



Interactive Business Technology Solutions

10 Ways Integrated Analytics and Web CMS Can Improve Website Performance and ROI

Brett Zucker
Chief Technology Officer

WHITEPAPER

Bridgeline Software
10 Sixth Road
Woburn, MA 01801

Introduction

The use of analytics software to measure web metrics is booming. According to an article in BtoB Magazine, the market for web analytics is expected to reach \$953 million by 2014.

Most of the analytics packages sold today are stand-alone systems available from third-party vendors. Stand-alone tools are analytics packages that are not natively integrated with a content management system (CMS); examples include Google Analytics, Omniture, Coremetrics, and Web Trends Analytics.

With stand-alone analytics tools, the application is run on-demand. Data is most commonly passed from your website into the data collection center via JavaScript. The analytics tool then processes the data, calculates key metrics, and generates reports showing how well or poorly your website is performing.

There are certain drawbacks to using stand-alone analytics packages. Without data-level integration, the analytics package and content management system can only engage in one-way communication.

Page-level detail about the site, which is stored in the CMS, is not shared with the analytics package. Metrics reports produced by stand-alone analytics packages do not contain detailed information about the page author, various publishing specifics, duplicate page use, and hierarchical layout. Additionally, reliance on data passing from website to analytics tool via JavaScript carries with it inherent risks from potential code conflict or page tagging errors.

As a result of these shortcomings in standalone analytics software, a growing trend is *native integration* of analytics with other web applications -- especially e-commerce, e-marketing, and content management systems. A recent report from Forrester Research on the Web Analytics market notes: "Web analytics data continues to feed more applications and marketing solutions, making accessibility of data critical."

The Forrester Report predicts the emergence of "suites of marketing products where analytics supports an ecosystem of planning tools" – i.e., natively integrated analytics. To help illustrate the importance of this trend, the following list identifies 10 advantages an integrated web analytics package give you vs. traditional stand-alone analytics tools:

1. Integrated analytics helps drive persuasive content on your website.

By integrating analytics with web content management, you can quickly and efficiently make metrics-driven changes to your website. Because the content revisions are based on accurate reporting of actual user behavior and actions, they can significantly improve website performance and ROI.

Integrated analytics enables non-technical users to manage and deliver persuasive content based on specific visitor segments or profiles. Intelligent delivery of persuasive content targeted to profiles or specific user actions can improve overall user experience, increase conversion rates, and produce greater website ROI (see *Fig. 1*).

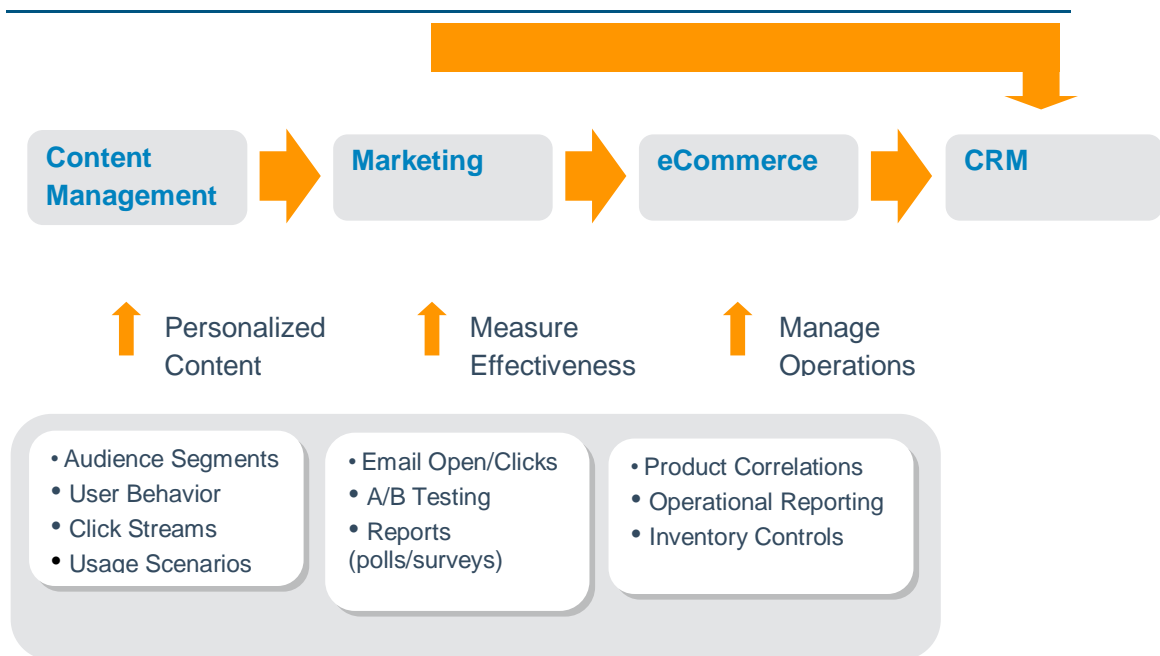


Fig.1. Integrated analytics not only drives persuasive content but can be leveraged across all functional areas of a web application.

2. Getting the most persuasive content on every web page can improve your website ROI.

Increasingly, marketers are realizing that content is what drives website usage. Users come to websites looking for new ideas, solutions to problems, answers to questions, or product and pricing information for comparison shopping.

Online marketing success today is largely dependent on providing great content to website visitors. By “great content,” we mean value-added content with actionable information relevant to the user’s needs and interests.

Integration of analytics with content management improves website performance with continual data-driven refinements. It also streamlines and simplifies the updating of website content, navigation, architecture, and functionality.

Analytics reports can indicate when each revision to the web page being measured was made. By comparing metrics before and after these page updates, you can easily determine how each change on a given page affects important metrics. You can then adopt the best performing version of your web page, thereby increasing site performance.

By ensuring complete and accurate analytical data, and making it faster and easier to implement website changes based on the analytics reports, an integrated analytics/CMS package can enable you to implement the correct improvements to your website more rapidly – improving performance and ROI.

3. Integrating analytics with your CMS eliminates the “action chasm.”

With stand-alone analytics, there is a lag, recently dubbed the “action chasm” by Forrester Research, between when metrics are measured and when the analytics reports are read and acted upon. Native integration of analytics with CMS can eliminate the action chasm, compressing cycle time for website improvements.

As you are reviewing a web page, you can use drag-and-drop GUI controls and right-click menus to see how suggested page improvements would actually look on the screen. In addition, once you go live with an updated page, you can track the performance of the revision, compare it with how the original page performed, and determine whether your improvements produced positive changes.

Here at Bridgeline Software, for example, we frequently put up landing pages that visitors can use to register for various webinars. We use our iAPPS Analytics module to track the conversion rate.

If the landing page is not performing well, iAPPS Analytics is integrated with iAPPS Content Manager, allowing us to notify the page author that changes are needed. The page author can make his or her improvements in real time.

The analytics chart can be time-stamped with the time and date the changes to the page were implemented, allowing us to compare the conversion rate before and after that date. That way, we can see on the report whether or not the improvements to the landing page boosted the conversion rate. Internet marketers have found that changing headlines, copy, images, and the position of the form on a landing page can increase conversion rate 10% to 50% or more.

4. Content authors can be guided by analytics in real time.

In larger environments where there are thousands of pages, a web analyst will constantly identify pages that need updating. But who is supposed to make these changes? Of the dozens or possibly hundreds of employees who have authored pages on the site, finding the author of a particular page that requires updating can be a challenge.

Standalone analytics packages depend on accurate and up-to-date page tags to track down content authors. But with integrated analytics, page reports can be linked directly back to content authors within the CMS. When the analytics software reveals subpar performance of a particular web page, the author of that page can be instantly notified via e-mail with a simple mouse click and be requested to rework content.

5. Integrated analytics helps you visualize the relationship between web page design and metrics more clearly.

You can simultaneously view an analytics report and the web page being analyzed in the same system, giving you a clearer view of how content and design impact performance and enabling you to accurately measure readership and response to every content area of your website on the fly. Tight integration of analytics and the CMS enables you to optimize the performance of every web page based on what's working and what's not, significantly improving the user experience and maximizing website ROI.

6. Integrated analytics saves time and money.

Page tags are small snippets of JavaScript (see *Fig. 2*) that gather up all the data about a page whenever it is accessed and then transmit this to data collection centers, such as a third party analytics tool, via JavaScript requests. For a stand-alone analytics package to track website performance, IT must place and keep track of page tags on every web page. In a large enterprise, this task may require special software packages or even a dedicated IT employee.

```
<script language="javascript" type="text/javascript">
<!--
  s.pageName='Acme Software: Homepage';
  s.channel='Home';
  s.prop6='English';
```

Fig. 2. Sample page tag.

A natively integrated web analytics tool can eliminate 95% to 100% of page tagging, reducing your labor and overhead. Analytics benefits from data-level integration with the CMS when page tags are automatically added to all newly created content pages, so they can virtually never be missing or in error. Complete, accurate page tags ensure that your analytics package can continually measure all relevant web metrics with no missed data.

7. Metrics can be reliably measured, all the time, for every page on your website without manual page tapping.

If your organization has a 10,000 page website, and has missing or incorrect page tags on just 1% of those pages, you have 100 pages that your stand-alone analytics package is not tracking. Without the page call, those web pages are for all intents and purposes invisible to the analytics tool. There are tools available for managing page tagging, but using them can cost a lot of time and money.

Additionally, stand-alone third-party analytics packages retrieve page data using external calls. Therefore, if the user does not remain on the page long enough for it to be fully rendered, the data retrieved may be incomplete. And that can frequently be the case: according to Nielsen Research, users spend an average of only half a second on each web page they visit.

8. Integrated analytics ensures data accuracy.

Creation of page tags is prone to human error which can result in erroneous data on analytics reports, causing you to make wrong decisions. Because of page tag errors, data accuracy of external analytics systems can be off by as much as 10% -- meaning one out of every ten web page metric reports can contain serious errors with misleading data.

With integrated web applications, communication automatically takes place between analytics and other applications such as the content management system. Dynamic visitor segments and user profiling drive persuasive, personalized content to the right users at the right time. Result: enhanced user experiences resulting in higher conversion rates and revenues.

Furthermore, transmitting data to a non-integrated analytics tool via JavaScript introduces risk. If the code on the page does not execute due to a conflict with other JavaScript code, the page data will not be transmitted. Often times, these conflicts do not even manifest themselves in a browser error making it difficult to track down problematic implementations and faulty data collection.

Analytics integrated in a CMS poses no concerns as it captures the data on the server level. This also eliminates problems surrounding latency of JavaScript requests and the interference introduced when data needs to be collected on form submission or “on click.”

9. An integrated suite of web applications can greatly shorten the learning curve.

When web applications are not integrated, each can require separate databases for user authentication and use different technology for administration roles, responsibilities, and authorizations. Administration user interfaces are different, which in turn increases training requirements and slows adoption of the software.

In an integrated suite of web applications, all modules – analytics, content management, e-commerce, online marketing, – can benefit from the same graphical user interface (UI). Screen layouts, drop-down menus, and icons share a common appearance in all applications.

As a result, the learning curve is shortened for the user, enabling rapid and widespread adoption of the system throughout the enterprise. Users are inclined to resist any new software with a steep learning curve. When the analytics tool shares a common UI the user is already familiar with, resistance vanishes.

10. Simplifies your IT infrastructure.

To achieve true integration of analytics with the CMS and other web applications, all of these web applications should ideally be built on a common platform or framework. When multiple web applications – analytics, CMS, marketing, and commerce – are built on a single integrated platform, they are easier to support and less costly to implement.

With data-level integration, all applications and modules share a common data set. Sharing of information between applications enhances decision-making and simplifies site maintenance and updating. It also reduces the risk of upgrades; e.g., the analytics vendor releases a new version requiring you to update all your CMS code or content.

For all these reasons, it makes sense to consider adopting an analytics package that is natively integrated with content management and other applications. Not only does integrated analytics save time and money, but it also enables you to cost-effectively drive persuasive content based on measured performance.

Without analytics, online marketers can only guess what site visitors are looking for, what they read, and what drives them to action. By installing an analytics package to track web metrics, you can measure user activity and learn what actually works on your site vs. what you think should work. And when that analytics package is integrated with the CMS, you can act on your web metrics reports to make continual refinements to web pages to maximize conversions, traffic, and ROI.

About the Author

Brett Zucker is Bridgeline Software's Executive Vice President and Chief Technical Officer.

From 2004 to 2006, Mr. Zucker was Bridgeline Software's Executive Vice President and General Manager of the New York business unit. From 2002 to 2004 Mr. Zucker was the Vice President of Delivery for Bridgeline Software's New York business unit. Prior to joining Bridgeline Software, Mr. Zucker was the Director of Development and Delivery for Lead Dog Digital, Inc., a custom Web application development company Bridgeline acquired in 2002. Prior to joining Lead Dog Digital in September 2000, Mr. Zucker served in management positions with AppNet and Agency.com.

Mr. Zucker holds a BS degree in Electrical Engineering from Cornell University and a Masters in Business Administration from Harvard Business School.

About Bridgeline Software

Bridgeline Software is a developer of web application management software and award-winning interactive business technology solutions that help organizations optimize business processes. The iAPPS Product Suite is an innovative SaaS solution that unifies Content Management, Analytics, eCommerce, and eMarketing capabilities – enabling business users to swiftly enhance and optimize the value of their web properties.

Combined with award-winning interactive technology services by Microsoft Gold Certified development teams, Bridgeline Software helps customers to cost-effectively maximize the value of their rapidly changing web applications. Bridgeline Software's teams of developers specialize in web application development, usability engineering, SharePoint development, rich media development, and search engine optimization.

Bridgeline Software is headquartered near Boston with additional locations in Atlanta, Chicago, Cleveland, Denver, New York, Washington, D.C., and Bangalore, India. Bridgeline Software currently has over 600 customers ranging from middle market organizations to divisions within Fortune 1,000 companies that include: Healthcore, The Bank of New York Mellon, Marriott International, Berkshire Life, PODS, Honeywell, Budget Rental Car, Washington Redskins, AARP, National Financial Partners, The Packard Foundation, DTCC, Cadaret, Grant & Co., National Insurance Crime Bureau, the American Academy of Pediatrics, and the Georgia Lottery.

Bridgeline Software

10 Sixth Rd.

Woburn, MA 01801

Phone: 800-603-9936

Web: www.bridgelinesw.com



Interactive Business Technology Solutions

WWW.BRIDGELINESW.COM

800.603.9936

ATLANTA • BANGALORE • BOSTON • CHICAGO • CLEVELAND • DENVER • NEW YORK • WASHINGTON D.C.