![cranium SOFTWORKS]

Viable Business Models on the Web
Tools for Business-to-Business Publishers

Introduction

Publishers and content providers, today, are facing an existential question: how to effectively drive revenue on the web. As more and more readers opt for electronic delivery in lieu of the traditional hard-copy print media, publishers without a viable online business model are witnessing the slow but steady demise of their revenue base. According to a research study by the Education Resources Information Center in 2009, readership in most content segments is at an all-time high while publisher revenues in those same segments are sharply lower compared to ten years ago. Industry pundits blame the World Wide Web for this curious trend.

The growth and even dominance of the Internet as a vehicle for delivering content is unquestioned by most experts. But despite an undeniable shift in the market toward electronic delivery, relatively few content providers have been able to fully utilize the power of this new medium to sufficiently monetize their products and to drive value from their online business models.

As a leading provider of electronic publishing and content distribution tools for the Business-to-Business Information Industry, Cranium Softworks is dedicated to the success of our clients in a competitive and dynamic market. Our electronic publishing platforms and our marketing and e-commerce tools provide publishers with sound alternatives that enable financially viable and economically competitive online business models.

The Challenge

Electronic content is inherently difficult and expensive to produce, especially for organizations with existing and long-established processes for print publishing. Clearly, the cost of producing electronic content plays a fundamental role in the financial viability of any online strategy. What's more, the old traditional revenue models, based on hard-copy subscriptions and advertising, don't quite fit the new online environment where users are accustomed to on-demand access, immediate fulfillment of orders and non-traditional payment options.

Over the years, the Internet has become crowded with a glut of free content, giving rise to the importance of search engines such as Google and Yahoo to help users find the proverbial needle in the haystack. According to a research study conducted by Millward Brown Optimor in 2008, Google is now the most recognizable brand name in the world and is the most popular website on the internet today. With over 450 million visits per day, Google has become the "first-access gateway" to the web for 34% of all users world wide and is now, arguably, the most significant tool for marketing electronic goods and services online.

Clearly, in today's overcrowded Web environment, the most obvious way to stand out of the crowd is to obtain a high ranking on search engine result pages. Yet 99% of premium/for-pay content cannot be indexed by popular search engines because the content is protected by a username and password (Pay wall) that prevents search crawlers from entry . Hence 99% of all online premium content is simply unavailable to the most popular way the Internet is accessed by users today. Regardless of its price, its demand or its value proposition, if a product is not readily available in a marketplace, it simply cannot compete with those that are.

One of the biggest challenges of the 21st century for online content providers - especially in the business to business arena - has been the difficulty of enforcing their copyrights on the Internet and the ease by which electronic content can be illegally distributed to non-paying users. With only a few keystrokes, a copyrighted article on the web can be copied onto a corporate network or an internal website, or it can be pasted into a document and emailed to any number of people. A single subscriber password can be shared between two people, an office or an entire corporation, or worse be placed on a public bulletin board for anyone to use.

The Software and Information Industry Association (SIIA) estimates industry losses of $1.3 to $4 Billion per year due to electronic content piracy. So long as web users have the means, opportunity and motive to obtain premium content without paying for it, online publishers will have a difficult time maintaining a viable business model on the internet.
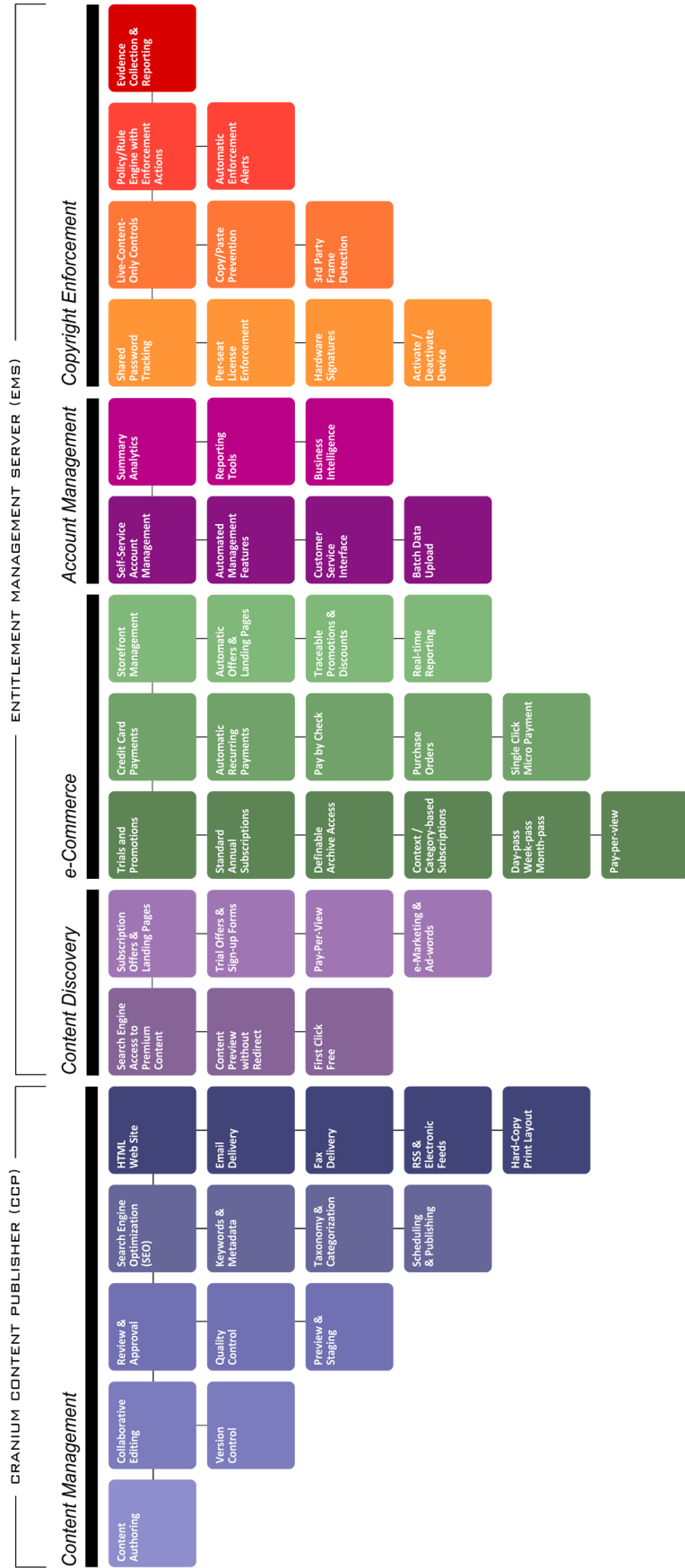
The Answer

The Cranium Softworks suite of products have been designed to effectively address these issues with minimal investment and nominal impact on a publisher's existing processes. They have been collectively designed to provide four fundamental principles for monetizing online content:

1. Content should be easy to produce electronically
2. Content should be easy to find on the web
3. Content should be easy to buy and easy to pay for
4. Content should be difficult to steal

Each tool within the Cranium toolset can be deployed and configured individually based on specific client requirements or it can be part of a larger, fully integrated solution set. These solutions are available in a Software as a Service (SAAS) model such that publishers are required to have little or no IT infrastructure and can deploy the solutions with a minimal investment of time and money. This model also provides a strong return on investment, faster time to market and reduced maintenance costs.

CRANIUM CONTENT PUBLISHER (CCP) — ENTITLEMENT MANAGEMENT SERVER (EMS)

Content Management

- Content Authoring
- Collaborative Editing
- Review & Approval
- Search Engine Optimization (SEO)
- HTML Web Site
- Version Control
- Quality Control
- Keywords & Metadata
- Email Delivery
- Preview & Staging
- Taxonomy & Categorization
- Fax Delivery
- Scheduling & Publishing
- RSS & Electronic Feeds
- Hard-Copy Print Layout

Content Discovery

- Search Engine Access to Premium Content
- Subscription Offers & Landing Pages
- Content Preview without Redirect
- Trial Offers & Sign-up Forms
- First Click Free
- Pay-Per-View
- e-Marketing & Ad-words

e-Commerce

- Trials and Promotions
- Credit Card Payments
- Storefront Management
- Standard Annual Subscriptions
- Automatic Recurring Payments
- Automatic Offers & Landing Pages
- Definable Archive Access
- Pay by Check
- Traceable Promotions & Discounts
- Context / Category-based Subscriptions
- Purchase Orders
- Real-time Reporting
- Day-pass Week-pass Month-pass
- Single Click Micro Payment
- Pay-per-view

Account Management

- Self-Service Account Management
- Summary Analytics
- Automated Management Features
- Reporting Tools
- Customer Service Interface
- Business Intelligence
- Batch Data Upload

Copyright Enforcement

- Shared Password Tracking
- Live-Content-Only Controls
- Policy/Rule Engine with Enforcement Actions
- Evidence Collection & Reporting
- Per-seat License Enforcement
- Copy/Paste Prevention
- Automatic Enforcement Alerts
- Hardware Signatures
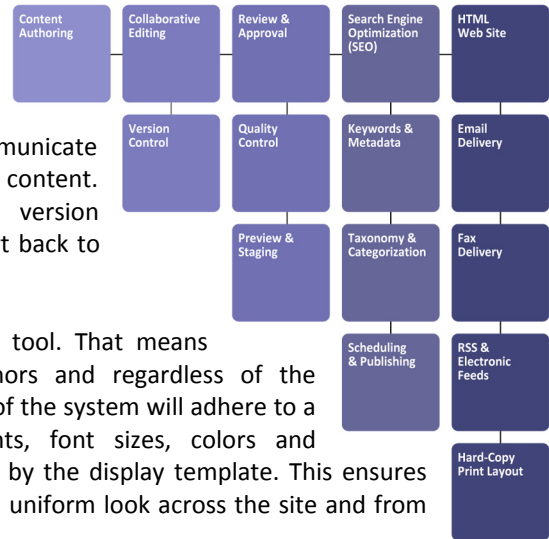- 3rd Party Frame Detection
- Activate / Deactivate Device

Content Creation / Electronic Publishing

Cranium Content Publisher (CCP) is a simple to use, simple to maintain and affordable Web Content Management Solution designed specifically for periodical content publishers.   It is a tool intended to provide the utmost in publisher-relevant features out of the box at a fraction of the cost of "generic" content management systems.

Although a web-based editor is provided, CCP can be configured to use Microsoft® Word as the primary content authoring and editing interface. This is a compelling benefit to publishers that need to minimize the impact of online publishing on their existing processes. With CCP, authors can post content into the online system directly from Microsoft® Word and no longer need to learn or contend with a separate authoring tool.

CCP's collaboration features include robust "check-in / check-out" editing so that collaborating authors do not over-write each other's work. A content-specific discussion forum is also included that allows authors to communicate online with regard to a particular piece of content. Furthermore, all editions and updates are version controlled so that, at any time, editors can revert back to an older version of the document.

CCP is a template based Content Management tool. That means despite the preferred style of individual authors and regardless of the formatting used to generate content, the output of the system will adhere to a pre-defined set of formatting standards. Fonts, font sizes, colors and placement of images are all elements controlled by the display template. This ensures that the publication website has a consistent and uniform look across the site and from one issue to the next.

HTML content generated by CCP is automatically filtered to adhere to the latest Search Engine Optimization (SEO) rules and is automatically categorized and indexed for both internal and external search engines. CCP provides a single, unified process to publish and manage content to multiple delivery media including websites, email alerts, XML and text-based electronic feeds as well as hardcopy print.
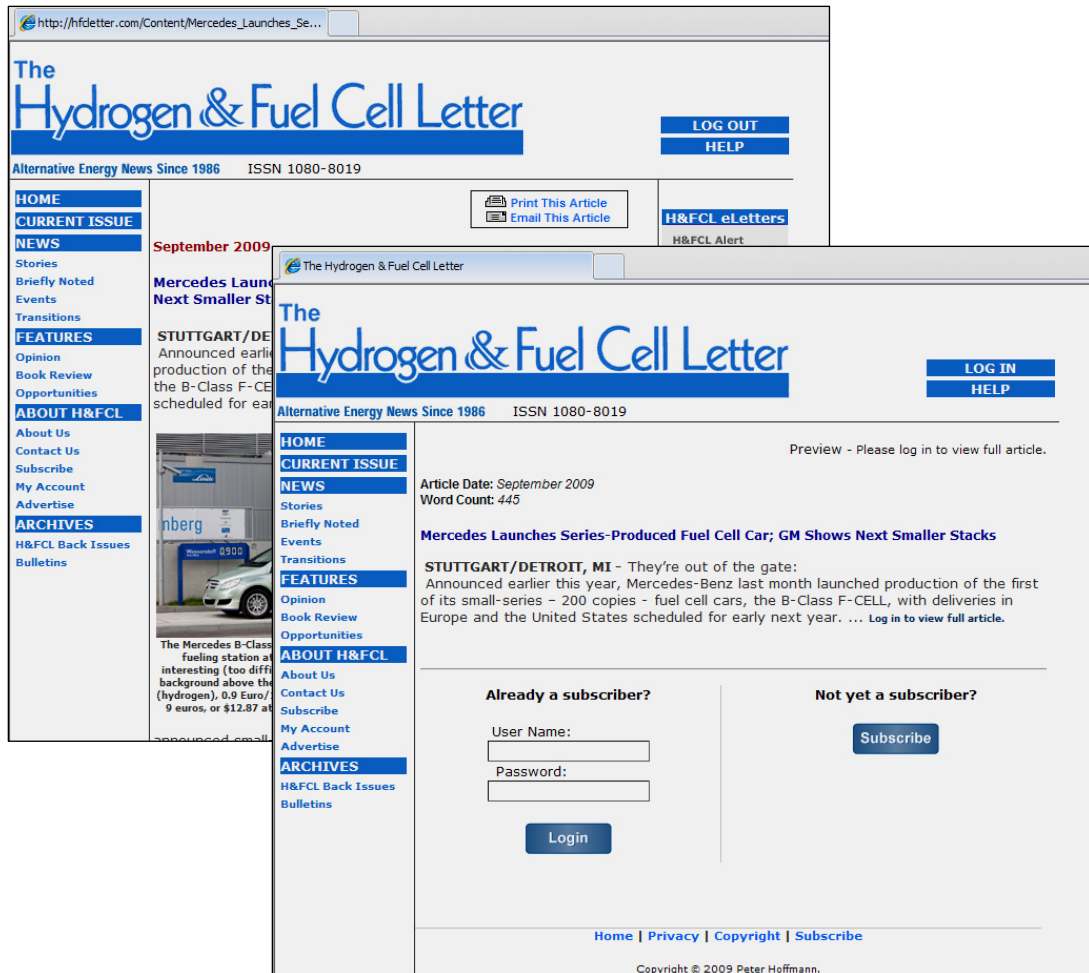
Search Engine Discovery / Content Marketing

A typical "for-pay" website uses the web server's security mechanism to prevent unauthorized users from gaining entry to the premium portion of the site. In other words, when a user accesses the website, he/she is first directed to provide a username and password before the requested content is returned. Unfortunately, while keeping out unauthorized users, this same scheme prevents search engine crawlers (mechanisms by which search engines discover website content) from accessing the site's for-pay content. Hence the most valuable portions of a website are not available on popular search engines such as Google, Yahoo or Bing.

Cranium Search Preview (CSP) is a versatile server component that monitors the incoming and outgoing traffic on a website. It provides a "hole" within a website's security model to allow search engine crawlers and bots to access and index the full-text of – the otherwise - restricted web pages. Coupled with Search Engine Optimization rules applied by CCP during publishing, CSP ensures pertinent searches on Google, Yahoo or Bing return results that include content from the secured website.

If a user clicks the resulting link on the search page or otherwise accesses the site directly without first logging in, CSP determines that the request is not from a search engine crawler but rather a user requesting access to a premium page. In that case, the user is presented with a "preview" of the requested page that can display a portion (for example the first 100 words or the first 10%) of the content or an entirely separate abstract prepared in advance by the publisher.

The preview page may also include offers to the user to subscribe or sign up for a trial. If the publisher has deployed Cranium's Entitlement Management Server (EMS) the page can also include a facility to purchase a single Pay-Per-View entitlement that would allow the user to access only the requested page on the website.

Typically, the preview page would also contain authentication fields to allow a user with proper credentials to log in and gain access to the full-text of the page.

It is important to note that Cranium Search Preview is not a mere "re-direct" mechanism that simply routes the user to a different page. "Request re-directs" are considered against the rules by virtually all search engine providers. Most search engine providers including Google have been known to lower the rank of, or event "black-list" sites that perform re-directs from their search results. On a website with CSP, the URL of the preview page is the exact same URL that the search engine used to index the full text of the page.

e-Commerce and Online Payment Models

While online shopping carts and e-Commerce solutions are not necessarily brand new technologies, deploying a system specifically designed to provide, and effectively promote monetization of online content, can be a complex and expensive challenge. Fortunately, Cranium's e-Commerce solutions are a pre-integrated component of the Entitlement Management Server (EMS), and provide the publisher with an easy to use yet powerful platform to manage online and offline payments for web-based content, create offer pages and storefronts, as well as deploy flexible payment models that enhance the publisher's competitive advantage.

Product options include:

- *Trials and promotions*
  The publisher can easily setup trials or discounted promotion and track the conversion rates of each campaign using promotion codes.

- *Standard single or multi-seat subscriptions*
  Various subscription products can be created based on seat limits and/or length of the subscription. The subscription product can be accessed through the storefront or be only available on specific offer emails or landing pages.

- *Archive access based on content or subscription age*
  The publisher can configure various criteria that define archive access either based on the age of the content (i.e. Content that is older than 30 days) or the age of the subscription (i.e. user gains more access over time, the longer he/she remains a subscriber.)

- *Subscriptions to a category or portion of website*
  The user can purchase "scope-limited" subscriptions that allow access only to a specific category or section of the website.

- *Day-pass, Week-pass, Month-pass*
  The user can purchase a micro-subscription product that is valid for a pre-defined period of time (typically a day, a week or a month.)

- Pay-per-view (access to single content page)
  The user can purchase access to a single content page typically an individual article or story.

Payment options include:

- *Pay by Credit Card*
  User pays for the items in his/her shopping cart using a valid credit card and receives immediate access to any purchased content upon successful completion of the transaction.

- *Automatic recurring payments*
  For an on-going subscription, the user's credit card can automatically be charged based on a pre-determined frequency (monthly / quarterly / yearly). In this way, the publisher can setup subscriptions that automatically renew until canceled by the user. This payment model not only saves the time and expense of renewal notices and follow-ups, it increases the publishers renewal rates. Subscribers like it because it requires a smaller initial investment with little or no commitment.

- *Single–click micro payments*
  A concept that was first successfully deployed by Apple's iTunes for monetizing online music, the Single-click payment requires the user to create an online account and provide a valid credit card. The user can then browse the site and make pay-per-view purchases of any individual (or grouped) content

page using a single click on the "Buy Now" icon. Over a period of time or once the user's purchases have reached a pre-determined Dollar threshold, the user's credit card is automatically charged for the items purchased.

- *Pay by Check*
  User pays for items in his/her shopping cart using a validated, electronically processed bank check and receives immediate access to content upon successful completion of the transaction.

- *Purchase Orders / "Bill me later"*
  Typically used by corporate multi-seat subscribers, the user requests to be billed or submits an online purchase order. A grace period can be defined by the publisher such that immediate access is granted but the subscription would automatically expire if payment has not been received by the time the grace period ends.
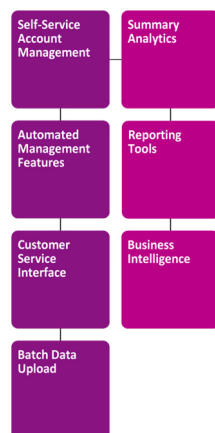
Management features include:

- *Online maintenance of products, prices and store fronts*
  The publisher can create, modify and remove products that appear on the storefront and offer pages using an intuitive online interface.

- *Creation and expiration of offers and landing pages*
  The publisher can create special offers and discounted promotions using the online interface and automatically deploy promotional landing pages that are available on the website until manually deleted or automatically expired.

- *Management of marketing campaigns and promo codes.*
  The publisher can create promotion codes and apply those codes to offers and campaigns. The promo codes can then be used to report on the effectiveness of each campaign and to track the conversion rates of marketing efforts.

- *Real-time reporting of e-Commerce activities*
  The publisher can access any number of pre-defined reports or use the provided reporting tool (available as a third-party component) to obtain real-time data about all e-Commerce activities including trial conversion rates, subscription renewal rates and shopping cart abandonments.

Subscription Management

Managing online subscriptions is fundamentally not much different than managing print subscriptions. The differences have to do with the level of automation necessary to support the speeds and efficiencies that users have come to expect on the Web as well as features and functionalities that allow an online subscriber to take over many account maintenance tasks that previously required contacting customer service. In the old print-subscription world, if a user wanted

Self-Service Account Management

Summary Analytics

Automated Management Features

Reporting Tools

Customer Service Interface

Business Intelligence

Batch Data Upload

to change his address or needed to be taken off of some marketing list, he would have to call the publisher, be placed on hold until a customer service representative was available, explain what he needed hoping that the person on the other side of the line took down his information correctly.

Today, online users are accustomed to updating their own account information, opting in or out of various site features at will, and having the ability to review their account activity by pressing a single button on a web page.

The subscription management features of Cranium's EMS can provide many self-administered account features that not only put users in control of their own accounts, they also improve data quality and accuracy as well as provide savings in customer service overhead for the publisher.

- Self-service registration
- Address / contact information updates
- Opt in/out of site features
- Password resets
- Account activity and purchase history views
- Usage tracking reporting
- Credit card / billing information updates
- User roles and access levels
- Multi-seat account administration of users and credentials

Automated Management Features

- Access control based on subscription terms (automatic expiration)
- Automatic renewal notices
- Upgrade / Up-sell recommendations
- Reminders for lost or forgotten credentials
- Surveys and user input data collection
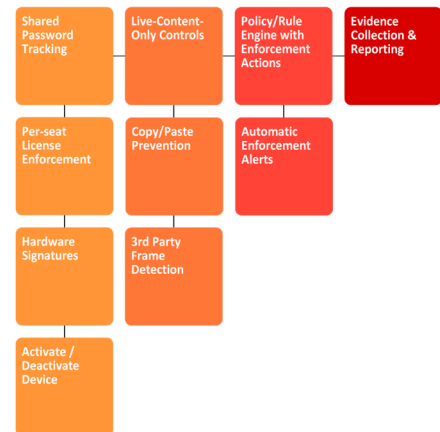- Purchase receipts and thank-you notes

For those tasks that customer service or account management intervention is required, the Entitlement Management Server provides a secure, intuitive and easy to use Web-based interface that allows the publisher's staff to be effective on-site as well as from remote locations. All that is necessary is an internet browser and a connection to the World Wide Web.

Copyright Protection

It is estimated that the Information Industry loses between $1.3 to 4 Billion each year due to electronic content piracy and online copyright abuse. Despite the uproar and controversy created by the Entertainment Industry in recent years, most copyright abuse occurs in the Business-to-Business Information segment of the market in the form of intra-organizational distribution of copyrighted material and sharing of passwords to subscription-based web content.

Entitlement Management Solutions (EMS) are Cranium Softworks' integrated tools for the delivery of content and the protection of that intellectual property over the Internet. EMS manages entitlements and access rights across the entire subscriber base and ensures that premium content is not saved, copied or redistributed without the publisher's knowledge and authorization and that each subscriber's username/password is used by only one person – the subscriber.

Shared Password Tracking	Live-Content-Only Controls	Policy/Rule Engine with Enforcement Actions	Evidence Collection & Reporting
Per-seat License Enforcement	Copy/Paste Prevention	Automatic Enforcement Alerts	
Hardware Signatures	3rd Party Frame Detection		
Activate / Deactivate Device			

EMS manages the profiles of online subscriptions and assures that only valid users access content. EMS also manages and enforces per-seat licensing for corporate site license accounts.

- Unauthorized password sharing is monitored and tracked.

- Usage reports provide the detail necessary to negotiate increased numbers of seats for site licenses or seek remediation through enforcement of copyright statutes.

- Rogue users can be automatically cut off as abuse occurs.

- Enforcement rules can be tailored to the type of subscriber, consumer and small business subscriber, large business subscriber or overseas client.

With EMS, users are only permitted to view controlled content while online and logged into the publisher's website. The content provider can prohibit and prevent users from downloading, copying, forwarding or even printing EMS-controlled content.

- On-line content is encrypted and can be viewed only if accessed from your servers. Locally saved copies of the content are unusable.
- Online content cannot be copied and pasted into other documents or printed.
- Right click functions: print, save and forward commands can be disabled to prevent content forwarding.
- Effective with all major browsers including: Internet Explorer, Netscape, Firefox (Mozilla).
- No plug-in or download is necessary to access online content.

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