



# Tag Management Fundamentals for Marketers

Optimize digital marketing performance  
with control of website tagging

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## Executive Summary

### Web Page Tags are Essential to Digital Marketing – But They Create Problems

A web page tag is a piece of JavaScript code added to your web pages that collects data about your site and its visitors. These tags drive all the third-party digital marketing services – from web analytics to advertising and social media sharing – that web enterprises have come to rely on.

These tags add hundreds of lines of JavaScript code to a modern web page, slowing page load times. The proliferation of all these tags also challenges IT organizations with how to manage them. Most organizations are reliant upon IT or external agencies for tagging, which makes deploying and managing tags a slow process. This stymies the ability of web analytics and marketing departments to keep sites competitive.

### Tag Management Systems to the Rescue

An emerging category of software – Tag Management Systems (TMS) – solves these critical digital marketing challenges.

Major players including IBM and Adobe moved into the tag management space in late 2011. A flourishing of coverage at the start of 2012 by research firms including Forrester, Gartner, Web Analytics Demystified and eConsultancy has validated the legitimacy and growing importance of Tag Management Systems to web analytics, online advertising and IT professionals.

### Enterprise Tag Management by Enlighten

Enlighten is the innovator in enterprise-grade tag management and website compliance, supporting major global brands and providing unparalleled speed and reliability.

Enlighten's suite of products helps digital marketers:

- Accelerate page load times by off-loading excessive code
- Quickly deploy, test, and manage tags
- Ensure accuracy and legal compliance of tag data collection

This paper explains the purpose and use of tags, why they are important, the scope and costs of tag management problems, the benefits of modern tag management, and what you should look for in a Tag Management System.

“The enthusiasm for Tag Management Systems stems from the simple fact that these solutions address very real and tangible pain points felt by nearly all companies doing business on the web. I believe that the effective use of tag management technology and governance practices can deliver significant efficiency, performance, and financial gains. And I'm not alone.”

**FORRESTER RESEARCH**  
**SENIOR INTELLIGENCE**  
**ANALYST JOSEPH**  
**STANHOPE**, *November,*  
*2011*

## Third-Party Digital Services Power Today's eCommerce

If you use Omniture SiteCatalyst, Google Analytics, OpinionLab, Facebook Like, Google +1, Criteo, DART, PriceGrabber – or any other third-party digital marketing service – then you have tags on your website.

Tags are snippets of JavaScript-based code that are added to the html code of your web pages. A tag is also sometimes referred to as a pixel, web beacon, tracking bug, ad tag or clear GIF. Tags use JavaScript to send data about a web page and page visitors to third-party vendors who provide digital marketers with valuable – if not essential – marketing data and services, including web analytics, pay-per-click (PPC), social media interaction, affiliate tracking, content optimization, consumer surveys, and more.

Today's web-based businesses are powered by these third-party digital marketing services. All these services depend upon their JavaScript tags being implemented on your web pages, with an average online business employing dozens of these services across dozens of domains.



## What Exactly Do Tags Do?

Tags collect data from websites. When a browser opens a web page, it reads and “fires” the tags on that page. These tags communicate with external servers, collecting and transmitting data to be analyzed later (like where the visitor came from, time spent on the page, links clicked). Tags also deliver content to web pages (such as ads) or to browsers (such as cookies), and provide services to web pages (like a user being able to “share” a page on Facebook or initiate a live chat with customer service).

While historically many tags were a simple transparent “pixel” or image loaded onto a web page used to track conversion, most tags today are more complex, consisting of JavaScript code placed within the HTML code of web pages.

## What Do Tags Look Like?

1. Here’s a sample of a simple tag and its JavaScript code:

```
<script type="text/javascript" src="http://www.googleadservices.com/pagead/conversion.js"> </script>
```

2. Here’s an example of a complex tag and its JavaScript code:

```
<script type="text/javascript">
  <!--
    document.domain = "buy.com"
    //omniture variables
    var om_pagetitle = "Buy.com Home Page";
    var om_channel = "Home";
    var bcElementIsLoaded = false;
    function scrollToLoader(container, url) {
      var position = $(container).offset().top;
      var scllwidth = $(window).scrollTop() + $(window).height();
      if (!bcElementIsLoaded && scllwidth > position) {
        $.get(url, function (data) { $(container).css("display","none").
          html(data).fadeIn('slow'); });
        bcElementIsLoaded = true;
      }
    }
  //-->
</script>
```

A typical website will have anywhere from 50 to 100 simple and complex tags. Home pages and shopping cart pages frequently contain as many as 20 tags.

3. Here’s Enighten’s single line of tag code, which replaces all of the JavaScript tags on each page on your site. Concise, clean, simple.

```
<script type="text/javascript" src="//nexus2.ensighten.com/clientID/Bootstrap.js">
</script>
```

Web page tags are not the same thing as cookies or meta tags.

- **Cookies** are pieces of code that track aspects of user behavior and preferences, like when you tell CNN.com you are in the US and that preference is remembered when you return to the site. Cookies are text files that live on the hard drive, while web page tags reside in the HTML code of the page, are executed by browsers, and send or receive data from external servers.
- **HTML meta tags** describe the contents of a web page. They are akin to comments (non-functional computer code) placed at the top of web pages which describe your website to Google and other search engines so people can find your site when searching on relevant terms. Web page tags, however, consist of functional computer code embedded in your website’s pages which call and run third-party digital marketing services like web analytics or social sharing.

## The Dark Side of Tags

While third-party marketing services have led to an unprecedented leap forward in ecommerce revenues and digital marketing effectiveness, there are some drawbacks.

First, tags today are individually deployed and maintained on every single page of a website manually. For large and complex websites that rely on numerous tags, this presents a major tag management challenge.

For example, a company with ten tags per web page and ten domains of 10,000 pages each has 1,000,000 tags deployed – with each tag containing 10 to 100 lines of JavaScript code which is hard coded by hand into each web page. Such manual coding must be handled by IT or a webmaster, and as you might expect is time-consuming and prone to error. Deploying a new tag could take days or weeks depending on the number of web pages and the webmaster's bandwidth and priorities.

Second, the scope and complexity of a million manually inserted tags results in web pages becoming cluttered with tags that are outdated, broken, poorly-written, full of extraneous code, duplicated, misplaced, rogue or non-compliant.

## What Poor Tag Management Costs Your Business

Poor tag management slows the execution of simple day-to-day web operations and hampers your ability to respond quickly to new business opportunities and demands. Instead of being agile and flexible, your online business becomes more rigid and unable to quickly adapt to new circumstances. The costs of bad tag management also include:

- **Slow website performance** – An excess of tags, poorly coded tags and broken tags add to page weight and negatively impact user experience, conversion and revenue.
- **Broken web pages** – Bad or broken tags can stop web pages from loading or working at all, causing visitors to leave or abandon transactions and thereby hurting revenue.
- **Time-consuming manual tagging leads to inaccurate tags and extremely long tagging cycles** – Dependence upon slow agencies and already-strained IT departments to implement and maintain tags means you wait weeks or months for tagging, hobbling business agility and leading to high labor costs and organizational hassles.
- **The value of data collection and analytics is squandered** – Poor-quality (inaccurate, outdated, duplicated) tags deliver low-quality data, resulting in ineffective analysis.
- **Increased security and privacy risks** – The inability to monitor data collection of tags means you jeopardize website privacy policies and compliance, especially if you operate in countries with different privacy and data collection laws.
- **Vendor lock-in** – Once a vendor's tags are deployed onto your web pages, you're likely to become locked into that vendor because it is so difficult to remove their code and replace with another vendor's code.

## Tag Management Systems to the Rescue

Years ago the growth of the Internet and the increasing size and complexity of websites spawned content management systems (CMS), which drastically simplified and empowered website management. Today, it is difficult for any web team to imagine operating without a CMS. A Tag Management System is like a content management system for your web page tags.

Tag Management Systems (TMS) are part of a new breed of enterprise application that solves today's tagging challenges by:

1. Replacing dozens to hundreds of tags with a single line of code (a master tag) to simplify tag complexity – enabling control and speeding up page load times.
2. Aggregating tag implementation and maintenance into a unified, intuitive web application that empowers marketers with the agility to easily and quickly deploy and manage tag-based applications in hours or days – rather than weeks or months – without incurring IT, agency or developer costs.
3. Using high-performance global Tag Delivery Networks with the lowest of latencies to accelerate page load times and redundancy for 100% uptime.
4. Supporting tags on mobile, Flash and other platforms (only available from the most advanced tag management solutions).

## Benefits of Tag Management Systems

### New Programs Implemented Faster by Empowered Marketers

Easier, faster, simpler tag management through an intuitive web interface empowers marketers, customer intelligence measurement experts and web analytics teams to manage their own page tagging and tag management – removing slow, expensive agencies or already-strained IT staff from the task. Marketers can quickly and easily modify and optimize their analytics deployments, increasing their ability to turn data into insights and insights into action that improves the bottom line.

### Enhanced Conversion from Faster Page Loads

The best Tag Management Systems replace hundreds of lines of tag code with a single line of code and use a global server network with the lowest of latencies and redundancy for 100% uptime. The results include faster page load times, critical to customer satisfaction and higher conversion rates. As well, a TMS identifies and eliminates rogue and bad tags, which can also slow down your website. There is abundant empirical evidence that slow websites hurt online business.

### Improved Security and Compliance from Control of Data

Governance, security and attribution all improve, because a Tag Management System provides a new level of visibility into the data, ownership, purpose and compliance of all the tags on all your web pages. IT gains the governance and control they want, enabling them to ensure security and compliance. Ensign's single line of code approach, combined with rich conditional logic, uniquely enables you to easily meet EU/UK cookie laws, US do not track (DNT) standards, and other current and future compliance requirements.

“Web Analytics Demystified sees tremendous opportunity for companies to invest in Tag Management Systems, thus saving tremendous amounts of time, opportunity, and real dollars invested in technology.”

**ERIC T. PETERSON**, *Web Analytics Demystified*

## Quick ROI from Easy-to-Measure Cost Reductions

By removing IT and agencies from the tagging process, a tag management system significantly reduces the cost of tagging web pages, as well as the time and cost to manage and extract value from those tags – quickly delivering easily-measured ROI.

## Do You Need a Tag Management System?

There is a clear set of criteria that indicate a need for tag management. The following questions are a quick way to audit your situation.

- ✓ What's the average number of tags per page on your website?
- ✓ How many different vendors' tags are on your site?
- ✓ How long does it take your organization to add or change tags to a page?
- ✓ What are your page load times?
- ✓ What is the value in reducing load times?
- ✓ What percentage of your load time is due to tags?
- ✓ Do you use multiple web analytics services on your site?
- ✓ Do you do business outside the U.S. and need to comply with international privacy laws?

Generally, the more tag complexity, the more you would benefit from tag management.

\* For a more detailed audit process, see Forrester Research's technology brief: *How Tag Management Improves Web Intelligence: Tag Management Systems Reign In Web Measurement Chaos*, by Joe Stanhope with Suresh Vittal and Michelle Dickson, December 22, 2010.

## What to Look for in a Tag Management System

When shopping for a tag management system you will find several choices now on the market. Many of them do not have comprehensive feature sets and solve only a fraction of the problem, while others sprung up quickly to capitalize on the market but with little forethought into the technical and business needs of larger or fast-growing enterprises. Make sure any tag management system you consider meets the following requirements:

**Powerful and Flexible** – Make sure it can scale - a lot, effectively, and without any performance degradation. A TMS should be able to handle the biggest and most complex websites in the world with the ability to work with large volumes of rapidly evolving data in real time, while supporting deep conditional logic and complex tags.

**Reliable** – For cloud-based/hosted Tag Management Systems, go with a proven provider with a rock-solid SLA. You want a vendor with a strong global server network (tag delivery network) that has redundancy, zero failover and a multi-continent presence.

“Commercial grade tag management technology addresses a pervasive day-to-day problem and offers exciting new possibilities for making (web) analytics processes more efficient and effective.”

**FORRESTER RESEARCH**  
**SENIOR INTELLIGENCE**  
**ANALYST JOSEPH**  
**STANHOPE, January, 2012**

**Cross-Platform** – Look for universal deployment capabilities across all digital marketing services and content platforms, including mobile (Android, iOS) and rich media including Flash, Silverlight, etc.

**User-Friendly** – Make sure it is truly easy to use, with self-service tagging and administration that doesn't require any coding – from configuration to tag deployment – whether modifying one tag or deploying new tags across hundreds of websites.

**Asynchronous Tag Loading** – The order in which tags on a page load into the browser is extremely important and can mean the difference between a bounce or a conversion.

- **Synchronous tag loading** – Some Tag Management Systems load JavaScript tags synchronously. Synchronous JavaScript tags form a queue, and no tag can start executing until the one before it has finished. This can delay your core page content from loading. And if a synchronous tag fails to load properly, none of the synchronous tags beneath it will load either, which leads to a failure to collect valuable data, or even a completely broken web page.
- **Asynchronous tag loading** – With asynchronous tag loading, tags load independently of all other JavaScript on the page. No tag, whether slow or completely broken, can delay a page's core content from loading, or other functioning tags to load, or anything else. As a result, tags can safely be placed at the top of web pages, and a bad tag will never slow down or break your site.

**Professional Support** – While in general we're big fans of open source, there just isn't anything near enterprise class for a TMS coming out of the open source community at this time. The intricacies and nuances of a TMS require the commitment of paid vendor support staff, not just community volunteers.

**Client Side Approach** – A client-side, browser-based approach is much more powerful and flexible than server-side technologies. A server-based TMS tries to collect and distribute all tag data, which doesn't work well for complex analytics tags and other new digital services.

## What Sets Enighten Apart?

Enighten is the innovator in enterprise-grade tag management and website compliance, supporting major global brands and providing unparalleled speed and reliability. There are a number of things that make Enighten stand out from the other tag management vendors and help us win in competitive situations:

**Enterprise-class** – Enighten is truly enterprise class, proven in some of the largest, most complex global sites, handling the most complex of use cases such as advanced content optimization and web analytics.

**Fast** – A proprietary global Tag Delivery Network delivers top cloud-based services, speeding tag delivery and providing 99.999% uptime.

**Extensible** – Works across all platforms including mobile, Flash, and other rich media, providing complete, multi-channel support for digital marketing.

**Customizable** – Powerful, rich conditional logic, allowing you to optimize and customize digital services with agility.

**Privacy Ready** – Enighten’s SaaS privacy solution is the only tag management privacy solution that can watch and monitor all the tags on your site, automatically. Other manual evaluative offerings are cumbersome and don’t allow you to see new tags the way Enighten does. A single line of code approach, combined with Enighten’s rich conditional logic, enables you to easily meet EU/UK cookie laws, US do not track (DNT) rules, and other current and future compliance requirements.

**Flexible** – Enighten’s client-side, browser-based approach is more powerful and flexible than server-side offerings, making it the best suited solution for complex analytics tags, content optimization and other leading-edge digital services.

## Learn More

We’d love to demonstrate the power of Enighten’s tag management solutions for you. Call us at 650-249-4712 or email [sales@ensighten.com](mailto:sales@ensighten.com). One of our tag management experts can discuss your organization’s website needs, walk you through how Enighten works and discuss the benefits we can bring to your online business. We can even quickly demonstrate how Enighten would work on your actual web pages.

## About Enighten

Enighten’s enterprise tag management solutions enable the world’s largest enterprises to manage their websites more effectively. Enighten’s industry-leading tag management platform replaces hundreds of lines of code per web page with a single line of code and empowers marketers with an easy-to-use web interface to quickly add, remove or manage any 3rd party service – such as web analytics tags or advertising pixels. Enighten’s global Tag Delivery Network serves over 60 billion tags annually to over 13,000 web domains, accelerating page load times and handling more than \$16 billion in eCommerce for customers including Sony, United Airlines, Subaru, Microsoft, Monster.com, A&E Networks, LendingTree and Lenovo.



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