



white paper

EndPlay's Intelligent Rendering:

*Integrating Content Analysis,
Composition, Delivery and Monetization
in a Single Platform*

Table of Contents

Introduction	3
The Key Limitations of Existing WCM Systems	3
EndPlay's Intelligent Analysis	4
EndPlay's Intelligent Composition	5
EndPlay's Intelligent Delivery	6
EndPlay's Intelligent Monetization	7
Scalable Integration	8
Local Monetization	8
Interactive Monetization	8
Actionable Results	8
The EndPlay Advantage	10
About EndPlay	11

Introduction

Web property owners and managers are at a critical crossroad. Their aging Web Content Management (WCM) systems are unable to keep pace with their users, who have become increasingly accustomed to a personalized, media-rich, interactive and real-time online experience—and now expect the same from the sites they frequent. As a result, companies are experiencing a troubling drop in site engagement and monetization opportunities.

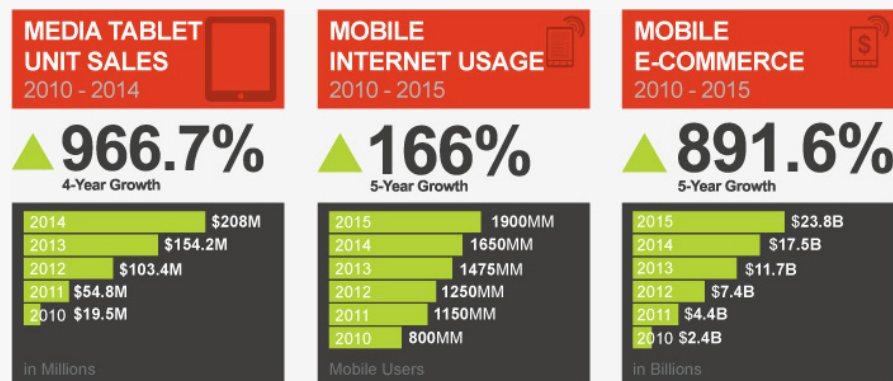
At the root of this problem are four factors that consistently plague today's legacy WCM systems:

- Aging WCM systems are not optimized for the proper creation and composition of today's more complex content
- These systems have a limited ability to collect and analyze data on user behavior and usage habits from core online businesses
- Users' changing content-consumption habits necessitate multi-channel content delivery capabilities that today's antiquated WCM systems aren't equipped to handle
- Continued reliance on outdated WCM technology limits an organization's understanding of the relationship between users, context and content, which is critical to hyper-targeted monetization

This white paper examines how EndPlay's Intelligent Rendering technology, embedded within its next-generation WCM platform, resolves each of these significant inhibitors to optimize your Web properties.

The Key Limitations of Existing WCM Systems

Web properties are at the mercy of their legacy WCM systems and their antiquated approach to aggregating and synthesizing third-party analytics, advertising effectiveness, and other key applications and services including user-generated content (UGC), mobile devices and digital asset management. Because WCM systems operate largely as standalone point products, their scattered analytics methodology hampers the ability to draw meaningful conclusions from the data being collected. And given the proliferation of multiple form factors accessing and ingesting Web content today, the user analysis and monetization problem is growing exponentially.



Decentralized WCM architectures are further hampered by the fact that their tool sets are not optimized for the proper creation of today's complex, media-rich content. Poorly designed workflows, non-intuitive user interfaces, and decoupled asset management all contribute to a content-creation paradigm that is inefficient and laborious for Web producers and product managers. In addition, existing WCM systems are increasingly limited in their ability to aggregate and compose content for distribution across mobile and tablet devices. Consequently, Web property owners are forced to engage with third parties that are not only costly, but detached from their WCM system, which creates significant management complexity.

The days of site visitors consuming content strictly from a Web browser on a desktop or laptop computer are over. Online users are accessing content from an ever-increasing array of devices. Given the blistering pace with which content-consumption habits are evolving, multi-channel content management and delivery capabilities are now a necessity. Businesses must unify their disparate systems and engage users with meaningful and contextually appropriate content, or risk a decline in market share, brand relevancy, and revenue.

The EndPlay Platform and its Intelligent Rendering technology eliminate this unnecessary fragmentation of Web technology and services. By helping Web editors and business managers focus on content and consumer relationships, the EndPlay platform delivers tailored Web experiences never-before seen in the WCM market.

EndPlay's Intelligent Analysis

Intelligent Analysis (IA) provides clients with real-time data such as visual mapping of page, category and topic popularity, as well as snapshots of ad metrics and video performance. This analysis is critical to making informed business decisions about Web properties. IA facilitates a granular understanding of user behavior by examining sharing patterns, distribution choices, form factors used to ingest content, what is done with that content and other key performance indicators (KPIs).

“The Web Content Management (WCM) market is currently experiencing a significant evolution as requirements for those platforms have grown beyond just managing Web content. Instead, organizations need WCM to help support rich, contextual, engaging, cross-channel experiences. The growth of new content types, the emergence of new channels, and the increased expectations of customers all drive this significant change in WCM. Now, content and collaboration (C&C) professionals need to remember that the “C” in WCM no longer stands for just content. Instead, they must keep in mind the additional C's as well: context, channel, consistency, community, consumer behavior, and creation.”

Stephen Powers, Forrester

The Seven C's Of Web Content Management

http://www.forrester.com/rb/Research/seven_cs_of_web_content_management/q/id/58320/t/2

Intelligent Analysis also takes into consideration that consumers are not only ingesting content in a myriad of formats and methods, but are also interacting with data differently. Gone are the days of single, isolated website sources; content has evolved into auto-filtered rich media streams that adapt and search for the consumer. This is a revolutionary change. Businesses and brands that adjust to the speed and relevancy of programmatic content ingestion, and the dramatic evolution of consumer consumption, will gain a superior understanding of their users.

EndPlay's Intelligent Analysis allows companies to leverage users' consumption behavior in real-time, netting direct competitive advantage in their industry by enabling true first-to-market opportunities on any device. IA unites consumers with the right content at the right time, allowing EndPlay clients to construct revenue and content utilization models to better understand the value of their content relative to user activity.

Intelligent Analysis uses rich configurable modules utilizing data from social networks, devices, internal and external sources, and ad serving platforms for comprehensive analytic reporting. It allows users to combine multiple modules to build a customized dashboard. These modules can use a single setting for a broad capture of aggregate data, or detailed cross-targeting for granular metrics that include device utilization, hyperlocal geographic data, consumption levels by content type (text, video, image) and more. This provides marketing and production departments with immediate access to user engagement levels through social modules that monitor registration, content sharing and social interactions. By extending its mobile and tablet content management applications, EndPlay gives businesses the power to monitor relationships between their content and consumers anywhere in the world.

EndPlay's Intelligent Composition

The stunning rate at which the consumption of digital content is changing requires next-generation WCM platforms to be highly adaptive and extensible. This is more important than ever as the volume of Web content sources—from internal content contribution to traditional news outlets to social media syndication—continues to skyrocket. EndPlay's Intelligent Composition (IC) utilizes a flexible and modular framework for simple content creation in any vertical industry.

Did you Know?

You can create custom applications for your business using the EndPlay Application Development Kit (ADK).

In order to manage this content explosion and efficiently determine its relevance to your audiences, the ingested content must be intelligently aggregated. EndPlay ensures content authors don't have to be information technology (IT) experts in order to deliver whatever flavor of digital content is demanded by their audiences.

With Intelligent Composition, the creation and management of content, layouts, and system processes are handled automatically and transparently. EndPlay accomplishes this by applying specific rendering algorithms—automated calculations for content filtering—to inbound data on the basis of content, tags, trends, keywords and categories. These algorithms ensure the proper content is captured for your business, and that it is matched to the correct consumer or "audience". EndPlay displays these important automated data filters, as well as other content, within modules that adapt to any context: text, video, audio, images, animation or a combination of rich media.

Web content authors and editors can reuse, customize and easily render these powerful modules across the entire spectrum of desktop, laptop, tablet and smartphone devices. As a result, businesses can focus on extending their brand and content authors can concentrate on what they do best: producing timely, relevant content for their audiences.

“Interactive marketers have thrived in the golden age of the Web, where people access websites using standard, similarly formatted PCs and browsers. No more. The Internet is splintering across proprietary platforms like the Apple iPhone and Google Android.” Josh Bernoff, *The Splinternet*

The EndPlay Platform also features a robust Software Development Kit (SDK) that provides users with an easy-to-use framework to modify site templates, page layouts, and front-end page design. Novice coders and experienced developers can easily leverage the SDK to design and build customized look-and-feel templates and layouts as reusable plug-ins for a single page, a complete site, or an entire organization. These new plug-ins are available in a repository that can be accessed and implemented by all users of the system, allowing iterative changes to the look of a website without site downtime or IT support.

But generating content for multiple devices is only half of the equation. Smartphones and tablets have changed the way users access the Web and present an evolutionary shift in the way we work. In order for businesses to take advantage of today’s mobile ubiquity, they must be able to create and manage their website content from the device of their choosing, irrespective of media type. EndPlay’s WCM platform is purpose-built to deliver this versatility by offering optimized mobile and tablet WCM applications that extend the power of the Web platform to hand-held devices. By diversifying the content production source and putting the platform in the devices users know best, businesses can evolve their workforce into a fully connected network.

EndPlay’s Intelligent Delivery

Given the proliferation of smartphones, tablet devices and social networks, WCM solutions must facilitate processes that enable organizations to reach users, independent of where they are consuming content. At its most basic level, EndPlay’s Intelligent Delivery (ID) allows organizations to seamlessly render optimized content across virtually any form factor.

The EndPlay platform SDK provides users with the ability to access a rich library of front-end technologies, as well as a diverse set of out-of-the-box modules. This includes EndPlay’s media player and social, advertising and editorial plug-ins that allow users to build compelling and optimized versions of their websites across mobile form factors. Similarly, the EndPlay video solution features a framework that helps the EndPlay media player to function “natively”, regardless of being utilized in a Flash or HTML5-friendly environment.

“The standardized Internet is fraying. Long live the Splinternet...The future of the Splinternet is one where vendors like Apple perpetuate proprietary platform creation and marketers rely on a modular approach to create interactive customer experiences.”

Josh Bernoff, Shar VanBoskirk

The Splinternet

<http://www.forrester.com/rb/Research/splinternet/q/id/56303/t/2>

EndPlay's approach to content rendering is unique, given most WCM vendors encourage customers to work with third parties for their mobile delivery and video solution needs. To make matters even more complicated, many of the recommended solutions for legacy WCM systems don't feature native hooks back into the WCM solution's application or infrastructure. In sharp contrast, the EndPlay solution is seamless. It operates as a single platform that incorporates necessary technologies such as end-to-end management of rich media, syndication and social engagement as out-of-the-box features. Additionally, EndPlay includes a robust set of APIs that allow new technologies, such as print, analytics and advertising systems to easily and deeply integrate into the core EndPlay technology stack.

Intelligent Delivery also focuses on the distribution and sharing of content with appropriate partners and social network destinations. EndPlay platform users can leverage ID features to easily connect with consumers by using targeted distribution to sites and devices. They can also integrate unique sharing models between websites to manage content, user and meta-data, all within the EndPlay platform. Furthermore, EndPlay's native workflow engine allows businesses to create customized content approval processes with actionable delivery tasks that can be carried out on the Web as well as mobile platforms. This accelerates time-to-market for any type of content.

Moreover, Intelligent Delivery allows businesses to extend their brand footprint by leveraging EndPlay's Search Engine Optimization tools, as well as managing their outbound marketing content strategy through the use of targeted email campaigns, newsletters, automated alerts and breaking news. In addition, EndPlay customers can prepare new campaigns in advance of their go-live date using flexible publication scheduling coupled with customized modules and optimized pages.

EndPlay's Intelligent Monetization

EndPlay's Intelligent Monetization (IM) component fully leverages the combined capabilities provided by the Intelligent Analysis, Composition, and Delivery processes. By granularly understanding users through the content they are viewing and form factor they are using, EndPlay helps clients hyper-target advertising, commerce initiatives, and other actionable offers that drill down to the user, site section, and form factor levels.

EndPlay provides users with integrated and customized dashboard modules that perform the "heavy lifting" of Web revenue analysis that can be leveraged quickly and easily to better understand and drive their business objectives. Because monetization opportunities are seamlessly embedded directly into the EndPlay platform, clients can streamline the number of vendors they are required to work with.

"Managing mobile experiences alongside traditional websites is currently a major pain point for those who are trying to figure out the right mix of asset re-use and device-specific content while maintaining consistency."

Stephen Powers, Forrester

Splintering Into Mobile

http://blogs.forrester.com/stephen_powers/11-03-17-splintering_into_mobile

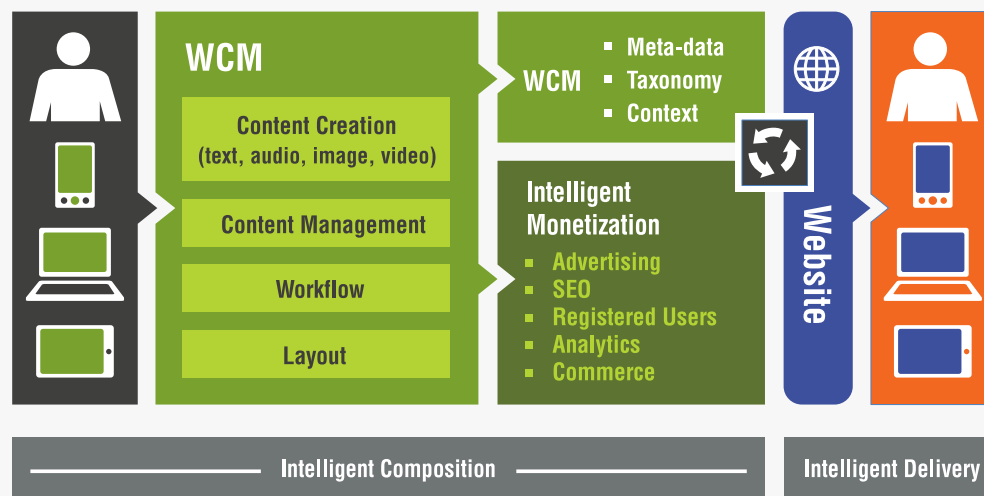
Scalable Integration: EndPlay works with top tier providers of advertising platforms (display, mobile, paid/contextual, rich media) and Ecommerce services. The platform level integration of Ecommerce with video allows EndPlay to offer clients premium content offerings with inherit content gating, as well as physical and digital products.

Local Monetization: EndPlay advances local monetization strategies by integrating its couponing and contest features on phone, tablet and Web devices using native campaign management tools. This enables clients to deliver highly directed campaigns to site users with micro targeting, filtered by designated market area (DMA), language, location, and device.

Interactive Monetization: This powerful capability enables broad monetization experiences using micro-transactions and virtual goods within interactive media and games. EndPlay clients can leverage this feature to serve the right ad to the right audience with selective monetization based on pricing and relevance of the ad. Intelligent Monetization can also be programmed to automate the process of ad serving based on your pre-selected criteria.

Actionable Results: Utilizing a customized EndPlay dashboard comprised of rich advertising modules, Web producers can track campaign results from their desktop, phone, or tablet. This allows businesses to respond to trending topics immediately. The EndPlay dashboard also allows clients to tap into new and undefined monetization channels in mobile and tablet markets through seamless access to actionable revenue and site usage metrics. Core metrics include the aggregation of multiple advertising vendors, cross-targeting of ad impressions, frequency of placements, click-through rates and sales.

From ad server integrations and registration capabilities, to Ecommerce systems and campaign management, EndPlay's Intelligent Monetization enables businesses to fully realize their digital revenue potential. This is made possible by focusing on data-driven, scalable solutions that can be managed and delivered by the client in the same environment utilized by content creators and managers. The EndPlay platform is singularly focused on ensuring customers have complete insight into the flow and performance of their business.



WCM - Web Content Management

Feature	Benefit
Intelligent Analysis	
Interact with consumer and content	Understand where your consumers are visiting from and what they are looking for. Quickly react to new content trends, and prepare to lead the next one.
Understand your users' behavior	Gain immediate access to users' engagement levels with social modules that monitor registration, content sharing and social interactions.
Visual results	Empower your business growth with analytic reporting through multiple vendors, delivered in configurable graphing modules.
Intelligent Composition	
Pull from unlimited sources: internal, external or UGC (user-generated content)	Diversify your content offering by plugging in your selected content sources, or let your users contribute through content submission tools. Adding a source is simple and allows your business to scale with your users' consumption habits.
Author content from any location	Extend your business with the EndPlay SaaS platform and utilize the cloud to access your data anywhere.
Device-agnostic architecture	Render optimized content on virtually any device, and support the widest range of new devices possible.
SDK for customized experiences	Enable site designers with the ability to easily modify site templates, page layouts, and design front-end pages with an easy-to-use framework.
Surf and edit	Allow content editors to login to the consumer facing website as a WCM user. This capability provides quick access to the EndPlay platform creation and editing tool set without logging into the full WCM Administrator interface.
Dynamic drag-and-drop	Allow items on a page to be moved by simply dragging and dropping them into place. Items can also be easily added and removed.
Staging environment	Maintain a pre-publication version of your website. This environment lets users test features, preview content, and perfect the layout before end-users see it.
Pre-built modules	Create sites quickly with out-of-the-box pre-built modules that use flexible configurations to fit business needs.
Role-based production	Administrator-controlled production environments use the role-based engine to allow each contributor to focus on their tasks and access only what they need to.
Responsive user interface	A fast, responsive interface makes the EndPlay platform extremely easy and efficient to use for authorized users in your organization.
Workflow framework	The embedded workflow functionality defines the number of content approval paths. Workflows are customizable and based on each client's unique business requirements and operational needs.
Mobile publishing	Leverage the features and functionality of the Web-based EndPlay platform and create content wherever you are using powerful tablet and smartphone optimized publishing applications.

Feature	Benefit
Intelligent Delivery	
Social syndication	Automatically distribute your content to popular social networks like Facebook and Twitter. Manage multiple accounts for specific campaigns, and control access based on roles.
Feed customization	Control your outbound content streams by creating custom feeds. Select which types of content you want to share so consumers get a consistent experience.
Content sharing	Connect your entire Web business by sharing content between sites in your organization. Content can be shared with specific rules to allow granular ownership of data.
Device agnostic	Distribute your content to all devices easily and automatically, or target individual channels for device-specific content.
Scheduled delivery	Set up content publication schedules a year in advance, minimizing Web maintenance and further automating your business.
Intelligent Monetization	
Dashboard reporting	Monitor your advertising performance from your customized reporting dashboard. Drill down within the flexible module display to gain unparalleled visibility into your content-to-consumer returns.
Targeted campaigns	Deliver purposeful campaigns to your users with micro-targeting, filtered by DMA, language, location, and device.
Local value	Advance your local content footprint by leveraging EndPlay's couponing and contest features.
Extend your opportunities	Support for multiple Ecommerce models, including physical and digital products. Enable rich monetization experiences using micro-transactions and virtual goods within interactive media and games.

The EndPlay Advantage

EndPlay's Intelligent Rendering is dramatically changing the WCM market by enabling Web property authors and designers to tailor and disseminate content to match the consumption preferences of their site visitors.

The EndPlay WCM platform provides Web content developers and Web property managers with unprecedented flexibility in analyzing, aggregating, producing, and monetizing their content. As a result, never-before-seen content development, deployment and refresh cycles enable organizations to attract, retain and monetize online consumers in ways that will boost user loyalty and the bottom-line.

About EndPlay

EndPlay is a leading provider of SaaS Web Content Management (WCM) solutions delivered in the cloud. Powered by its unique 'Intelligent Rendering' technology, the EndPlay solution empowers clients to seamlessly produce, manage and instantly deliver content optimized for virtually any device. The company's extensible architecture and integrated partners ensure EndPlay clients can expand, engage, monetize and leverage their WCM solution against the complexities facing all brands in the era of Big Data and Quantum Content.

Enterprise clients in media, entertainment, consumer packaged goods (CPG) and education verticals have turned to EndPlay's experienced Client Services team to support collaboration, implementation and optimization of their EndPlay solutions. EndPlay's commitment to innovation and customer-centric approach enables clients to stay ahead of their competition, increase audience engagement, and future-proof their digital business investment.

EndPlay is headquartered in Los Angeles, California with regional offices in Florida and New Jersey, and currently expanding to Europe and Asia. For more information, visit www.endplay.com.

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