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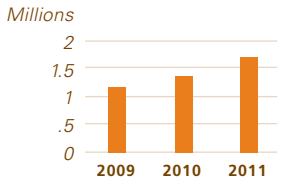
GoogleTV: Another Hobbyist Box or Pay TVs Worst Nightmare?

Any new media venture with Google's name attached to it will get its fair share of speculation and attention, and the recent debut of Google TV is no exception. Is GoogleTV likely to fizzle as a hobby product, as have so many other similar efforts, or should it strike fear into the collective heart of the pay TV industry? Google's entrance into the over the top (OTT) content ring puts another player into the small and fragmented digital content appliance product category.

Worldwide Standalone Digital Content Appliance Shipments

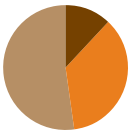


The Digital Content Appliance (DCA) category has largely been a non-starter in mainstream terms, marked by far more failures than successes. Most products designed to connect the Internet, PC and TV over the past several years have died on the vine, with only market leaders Roku and Apple achieving what can at best be called moderate success. Indeed, shipments are barely over a million units annually—mere pocket change in consumer electronics terms.

The key challenge for these products has not been technology, or consumer desire (by most accounts consumers are interested in easily accessing programs from multiple sources). The challenge is all about existing digital entertainment business models and value chains, and how the content providers that control them, find additional revenue in this new pipeline.

To date, content providers have been highly restrictive on how they allow content to get from the internet to the TV. The relative success of Apple TV and Roku/Netflix are attributable to deals they could secure for mainstream content. The limited content comes with access rights, too —Apple's model is rent or buy; and Netflix only offers select titles via streaming.

Worldwide Digital Content Appliance Marketshare 2009



Other **12%**
Apple TV **36%**
Roku **52%**

In both cases, though, content providers were offered a clear path to revenues, via transactions or subscriptions, respectively. This is what Google TV currently lacks, and why nearly all of the major content providers (including Hulu, and most recently Fox) have blocked access of their online video content to GoogleTV. The platform, which may offer the most integrated Internet/TV experience, seems just too great a threat for content providers to adopt without greater assurances that existing value chains won't be cannibalized.

For Google's part, its deep pockets will allow it to continue the GoogleTV initiative for some time, with or without the support of major networks. There isn't much downside for consumer electronics suppliers to include Google TV as an added-value feature in their products so it's likely the GoogleTV platform has a good chance of establishing a respectable installed base refining the platform. Google has the unique ability to push its open platform in a way that others who have come before, most notably DivX, haven't.

Mainstream content owners may be blocking GoogleTV's popularity now, but that reticence gives Google time to improve the platform and evolve it in a way that may benefit those content providers willing to experiment with their current value chains.

Smart Gadgets: The New World Order?

Although smart phones and tablets are the most sophisticated mass-market products borne from technology convergence, their existence is practically trivial compared to the profound impact they will have on the world's economy, telecommunications policy and level of technical innovation.

In the midst of the worst economic climate in decades, DTC estimates that more than 300 million smart phones will ship worldwide in 2010 representing a 60% growth rate over 2009. In most cases millions of consumers are shelling out an extra $350-$450 a year in additional service charges to operate the devices and making long-term contractual obligations with their service providers. The service/device subsidy equation is nothing new, but the stakes are much higher (and the equation more complex) than it is for the device/subsidy model for old-school feature phones.

"The stakes could not be higher. Outcomes of any one of these battles will arguably determine the fate of network access, the rate of innovation, and which businesses will control the billion-dollar converged-technology landscape."

It doesn't take a lot of foresight to see that all the players – content owners, service providers, intellectual property owners, and regulators – will go to extraordinary measures for a prime seat at this table. Smart gadgets are at the apex of three epic battles encompassing contract manufacturing, future technological innovation, and consumer network access and government policy.

Contract manufacturing | The escalation of technical sophistication, -- multiple cameras, HD recording, etc. – combined with high-level design and marketing is one of the defining characteristics that make these devices so appealing. Device costs continue to go up and consumers will either have to pay more upfront for the devices or for the service to sustain the current business model. Manufacturing has historically been a comparatively small expense but that is changing. As the Chinese economy fueled by its status as the world's manufacturing plant has soared, heightened workers' expectations are resulting in successful demands for higher wages and better working conditions especially in southern China's special economic zones. Add to that any increases in Chinese currency value and smart gadget makers and their service partners may be facing an uncomfortable margins squeeze.

Technological Innovation | The smart phone is at the center of a high-stakes legal battle among device makers, software developers, and component suppliers. With tech giants such as Apple, Motorola, Microsoft, and RIM (only to name a few) engaged in patent litigation, it can be argued that this is the most important and complex technology patent battle in many decades. Divergent industries with varying IP cultures are working out the rules of sharing the sandbox for the first time in a "sue or be sued or cross-license" dust up that is likely to have an impact on device costs for years to come – especially with tablets destined to join the fray. It all portends greater pressure on the bottom line and the outcomes will determine how many players get to stay in the sandbox.

Net neutrality and consumer access | Controlling relationships with smart-gadget consumers may be the most epic of the three battles. Service providers want to make the most efficient use of their pipes that are growing virtually smaller as data traffic generated by smart gadget users explodes. Offloading some of that capacity traffic to Wi-Fi Internet access relieves pipeline pressure but it also has consumers wandering off the mobile phone network and spending some money outside the network neighborhood. ISPs (many of which are also mobile service providers) want to implement a tiered pricing system according to data usage; many governments want to block this practice to preserve net neutrality and have greater control over telecommunications policy.

BATTLEGROUND	PARTICIPANTS	STAKES	POTENTIAL RESULTS
Contract Manufacturing	Chinese OEMs, factory workers, emerging markets	Global jobs distribution, device profit margins	Shifts in labor market, adjustments to current business models
Technological Innovation	IP owners, device suppliers technology licensees	Royalty income districbution, level of increased innovation	Device costs fluctuation
Net Neutrality	Service providers, consumers, government	Service price structures, service revenues, consumer access	Expansion or contraction of consumer access by gatekeepers, content owners and corresponding revenues

The stakes could not be higher. Outcomes of any one of these battles will arguably determine the fate of network access, the rate of innovation, and which businesses will control the billion-dollar converged-technology landscape.

All in the Family: MPEG Standards Stick Together

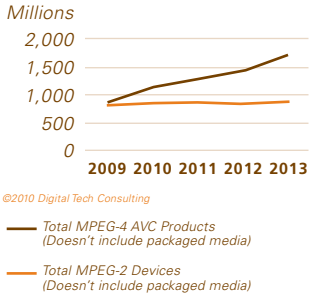
While the MPEG-4 AVC market continues to advance the MPEG standard into new markets, its predecessor MPEG-2 is still a prominent player. In many instances products include both codecs in order to ensure backward compatibility; such is the case in traditional consumer electronic products like Blu-ray Disc (BD) devices, set-top boxes (STBs), and integrated digital televisions (IDTVs).

While the days of explosive growth for MPEG-2 are long over, MPEG-2 is far from extinction. In fact according to DTC's latest forecasts, MPEG-2 product shipments log a 1% Compound Annual Growth Rate (CAGR) from 2011-2015. DTC estimates that more than 800 million MPEG-2 products will ship in 2011 slightly growing to 850 million products in 2015. The largest contributors are STBs, DVD and BD PCs, and non-PC DVD and BD devices. While most products will remain active in the category, there are exceptions. Digital camcorders are expected to discontinue use of MPEG-2 in products by 2014 because of the popularity of pocket camcorders, which use some form of an advanced codec.

MPEG-4 AVC will shortly take the crown in terms of product shipped. DTC estimates that 807 million products containing MPEG-4 AVC shipped into the market in 2009, and expects that number to reach over a billion by year end 2010, with shipments nearly doubling in 2015, yielding roughly 2.2 billion units. DTC expects 66% of MPEG-4 AVC product shipments will come from non-traditional categories like Internet media players, personal media players, digital content appliances, mobile telephone and TV handsets, and desktop video communication software, growing to 68% by 2015. MPEG-4 AVC has firmly established itself as the codec of the future and DTC expects impressive growth across a majority of product categories for many years to come.

So while it is apparent that the use of MPEG-4 AVC is more prevalent than that of MPEG-2, and is poised for continued growth, it is also as apparent that MPEG-2 remains relevant and will continue to be as legacy content continues to fuel a market for the standard.

Estimated Worldwide MPEG-2 and MPEG-4 AVC/H.264 Shipments



DOMESTIC CHINESE LCD DTV QUARTERLY TRACKING SERVICE

April 2010 - January 2011 US | **$20,000**

The Chinese digital TV market is one of the most important and fastest growing markets in the world. DTC, in a joint project with China-based RedTech Advisors, now offers a LCD DTV quarterly tracking service that delivers difficult-to-obtain reliable data and creates a roadmap for the domestic Chinese TV market and its primary players.

Each report includes:

- Current and cumulative quarterly shipment estimates for LCD DTVs shipped into the Chinese market broken down by:
  - Screen size by top brands
  - Market share by top brands (including video compression technology and chip supplier by top brands)
  - Top brands by manufacturer (where available)
- Identification of 2nd and 3rd tier brands
- Concise analysis on the market, industry players and trends for each quarter.
- Mapping of brand/OEM/ODM relationships (where available)

To order the service, or for more information, please contact Myra Moore at 211.915.0930 or myra@dtcreports.com.

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 contact us at the information below.

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