

A **White Paper** by Percussion Software, Inc.



WEB CONTENT MANAGEMENT:
“Why Can’t I Just Build This Myself?”

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Executive Summary

Many leading organizations that have invested substantial time and money building a web content management (WCM) system to run their web site often face a crossroads. Do they continue to support their own custom-built application and extend it to address the needs of the business today, or do they look to purchase a commercial software product to address these requirements. This leads to a delicate stand-off between the web site business owners (usually marketing), the development team (usually in IT) and the Finance office. Each has their own perspective:

Marketing: The current application doesn't work, and going back to IT to make changes slows down our need to adapt to new web initiatives.

IT: Marketing's core requirements make up less than half of the features available in today's web content management packaged applications, purchasing one of those solutions is overkill. We can easily build them exactly what they need at less costs and in less time using an open source framework.

Finance: What is the return on the investment I am making after factoring all of the implied and actual costs of this project?

This leads to many difficult discussions both internally and with the vendors as the best way forward is considered. This document is designed to help all those involved—from marketing to IT to Finance—define the elements and provide a framework for decision making. It provides context around the evolution of the WCM product market and the kinds of opportunities that are “coming next.” It further proposes a way forward where the IT team is able to focus on the true points of competitive differentiation, while marketing has the flexibility to take advantage of the full web opportunity, and finance has a cost justification model for each component of the process.

In the end, deciding on the right approach for your business requires that you consider each of these factors carefully, and in the context of your own business. Done well, this decision will give your company the control and flexibility to be successful online, regardless of what comes next.

Give your company the **control** and **flexibility** to be successful online, regardless of what comes next.

1.0 Build vs. Buy for Online Customer Engagement

A Strategic and Cost-based Analysis

Effectively reaching your markets through the Web means optimizing a diverse set of online channels, facilitating content across these channels, managing customer interactions and social behaviors that are constantly changing, and fundamentally unpredictable. Ultimately, Web success requires many pieces each having both technical and business dimensions. For each component, organizations face what seems initially to be a decision purely on cost—what to build vs. what to buy. Fundamentally though, the business must make a strategic decision—where to focus and develop in-house capabilities vs. when to leverage outside expertise or products.

Analysis Framework

Well established strategic frameworks use a two dimensional model to approach both the cost and strategic impact of “build vs. buy” decisions. The two factors are competency and strategic criticality, essentially “how well able are we to execute, based on skills and resources?” and “where and why should we put our skills and resources?”

Figure 1: Build vs. Buy Decision Model



For organizations with fewer skilled resources, the “how” question typically dominates, resulting in the decision to “buy or partner” regardless of criticality. For organizations with large, highly competent technical teams, however, the decision is dominated more by the “where and why” question. These organizations focus their in-house capabilities and investments on the functions that provide strategic differentiation, innovation, and core business value. They buy or partner in the other areas, even if they could build

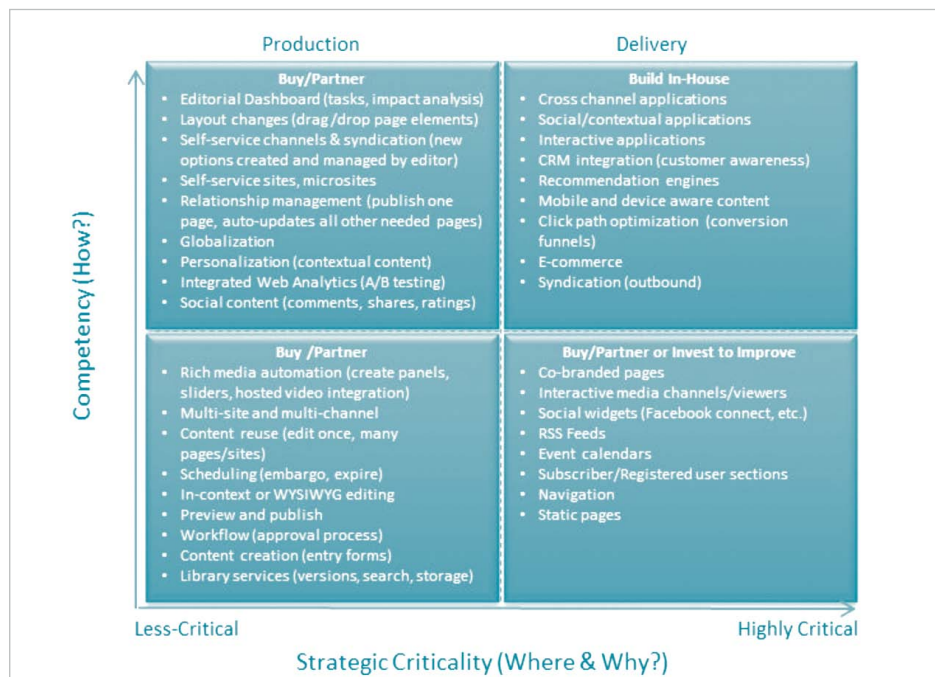
themselves, to maximize the strategic returns from their internal competencies. In the cost analysis, these two dimensions represent the initial cost savings vs. the ongoing opportunity cost. Organizations with higher skill and more resources see only marginal cost savings in the “buy” option initially, but face long term opportunity costs as resources remain dedicated to non-strategic functions.

Application to the Online Customer Experience

Optimizing the online channel for customer engagement is difficult primarily because it involves two distinct functional areas; production and delivery. Production is where the business and editorial interfaces to the solution exist. These facilitate content contribution and acquisition, but more importantly, enable the business to make decisions about how to optimize the online experience—where to place and organize content, how to test market reaction, and generally where to focus their editorial efforts. Delivery is where the customer interfaces to the solution exist. Delivery facilitates and tracks all the interactions customers take, the channels, devices and applications they use.

For online businesses and the interactive marketing function, core value and strategic differentiation occur primarily in the Delivery tier. The Delivery tier is where you enable your customers to interact with your business across a wide set of channels with unique experiences that differentiates you from your competitors. As the Web presents a constantly changing environment for online businesses, many highly successful organizations choose to build and invest all in-house development exclusively in the delivery tier. Figure 2 below maps the customer experience functions to the Competency vs. Strategic Criticality Framework.

Figure 2: Mapping WCM Functionality to Partner Decision Model



Build In-house for Web Delivery

As Web Delivery functions dominate strategic differentiation, most Web Delivery frameworks are geared toward in-house development with numerous customization options. As in-house developers add and extend code, the result fits the “community open source” (that is, non-commercial open source) model perfectly. Low-level common components for delivery of content can be shared and maintained broadly across the community of different in-house development organizations, while any given in-house team maintains the full range of strategic differentiation options by customizing and extending the source modules against their Delivery needs.

As the Web Delivery tier is dependent on Production capabilities, most of the open source frameworks evolved to facilitate basic production functions. The result, however, is that Open Source WCM platforms are primarily Web Delivery platforms with very little attention to the production components. According to a 2010 report entitled “The Web CMS Report 2010” by the industry analyst firm Real Story Group:

“Since the major open source CMS packages grew out of application server environments, they tend to be stronger at delivery and weaker on production. Indeed, they often leave much to be desired with respect to usability and end-user features... the transition from developer platform to marketable software remains a huge challenge.

“Even low end commercial products are the result of thousands of person-hours in usability testing, feature enhancements, and debugging. DIY systems tend to be friendlier for “webmasters” than line-of-business contributors.”

The Advantage of De-Coupled Web Content Management

While most Delivery tier systems today allow the business to participate in the solution, the content Production tier enables the line of business to make decisions that impact the effectiveness of the web content management solution. Gartner Group’s WCM analysts encourage businesses to consider both usability and “consumability” of the functions in the overall solution. Consumability means the editors can not only measure impact of their decisions on content and placement, but take the necessary actions to improve them.

Because the Web is unpredictable and constantly changing, the business needs to decide where to invest their time. Where can new content be found? Can existing content be placed more effectively? Can they assess the customer experience metrics based on the actions they take? Web Content Management goes beyond content authoring and publishing, to providing the overall control panel for the business. These needs only increase as a business invests in their Delivery tier. Any given delivery innovation will not succeed without the corresponding production capabilities for the line of business. This constant need to address usability and consumability of delivery tier functions becomes an ongoing drain on development resources, far beyond the initial needs of simple content editing.

Because the Web is **unpredictable** and **constantly changing**, the business needs to decide where to invest their time.

By partnering with Percussion for WCM, the core Production functions for the line of business are added out of box without cost to your development team. Percussion's De-Coupled Architecture is designed to allow our system to plug in our production tier capabilities into ANY delivery tier application. This puts the line of business in place to use the overall solution cost-effectively and quickly with no drain on your delivery tier development efforts. Coupled commercial systems, including commercial open source, will add constant ongoing Production tier costs to every Delivery tier application development project, slowing them down and limiting your ability to innovate.

2.0 Consider Your Web Marketing Objectives

To truly consider the full Build-vs Buy decision, it is important to revisit the original objectives of the WCM initiative. As companies struggle with rapidly expanding content requirements and distribution channels the core business problems often look very similar to the below statement:

Our goal for adopting a new CMS is to accelerate the time it takes to bring content live, achieve process efficiencies across our business, and drive new revenue opportunities through reuse and syndication.

Each of these imperatives should translate readily to both top line growth and bottom line improvements. There are numerous best practices, as well as advantages to using Percussion Software's WCM products to achieve these goals.

Four Keys to Increasing Traffic and Improving Efficiencies with a Web Content Management Platform

1. The Traffic—Content Opportunity

Popular web businesses such as Autotrader.com and Vegas.com rely solely on the quality of their content to drive key metrics like overall traffic, time on site, ad impressions etc to monetize that traffic and grow revenue. Many companies have even factored additional revenue per number of new pages or content items as part of their traffic analysis.

The challenge becomes streamlining the process for easily adding new content, updating the community channels like Facebook and LinkedIn, and the numerous existing microsites. If that process is difficult, time consuming or inefficient, companies often hit a scale wall. For example, it takes so long to process new content that the amount of new content they are able to create is functionally constrained by the process itself. Further, new microsite ideas are vetted carefully against projected returns and treated as independent business projects rather than as campaigns that have a defined useful period.

Percussion's WCM products increases business agility by creating a streamlined workflow to unlock new content, expand the number of channels, run microsites and microsite campaigns, and engage the community to further expand the amount of content produced and published.

If a process is **difficult, time consuming** or **inefficient**, companies often **hit a scale wall.**

Percussion's CM System and Personalization Solution provide the unique ability to:

- Expand the number of content contributors by providing a highly usable web interface to input content into CM System while managing a sophisticated workflow for the editing and publishing process
- Disconnect the content asset from the page presentation itself enabling reuse across the site, channel sites, social sites, blogs etc
- Syndicate and publish content across multiple channels all at once, or in staged processes to meet your business objectives
- Automatically associate the most relevant media depending upon the distribution channels
- Considering these areas carefully, each should have a tangible connection to overall site revenue and be considered critical path elements for any project. Through the ability quickly add new content, and easily reuse and repurpose existing content to increase their overall web footprint, other Percussion customers have been able to increase overall traffic by over 60 percent.

2. Going Social to Drive Engagement, Expand Site Footprint

The biggest gains in visitors lie not on your site alone, but from the community as a whole. The social media and community landscape has evolved rapidly over the last five years, and the pace is still accelerating. The constant change and churn as new protocols are released or new sites are launched is putting inordinate amounts of pressure on web site owners to keep up. Further, it is impossible to make a limited number of big bets in any one area as the Next Big Thing often comes out of nowhere.

Fully taking advantage of social channels requires a true understanding of your visitors context (who are they, where are they, where did they come from) and to what communities they belong in order to better engage. By reusing content across all channels while publishing from a central repository, you are also able to create sophisticated relationships between content items and link them based on the context of the user visiting the sites.

In addition, by integrating the process of creating and managing blogs into the content management workflow and content management process, companies are able to scale the number of contributors and reuse this highly valuable content across channels. This will also strengthen the deeper connection between the "blog experience" and the company online in total, improving user engagement across the company's online platform.

3. Managing Global Content

Many companies already recognize the significant growth opportunities available in global markets. The challenge comes from managing each of those sites in a centralized structure, keeping global standards in regional templates, managing a centralized translation process and taking advantage of the targeted marketing opportunities in each region.

The biggest gains in visitors lie not on your site alone, but from the **community as a whole.**

Percussion CM System streamlines the management of each local site with three core concepts:

- A sophisticated relationship engine that automatically keeps track of content throughout the site, where it is located and how it is being updated so that it can be flagged for translation or reuse on local sites
- By disconnecting the content assets from the page presentation further allows you to aggregate, harvest, create and syndicate the assets to multiple global markets, adding locale where needed
- A straightforward integration with translation management technology from external translation services companies, if required, such that clients are free to choose any translation partner, and are not locked in to the coupled translation services from a single vendor

4. Leveraging Technology to Drive Efficiencies

Arcane or manual processes for creating, approving, publishing, and distributing content across multiple channels often leads to significant business process inefficiencies for the team. If content has to be manually re-formatted from a Microsoft Word document and then entered into the WCM, moved from one process to another, copied across channels etc, each step creates significant time inefficiencies and introduces the possibility for error. This time savings can often be quantified in hours with an associated cost developed for each of these manual steps.

Percussion customers benefit from hundreds of customer engagements, numerous product releases, and the 10 years of best practices Percussion has incorporated into the CM System platform. This complex functionality addresses the core attributes required to optimize efficiency for content owners, publishers, and editors. These include:

- Streamlined content entry processes: Most casual contributors are comfortable authoring in Microsoft Word. However, typically moving content from Microsoft Word to an HTML editor is fraught with challenges requiring manual re-work and post-input editing. Percussion CM System's editor interface recognizes when a user is attempting to paste from Word and prompts the user to define how it should be inputted and formats accordingly. The time savings from this simple step alone can be dramatic.
- Link-based relationship editor: Using a simple table editor, content contributors and editors can quickly link related content to each page. CM System also allows for a dynamic table of linked items to be created that is updated automatically and just needs to be presented on the page.
- Dynamic workflows and publishing process: As the number of content owners expands it is critical to maintain control over what is in process, what is ready for editing, and what should be published. CM System's workflow engine establishes role and user based workflows to streamline the create/edit/approve/publish cycle.

Considered carefully, the previous four key items—expanding traffic by expanding content, going social, managing global content, and driving process efficiencies—will drive both top-line growth and bottom line improvements. Inherent in each of these areas are a substantial number of technology features and advancements that make it possible to achieve rapid success and shorten the time-to-value of the WCM platform. These functions are well defined and fit virtually any organization, which makes it less valuable for the internal team to spend time building these same functions.

Technology features and advancements make it possible to **achieve rapid success** and **shorten the time-to-value** of the WCM platform.

3.0 Cost Analysis Model for Build vs. Buy

Introduction

Evaluating a build vs. buy technology decision rests on several key issues, and opportunities. Chief amongst them are:

- The business goals that will be achieved by the WCM project
- The capabilities of the internal team, as measured against the maturity of the packaged software applications available in the market
- Robustness of business requirements and readiness for those to be turned into technical requirements
- Relative project timeline(s)
- Comparative costs as measured in initial development, 1 and 5 year total cost of ownership
- Opportunity costs of “lost development time” to the project

From here, the key inputs to formally analyzing and comparing the build and buy options can be created. Once a cost comparison is created, it's important to look at the more implicit strategic choices that are being made:

- How rapidly, or how often, will the WCM platform need to be changed/updated due to changing business requirements?
- Is the platform considered part of the core mission of the organization? Or is it a commodity component of a larger more strategic initiative?
- What is the expectation of support for the application? And if the website goes down, what is the impact on the business?
- Will the system be “just good enough” to meet today's requirements, or will it be built to scale to meet tomorrow's requirements?

Carefully considering these choices ensures that a sound business decision is made that addresses the needs of all stakeholders in the process.

A Real World Model

One Percussion client shared their internal analysis of the three options they considered.

- Updating the existing “homegrown” system
- Building a new system to their internal spec
- Purchasing and deploying Percussion's CM System

Figure 3 is the client's actual analysis though all identifying information has been removed and the numbers have been factored to protect their interests. The client, a large marketing services firm, ultimately chose Percussion CM System based on the markedly lower Total Cost of Ownership, the ability to scale to meet future business requirements, and to allow their development team to remain focused on innovation for their customer facing applications.

Note: *Even though this client estimated a substantial amount of ongoing development work with Percussion in years two through 5, they have not felt the need to utilize even a fraction of that amount. Depending on size and scale of the web engagement, a typical client may spend as much as \$25,000 with professional services to address new marketing requirements.*

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Figure 3: Representative Client Cost-Based Analysis Example

Cost Comparison						
	Current Version 2.0		Custom New		Percussion	
Initial Costs						
Development	\$	250,000	\$	765,375	\$	188,840
Software purchase	\$	-	\$	-	\$	151,072
Professional services	\$	-	\$	-	\$	-
Training	\$	-	\$	-	\$	9,000
	\$	250,000	\$	765,375	\$	348,911
Future Costs						
	<u>Yearly</u>	<u>Lifetime(5YR)</u>	<u>Yearly</u>	<u>Lifetime(5YR)</u>	<u>Yearly</u>	<u>Lifetime(5YR)</u>
License maintenance	\$ -	\$ -	\$ -	\$ -	\$ 30,214	\$ 151,072
Development						
Defect fixes	\$ 37,500	\$ 187,500	\$ 15,000	\$ 75,000	\$ 2,500	\$ 12,500
Workflow changes	\$ 75,000	\$ 375,000	\$ 60,000	\$ 300,000	\$ 5,000	\$ 25,000
Template development	\$ 16,875	\$ 84,375	\$ 11,250	\$ 56,250	\$ 1,375	\$ 6,875
New functionality	\$ 300,000	\$ 1,500,000	\$ 75,000	\$ 375,000	\$ 10,000	\$ 50,000
Usage costs						
Template management	\$ 30,000	\$ 150,000	\$ 11,250	\$ 56,250	\$ 1,500	\$ 7,500
Routine site creation	\$ 82,500	\$ 412,500	\$ 56,250	\$ 281,250	\$ 13,750	\$ 68,750
Maint. developer knowledg.	\$ 15,000	\$ 75,000	\$ 30,000	\$ 150,000	\$ 2,500	\$ 12,500
Maint. business user know	\$ 15,000	\$ 75,000	\$ 7,500	\$ 37,500	\$ 5,000	\$ 25,000
Other						
Missed opportunities	\$ 30,000	\$ 150,000	\$ 15,000	\$ 75,000	\$ -	\$ -
	\$ 601,875	\$ 3,009,375	\$ 281,250	\$ 1,406,250	\$ 71,839	\$ 359,197
Total						
	<u>Year 1</u>	<u>Lifetime</u>	<u>Year 1</u>	<u>Lifetime</u>	<u>Year 1</u>	<u>Lifetime</u>
	\$ 851,875	\$ 3,259,375	\$ 1,046,625	\$ 2,171,625	\$ 420,751	\$ 708,108

Percussion Calculator

Percussion has developed a similar model for creating your own build vs. buy analysis model. The major inputs are:

- Number of FTEs on the project
- Duration of the Project
- Equivalent daily cost of an FTE
- Number of FTEs dedicated to the ongoing development and maintenance

Other soft factors to consider include, the opportunity cost of what these developers are not working on while they build and maintain the software, relative costs of delay as measured by any cost improvement deltas factored weekly, and implied revenue gains and weekly cost of the internal development team.

Contact Percussion today to receive an electronic version of the calculator to develop your own cost models.

4.0 Requirements Matrix

To better understand how costs accumulate in the life of the project, Percussion has produced a simple feature matrix below. We have compared Percussion against popular open source frameworks often considered for jumpstarting an internal build project. This highlights areas of ongoing development that will be required by the internal team to reach parity with a packaged application like Percussion CM System.

In most cases open source frameworks offer the opportunity to custom code almost any capability. The challenge is not building it, but rather the time and money spent building it, and then seeking to maintain it in light of ever changing user needs and the “web rate of change”. Having a proven partner do this for you is a critical factor for companies who base the success of their business on their online channel.

In the table below, “Out of the Box” capabilities are abbreviated as OOTB. “Basic” implies a very basic capability that requires further implementation to deploy. Custom Code implies extensive development against the API.

In most cases open source frameworks offer the opportunity to custom code almost any capability.

Required Features	Percussion	OpenSource Frameworks
In-Context Authoring & Editing Interface	OOTB	Basic
Governance (Workflow, Audit Trail, Version Control)	OOTB	Basic
XML & Native Component Content Reuse	OOTB	Basic
Multi-site, Multi-channel (Globalization/Localization)	OOTB	Custom Code
Rich Media & Digital Asset Mgmt	OOTB	Basic
Staged Publishing (Now, incremental, full)	OOTB	Custom Code
Content Relationship & Link Management	OOTB	Basic
Personalization (Segmentation, Targeting & Dynamic Content)	OOTB	Custom Code
Web Analysts Integration (Google, Omniture, WebTrends)	OOTB	Custom Code
Community & Social Media Content (Blogs, Comments, Ratings, Feeds & UGC)	OOTB	Custom Code
Flexible Template Mechanism	OOTB	Basic
Microsites & Campaign Sites	OOTB	Custom Code
Documentation/Backward Compatibility	OOTB	Basic

5.0 Conclusion

WCM Software built in-house is never a “build, deploy, and walk away” project. New requirements always arise, the next new thing is just around the corner. Business owners demand the flexibility to address these new opportunities without a lengthy development cycle, and IT leaders do not want their teams bogged down supporting custom code that is not strategic to the business.

Ultimately, the strategic framework supports the inevitable cost analysis results. Businesses should build Delivery tier functions in-house and buy the WCM function by partnering with a packaged application vendor equipped to meet Production needs.

The reality of ongoing support costs and the opportunity costs in the internal build process results in less strategic investment and an inability to keep up with the changing requirements of the business. It’s this inability to keep up with the “Web rate of change” that leads to substantial dissatisfaction with internal projects, missed revenue goals, and the promised process efficiencies are never realized.

By aligning each groups strategic interests and focusing on what the organization does best:

Marketing: Has a flexible system upon which they can efficiently drive innovative web initiatives without an ever expanding resource pool

IT: Focuses its developers on innovating to drive differentiation rather than re-creating technology that is readily available from packaged application vendors

Finance: Has clear cost oversight, a vendor partner that is accountable for its product performance and associated costs with a specific ROI and payback expectation

In other words: perfectly balanced.

Contact Percussion today to learn more about our Web Content Management platform and how we enable your online success.

About Percussion Software

Percussion Software publishes a family of Web Content Management (WCM) solutions, CM1 and CM System, that help businesses simplify their web content management processes to increase traffic, drive conversion, improve personalization, and build community. Percussion's solutions' decoupled architecture uniquely allows business users across the organization to take control of content and presentation, provides unparalleled control over how web content is used and distributed across channels, and enables IT organizations to freely integrate third-party, delivery-side applications without restriction. Percussion's WCM solutions are used by Travel and Tourism corporations to generate online results, including Hotwire.com, Vegas.com, Princess Cruises, and Discover America.

To learn more, visit percussion.com.

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