmas live at the low end. In 2011, D-SLR shipments rose while low-end point-and-shoot camera sales fell. While overall unit sales have dropped, digital camera revenue has risen slightly the last few years according to PMA, reflecting increased purchases of higher-priced P&S and D-SLR models.

One victim of this entry-level camera phone disaster is the demise of Kodak, which earlier this month announced it was leaving the digital camera market it invented.

Smartphone advantages

Entry-level digital camera makers face five daunting smartphone advantages: accessibility, the ability to immediately share images, screen size and, perhaps most importantly, processing and price. The first two are obvious. Smartphones sales are approaching half of all mobile video phone sales, a trend that will continue as smartphones drop in price.

And as data speeds move from 3G to 4G, consumers find it ever easier to instantly share their smartphone camera snaps via the cloud, email, text, or social networking. Several point-and-shoot camera makers have added Wi-Fi capabilities, but these are often clumsy attempts with awkward interfaces.

Smartphone screens, now averaging larger than 4 inches, also offer larger view finders than digital cameras, whose screens seem to have topped out at 3.5 inches. But it is in processing and price that entry-level cameras have and will continue to come up short.

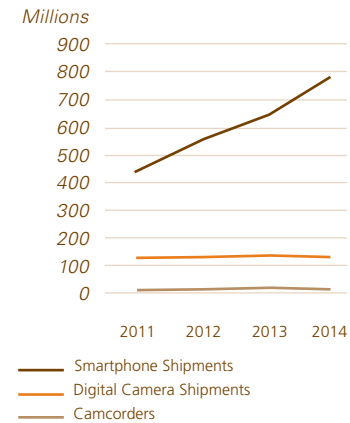
Current smartphones almost all include dual-core, 1.x GHz processors. Not only are these processors far superior than those found in entry-level digital cameras, but are prohibitively expensive. It is these advanced processors that enable smartphones to often capture higher-quality images than sub-\$150 digital cameras.

But unlike digital cameras, smartphones – now sporting 5, 8 and, in the case of the HTC Titan II, 16 MP imagers – are subsidized by their cellular carriers and “sold” to consumers at a fraction of their actual price.

Worst, a smartphone is also, well, a smartphone, endowed with as many scintillating functions as it has apps installed.

Consumers faced with spending \$150 on a digital camera or a smartphone are increasingly leaning toward the latter, leading to perhaps a fatal trajectory for all low-end digital cameras sales.

Estimated Worldwide Shipments



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HOW DO YOU PLAN FOR AN ANALOG-TO-DIGITAL TV TRANSITION

You do it with guidance from a team of experienced transition specialists. The DTC Digital TV Transition Group provides planning, education, research, and technical design of analog-to-digital TV transitions for governments, broadcasters and other DTV stakeholders around the world. Our team of experts has worked in Europe, the Middle East, Asia, the Caribbean and North America to aid countries in completing complicated transitions.

Every member of our team has been directly involved in analog-to-digital terrestrial TV transitions around the world by evaluating technical standards and specifications, overseeing transmission infrastructure installations, helping government agencies and retailers with consumer receiver procurement, managing government

programs for receiver distribution, and developing consumer education programs.

Because no two transitions are alike, the DTV Transition Group responds to the unique culture, economics, and goals to tailor a DTV Transition to specific country conditions. We take a holistic approach to a transition, having assembled a team with expertise in government relations, retailer and consumer education, technology, market conditions and equipment suppliers. A transition is not about moving from one technology to another. It is about transforming an entire communications system to improve communications for citizens and governments. For more information, please call Myra Moore at 214.915.0930 or go to www.dtreports.com/dtv.aspx.

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