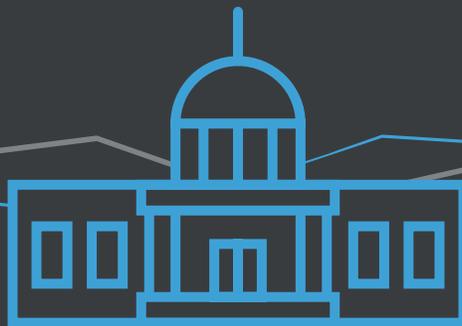


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WHITEPAPER / GOVERNMENT

# Web Analytics Traffic Metrics Best Practices for Government Agencies



Recent confusion over the proper use of cookies on federal government agency websites has heightened the need for all organizations to understand the definitions and technology of web analytic solutions in order to assess their web analytics and privacy strategies.

This is not a vendor-specific issue. Some vendors offer more flexibility than others, but all use some kind of metrics aggregation derived from the same cookie technology. Each agency must determine the best approach given their objectives and need for compliance with privacy policies and Office of Management and Budget guidelines.

## FIRST OF ALL, GO WITH FIRST-PARTY COOKIES

Webtrends web analytics solutions offer customers a broad range of alternatives that use no cookies, session-based cookies, session parameters or persistent cookies. For software and hosted solutions, we also offer first-party cookies.

First-party cookies have become the industry's recommended best practice, and we strongly recommend you use them. Web browsers and other applications increasingly block third-party cookies, so using first-party cookies (either session or persistent) gives more accurate metrics and minimizes privacy concerns.

Unlike a third-party cookie from an advertising network, Webtrends third-party cookies cannot be used to track visitors across multiple websites, and our privacy policy will not allow us to develop this functionality in the future. Third-party cookies are not an issue for software customers, as Webtrends software does not utilize third-party cookies at all.

**Web browsers and other applications block third-party cookies, so using first-party cookies gives more accurate metrics and minimizes privacy concerns.**

## THE TWO IMPORTANT THINGS YOU NEED TO KNOW

When selecting and implementing web analytics solutions, it's important that you have basic knowledge of two underlying technologies, data collection and sessionization, to ensure the solution meets your business and privacy requirements.

## Data Collection

There are two main ways to collect website data: log files and client-side data collection (also known as page tags, web beacons, pixel technology and “web bugs”). Log files are produced by your web servers. They are the first source of data collection, but they are also the least accurate. As webpages are served, they’re cached by a variety of services and mechanisms, which often prevents subsequent requests for those same pages from being “seen” by your web server.

Client-side data collection avoids these accuracy issues, because data is collected directly from the visitor’s browser by a dedicated data collection facility. Loading the page in a browser transmits the data. Webtrends provides client-side data collection in both our hosted and software solutions.

Both log files and client-side data collection capture information about what page was viewed, how long it was viewed, and some details about the visitor, including internet protocol (IP) address, browser, operating system, and display settings.

Sessionization can determine where visitors get lost or frustrated, how deeply they go into content, and where the opportunities are for site organizational improvements.

## Sessionization

Sessionization refers to how a web analytics solution orders a sequence of actions or requests made by an individual during the course of a website visit or “session.” Sessionization contains essential information about visitor experience. You can determine where visitors get lost or frustrated, how deeply they go into content, and where the opportunities are for site organizational improvements.

Without a sessionization method, log files and page tags have no reliable way of determining that the individual who viewed page one is the same person who viewed page two.

## WHAT SESSIONIZATION TECHNIQUES DOES WEBTRENDS USE?

Webtrends uses a variety of non-cookie and cookies techniques for sessionization. All are user anonymous, except for Authenticated User. In other words, neither Webtrends nor the site owner has any personal information about the visitors.

None of our sessionization techniques involve the aggregation or consolidation of data across different site owners in any way.

### Non-Cookie Sessionization Methods

- **IP+Agent:** IP-based sessionization uses the IP address assigned to the user’s machine by their service provider. Because IP addresses are frequently shared by multiple individuals using the same ISP or proxy, the browser “agent” information (e.g. browser type and version) is added to the IP address to increase the accuracy of visit-related information.
  - Pros: Organizations with the strictest privacy policies can obtain more accurate counts of visits, page views, and paths taken than with IP-only methods.
  - Cons: Does not provide unique visitor or repeat visitor metrics.

## NON-COOKIE SESSIONIZATION

- IP+Agent
- Session Parameter/ID
- Authenticated User

## COOKIE-BASED SESSIONIZATION

- Session Cookie
- Persistent Cookie

• **Session Parameter/ID:** This is a more accurate form of sessionization that typically involves a random sequence of numbers and/or letters being assigned to each visitor that is then passed back with each subsequent request during the visit. Each ID value is retired after the visit ends.

- Pros: Offers more accurate visit-related metrics (visits, page views, and paths taken) than IP+Agent without serving any type of cookie.
- Cons: It is not a persistent method, so it does not provide unique or repeat visitor metrics.

• **Authenticated User:** This form of sessionization requires a username, and typically an associated password, during the course of the visit. For public websites, the user must explicitly provide a username. Private websites, such as intranets and extranets, frequently use the network username in the same manner as a session parameter to sessionize a visit, but logins can also be used to identify returning visitors, as long as visitors login to the website for each visit.

- Pros: Offers the most accurate visitor and visit-related information.
- Cons: Required logins are not appropriate for many websites.

### Cookie-Based Sessionization Methods

• **Session Cookie:** Cookie-based sessionization techniques involve placing a third or first-party cookie on the user's machine containing a randomly generated ID value that, like session parameters, is passed back with each subsequent request. Session cookies are cookies that remain on the user's machine only for the duration of the visit, after which they are automatically deleted by the browser.

- Pros: Offers accurate visit-related metrics (visits, page views, and paths taken).
- Cons: Does not provide unique or repeat visitor metrics as it is not a persistent method.

• **Persistent Cookie:** Persistent cookies use the same anonymous ID value approach as session cookies, but the cookie remains on the user's machine until explicitly deleted, or until the expiration date is reached (a date established by the site owner). The purpose of this approach is to analyze the behavior of unique visitors to a single owner's site(s) across visitor sessions. Persistent cookies can be either first or third-party cookies. In addition, persistent cookies allow sites to determine if different segments of visitors have different needs, such as frequent visitors versus first-time visitors.

- Pros: Offers a standard method that does not use personally identifiable information for accurate visitor information over time, such as number of visits by a visitor, or comparing the behavior of new vs. repeat visitors, or buyers vs. non-buyers.
- Cons: Not permitted on federal government agency sites (.gov and .mil) without permission.

## ADDITIONAL RESOURCES

**Webtrends Knowledge Base:** <http://www.webtrends.com/Support/KnowledgeBase.aspx>

**Webtrends Solutions for Government:** <http://www.webtrends.com/Solutions/Government>

## GLOSSARY OF TERMS

### **Authenticated User**

A visitor who used a username-password login process to get access to all or part of a website. The username (but not the password) is captured in a specific field in website log files or through client-side data collection tags. Since it is possible for many different unique visitors to have the same IP address, authenticated username is perhaps the most accurate way to count unique visitors.

### **Cookies**

A small text file containing a long unique string of characters given to a web browser by a web server. This file is then sent back to the server each time the browser requests a page from the server, identifying users as unique and tying together their actions. Cookie values are encrypted, typically contain no personally identifiable information, and cannot store information that has not been willingly provided by the visitor to the website.

The browser user controls whether a browser accepts cookies or not. If the browser is set to accept cookies, Webtrends uses the cookie character string to divide the mass of page views into individual visits.

If a cookie is the persistent type that is stored on the visitor's machine, Webtrends also uses the cookie to define a visitor as either first-time or returning. Webtrends can also use the cookie to associate previous visits with a particular visitor in order to report on past purchases, lifetime value, or past responses to campaigns.

- First-party Cookie: A cookie served to the visitor's browser directly from the website's domain.
- Third-party Cookie: A cookie served to the visitor's browser by a web analytics vendor, "a third-party," rather than by the website he is visiting.

### **IP Address**

A numeric phrase used to identify a computer connected to the Internet. Internet Protocol addresses consist of four one-to-three-digit numbers separated by periods (for example, 212.6.125.76.). It is possible for many different unique visitors to have the same IP address, and the specific address can change dynamically during a visit.

### **Session, Sessionize, Sessionization**

The process of dividing and ordering a list of page views and events into visits or sessions, where each visit includes the sequence of pages viewed by a visitor during a specified time period.

### **SmartSource Tags**

A Webtrends script (JavaScript or VBScript) that can be added to the code of a webpage to capture information about a visit to that webpage (for example, IP of visitor, time of day, name of page, parameters) and send it to a data collection server such as Webtrends SmartSource Data Collector. The tag executes when the page is loaded into a browser.

### **Unique Visitors**

Number of unique individuals who visited your site during the report period, as identified by a persistent cookie. If someone visits more than once during the report period, they are counted only as one unique visitor. Unique visitors may not perfectly match the number of unique individuals visiting the site, because someone may visit a site from more than one computer and have a different cookie at each computer, or people may share the same computer to access the same website.

**Visit**

A visit is a series of page views, beginning when a visitor's browser requests the first page from the server, and ending when the visitor leaves the site or remains idle beyond the idle-time limit.

**Visitor**

A person at a computer using a browser to visit a website. A visitor may make more than one visit during a given time period. Note the combination of person, computer, and browser. Since a person may use different computers or even use different browsers on the same computer, it is possible for him/her to appear as more than one visitor because the chief means of distinguishing a visitor is through a persistent cookie or, less desirable, the combination of IP address and platform/browser details.



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### About Webtrends Inc.

Webtrends is an enterprise customer intelligence company that turns online and offline data into understanding. We help organizations realize a competitive advantage by providing insight-driven optimization of their digital channels. Our leadership extends beyond the web analytics industry we founded in 1993 to the measurement, optimization and integration of all digital content and customer intelligence, including web sites, social media and paid-search advertising. Our products and services are trusted by thousands of leading brands and global organizations, including Microsoft, The Coca-Cola Company, The New York Times and Cabela's. You can learn more about Webtrends products and services at [Webtrends.com](http://Webtrends.com) or call 1.877.932.8736. Webtrends is a registered trademark of Webtrends Inc. in the United States and other countries. All other trademarks and registered trademarks are the properties of their respective owners.