

INTERNET TRACKING PRIMER



OCTOBER 13, 2008

INTRODUCTION

The process of tracking affiliate-generated conversions involves multiple steps and multiple technologies, each susceptible to breakage. The purpose of this document is to explain the components of tracking and methods of troubleshooting them. This information is valuable for responding to concerns expressed by affiliates that your affiliate network tracks a significantly lower percentage of conversions than competitive platforms or that your affiliate network purposely "skims" leads.

To date, these claims have proven to be unfounded. In an effort to verify them, we have had direct discussions with several affiliates who have publicly verbalized these tracking suspicions. None of these affiliate discussions yielded a credible claim and, in many instances, revealed a comprehensive misunderstanding of the nuances of the DirectTrack (DT) platform by the affiliate. In an effort to mitigate the potential impact of failed confidence in your affiliate tracking accuracy (and our tracking technology), we feel it prudent to help you to help your affiliates troubleshoot any perceived tracking discrepancies by educating them on the process as a whole.

Due to current and future growth in affiliate marketing, advertisers need to be certain of the commissionable sales and leads accuracy, while publishers need to be confident that their traffic-generating investments are being directed to stable environments where their conversions are precisely tracked; otherwise both advertisers and publishers will look for alternate channels to invest their marketing budgets. ***Therefore, affiliate education would prove to be a mutually beneficial undertaking.***

TRACKING COMPONENTS

An internet browsing session is referred to as "stateless" because without the use of specific technological components involved, no information will be stored on an advertiser's web server and therefore, accessible for either the internet user or the advertiser to relay information from one browsed page to the next or one browser session to the next. This means that no information implicitly or explicitly entered by the user into the browser or on a web page is available from one page to the next. The technology that enables the tracking of browsing history is called a "cookie".

During a browser session or at the culmination of one, a web page may have a call to action that may need to be tracked. This call to action could be an item such as a product purchase on an ecommerce site or completing a consumer profile on a lead generation site; something that likely has a monetary value associated to it. These monetizable actions need to be tracked in order to record a sale amount and/or to properly reward a third party for driving the transaction. These actions are tracked by a second piece of technology called a tracking pixel. The marriage of the cookie and the tracking pixel form the technological foundation for internet affiliate marketing.

COOKIE

Originally introduced to the world by Netscape Communications in 1993 and used to determine if a visitor had previously been to a Netscape site, a cookie is nothing more than a simple text file added by a web server to the user's browser that stores information to be used for a subsequent visit to the web site. Cookies serve many valuable functions that enhance a user's experience such as serving relevant and non-redundant advertisements, pre-populating web page data with previously provided information, and storing items added to an ecommerce shopping cart. Furthermore, cookies also facilitate such business and technical functions as user authentication and relationship tracking between traffic origination and action conversions.

COOKIE PERCEPTION/MIS-CONCEPTION

A common misconception surrounding cookie usage is that they are software programs resident on a computer that control usage and relay personal information to a third party organization potentially

violating their personal privacy. In fact, cookies are no more than “dumb” text files that can perform no proactive functions; their information can only be read by software applications residing on servers existing in the same internet domain as that of the cookie. Furthermore, all of the information provided by the cookie would also be accessible via web server logs.

COOKIE WEAKNESSES

By enabling such critical internet functionality as ecommerce shopping carts, behavioral targeted advertisements and affiliate marketing, cookies are an extremely valuable technology, but although tremendously powerful, cookies and cookie tracking are not perfect. In fact, there are several pitfalls to cookie usage that all internet marketers need to be mindful of when implementing cookie tracking technology and relying on metrics and statistics generated by their usage.

One of the several [attributes of a cookie](#) is its **expiration** date. Options for a cookie’s expiration date include two that will make it expire at the end of the browser session (no date set or date set to the current date and time) and a third option where the cookie is set to expire at some point in the future, which is called a persistent cookie. Extremely valuable in many components of internet marketing, the duration of the cookie plays a critical role in affiliate marketing because the greater the cookie duration, the greater likelihood of a conversion occurring that would result in a commission being paid. Conversely, affiliate programs and campaigns that have short cookie durations, would potentially result in a lower conversion rate and thereby fewer commissions being paid to the affiliate.

As an affiliate marketer, you should be somewhat cognizant of the program’s cookie duration, which can be set distinctly for each campaign by every network using DirectTrack. Since typically more thought and consideration is involved in making higher cost purchases, the cookie duration is of greater importance in these situations. Conversely, when marketing lead generation and low cost programs, conversions more frequently occur within the same browser session or one shortly thereafter and, therefore, cookie duration is less of a factor.

Two other related inherent weaknesses to cookie usage that impact all areas of internet marketing are **cookie blockage** and **cookie deletion**. Stemming from the somewhat unwarranted security concerns surrounding cookie tracking, many web surfers use aggressive cookie blocking software and/or are overly zealous in deleting cookies from their browser.

As it pertains to the affiliate marketing industry, these two operations can have significant impact on commissions generated, in fact, one estimate from [comScore](#) suggests that three out of every ten cookies are deleted from browsers monthly. As was stated previously, though, lower cost purchases and lead generation campaigns have a high likelihood of converting within a single browser session, therefore if the cookie is able to be set in a browser, for these types of campaigns the likelihood of successful tracking is high.

Additionally, in an intriguing study performed by industry veteran, Ben Edelman on behalf of super affiliate Vinny Langham, cookie blockage by third party software applications can vary widely across affiliate programs and affiliate networks. For example, affiliate networks that had cookies detected most frequently, Mr. Edelman’s analysis suggested that Linkshare and Commission Junction are detected 41% and 36% of the time respectively while affiliate networks with cookies detected 0% of the time included such affiliate networks as CPA Empire, Shareasale, and onenetworkdirect.com (Digital River). ([Click here](#) to view the study)

There are no easy answers or fixes to cookie blockage and deletion, although its impact to affiliate commissions can potentially be mitigated, as Mr. Edelman suggests, by having affiliate networks pay a bonus based on an accepted cookie loss rate due to deletion or blockage.

Another limitation of cookie-based tracking that impacts conversion statistics is **cookie redundancy**. In affiliate marketing, many affiliates will run advertisements across many media outlets that could result in the same advertisement being “seen” by the same browser multiple times. An advertiser typically will only pay for a sale or lead a single time, therefore precedence logic for the campaign needs to be

established. This precedence specifies whether the affiliate’s ad that was displayed first or last is given the commission for the sale or lead. For example, a network or campaign that sets the precedence as the first to click ad, regardless of how many times the web browser encounters an identical ad served by multiple affiliates, the first affiliate will be paid the commission for the resulting conversion. Conversely, if the network had the precedence defined as last, the most recent affiliate serving the advertisement will be paid the commission. Due to the potential of lost commission and tracking discrepancies between the affiliate and the advertiser and/or network, affiliate marketers need to be aware of the precedence defined for either the network or advertiser sponsoring the campaign.

****Note:** It should be noted that recently DirectTrack networks were provided a conversion breakdown report that displays those leads that had clicks and cookies set for multiple affiliates.

Although it is not necessarily a shortcoming of the cookie itself, the fact that internet browsers can hold a maximum of 300 cookies is another potential gap or point of failure between cookies placed and conversions tracked that would negatively impact revenue earned by an affiliate. This **browser limitation** does not likely have the same impact as such items as cookie blocking and deletion as this is related to the aforementioned fact that typically the majority of conversions occur relatively soon after the time the ad was initially seen, therefore mitigating the impact of this shortcoming.

The last cookie tracking limitation to note is also not necessarily a cookie-related weakness, but more so one inherent to internet technology in general. **Service interruptions**, e.g., connection issues between the cookie-placing code and browser, will likely inhibit the success of the cookie being added to the browser. Placing a browser cookie is controlled by code residing either in the tracking software’s environment, the most common deployment and typically referred to as *redirect tracking* as the traffic is *redirected* through tracking servers, or via script added to a campaign’s landing page, functionality we refer to as DirectLink (because the cookie placement code is placed directly on the landing page rather than redirecting the browser in order to have a cookie placed).

Service interruptions can impact both redirect and DirectLink tracking. As was stated for redirect tracking, the web surfer’s browser is *redirected* through the tracking software platform where code is run that, based on the campaign and affiliate associated to the traffic, places a cookie with the appropriate values (typically cookie name and unique value) and redirects the browser to the page defined in the campaign. Since this redirect hop is introduced into the process, service interruption-related cookie placement could be interrupted by items such as:

1. Invalid affiliate URL being associated to the ad which would typically cause the traffic not to be redirected,
2. Network private domain issues related to such items as DNS or hosting providers,
3. Tracking software issues, and
4. Traffic routing issues caused by incorrect redirect logic implemented by the advertiser or network.

Each of the issues listed above can impact not only redirect tracking but DirectLink tracking as well. Additionally, according to W3Schools, [approximately](#) 5% of all browsers have JavaScript disabled, cookie placement facilitated by DirectLink tracking are susceptible to that point of failure as well.

In summary, as an affiliate, there are several factors that could impact the conversion rates of your campaigns outside of the quality of the advertisement and landing page and should be taken into account while comparing internal statistics and those offered by the affiliate network:

	FACTOR	CONSIDERATION
1.	Cookie expiration	More relevant with high value sales
2.	Cookie blockage	Varies per affiliate network
3.	Cookie deletion	More relevant with high value sales due to length of sales cycle

4.	Cookie redundancy	Varies per campaign exposure. E.g., a longer running, high visibility campaign on larger network will likely have more affiliates running the offer.
5.	Service interruption	Can vary per network and tracking technology
6.	Browser limitations	

TRACKING PIXEL

The second piece of the affiliate marketing tracking process that works in tandem with the cookie is the tracking pixel. The tracking pixel is no more than a standard 1x1 image pixel that when called via HTML code searches the web surfer's browser for a cookie that matches the domain included in the pixel. Although the placement of the tracking pixel is typically handled with relative ease, periodically issues do arise that could affect campaign conversion rates.

Larger advertisers frequently work with multiple affiliate networks, and therefore, this typically entails multiple distinct tracking pixels. When an advertiser has many pixels on one conversion page, the pixels are called in the order in which they are placed in the HTML code, therefore to minimize potential service interruption issues it is beneficial to have a pixel placed higher on the page. An example of this interruption could be an advertiser using script to call a pixel that may not run completely or trigger errors prior to the cookie associated to your campaign being called; these resulting errors could preclude the remaining pixels and potentially the rest of the page from loading.

As an alternative to direct pixel placement, it should be noted that many tracking platforms, including DirectTrack, provide functionality to track conversions offline via an API whereby code would be used to add sales and leads into the account after verification. This background process would likely introduce a delay in the ability to view the conversion statistics or even the inability to track the conversion at all—DT requires the unique cookie generated from the initial click to be accessible upon conversion, otherwise the system will have no mechanism in which to associate the conversion to a specific affiliate. Advertisers would employ this API methodology so that they could add a sale or lead verification step into the process prior to having a commissionable action being tracked. This verification function could include such items as ensuring that no existing lead exists, credit card is authorized, or consumer verbally contacted to ensure their acceptance of terms.

TRACKING TESTING

The process of tracking a web surfer from the initial ad impression through to a conversion is not an extremely complicated process. Each step, though, is critical to the success of the entire process and since each step is typically controlled by different organizations, there are points of failure to consider prior to investing financially on generating traffic to the campaign. The following are basic steps to be considered to ensure proper end-to-end conversion tracking of an affiliate campaign.

COOKIE PLACEMENT

As was described previously there are several events that could impact a successful cookie placement; these steps are not intended to overcome those issues but more so ensure that the controllable events are addressed.

1. **Live HTTP headers**—this is a plug-in available for the Firefox browser that provides a history of each web page URL that was encountered during the entire conversion process. It will even show the network URL that initiated the cookie placement.
2. **Clear cookies**—to ensure a clean environment, prior to testing a good habit to undertake is to clear your cookies, regardless of whether or not you have previously visited the site.
3. **Load the ad**—load the page containing one of the images to be tracked. Some tracking systems will place an impression cookie so check to see if one was placed. (DirectTrack networks will not place an impression cookie).

4. **Click the ad**—click the advertisement to be sure that (1) the cookie was placed and (2) traffic is redirected to the appropriate landing page quickly. Live HTTP headers can be checked at this step to analyze each redirect hop in the process. For example, when using a DirectTrack network, unless using DirectLink functionality, at some point during the interaction, DirectTrack should be encountered so that the script can place the cookie. Additionally, many tracking systems allow affiliates to pass additional information with the query string that can be associated to any subsequent conversions. Live HTTP headers is extremely effective at providing visibility as to whether or not this data is being relayed appropriately.
5. **Verify the landing page**—ensure that the landing page is what you expected and is specifically relevant to the advertisement. Certain campaigns allow for affiliate data passed in the referring URL to be used to pre-populate landing page attributes. If this functionality is provided, ensure that the data is being populated appropriately.
6. **Convert the campaign**—keeping your network informed of your tests so that commissions can be adjusted accordingly, it is prudent to actually perform the conversion (i.e., either purchase a product and/or complete the lead form). The first item to confirm is conversion cookie placement in the browser. The value of this cookie being placed varies per campaign type as well as the payout precedence defined by the network. For example, for a sale campaign, an affiliate can receive multiple commissions for repeat purchases which would be tracked by the existence of that sale cookie; without its existence, no subsequent commissions would be paid. In the case of a lead campaign, as was stated previously, an advertiser will only pay commission to a single affiliate; therefore, the existences of the cookie would control that repeat lead tracking and subsequent redundant payout.

Both viewing the source code of the conversion page and analyzing the Live HTTP headers output can be used to confirm that the pixel code was placed appropriately. In this case, “appropriate” means various things so it is important to work closely with your advertiser/network partner to ensure that all relevant attributes are being passed to the pixel. For example, a sale campaign typically will require a sale amount and transaction identifier to be considered valid.

7. **Confirm transaction**—the last step in the process is to check the affiliate interface to ensure that the conversion tracked as expected. If all previous steps have occurred as expected (i.e., cookie placed and traffic redirected to appropriate landing page) as an affiliate, it would be prudent to work with your partner to ensure that the campaign is setup appropriately within the tracking application and also that there are no other issues affecting the pixel.

CREATIVE COOKIE TRACKING PROCEDURE ENHANCEMENTS

Until a viable commercial grade alternative to cookie tracking is developed, DirectTrack will continue with cookie tracking as its core technology foundation. There are enhancements to the process that DirectTrack has deployed and are working to enhance even further as well as existing functionality that should be leveraged to further minimize cookie-related tracking discrepancies.

As it pertains to weakness mitigation, DirectTrack is actively working on a dramatic enhancement to recently released Conversion Breakdown report that will provide another layer of tracking accuracy by providing DirectTrack clients the ability to associate failed conversions to clicks. DT accounts are able to manually associate conversions with no associated cookie (thereby failing to convert) to clicks that have such matching attributes as IP address, [User Agent](#), [X-Forwarded For](#) value. Although this association still has limitations, it will enhance the DirectTrack user’s ability to more effectively associate failed conversions to related traffic.

Additionally, a “best practice” that should be considered when working with DirectTrack accounts is to have them add the %DLOPT variable to creative linking URLs. This variable will pass the cookie value assigned to the click and added to browser to the campaign landing page and once at the landing page,

the advertiser can extract the value from the referring URL and associate it to any subsequent conversions.

Due to current and ever increasing revenue being generated by affiliate marketing, combined with the inherent risks associated with cookie tracking, organizations are continually looking to either find alternatives to the process or are seeking ways in which to counteract or mitigate the various process weaknesses. Due to the amount of traffic processed by the DirectTrack and its associated revenue, we are continually seeking ways to ensure that the tracking and reports used to display the tracking are as accurate as commercially viable.

LOOKING FORWARD

Tracking Validation and Certification

As affiliate marketing evolves and the amount of marketing funds dedicated to it grows, increased focus is being placed on the accuracy of the tracking and reporting provided by its systems. To proactively answer this expectation, Direct Response Technologies has hired a third party firm, referred by the IAB, to audit DirectTrack's infrastructure and tracking methodology. Due in early 2009, is a report that will validate that DirectTrack's tracking is accurate and that all reporting methodologies meet the standards defined by the IAB. This validation will prove valuable as our networks look to work more closely with Tier 1 publishers and advertisers.

In conjunction with this auditing and subsequent accreditation, we are developing a plan that will allow DT clients to potentially leverage this accreditation more formally. Subsequent information regarding this plan will be delivered once formalized.

Increased Visibility

As mentioned previously in this paper, DirectTrack networks were recently provided a conversion breakdown report that gives greater insight into such conversion-impacting events as non-existent cookie and conversions with duplicate leads. In early 2009, DirectTrack will be releasing additional conversion reporting to both affiliates and program administrators that offers increased visibility into those factors impacting conversion tracking as well as tools to minimize discrepancies between networks and affiliates. These new tools will allow networks to associate unmatched conversions to affiliate-generated traffic with click details that match attributes captured at the time of the conversion.

This conversion breakdown data provides affiliate managers all of the necessary data and insight to explain **ANY** tracking discrepancy claims by affiliates.

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