

# Discs on demand — servicing the long tail of content

A slew of video download-to-disc schemes await a CSS “managed burn” encryption solution from the DVD CCA. *Dan Daley* takes a close look at the business model that may see eventually enable disc-on-demand to take a useful percentage of both sell through and rental

**THE NOW-FAMOUS “LONG TAIL”** — *Wired* magazine editor Chris Anderson’s digital-era economics theory, that businesses with significant distribution capability can sell a greater number of items at small volumes than of popular items at large volumes — is legion as a theory and as the buzzword for the phenomenon it seeks to explain. As an Amazon.com employee described it in Anderson’s original magazine article, “We sold more books today that didn’t sell at all yesterday than we sold today of all the books that did sell yesterday.” Small wonder that the more succinct “long tail” is the phrase that caught on.

Anderson argues — and not many people have argued back — that products that are in low demand or have low sales volume can collectively make up a market share that rivals or exceeds that of the relatively few current bestsellers and blockbusters, so long as the store or distribution channel is large enough. For virtual sales, the Internet is a potentially infinite distribution channel. For discs and other physical media, however, the emerging download model posed a serious challenge.

Now, though, entertainment content on disc is finding its own version of the long tail, thanks to a bevy of services that have quickly moved to aggregate content for consumers through the Web, then deliver it to them via the post or in person, quickly and cost-effectively. They come in a variety of flavours. CustomFlix, a subsidiary of online retailing giant Amazon.com, lets consumers shop its web site for music and video, then burns a CD or DVD and delivers it to the home by mail, or, through its Unbox download service, allows the consumer to burn his or her own disc at home. MOD Systems will burn DVDs on site at retail locations and hand the customer a finished disc, while TitleMatch does the burn remotely and mails it. Polar Frog makes the entire process automated in a turnkey kiosk in retail locations. CinemaNow allows burning to disc on the consumer’s PC.

**HOWEVER, THE FLOODGATES THAT OPEN** the way for potentially unlimited title availability in download-to-burn kiosks and services are awaiting one crucial development: a modification of the Content Scrambling System (CSS), the anti-copying standard for DVD, that will allow one-off (managed) burns to include CSS. Without it, the major film studios have refused to release premium content, necessary for download-to-disc to develop critical traction with consumers. That modification is putatively pending, but even the DVD CCA, which manages the CSS license, cannot say for sure when it will be announced. “The changes allowing managed burning have been proposed, but they continue to undergo a multi-layer review process,” DVD CCA spokesman Greg Larsen told *One To One*. “There’s no fixed time when it will be announced.”

When the announcement does come, the infrastructure for DVD on demand is already in place. Aside from the systems built by various content distributors, Sonic Solutions’ Qflix technology protocol enables CSS to be implemented on demand, whether from kiosks or back-office operations, for retail and home markets, once the updated specification is approved. The list of Qflix affiliates covers the gamut of the download-



MOD System’ in-store download-to-disc service, starting the ball rolling with music

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to-burn category, including drive manufacturer Plextor; media manufacturer Verbatim; kiosk manufacturers Lucidiom and Polar Frog Digital; MOD Systems; TitleMatch Entertainment Group; disc publishing solution providers Rimage, Primera Technology and Microtech Systems; and the US’s largest drugstore chain, Walgreens. According to Sonic spokesman Chris Taylor, Qflix affiliates will pay a per-burn royalty of less than 10 cents per disc, plus an undisclosed technology license.

**NONETHELESS, IN THE ABSENCE OF THE CSS** modification, some movie download providers have moved forward with proprietary anti-copy provisions that have also limited the usefulness of the download. For instance MovieLink, the Internet-based download service jointly owned by Paramount, Sony Pictures, Universal Studios, Fox and Warner Entertainment, was the first service to offer legal film downloads; however, users were limited to watching on their PCs (though deals were cut with set-top box makers to view through television sets), and the DRM scheme used by MovieLink limited the service to Intel-based computers running later versions of Microsoft Windows.

CinemaNow, backed by investors including EchoStar, Microsoft, Lionsgate, Cisco Systems and Blockbuster, now offers a “Burn to DVD” service for \$3.99 to \$19.99, but only 122 titles of its 4,000 movie and other video downloads are eligible. CinemaNow has implemented FluxDVD, an H.264-based codec developed by ACE GmbH, based in Dortmund, Germany that compresses the DVD image with all aspects, such as Dolby Digital audio, intact. FluxDVD has garnered some support from studios including Disney, Sony, Universal and Lionsgate, and allows films to be accompanied by menus, 5.1 surround sound, special features, language and commentary tracks and all bonus materials available on traditional retail DVDs. However, CinemaNow acknowledges that the titles, including *Charlie’s Angels: Full Throttle*, *Scent of a Woman* and *Barbershop*, are limited in number and appeal. TitleMatch Entertainment will also use the FluxDVD for its download-to-burn scheme. ACE managing director Volkmar Breiffeld says that several kiosk-based download ventures using FluxDVD are pending.

**IN FACT, THE SEARCH FOR IN-DEMAND** content characterises the DVD-on-demand sector so far: without an anti-copying scheme accepted by all of the major film studios available, those studios continue to withhold choice content from ventures that will allow that content to be owned on disc by consumers.

This is not a completely negative proposition. Hewing to the long tail concept, it means that much otherwise marginal content is finding its way to increasingly arcane niche audiences. But that’s not enough to launch an entire new download industry sector.

“The DVD CCA has been ‘about to decide’ for a long time,” says Anthony Bay, chairman and co-founder of MOD Systems, the in-store download-to-disc service that has been rolling out its service with music content initially, that is amongst those awaiting the copy-protect green light that will open the gates for high-demand video content. Bay is clearly frustrated with the absence of that, which he believes is holding back what he predicts will be a multi-billion-dollar business that can leverage both blockbuster and long-tail types of titles. He cites studies that indicate that between 30-50% of trips to video retailers end up in no sale simply because a title — even a major one — is out of stock at the moment. MOD Systems, which prominently notes DVD guru Warren Lieberfarb on its board, provides in-store screens (certain Starbucks outlets have as many as 30, creating a browsing environment) from which consumers choose titles that can then be burned to CD-R or loaded onto the purchaser’s WM-enabled MP-3 device.

“The potential is enormous, especially once movies are available, and all that has to happen is a 14-year-old piece of encryption software has to be modified and approved,” says Bay. “Personally, I’m confused.”

His competitors share that concern. Mary Litchhult, Vice President of business development for TitleMatch Entertainment, which has a DVD model designed for both retail and residential downloads, says discussions with studios are ongoing but that none will release significant content until they’re reasonably certain it will be protected. “The stumbling block is CSS,” she says. “We are all waiting on that announcement.”

Limited access to top titles means that electronic sell-through players are scouring the furthest reaches of the content universe for stuff to sell – recent announcements include the availability of such obscure US television series as *My Mother The Car* and *My Favourite Martian*. For example:

- CustomFlix recently cut deals for content with ABC News, part of one of the four major broadcast networks in the U S and a holding of the Disney company, for programming like newsmagazines and ABC News Specials such as the *Royal Wedding: Prince Charles & Lady Diana*.
- TitleMatch has been selling business and enthusiast software on demand, providing manufacturing and fulfillment services for front ends branded by others, such as TigerDirect.com and Best Buy, and has recently inked deals to distribute Indian Bollywood and Japanese Animé content in the US.
- Looking just over the horizon, Sony has acknowledged that it’s working diligently on a download-to-PlayStation venture that would utilise its proprietary UMD format. Sony’s Peter Dille said in a published interview, “We want to make sure we get the right content, and we’re working really hard on it. I don’t think we’re talking about years. This will be something we can get behind real soon.”

Music files are another initial content product that are filling download-to-disc channels; CinemaNow recently relaunched its music video site, [www.watchmusichere.com](http://www.watchmusichere.com), to accommodate music videos for download and burning. But, says Bay, as good as music sales have been – MOD Systems has increased inventory to 3 million tracks this year and can now also download MP3 files to Motorola and Nokia mobile phones – music’s real value lies in acting as a road paver for the more lucrative video download-to-disc business. “We are deploying with the retailer based on music, but with the understanding that video will arise when the copy-protect hurdles go away,” he states.

**CONSUMERS LIKELY WON’T BE CONFUSED.** The next generation of download-to-burn content distributors is seeking to make the process as transparent as possible for consumers, utilising high-resolution graphics. Pricing will be familiar, as well; MSRP is set by the content owner and/or the retailer, who in some instances have prior relationships in place; single song downloads are priced in the \$1 range, DVDs will run between \$14.00 and \$19.99, though CinemaNow has titles as low as \$8.99 already. But download developers believe that custom burns will help keep that type of disc out of the bargain bins. “There’s no reason that on-demand product should have an implicitly lower value

than prerecorded content,” says Mary Litchhult. “If you placed a replicated, packaged disc side by side with an on-demand one, most consumers could not tell the difference.”

With no major-studio deals in place yet and no operational experience, the revenue splits between content providers and retailers have yet to emerge. In the music industry, the record labels get about two-thirds of the income from single song downloads. Industry insiders expect that video market deals will be similar to those now common in sell-through of DVD. The download service providers are compensated by license fees, maintenance fees and a combination of revenue-share agreements with content owners and/or retailers, and set fees per transaction.

There’s little hard financial data to assess the download-to-own sector by – most of the players decline to discuss retailer or content provider deals. TitleMatch, however, a subsidiary of publicly traded Protocol Industries, did state Q1 2007 earnings of barely a quarter-of-a-million dollars, and that was up 32% from the previous quarter. “While the first quarter increase in revenue was modest, the results do not provide a

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DAVE SUDEN, RIMAGE



complete picture of the opportunities ahead," Bruce Newman, CEO of Protocol, told the financial press.

However, the video-on-demand (VoD) concept has been in place long enough for analysts to weigh in on it and they view it as a plus for the studios. Craig Moffett, an analyst with Bernstein Research, notes that the economics are far more favorable to the studios for VoD than for physical rentals, noting that in a rental model, revenues are split 70/30 in favor of the retailer; in a VoD model, the revenue split is 60/40 in favour of the studio. Sales of movies on DVD still trump either rentals or VoD now, but with slowing of DVD sales, download-to-burn offers Hollywood a way to extend sales and leverage special-interest and non-mainstream titles.

#### THE HARDWARE FOR IN-STORE MANUFACTURING

—burner drives and printers—will generally be purchased by the retailer from a list of approved vendors, such as Rimage and Microtech, which the distribution services have made arrangements with. Dave Suden, CTO at Rimage, says the download-to-DVD sector is still an unknown quantity, but one that will show its true potential or lack thereof quickly. "Where digital music took a long time to figure itself out and a long time to get content companies on board, many of the players for movies seem ready to go—studios, distributors and retailers," he observes. "It's possible the CSS delay has actually given everyone a chance to line up at the starting gate." (Suden also notes that no music download-to-CD service has ever successfully rolled out in a retail environment.) Taiyo Yuden and Verbatim are already manufacturing discs that can accept the CSS encryption key in a one-off situation. In this case, production discs are manufactured in high volume by a disc-stamping machine. Disc stampers apply a CSS key to the disc at the time of stamping.

The mechanics of how each service operates falls into two main categories: on-site or centralised manufacturing. CustomFlix is completely centralised and remote. An on-demand version of Netflix. MOD Systems is an example of the former, where retailers license the software and pay a monthly fee for Mod Systems to aggregate and manage content from providers that the retailer takes separate licenses from. The store is kitted with one or more MOD PODs, a self-enclosed, 10.5-inch flat-panel device with a 10.4-inch LCD touch screen with an intuitive user interface and 800 x 640 resolution, card swipe and barcode scanner for secure point-of-purchase customer transactions, a camera for real-time customer communications, USB and Ethernet ports for downloading, and a headphone jack for sampling audio files. MOD Systems maintains a central server at its Las Vegas headquarters and each retail location has its own smaller server loaded with content, and each is tapped as accessed depending upon demand.

Anthony Bay of MOD Systems says the in-store experience is crucial, likening it to the in-store digital photo service model. "Our fulfillment takes place behind the counter, and customers like that, as opposed to a mailed disc or a completely self-serve kiosk," he explains. "It's better if you hand a person a finished product and are there to answer any questions and use it as an opportunity to sell more." Polar Frog markets the Medialgloo, a standalone turnkey kiosk that holds 100 blank DVDs, which the company says lets customers proceed at their own pace. The company's kiosks hold between 700 to 800 films or 3,000 TV episodes (roughly 3TB). Through a high-speed Internet connection, the kiosks can download 40 new movies each month.

Although the download-to-DVD business waits for the oracle of CSS to dispense its blessing, the business model is also relying on numerous studies done over the past decade that indicate that consumers like to own their media. Those studies have, more often than not, been conducted at the behest of the packaged media industry, but could be the successful median model between the slowing growth of traditional DVD sales, and the migration to virtual distribution. It certainly offers studios some protection against fickle consumer taste and the financial risks that come with overestimating future sales, such as happened when sales of *Shrek 2* and *Madagascar* were over-shipped to retailers, resulting in high returns. And download-to-DVD fulfills the promise of the long tail, giving every piece of content its moment in the sun, or in the post. Assuming the DVD CCA does indeed approve a managed burn iteration of CSS, then all that's left is to see if consumers agree.



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ANTHONY BAY, MOD SYSTEMS