

The Myth of the “Universal Tag”

How Tag Management Systems are Setting the Record Straight
and Changing Tag-Based Technology Deployments Forever.

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Executive Summary

Few ideas in the digital measurement sector have grabbed people's attention like the notion of a "Universal tag," an almost magical sounding piece of code designed to mitigate the unfortunate complexity found in most web analytics deployments today. While it sounds exciting, Web Analytics Demystified believes that the "Universal tag" moniker is more hype than substance and yet another unfortunate example in web analytics of bad marketing supporting otherwise good technology.

Companies seek this type of silver bullet solution for a perfectly good reason: web analytics and other tag-based application deployments today have become far too complicated for their own good. Given the sometimes aggressive steps fee-based measurement system vendors have been forced to take in the past few years to compete with increasingly good, freely available systems like Google Analytics and Yahoo Web Analytics, many web analytics deployments are now taking months and in some extreme circumstances, years.

Fortunately, while poorly named, there is an emerging category of applications and services designed to minimize the pain and costs associated with the deployment of tag-based systems. Aptly and accurately described as "tag management systems" (or TMS) by Web Analytics Demystified, this new breed of application middleware is in some cases dramatically changing the landscape for web analytics and other system deployments.

Imagine if your dedicated analysts could use an online interface to immediately change the data collected into your web analytics system. Imagine if your analysts could co-deploy a second (or third) web analytics solution in hours. Imagine if your analysts could test new technologies at the behest of business and marketing simply by clicking a button. Imagine if you could remove your paid vendor's code with the same click of a button. Imagine if you could do all of this *without ever needing to ask Information Technology or developer resources for any help.*

All of this is possible today using a variety of tag management systems quickly coming into the market. This white paper, sponsored by one such vendor Ensignten, describes the challenges associated with tag-based deployments today, details the solution provided by TMS, and outlines the core requirements that Web Analytics Demystified believes any company looking for tag management should be asking for during the evaluation process.

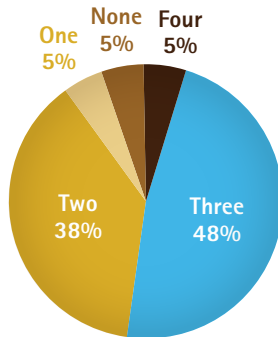
Web Analytics Demystified sees tremendous opportunity for companies to invest in tag management systems, thus saving tremendous amounts of time, opportunity, and real dollars invested in technology that would otherwise go underused and under-valued. We hope this paper clarifies the need for that investment and, more importantly, helps companies make better decisions regarding the choice for tag management solutions.

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Digital Data Collection Today

While their emergence was slow in the beginning, over the past three years the growth in availability and use of JavaScript-based page tags can only be described as “explosive,” making tag-based data collection functionality the status quo. Now there are hundreds of technologies leveraging page tags to power a variety of site and marketing efforts including:



- > Web analytics solutions that use page tags to facilitate the collection of data;
- > Audience measurement solutions that use page tags increasingly to improve the quality and confidence in their panel-derived estimates;
- > Site optimization solutions that use page tags to manage the rendering of alternative content and offers;
- > Email marketing solutions that use page tags to track recipient response, behavior on site, and potentially conversion;
- > Ad serving solutions that use page tags to manage the placement, rotation, and targeting of advertising units;
- > Search marketing solutions that use page tags to verify clicks and track search-driven conversion events;
- > Affiliate marketing solutions that use page tags to track affiliate-driven sales and revenue.

Additionally many companies have taken to co-deploying page tags from competing vendors in a single sector, for example Omniture’s SiteCatalyst and Google’s Google Analytics. According to a study conducted by ObservePoint, in 2010, nearly one-third of all retailers had more than one web analytics tag placed on their web site, as well as other tags for advertising, email marketing, search, and targeting.

More relevant to the notion of proliferation of tags is this distribution of “website tools” powered by JavaScript page tags. The following pie chart provided by ObservePoint examines the number of tags deployed by percentage of online retailers and shows that over half (53%) of online retailers have at least three tag-based systems deployed on their site.

The ObservePoint data includes web analytics, display advertising, and audience measurement services but does not consider other commonly used tag-based services like feedback and survey, email, social networking, and other customer communication services (click-to-chat, click-to-call, etc.). Given the ubiquity of conversion tracking from email service providers and the increasing number of deployments of social services from Twitter and Facebook, the numbers presented here may be low by as much as half, perhaps more.

Tagging Has Many Hidden Costs

Aside from the sheer management issues associated with maintaining multiple page tags across any site, script-based page tagging creates a handful of “hidden” costs related to their deployment.

Tag Deployment Can Be Time Consuming

Despite promises to the contrary from vendors and consultants the process of deploying any kind of script-based tag can be incredibly time consuming, especially when any kind of customization is required. While the actual "base tag" placement may take only seconds, the requirements gathering, documentation, customization, and validation steps for any Enterprise-class deployment can take weeks, months, or years in some instances. Unfortunately, it is this page specific customization that creates the true value from any analytics deployment, while this customization typically creates internal frustration over resources, time, and costs.

What's more, this challenge also appears to increase logarithmically with the complexity of the tag deployed. For example, it is not uncommon for Google Analytics deployments to occur relatively quickly, primarily because Google Analytics has historically allowed only a handful of customizations to their script (although this is changing with the addition of multiple custom variables and third-party integrations). Conversely, because the system supports so many variables, plug-ins, and customizations it is unfortunately common for SiteCatalyst deployments to stretch on from weeks to months.

Tag Deployment Always Requires I.T. Resources

Because Information Technology (I.T.) and Operations groups are usually responsible for the web site, traditional tag deployments require I.T. assistance and support. While analytics vendors have done everything in their power to make customers believe that the impact on I.T. will be minimal, the truth is that I.T. support is critically important to any digital data collection effort. Unfortunately, as most readers have likely experienced, I.T. groups tend to run lean, are overworked, and are often unsympathetic to marketing and business needs.

What's worse is that when pressed, I.T. has a wide range of potential objections to web data collection projects including issues of data privacy, site security and performance, not to mention the inevitably long list of changes that come from elsewhere in the business. While it may not seem this way, I.T. usually surfaces valid and important concerns worthy of consideration throughout the business; unfortunately these considerations take time to resolve and in the interim tag deployment efforts languish.

Deployment Resources Vary Widely in Experience

The widespread assumption that "anyone can deploy page tags because they're just JavaScript or ActionScript" is unfortunately fallacious and often creates intense conflict within organizations. It is not the actual placement that causes problems; it is the lack of understanding of how the tags work and each tag's specific nuances. Were the mistakes we have seen made not so time consuming and expensive it would be quite comical—issues relating to case-sensitivity, spelling, and a profound lack of attention to detail. Additionally, when more modern technologies like AJAX, Flash, or SilverLight are in use the amount of knowledge, skill, and attention to detail required can increase dramatically.

The resource issue for tag deployment becomes even more complicated in situations where site and application development is done by third parties. While there are exceptions in practice,

sometimes it feels like the vast majority of agency and interactive developers are in cahoots to screw up web analytics data collection as much as possible. Roll in language barriers, development over widely disparate time zones, and the increasing complexity of Web 2.0 technologies and it is more amazing when third-party developers get tagging right than not.

Emerging and Alternative Platforms Create their Own Challenges

As if deploying tags on web sites isn't complex enough, the proliferation of non-traditional platforms like Adobe's Flash, Microsoft Silverlight, and the multitude of mobile platforms in use today creates a whole new set of challenges. Non-traditional platforms require new tags built in proprietary languages and using diverse Software Development Kits (SDKs), all of which require even more knowledge on the part of the developer.

Tag Deployments Rarely Work Right the First Time

While more anecdotal than not, in our combined 30 years of experience at Web Analytics Demystified we have only rarely seen even the most basic tag deployments in web analytics work right the first time. There is always something—a bug, a variable that was missed, or a change in requirements—that requires a second, third, or fourth pass on the part of Information Technology and development resources, further increasing the time to deployment.

More importantly, data collection is an ongoing and dynamic business process, not a static project that can be completed and closed like a bug or defect. Business requirements and analytical needs are constantly changing. As a result, to develop a truly high-functioning and highly valuable digital analytics effort one needs the ability to constantly update the implementation. Unfortunately most Information Technology groups are far too busy and far too backlogged to provide this level of support so implementations typically languish, preventing business insights from being surfaced.

Tag Deployments Are Often Fragile

While less of a problem on relatively simple sites, nearly all large sites are incredibly complex and subject to change on a near constant basis. The classic case of "too many chefs in the kitchen" has the potential to break data collection completely without creating any kind of alert, error message, or warning. When you add in the fact that most companies rely on a single internal resource for most of their tagging expertise—resources that are in high-demand and constantly being contacted by recruiters—a picture of fragility emerges that most companies simply do not consider.

Tags Create Unnecessary Vendor Lock-in

There is another hidden cost associated with traditional tag deployment that most companies fail to consider: the fact that individually deployed tags create a tremendous amount of vendor lock-in. Imagine if you just spent a year deploying a tag-based data collection systems across your entire business only to realize many of the features you had been promised were

"unavailable at this time" or if costs wildly exceeded expectations. Would you be willing to go back to your boss (and her boss, and her bosses' boss) and ask for more money and more valuable resources to switch to yet another vendor?

We didn't think so, and that's what the vendors are counting on.

While switching is always an option, Web Analytics Demystified has observed that as implementations become more involved and sophisticated the businesses willingness to switch vendors declines, even in situations where the relationship has been badly damaged by miss-set expectations, miscommunication, or outright lies. When you factor in multi-systems integrations like those provided by Adobe in their Omniture family of products (SiteCatalyst, Discover, Data Warehouse, Test & Target, SearchCenter, Omniture Insights, etc.) it means companies are essentially trapped—unable to gain leverage in the relationship because of the sheer complexity associated with disconnecting the systems and making a change.

Now we aren't saying that multi-systems integrations are a bad thing, far from it. We love the capabilities that Omniture, Coremetrics, Unica, Webtrends, and the other major vendors are currently providing, at least when the technology and relationship is working for their customers. But we are concerned when the customer relationship is clearly strained but the customer is unable to impact any change because it would take too much time to switch to a better (or at least different) service provider.

Fortunately, there is a solution available today that simultaneously mitigates many of the hidden costs associated with tag deployment and reduces the lock-in enjoyed by vendors who have stopped putting their customers first: Tag Management Systems.

Introduction to Tag Management Systems

Tag Management Systems (TMS) are exactly what they sound like—content management systems designed specifically to manage and deploy script-based tags. Imagine a system that relies only on a single or few lines of code being added to your web pages or Flash/Flex/Silverlight-based applications that subsequently manage all of the other tags deployed across your entire site. Furthermore, imagine if that small block of code gave you the ability to quickly and easily deploy, remove, or modify the data flowing into your tag-based data collection systems ... all without needing to participate in the normal Information Technology prioritization process.

Sounds great, huh?

More often than not these systems are being used to manage web analytics and affiliate tracking systems but in practice a reasonably robust platform such as the one provided by this paper's sponsor, Ensignten, are capable of delivering any type of client-side tag. Additionally, the best tag management systems are able to leverage conditional logic, determining "on-the-fly" whether a particular set of tags should be rendered into the page or application and which data should be passed into those tags without requiring substantial effort on the part of developers or consultants.

The idea sounds almost magical, and some of the earlier developers of this technology put forth the idea that tag management systems were essentially "Universal" tags. Unfortunately, this moniker fails to convey the true functionality imparted and, at least in Web Analytics Demystified's opinion, fails a fundamental "believability" test. There is not, at least for now, a single tag or tag management system that imparts drag-and-drop capabilities to support the incredibly rich and complex tag landscape that exists today.

That is not to say a near-complete system might not exist someday, because the potential is certainly there. A truly robust tag management system will need to support both the most commonly deployed web analytics, ad and email tracking, survey and feedback, and testing solutions available in the market place today and impart the ability to add new and novel tags into the TMS (without needing to pay expensive consultants to modify purposefully obfuscated code). Since we have seen the fundamental underpinnings of this type of solution Web Analytics Demystified is hopeful that a truly "plug and play" tag management platform will soon be available, although we still hope that system avoids the cliché and hyperbole-infused descriptor "Universal".

How Tag Management Systems Work: An Overview

As described above, the best tag management systems in the market all work basically by replacing all of the existing tag-based solutions with a single, simple "one tag per page" deployment:

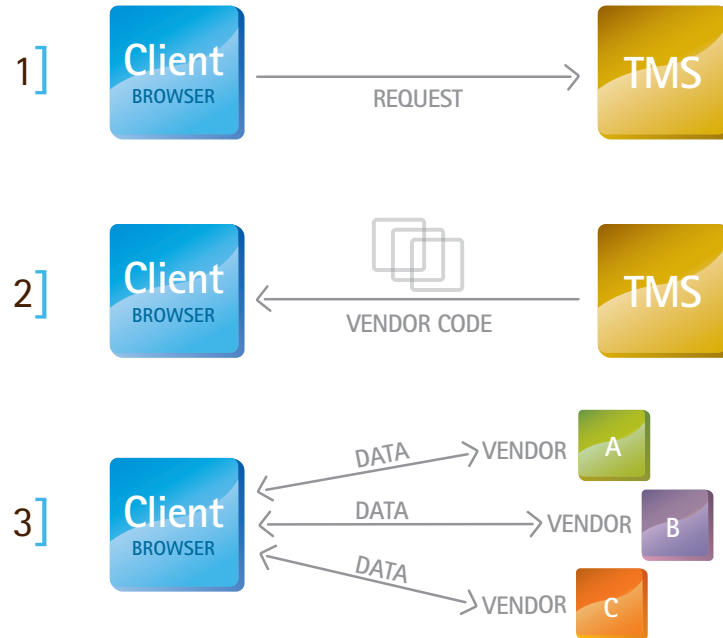


FIGURE 1: Tag management system (TMS) deployment model showing the interaction between the client, tag management system, and tag-based vendor code.

With this understanding of how tag management systems work in mind, let's explore how TMS lowers the hidden costs in analytics, reduces vendor lock-in, and has the potential to repair the relationship between Marketing and Information Technology.

Tag Management Lowers the Hidden Costs in Analytics

One of the chief complaints about web analytics deployments is that they end up becoming far more involved and expensive than planned. Implementations that are planned to take weeks end up taking months, months become years, and frustration levels with the digital analytics team rise to the point of contention in many cases. This often occurs within the large Enterprise with already strained resources, when sites are globally deployed, or when the site has been deployed across multiple technologies, platforms, and developers.

How Tag Management Reduces Resource Requirements

The most common challenge companies face when deploying web analytics and other tag-based systems is simply getting qualified resources from Information Technology who have the time, mandate, and motivation to assist with the work. Despite vendor claims to the contrary, web analytics implementations are never a "slam dunk" and typically require a great deal of focus and commitment on the part of developers to understand the nuances of each system. This observation is further complicated by the past few years of effort by major vendors to differentiate from free service providers resulting in even more complicated tagging requirements and system architectures.

The problem is not that Information Technology doesn't want to help; the reality is that web analytics and other tag-based technologies have moved well beyond the point where anyone with JavaScript experience can complete a robust implementation. The information required to collect the data the business needs usually resides in the heads of analysts, analysts who usually aren't strong in the nuances of tag-based implementations. What many companies end up with is technology resources without enough systems knowledge and analyst resources without enough technology experience, a combination which often ends up in a sub-optimal implementation.

The solution is to, as much as possible, give the responsibility for implementation to the most knowledgeable resources. Given that these resources are typically analysts not script-gurus, some bridge between source code and data collection is required.

Enter tag management systems.

A well-designed tag management system such as the one developed by this paper's sponsor, Ensignten, is able to simultaneously reduce the dependencies on Information Technology and put implementation work back in the hands of the analysts. Thanks to the limited code-in-page requirements described above, most analysts using robust tag management systems are able to take back control of necessary implementation work, freeing up already strained Information Technologists and reducing business-wide resource requirements for digital analytics.

Even better, by removing Information Technology from the implementation design and deployment equation, companies that have deployed tag management systems are seeing dramatically improved times to insight. Ensignten customer, Nestlé Purina is one company that has definitely appreciated this particular benefit. According to Guy Fish, an Interactive Brand Manager at Purina, deploying Omniture SiteCatalyst using Ensignten saved over 600 hours of development time and allowed a highly customized deployment to be completed over dozens of sites in about two weeks. Based on these results Purina plans to leverage Ensignten's tag management platform to deploy Voice of Customer, CRM, testing and optimization, and campaign tracking technologies as well.

How Tag Management Resolves Multi-Platform Challenges

Thanks to the same "one-tag-per-page" model described above, a well-designed tag management system is able to resolve most challenges created by a diverse legacy of web deployment systems. Web properties with any significant history are often deployed across

multiple systems including Microsoft Active Server Pages (ASP) and .NET, Apache, PHP, Cold Fusion, PERL, and a host of less common platforms. Similar and more common are sites deployed partly in HTML and partly in Flash, Flex, or Silverlight.

In all of these cases one fundamental challenge emerges: the need to have an even greater number of developers understand the nuances of tagging for each of their specific systems and platforms. This requirement creates additional risk when these developers are third-parties who may be adept designers and programmers but who are less likely to be web analytics and tag-deployment specialists.

In much the same way tag management systems resolve resource constraints, these systems are able to mitigate multi-platform challenges. Instead of having analytics staff dedicated to checking everyone else's work at the level of detail required in TMS absence, the entire requirement for developers simply becomes "Make sure this line of code appears at the top of the page or script."

Any reader who has dealt with multiple internal and external developers in the past can surely appreciate the power of that single statement.

With just one line of code, all of your multi-platform challenges can become a thing of the past. No more spending hours on the phone with overseas developers at 3:00 AM explaining (again) the reason the account variable needs to be populated; no more having to explain to management why you cannot measure the \$100,000 microsite; no more waiting until cycles, budget, or resources become available again to fix what should have been "easy" in the first place.

How Tag Management Resolves Quality Control Issues

Astute readers may have already figured out that reducing resource requirements and multi-platform issues will inevitably improve the quality control associated with the deployment of tag-based systems. Fewer hands means fewer problems. What's more, given how simple the best systems are to deploy, one's ability to verify the placement of the tag management application's code as part of an over-arching data quality effort is relatively simple and the best TMS vendors already include tag verification services as part of their service offering.

More importantly, tag management systems give the business an opportunity to create a single governance model and business-wide standard for tag deployment. By removing the multitude of developers from the equation and bringing low-level tagging requirements back into the analytics group, every organization can immediately create and enforce a series of standard data elements collected as well as provide for exceptions through a defined business process. Instead of having rogue developers, sites, or agencies making changes to the tag—potentially breaking data collection completely—one central group will have and maintain visibility into the entire process.

Add Tag Rule

1. Please provide an appropriate name for this Tag Rule

2. Where do you want to add this Tag Rule?
 Page Specific - Global | Select Location | New Location | Edit Location

www.siteA.com
 www.siteB.com
 www.siteC.com

3. Select Tag Dependency
 None

4. Choose a Tag Template
 SiteCatalyst Image Request

Web Site Type
 Standard

Trigger Event
 Navigation

Image Request Type
 PageView

Type	Name	Source	Value	Transform
Main	12	URL	Full URL	None

5. Notes
 This rule applies to multiple web sites: www.siteA.com, www.siteB.com, www.siteC.com

Cancel Save

FIGURE 2: Screenshot from Enighten Manage showing their rules-based system for deploying tags across one or more web sites.

Web Analytics Demystified recommends assigning someone to the role of "Chief Data Officer" (CDO) within the Enterprise and giving that person responsibility for data quality! In the context of this document, the CDO would leverage the tag management system to ensure proper and complete distribution of the application code tasked with managing other code placements within the page. This effort coupled with the ability to make changes to deployed scripts very quickly has the potential to dramatically improve digitally collected data quality across the business.

¹ "When More is Not Better: Page Tags"
 at <http://www.webanalyticsdemystified.com/content/white-papers.asp>

How Tag Management Reduces Costs

With all three of these advantages in mind, it is easy to see how tag management systems reduce costs associated with digital measurement.

- > Fewer Information Technology resources reduces headcount and opportunity costs associated with assigning otherwise busy resources to deployment projects;
- > Easier deployments across multiple platforms and developers reduces development costs and the inevitable costs associated with "fixing" broken code;
- > Better quality control reduces opportunity costs and, by accelerating time to insight, improves the chances of finding a high-value optimization via the normal analysis and testing process.

Additionally, some companies known to Web Analytics Demystified have discovered "defect" code that was sending erroneous requests to data collection systems. Given that most vendors charge based at least partly on requests and events collected, these error requests resulted in increased charges to the company. Tag management systems allow these types of problems to be corrected nearly immediately, thus limiting financial exposure and preventing the always-uncomfortable conversation to ask your vendor for a refund (and having them say "no", which all good vendors hate to do.)

For example, one of Enighten's customers, Intermecc, wanted to improve their process to keep their tagging in sync with content management changes and rollbacks, which historically had broken custom tagging, leaving pages untagged until someone noticed the loss of collected data. By using Enighten, when these problems occur Intermecc can now identify and address them in an automated fashion quickly and efficiently. "Prior to Enighten, broken tags from content changes and rollbacks would have taken days or weeks to detect and correct," according to Tom Savola, Senior Web Administrator at Intermecc. Tom continued by saying, "With Enighten these types of problems are quickly identified and repaired thanks to their proactive data-quality alerting functionality in addition to the ease with which the system lets us make changes to tag-based systems."

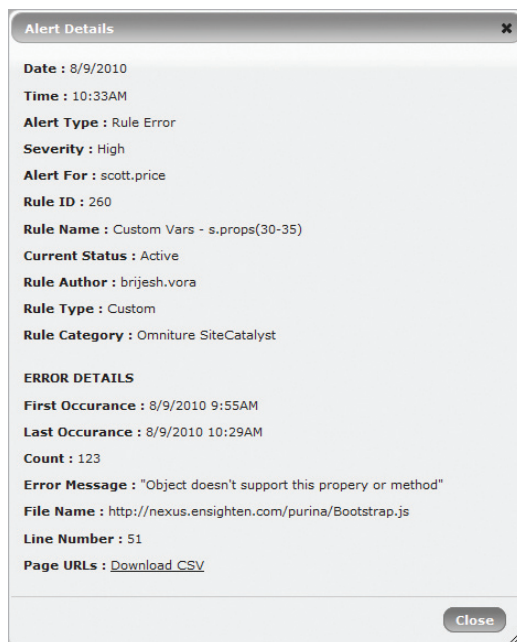


FIGURE 3: Alert generated by Enighten Manage detailing how best-of-breed tag management systems can reduce operational costs and staffing requirements while improving the overall accuracy of data collection.

Finally, given the increase in adoption of tag-based testing, targeting, and personalization systems we have seen recently, and given that many testing and targeting vendors charge for each page rendered using their technology regardless of whether a test is being run, tag management systems can be used to remove testing and targeting code from any page unless an actual test is being run. While some vendors may balk at doing this, Web Analytics Demystified's strong opinion is that you should only pay for code that is actually providing value.

How Tag Management Mitigates Vendor Lock-In

On the subject of vendors, one of the most often discussed albeit somewhat jaded benefits conferred by tag management systems, is that they dramatically reduce vendor lock-in by lowering the time and effort required to "swap out" one vendor's code for another. Imagine if changing vendors wasn't a year-long Information Technology project but instead could be done in a few hours and deployed across the entire business with the click of one button.

Perhaps ironically, it can be that easy.

The first vendors to encounter tag management systems were understandably uncomfortable with this idea—vendor lock-in is a big contributor to the sustainability of a recurring revenue business and can go a long way towards mitigating risks associated with poor customer support. Fortunately, it's not about the vendors, it's about their customer's success, and the leverage gained via the deployment of tag management systems can substantially improve relationships by keeping everyone honest.

"The cost savings realized in hours spent by I.T. and our agencies on analytics in development and QA cycles (thanks to Ensignten) has been immeasurable."

-GUY FISH

*Assistant Interactive
Brand Manager, Purina*

Web Analytics Demystified certainly does not condone using tag management systems to "torture" vendors with the constant threat of switching to a competitor. We do, however, believe that having the ability to make the best decision for the business without regard to the availability of technology resources and the Information Technology roadmap is a good thing. In this situation, any technology vendor that wishes to retain and grow customer business will need to focus on providing highest-quality service and support and no longer assume that any renewal is a "done deal."

Case in point, a major U.S. financial services institution used Ensignten's tag management system to migrate from a somewhat dated log-based data collection strategy to one based on page tags in less than two weeks. While keeping the same vendor, this institution was able to push a project through that significantly increased the overall value provided by web analytics.

Students of the digital analytics industry will likely note that this change is essentially a paradigm shift; especially for very large companies or in complex deployments, the ability to change vendors quickly has simply never existed before. What's more, given that companies of all types and sizes seem intent on having multiple measurement systems deployed at the same time, tag management systems allow for some exploration of alternatives, potentially opening the doors for a whole new set of tag-based vendors who would bring innovation in technology, pricing models, and support.

How Tag Management Can Repair Business Relationships

Since we are already talking about paradigm shifts we might as well go all the way and propose that tag management systems have the potential to repair the most contentious of all business relationships, that between business and Information Technology.

Few people who have worked with tag-based measurement systems for long have escaped the battles between the needs of marketing and limited Information Technology resources and an already long development roadmap. But tag management systems essentially end the need to continually request technology resources: once the TMS code is deployed, non-Information Technology resources can then take responsibility for any changes that need to be made to satisfy business and marketing data collection needs.

Imagine if you didn't have to call Information Technology to test a new feedback mechanism, script-based testing or advertising platform, or email tracking solution. Imagine if you didn't have to call technology to fix problems discovered in your existing campaign tracking solution. According to Tom Savola from Intermec, "With Ensignten, we were able to simplify our tagging solution and reduce the development and professional services-based costs associated with managing our site analytics. As an additional benefit, the Ensignten configuration was up and running with limited effort."

We don't mean to criticize Information Technologists. Information Technology is a fundamental partner in any tag-based deployment project including tag management systems, and Information Technology needs to be fully on-board with a TMS deployment or it is unlikely to happen at all. But we believe that the relationship between marketers and technologists will be dramatically improved when smart business people can deploy code against their own requirements, get technology's confirmation that the changes don't negatively impact the overall visitor experience, and otherwise allow Information Technology groups to focus on other pressing business needs.

Five Common Concerns and Five Core Requirements

Assuming you see the value in a tag management system, the next thing you need to consider is that not all TMS are created equal. Because tag management is clearly an idea that's time has come, there are a number of vendors and agencies working diligently to bring solutions to market.

While in general we at Web Analytics Demystified are supportive of the tag management space, there are five common concerns about tag management systems we recommend exploring carefully prior to any investment:

- > **1.** If the TMS is hosted, you'll want to carefully explore both the systems delivering the final tags and the service level agreement (SLA) the vendor provides. Remember, if the tag management system goes down so does your entire data collection effort. While some analytics vendors will use this as anti-TMS FUD, we recommend just being thoughtful during the purchase process (and requiring a rock-solid SLA);
- > **2.** If the TMS is run internally, you'll want to carefully explore the team and strategy in place to incrementally improve the solution and correct bugs and other problems. Traditional software deployments of TMS are being sold as somehow more robust, but we have already seen a variety of "unexpected" deployment challenges emerge. The foremost is that internally deployed technology requires either A) internally dedicated resources or B) external consultants, both of which are expensive and difficult to come by;
- > **3.** If the TMS is provided by an agency, be careful to explore their commitment to the solution and their ability to scale to support your needs. A handful of TMS solutions in the market today are freely provided by well-meaning and respected consulting firms provided you engage them for the system's implementation and ongoing support. While this is generous, keep in mind that human resources scale poorly at best so try and avoid replacing vendor lock-in with consultant lock-in;
- > **4.** If the TMS vendor claims the solution will be supported by an "open source community" of developers, run. While this sounds good, Web Analytics Demystified explored this option and found it to be much more complicated than expected. Unlike web servers, tag management systems are nuanced and obscure; we believe "community" and "certification" efforts are unlikely to gain traction in the sector and thusly are poor replacements for traditional paid vendor support;
- > **5.** If the TMS is hosted, the vendor should provide multi-country support and on-continent hosting. Tag management systems ultimately will need to be held to the same standard as other hosted systems providers. Hosted platforms need to either have or be working towards "local" support and service, not just sales people, in the same geographic region where they are providing services.

Having looked at tag management technologies in depth over the past year, likely more than any other independent consulting firm or agency, here are five core requirements that Web Analytics Demystified recommends businesses look for in a tag management system.

Requirement #1: Universal Deployment

The first requirement we recommend is ensuring the tag management system is able to support any type of technology your business is using to measure, optimize, and improve your web sites and digital properties. This means that the ideal TMS will have hooks into traditional web deployment platforms, content management systems, portals, multimedia platforms like Adobe Flash and Microsoft Silverlight, mobile platforms like Apple's iOS and Google Android, as well as appropriate social media channels like Facebook and YouTube.

By requiring support for any technology, adopters of tag management systems create a rare opportunity for both governance and enforcement of a business-wide tag deployment (and data collection) standard. Given the scarcity of useful and enforceable standards that exist in web analytics today, much less the small number of companies that have created their own internal standards, any opportunity to create consistency in technology use should be preferred. According to Guy Fish from Purina, "With Ensignten we have been able to reliably and efficiently enforce global tagging standards across the Enterprise. This includes dozens of sites around the world built on a variety of platforms and technology including Adobe Flash and highly customized portal environments that had otherwise proven difficult to track."

Unfortunately, at the time of this paper's writing there is no tag management platform known to us that satisfies this requirement completely without also requiring often expensive consulting support. Still, given our knowledge of the space we strongly suspect that before long many of the existing TMS vendors will have truly universal deployment capabilities available out-of-the-box. Until that time, we recommend looking preferentially at vendors who can demonstrate a scalable approach towards adding new vendors, technologies, and platforms to their existing tag management.

Requirement #2: Easy Configuration

In addition to being universally deployable, we recommend preference be given to tag management solutions that are easily configured. While a nice looking user interface is certainly a plus, by easy configuration we mean that the system will support the deployment of any number of tags across one, ten, or hundreds of web sites with the same efficiency.

The ideal solution is one where the majority of implementation design effort goes into determining what data should be collected (and why). Determining how the data gets from web servers and pages through the TMS into the resulting vendor tags should be transparent and require no modification to the vendor's standard code. If possible, this should be accomplished without having to write any JavaScript, although the need for deep conditional logic may require coding, but configuration should never require the creation of custom JavaScript, XML, or other complex or obscure files.

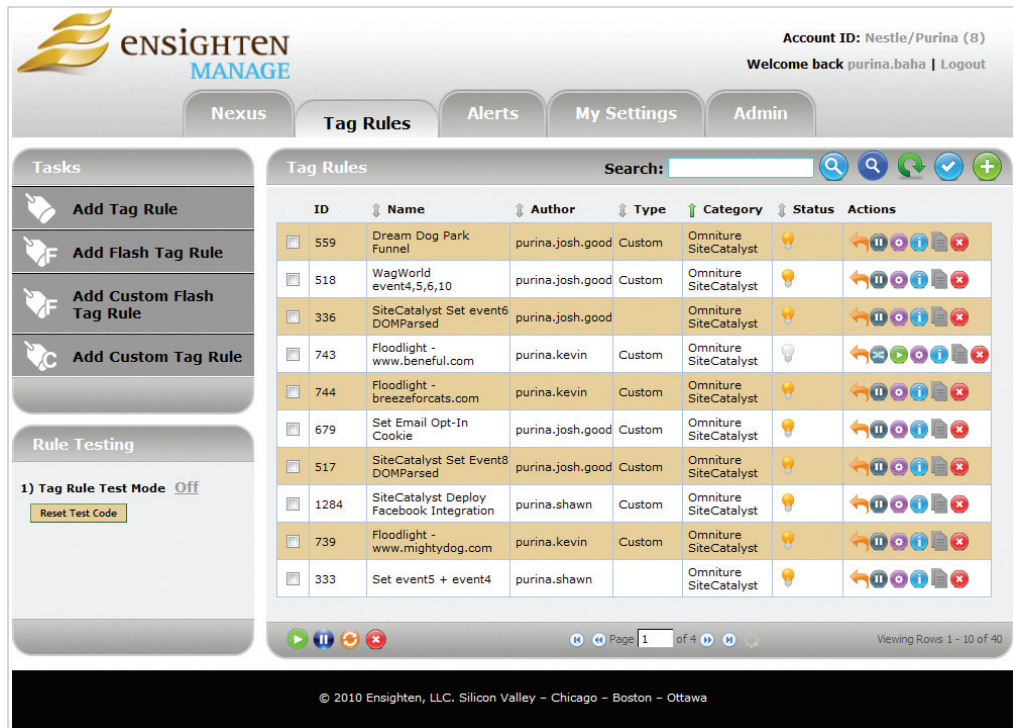


FIGURE 4: Example showing how Ensignten Manage organizes rules in an easy to use interface.

Requirement #3: Flexibility

In addition to being easily configured, the ideal tag management system is one that imparts the maximum amount of flexibility with the least amount of effort. To be clear, Web Analytics Demystified does not believe that tag management systems are a “silver bullet” when it comes to implementations; any implementation requires work and significant effort from multiple stakeholders within the business. We do, however, believe that transferring the majority of effort to implementation design and away from the actual implementation, coding, and quality assurance process effectively reduces the total effort required.

In this context “highly flexible” means that the system will enable that shift, not only for web analytics systems but for all tag-based systems deployed via the TMS framework. Examples of flexibility include the ability to define a single-page name and content hierarchy that can be applied to any number of tag-based data collectors, the ability to make a rules-based determination of whether a particular tag should be deployed, or the ability to power a wholesale replacement of a block of text or code, regardless of whether that text or code is a proper “page tag”.

More importantly, the tag management system should provide customers the ability to add any kind of tag to the system without needing to pay additional fees or consulting charges. No TMS available today provides complete, out-of-box support for the wide range of tag-based technologies in the market today, although this paper’s sponsor is working aggressively to be able to make this claim. Flexible systems should recognize this and allow customers willing to dedicate resources to create new tagging modules and rules as new technologies are

"In my current and prior roles I evaluated all of the vendors in the tag management space and Ensignten was the clear choice based on their ability to deliver seamless, Enterprise tag management with no need for custom development or ongoing consulting."

-BRANDON BUNKER
*Senior Manager
of Analytics, Sony*

brought online.

Perhaps the best example of this, and the example that perhaps best differentiates currently available TMS solutions, is support for deep conditional logic. Deep conditional logic is the ability to parse the contents of any page, make split-second decisions, and then pass the results on to the relevant tags, all without having to write additional code or deploy weighty, vendor plug-ins. For example, for one Ensignten customer it was desired to use the TMS to identify if a visitor was currently logged into the site based on a variable that the website sets on each page and, if that variable is present, then set the appropriate customer segmentation parameter within the web analytics tool.

Requirement #4: Business Viability

Because there has been a historically high level of frustration regarding tag-based technical implementations, it is not surprising that there are as many as a dozen consultancies and companies developing tag management solutions for the marketplace today. These organizations range from single-person consulting shops to moderately well-funded companies, primarily in the U.S. and Great Britain. While Web Analytics Demystified has a great deal of respect for most of the teams developing TMS, we caution readers to make a decision not based solely on respect but on overall viability and sustainability.

In all of digital measurement the least scalable resource is skilled JavaScript developers. A handful of groups working to bring tag management systems to market are essentially only this—great coders lacking a fully functional platform for tag management. In some instances these coders are willing to give away their code in exchange for hiring them to build the implementations and manage the systems on an ongoing basis. Web Analytics Demystified sees this as trading one problem for another; yes, you will have a tag management infrastructure in place, but you will still likely need costly and non-scalable resources to maintain the system.

More importantly, whichever system you select should come from a company with a history of providing customer support. In this context "customer support" means all of the things that come with a software purchase; sales agents, support agents, and support service level agreements. Given the amount of trust required to run your entire businesses tag-based infrastructure through a single potential point of failure, the last thing you want to hear if a problem emerges is "sorry, nobody is available to help you right now."

Requirement #5: Appropriate Pricing

Our final requirement for tag management solutions is that they are appropriately priced. Given that whatever costs are associated with leveraging TMS are incremental and very likely un-budgeted, preference should be given to vendors with the least complex pricing model possible. Current pricing models range from "free for the software provided you buy our consulting" to those charging a per-page view fee to those offering a fixed price based on the number of sites or domains tracked.

While each company will have a different tolerance and preference for pricing models, we suggest that given the likely challenges associated with selling the investment internally that preference should be given to the least complex and variable model. For some companies this may be the "per page view" model, although like it is with web analytics, success becomes

a penalty of sorts when charges increase with increased traffic. For other companies “free software” may be compelling, although we are unaware of guaranteed “fixed bid” deployments to go with the software giveaway. For still others, per domain charges may be the most reasonable strategy, especially in high traffic situations and highly-complex environments.

Regardless, we encourage everyone seriously considering tag management systems to carefully explore pricing and all of the requirements we have listed here with each and every vendor being considered. TMS technology is relatively new and likely to evolve very quickly; this is not to say we recommend waiting for systems and vendors to mature, only that we encourage readers and clients alike to make careful choices and not rush into anything without a clear understanding of how the vendor will help you today and tomorrow.

Conclusions

We sincerely hope that this paper has provided good and concrete guidance regarding changes coming quickly to the digital measurement sector. Fortunately, the era of "tag anarchy" is coming to a close and from Web Analytics Demystified's perspective, the new era of tag management systems will be a welcome relief.

Undoubtedly, some will drag their feet and find reason to complain about the content of this paper and about the coming paradigm shift in general. Tag management systems don't create benefits for everyone, but it is our firm belief that they create technologically strong and financially wise benefits for end-user companies investing in digital measurement, advertising, and marketing solutions today.

Given that the shift is already occurring within companies of all sizes, Web Analytics Demystified encourages readers interested in tag management to contact us directly for more information. We will happily provide additional guidance or make introductions to reference clients whenever possible. Rather than take our word for it, or the word of consultants or companies you've never, ever heard of, we recommend talking to your peers who have already taken the leap into an entirely new realm of digital data collection.

We welcome any and all feedback on this paper. Please email the author at eric.peterson@webanalyticsdemystified.com or call (503) 282-2601.

About the Author

Eric T. Peterson, CEO and Principal Consultant at Web Analytics Demystified, has worked in web analytics since the late 1990's in a variety of roles including practitioner, consultant, and analyst for several market-leading companies. He is the author of three best-selling books on the subject, *Web Analytics Demystified*, *Web Site Measurement Hacks*, and *The Big Book of Key Performance Indicators*, as well as one of the most popular web analytics bloggers at www.webanalyticsdemystified.com. Mr. Peterson has committed much of his life to the betterment of the web analytics community, so much so that Jim Sterne, President and co-founder of the Web Analytics Association says "Eric's leadership in the industry is unparalleled, his devotion to the community is legendary, and his years of experience translate immediately into strategic and tactical competitive advantage for everybody who works with him."

About Web Analytics Demystified

Web Analytics Demystified, founded in 2007 by internationally known author and former Jupiter Research Analyst, Eric T. Peterson, provides objective strategic guidance to companies striving to realize the full potential of their investment in web analytics. By bridging the gap between measurement technology and business strategy, Web Analytics Demystified has provided guidance to hundreds of companies around the world, including many of the best known retailers, financial services institutions and media properties on the Internet.

For more information on Eric T. Peterson and Web Analytics Demystified, please visit www.webanalyticsdemystified.com, email eric.peterson@webanalyticsdemystified.com, or call (503) 282-2601.

About Ensignten

Ensignten is a breakthrough tag management technology that solves the rapidly growing problems and complexities of vendor and analytics tagging. Established in 2009, Ensignten's patent-pending technology can be implemented within days, enabling superior data clarity and tracking of online behavior, extending the functionality of vendor tools, reducing vendor switching costs, improving site performance, and virtually eliminating the requirements for tagging-related IT, agency and vendor resources. Ensignten allows IT departments to empower marketers and web analytics specialists to manage updates and customize or remove tags on their own in any technology environment through the intuitive Ensignten Manage interface. As leaders in the web analytics industry for over a decade, Ensignten's founders bring unmatched depth of experience to address the most challenging enterprise requirements.

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