

DIGITAL DIGEST

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Digital Tech Consulting

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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 Global IPTV Market: ROI
Business Models, Value Chain,
& Forecasts**

**DVD & HD-DVD/Blu-ray: Worldwide
Shipment History and Forecasts**

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

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DRM Death Predictions Premature

To compare EMI's recent decision to sell DRM-free online music to lighting the match that burns down the DRM house is a misreading of how the digital media business will progress.

Despite one record label's DRM-free experiment to bolster its sinking sales, most content owners' desire to impede unauthorized copying and mass Internet distribution is steadfast.

DRM and other content protection/monitoring technologies aren't merely for locking down assets. These are tools that content owners can use to build new electronic distribution channels. And not all the tools have been widely used. Forensic tools, such as digital watermarking and fingerprinting, are now being considered among content owners.

In fact, most content owners have passed through the "panic and lock down phase" and moved to the "acceptance phase" where they recognize making content electronically available is a foregone conclusion and are experimenting with the degree of protection they can live with. Music publishers are at a disadvantage as they were blindsided by the wild-fire spread of peer-to-peer technology. Although electronic music sales growth is impressive, it isn't great enough to counteract the drop in physical CD sales. Video publishers, who received the gift of a cautionary tale from their music-publisher brethren, have had time to experiment with rights and asset management technologies. Some have used it wisely; others remain stuck in the "panic and lockdown" phase.

For those adopting a more liberal approach, forensic tools are being deployed. Digital watermarking and finger printing don't protect content but allow for the identification and tracking of content. Instead of stopping the average consumer from backing up a DVD onto his hard drive, watermarking and fingerprinting track an authorized copy of a program to its original owner so that content owners can identify blatant violators, like video pirates selling copies of a movie on a street corner.

Forensic tools can provide other benefits besides policing piracy. They can also be used for giving advertisers and/or network operators information about who's using the content and how. In some cases, an advertiser can track how a viewer uses its ad without the service provider having access to that information – a potentially valuable tool for which advertisers might pay a premium.

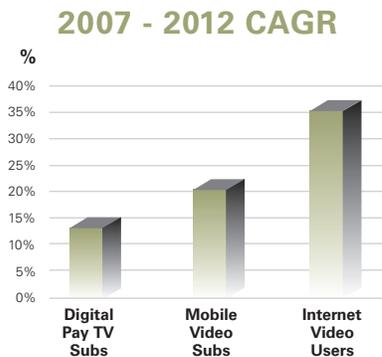
No matter how content providers combat digital piracy, adopting a method that gives the average consumer enough freedom to use the content without bumping into restrictions is crucial for promoting digital media sales. Apple's iTunes Fair Play DRM system is a prime example (despite Apple's call for DRM-free music). Permissions are liberal enough (ability to copy purchased songs to the iPod and burn multiple times to CD) that most customers don't feel restricted and don't care if there is DRM. There is little chance that any significant number of content owners will offer up their high-value content without any protection or tracking mechanisms. What is not known – especially in the digital video arena – is if they will allow for enough consumer flexibility to fuel the next blockbuster revenue stream.

Industry Opinion: Three-Screen Challenges for the Pay TV Industry

By Antonette Goroch, Senior Analyst, Digital Tech Consulting

High-value video content is rapidly making its way to both PC and mobile screens alike, making the pay TV business no longer just about TV. Indeed, bundled voice-data-video service is proving to be the way of the future for pay TV service providers, making further cross platform convergence all the more likely.

This new “three-screen” universe means that pay TV equipment vendors, content owners and service providers alike will have to re-imagine their businesses to remain competitive. In all cases, embracing cross-industry alliances, open platforms, and basic technology standards will be keys for success. The table below illustrates the dramatic changes in the way consumers will consume subscription video in the future. Although traditional pay TV services will continue to grow, the most significant growth will come from Internet and mobile subscriptions.



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Service providers have already seen changes to their business models, as the addition of voice and data has transformed their service offerings and network technologies. For those that have embraced these changes, they have seen record levels of ARPU and a strengthened competitive position. But through these new IP based platforms, service providers have also opened themselves up to new competitors in their core pay TV businesses. The expansion of Apple's PC/mobile based iTunes into the TV space via broadband Internet, offering consumers mainstream pay TV content on a completely on-demand, non-tier basis, is just one early example.

Vendors face similar challenges as once proprietary and closed networks serviced by a few big players now face new levels of cross-industry competition. This has led to industry consolidation that foreshadows a new order. The respective acquisitions of the leading cable STB vendors General Instrument and Scientific-Atlanta by the broader

communication industry vendors Motorola and Cisco are but two examples.

Content providers too are seeing new challenges, both in terms of new competition and piracy. Niche content providers, such as the Internet-distributed Chinese-language subscription service KyLin TV, are posing an alternative to fixed network programming. Further, the ability to distribute high-value content via the Internet has increased content protection challenges, as peer-to-peer video distribution makes unauthorized viewing of content across screens all the more viable. Meanwhile, through technologies of time-shifting and place-shifting, content is rapidly spilling outside of the once rigid confines of the release window, tiered packages, and closed networks that have made up the video distribution for the past several decades.

For vendors and content providers, success lies not in stubbornly hanging on to old models and proprietary networks, but rather in embracing the open network and strengthening existing customer relationships. Service providers cannot rely on their traditional “walled garden” and instead must expand their roll as a gateway to many types of content across screens, building upon their existing relationships with pay TV consumers. Content owners must see their content as fluid and independent of a single context, instead focusing on leveraging their content brands across once distinct pipelines and regions. Equipment vendors must facilitate these changes, using cross industry alliances and standards to more seamlessly unify the user experience across platforms.

PMP Shipments Grow Due to Portable Video

*This section is derived from our new report - **PMP Growth Forecast 2007-2012: Portable Video Creates Need for Dedicated Devices**. It is DTC's latest report focusing on the consumer digital video marketplace. For ordering information, please go to www.dtreports.com.*

The future for the Portable Media Player market looks healthy. It's clear that the PMP has differentiated itself from the traditional MP3 player as more and more consumers show a desire to add video to their consumption habit. The demand for video is illustrated by comparing the growth of the overall MP3 market to the PMP market; DTC estimates that by 2012, 54% of MP3 audio players will include video play back, up from 35% in 2007. Stand-alone PMPs are in for strong growth, showing a 12.2% CAGR from 2007-2012, with unit shipments increasing from 44 million video-enabled PMPs worldwide in 2007, to 78 million by 2012.

Although historical trends in the portable entertainment space suggest that there would likely be mass adoption of a PMP device, the video iPod has actually provided the proof that demand for portable video is there. The iPod has simultaneously been disruptive and beneficial to the PMP market. Former leaders in the PMP space have been

displaced at the top by Apple, yet Apple's entrance has increased the size of the market, increased innovation, and created opportunity for all players.

More importantly, the iPod has made the case for the dedicated video device. And future trends in video also bolster DTC's confidence in growth of the dedicated PMP over the forecast period. These trends include increased use of HD content and demand for larger screen sizes, the need for increased storage capacity, ease of use, and wireless capabilities which will no doubt require user interfaces too sophisticated for use on anything other than a PMP.

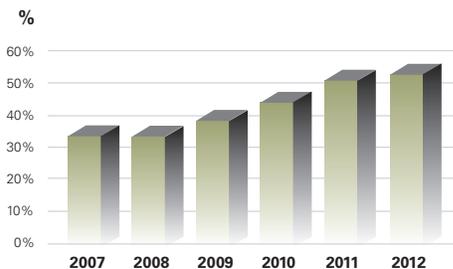
The bottom line is that the global market for PMPs extends from now until 2012 with current leaders in the PMP manufacturing space continuing to increase shipments year-over-year.

Although device convergence ranks as one of the most talked about trends in the digital media industry, it might be an overrated concept for the Portable Media Player market. DTC thinks that the stand-alone market for PMP devices will stay strong regardless of convergence. That's because converged devices, such as mobile phones that also serve as PDAs and PMPs, increase price and complexity, and reduce battery life. Also, devices with an array of usage features can increase both processor strain and motherboard heat, especially considering their small sizes, which could lead to premature glitches and bad consumer experiences.

Estimated units shipped in 2007 will represent growth of 49% compared to the 29 million units shipped in 2006. And, 2007 PMP shipments are 284% greater than 2005 unit shipments of 11 million. The fast ramp-up in units shipped suggests that the industry is in the midst of the steepest part of the growth curve thanks to the fifth generation video iPod.

The PMP market is analyzed as a subset of the larger MP3 Player market. For 2006 DTC estimated that only 30% of all MP3 players could play video, but the 2007 through 2012 forecast shows that we expect this to grow to more than half.

PMP as % of MP3 Players

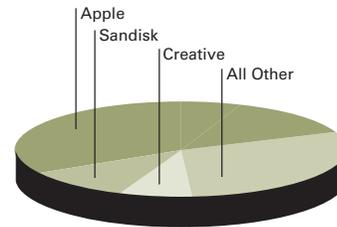


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Early market entrants Creative, SanDisk and Archos nearly had the PMP space to themselves prior to 2005. But everything changed on October 12, 2005 when Apple released the

video iPod. The design and marketing juggernaut represented by the iPod line practically guaranteed success for the video version.

2007 Global PMP Market Share



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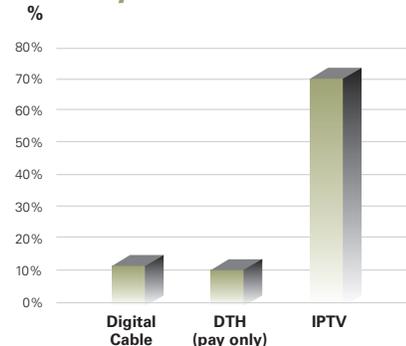
Emerging Markets Create Growth for Pay TV Set-top Box Shipments

After reaching record shipment levels of 65 million in 2006, worldwide pay TV Set-top Boxes (STB) are poised for substantial growth during the next five years. Although digital pay TV services have been available for more than 10 years and might be expected to plateau, we anticipate annual STB shipments to reach more than 295 million by 2012.

An estimated 14% increase in STB shipments for all delivery platforms – DTH satellite, cable, IPTV – in 2007 is driven by a set of more immediate trends:

- New digital pay TV networks continue to expand into all corners of the world, as analog systems gradually phase out.
- Heightened competition among platforms in more mature digital markets is increasing the importance of new features and services such as HDTV and PVR.
- The rise of bundled services is proving more attractive to consumers and spurring growth in subscribers and upgrades.

Annual Pay TV STB Growth 2007



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You can learn more about the future of Set-top Boxes by viewing details of DTC's latest report, Set-top Box Forecasts for Emerging Markets: Digital Cable, DTH, and IPTV Platforms, on our website www.dtreports.com/report_stb.aspx

NEW REPORTS FROM



Digital Tech Consulting

***The Global IPTV Market
ROI Business Models, Value Chain,
and Forecasts***

February 2007 US \$2,999

DTC breaks down the IPTV market from every angle. There is an inclusive list of global IPTV deployments including the system's name, system launch date, encoder vendors, set-top box vendors, middleware and application software vendors along with DRM information. The report also includes the top ten IPTV systems along with associated vendors, and number of subscribers. The report contains a five year forecast for IPTV total subscribers by region, total revenues by region, and total STB units shipped.

Many will find our ROI Business Models section very beneficial. In this section we layout revenues, costs, and profits over a five year period associated with three typical IPTV system deployment scenarios.

***PMP Growth Forecast 2007 - 2012:
Portable Video Creates
Need for Dedicated Devices***

May 2007 US \$495

This report tracks and analyzes the dedicated Portable Media Player market from forecasting worldwide shipments to identifying major suppliers and their market share.

Understanding the PMP market is an essential part of building a portable digital media strategy and this report examines the role of the dedicated PMP against a backdrop of new converged products being tested in the market. Additional analysis includes the rate at which MP3 players will adopt video applications, and the relationship between PMPs and online media services.

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.

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