

Webtrekk Server-To-Server Tracking

Version 3



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1 General

The Webtrekk Javascript that is built into the website creates an Image object, which sends a request to the Webtrekk tracking system.

In the request, the relevant information for the page is sent as an URL Parameter.

In the Request Header of the browser, additional information is sent (Referrer, User Agent, Browser Language, Cookies). Via a TCP/IP connection, the IP Address of the user is available in the Tracking System.

Users without Javascript send information to the Tracking System via the URL of an image in the NOSCRIPT portion.

The Tracking System responds with a 1x1 Pixel GIF image. Additionally, cookies (only with 3rd party cookies activated) are sent in the response header.

2 Forming the Requests

2.1 Pixel URL

Example Request from the Tracking Script:

```
http://track.webtrekk.net/1111111111111111/wt?  
p=300,home,1,1024x768,32,1,1234265433426,0,1000x700,1...&[additional information as URL parameter]  
  
http[s]://[Track-Domain]/[Track-ID]/wt?p=[Version],[Content-ID],[JavaScript],[Monitor  
Resolution],[Color Depth],[Cookies],[Client Time],[Referrer],[Window Size],[Java]
```

- **Track-Domain:** defined by Webtrekk (e.g. track.webtrekk.net)
- **Track-ID:** defined by Webtrekk (e.g. 1111111111111111)
- **Version:** JavaScript Pixel Version (300)
- **Content-ID:** Content-ID of the page (e.g. home or 0)
- **JavaScript:** JavaScript is activated (1 or 0)
- **Monitor Resolution:** (e.g. 1024x768)
- **Color Depth:** (e.g. 32)
- **Cookies:** Cookies are activated (1 oder 0)
- **Client Time:** Timestamp in milliseconds
- **Referrer:** URL of the last page (e.g. https%3A%2F%2Fwww.google.de)
- **Window Size:** (e.g. 1000x700)
- **Java:** Java is activated (1 or 0)

Minimal Request from Tracking Script:

```
http[s]://[Track-Domain]/[Track-ID]/wt?p=[Version]
```

Unavailable information can be completed with "0". For example:

```
http://[Track-Domain]/[Track-ID]/wt?p=[Version],[Content-ID],0,0,0,0,0,[Referrer]
```

All parameters are sent UTF-8 URL coded. For example, "Ä" = %C3%84

2.2 Referrer

The tracking JavaScript sends a referrer in the pixel URL. The Browser also sends a referrer in the request header.

The referrer from the tracking script is the URL of the previously called page, thus, the URL that is understood as referrer (for example, www.google.com).

The referrer in the request header ("Referrer") contains the URL of the page in which the tracking pixel is located, thus the referrer in the request header is the URL of the current page.

3 Session and Visitor Handling

Session handling is performed entirely on the Webtrekk side since version 3 of the tracking pixel and the server interface.

The session is maintained with the help of the Ever-ID. If this information is not available, the session is identified by the user agent and IP address.

3.1 Ever-ID

The Ever-ID is assigned to a user and sent along with every visit. It is also used internally for session identification. Therefore, it is important for the Ever-ID not to change during a visit. If this is the case or if the Ever-ID is not even transmitted, simplified session identification is performed based on the user agent and IP address.

The tracking system differentiates between user identification using 1st or 3rd-party cookies.

3.1.1 1st-party cookies

Here the Ever-ID is generated on the client side and the customer domain is stored in the "wt3_eid" cookie. Subsequently this information is sent in the "eid" URL parameter with the track request.

```
Name of the cookie: wt3_eid
Cookie contents: ;[Track-ID]|[Ever-ID]#[Last-Visit]
Cookie domain: *.domain.tld (without subdomain)
Cookie path: /
Cookie duration: 6 Monate

Example of the cookie contents: ;1111111111111111|2138210064900146323#2138210027300810268
```

```
Sample request (first request of the customer):
http://track.webtrekk.net/1111111111111111/wt?p=300,home&eid=2138210064900146323&one=1

Sample request (subsequent request of the customer):
http://track.webtrekk.net/1111111111111111/wt?p=300,home&eid=2138210064900146323
```

The Ever-ID can also be transmitted in the URL parameter "ceid" (custom Ever-ID) if you have an own ID for user identification.

```
Sample request (first request of the customer):  
  
http://track.webtrekk.net/1111111111111111/wt?p=300,home&ceid=XYZ-232-ABC&one=1  
  
Sample request (subsequent request of the customer):  
  
http://track.webtrekk.net/1111111111111111/wt?p=300,content&ceid=XYZ-232-ABC
```

The parameter "one" with the value "1" indicates to the tracking system that this is a new visitor. Therefore always include this parameter with the first request of the customer. In all subsequent requests, the parameter either has to be sent with the value "0" or omitted entirely.

3.1.2 3rd-party cookies

The tracking system generates an Ever-ID upon a user's first visit and stores it in the cookie "wteid_[Track-ID]".

```
Name of the cookie: wteid_[Track-ID]  
Cookie contents: [Ever-ID]  
Cookie domain: [Track-Domain]  
Cookie path: /[Track-ID]/  
Cookie duration: 6 Monate  
  
Example of the cookie contents: 4138210064900146323
```

```
Sample request:  
  
http://track.webtrekk.net/1111111111111111/wt?p=300,home
```

4 Special Parameters

Normally, the user IP address is available to the tracking system via the TCP/IP connection. If the Requests are not passed to the tracking system via the user, then the IP address be passed as a URL parameter ("X-WT-IP") in the pixel URL, in the request header ("X-WT-IP").

```
Example:  
  
http://track.webtrekk.net/1111111111111111/wt?p=300,home&X-WT-IP=212.5.8.2
```

The browser recognition is normally passed in the request header ("User-Agent"). It is also possible to pass the browser recognition as a URL Parameter ("X-WT-UA") in the pixel URL, in the request header ("X-WT-UA").

Example:

```
http://track.webtrekk.net/1111111111111111/wt?p=300,home&X-WT-  
UA=Mozilla%2F5.0%20(Windows%20NT%2010.0%3B%20WOW64%3B%20rv%3A46.0)%20Gecko%2F20100101%20Firefox%2F46.  
0
```

The URL of the current page is normally passed in the request header ("Referer"). The URL can also be passed as a URL parameter ("X-WT-RQ") in the pixel URL, in the request header ("X-WT-RQ").

Example:

```
http://track.webtrekk.net/1111111111111111/wt?p=300,home&X-WT-  
RQ=https%3A%2F%2Fsub.domain.tld%2Fhome.html
```

Note: The referrer of the current page and the URL of the current page itself should not be the same. If they are the same then no referrer can be analyzed.

When passing information via the "X-WT-..." URL parameters, the values must be UTF-8 URL coded.

5 Server <-> Track-Server

In general, the tracking occurs via the direct communication between the user's browser and the Webtrekk tracking system. If no direct communication is possible or desired, the following methods may be used for data collection:

- Synchronous Tracking of Information between the server of the page operator and the tracking system without using the Webtrekk tracking scripts
- Synchronous Tracking of Information between the server of the page operator and the tracking system with using the Webtrekk tracking scripts
- Asynchronous Tracking of Information between the server of the page operator and the tracking system

5.1 Synchronous Tracking without Tracking Script

Synchronous Tracking of Information between the Server of the page operator and the tracking system without using the Webtrekk tracking scripts:

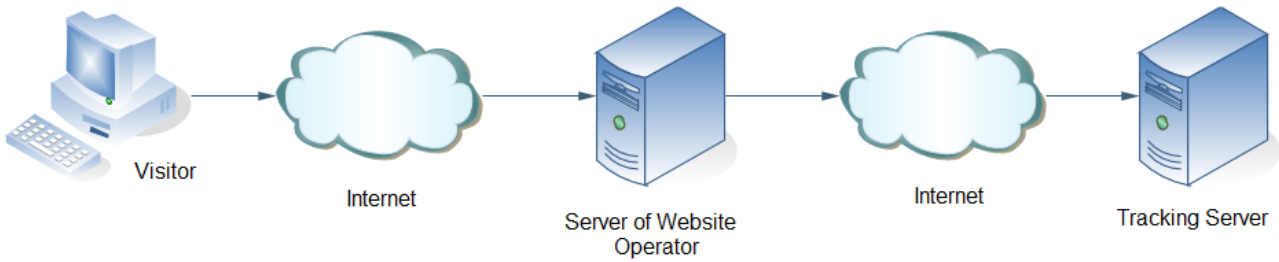
On the client-side, no tracking JavaScript is used. Relevant information is sent to the tracking system from the server of the page operator. The response from the tracking system is sent to the client.

Advantages:

- No JavaScript on the client-side
- No impact to the display or performance of the web pages

Disadvantages:

- Only basic information is available



Retrieval of a page from the server. The following information is transmitted:

1. IP address of the visitor
2. Cookies in the request header
3. Current page via the request
4. Referrer in the request header ("Referer")
5. Browser recognition in the request header ("User-Agent")

Alternative:

Retrieval of a 1x1 pixel image from the server. The following information is transmitted:

1. IP address of the visitor
2. Cookies in the request header
3. Current page in the request header ("Referer")
4. Browser recognition in the request header ("User-Agent")

Note: the real referrer is not available here

Set up of the request to the tracking server:
`http://[Track-Domain]/[Track-ID]/wt?p=300,0,0,0,0,0,0,0,[4]&X-WT-UA=[5]&X-WT-IP=[1]&X-WT-RQ=[3]`

Cookies [2] in the request header field "Cookie". Only the Webtrekk cookies need to be sent.

The response contains the header field "Set-Cookie" that is sent back to the client.

Set up of the request to the tracking server:
`http://[Track-Domain]/[Track-ID]/wt?p=300,0&X-WT-UA=[4]&X-WT-IP=[1]&X-WT-RQ=[3]`

Cookies [2] in the request header field "Cookie". Only the Webtrekk cookies need to be sent.

The response contains the header field "Set-Cookie" that is sent back to the client.

5.2 Synchronous Tracking with Tracking Script

Synchronous Tracking of Information between the server of the page operator and the tracking system with using the Webtrekk tracking scripts:

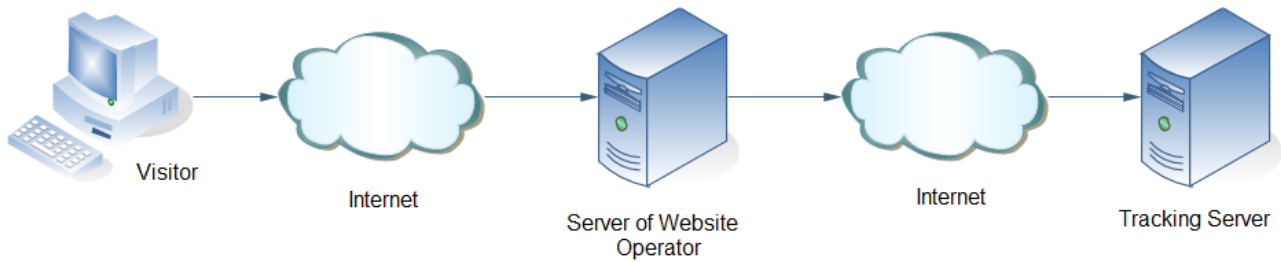
On the client-side, no tracking JavaScript is used. The requests from the tracking script are sent to the server of the page operator, who then sends on the request to the tracking system. The server of the page operator, then sends the response from the tracking system on to the client.

Advantages:

- All metrics are available
- Availability is dependent on the page operator and not the browser

Disadvantages:

- Additional tracking burden on the servers of the page operator



```

Integrated Webtrekk JavaScript retrieves
1x1 pixel image from the server.

Request from the tracking script:
http://[Track-Domain]/[Track-ID]/wt?p=300,...

Additional information that is transferred:
1. IP address of the customer
2. Browser recognition in the request
   ("User-Agent")
3. Cookies in the request header ("Cookie")

Set up of the request to the tracking server:
http://[Track-Domain]/[Track-ID]/wt?p=300,...
&X-WT-UA=[2]&X-WT-IP=[1]

Basically, the tracking request is passed on
and updated with additional information.

Cookies [3] in the request header field "Cookie"
Only the Webtrekk cookies need to be sent.

The response contains the header field
"Set-Cookie" that is sent back to the client.

```

5.3 Asynchronous Tracking

Asynchronous Tracking of Information between the server of the page operator and the tracking system:

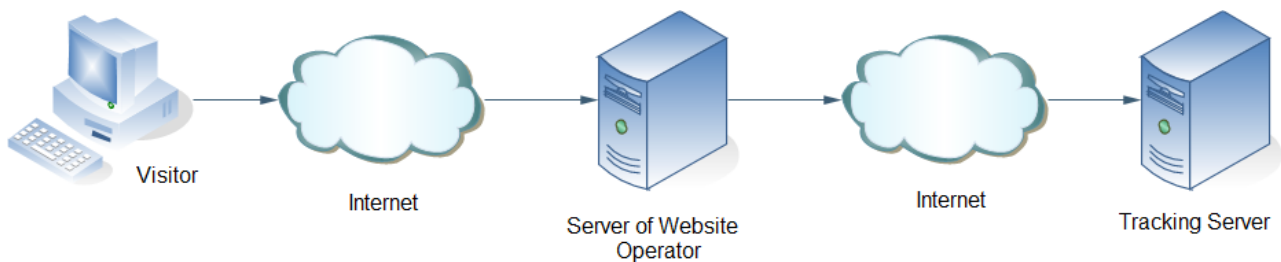
On the client-side, no tracking JavaScript is used. The requests from the tracking script are sent to the server of the page operator, who then sends on the request to the tracking system. The server of the page operator generates a generic response for the client and does not wait for the response from the tracking system.

Advantages:

- No JavaScript on the client-side
- No impact to the display or performance of the web pages
- Availability is dependent on the page operator and not the browser
- Server of the page operator does not have to wait for a response from the tracking system

Disadvantage:

- Only basic information is available
- Additional tracking burden on the servers of the page operator



Retrieval of a page from the server. The following information is transmitted:

1. IP address of the visitor
2. Current page via the request
3. Referrer in the request header ("Referer")
4. Browser recognition in the request header ("User-Agent")

Set up of the request to the tracking server:
`http://[Track-Domain]/[Track-ID]/wt?p=300,0,0,0,0,0,0,0,[3]&X-WT-UA=[4]&X-WT-IP=[1]&X-WT-RQ=[2]`

System does not wait for a reply.

6 Mobile Tracking

When tracking mobile websites there are a couple of extra items to take into account. To track modern mobiles, there is no issue using the JavaScript tracking pixel. However, to track older generations of mobiles, Server-to-Server communication is recommended.

The special parameters, in particular, should be accounted for. Because the requests are sent from the web server and not from the client, important information will be lost if these parameters are not sent.

7 E-commerce

Server-to-Server tracking is a very effective way for e-shops to "guarantee" 100% order accuracy in Webtrekk.

If there is any issue with achieving order accuracy via the Pixel, then S2S tracking can be a viable alternative.

Specifically, if 3rd party payment providers are used (PayPal, banks) where the end-user leaves the website of the Webtrekk customer to pay, then S2S would likely be the recommended method to achieve 100% order accuracy.

Please note this method described below is recommended specifically and only for the transmission of Orders. Not for general page tracking. And only in the case where the Pixel is not able to successfully get Orders to Webtrekk.

7.1 Process Overview

The basic process is that the Webtrekk pixel (standard tracking) is used on all pages of the website, EXCEPT for the Order confirmation page.

All orders would be sent with S2S tracking.

- Pixel tracking on sub.domain.tld
- Enduser arrives on the last page in checkout prior to leaving the website for a 3rd party payment provider. For example "https://sub.domain.tld/cart_checkout" would be the last page prior to leaving the website. On this page, needs to build in special code to save off the EID. The EID is crucial to later have the following analyses:
 - Customer Journeys
 - Processes / Funnels for the checkout
 - Analyses such as "Users who bought product X also bought Products Y"
 - anything tied to the Visitor and their Order information
- Enduser goes to 3rd party website
- 3rd party website sends confirmed order
- sends S2S request to Webtrekk

7.2 How to "Save Off the EID"

They can grab the EID from the Webtrekk cookie in order to use them for the Server-to-Server requests.

```
Name of the cookie: wt3_eid
Cookie contents: ;[Track-ID]|[Ever-ID]#[Last-Visit]
Cookie domain: *.domain.tld (without subdomain)
Cookie path: /
Cookie duration: 6 month

Example of cookie contents: ;1111111111111111|2138210064900146323#2138210027300810268
```

- Checking for cookie from Webtrekk, we get:
;1111111111111111|2138210064900146323#2138210027300810268
- Once visitor proceeds to checkout as suggested, the eid is stored into a session for use later once order will be completed

```
// Example-code:
// ...
if(arg(0) == 'cart_checkout' && !isset($_SESSION['webtrekk_eid'])) {
    $webtrekk_eid_cookie = $_COOKIE['wt3_eid'];
    $webtrekk_eid_1 = explode('|', $webtrekk_eid_cookie);

    if (!empty($webtrekk_eid_1)){
        $webtrekk_eid = explode('#', $webtrekk_eid_1[1]);
        $_SESSION['webtrekk_eid'] = $webtrekk_eid[0];
    }
}
// ...
```

```
The result from the above is: $_SESSION[webtrekk_eid] => 2138210064900146323;
```

That eid is then passed to the S2S request, which is explained in the following section.

Other infos could be sent in the Request, for example:

```
https://track.webtrekk.net/1111111111111111/wt?p=300, cart.checkout.complete  
&eid=2138210064900146323&ba=BlueShoes%3BHongKongVacation%3BPizza&co=18.00%3B408.00%3B4.50  
&q=1%3B1%3B1&st=conf&oi=2472453&ov=430.5&cd=368049&cb1=Wellness  
&cb2=Full%20Packages%3BTravel&X-WT-IP=###webtrekk_ip###&X-WT-UA=###webtrekk_user_agent###
```

8 Contact

Please do not hesitate to contact us if you have setup-related questions. Webtrekk offers various support and consulting packages for priority support and comprehensive advice. Talk to us – we are happy to prepare an individual offer for you.

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