

# Server Side Project Selection using Webtrends Optimize

This document outlines the setup required when Webtrends Optimize Tracking Service (OTS) REST APIs are to be used to control optimisation project delivery, combined with the use of the Webtrends Optimize JavaScript library to perform visitor activity tracking after a project has been delivered to the user.

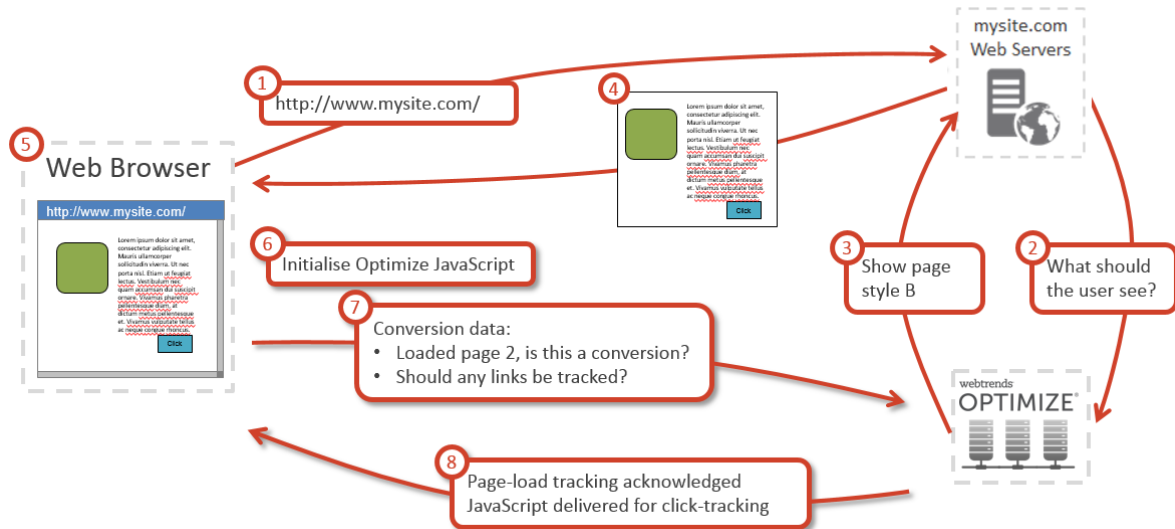
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Green highlighting is used to mark sections which require customer development effort.

## 1. First Page View

The following diagram and subsequent details explain the process when a new user gets to the first page which is controlled by a server-side test, and the subsequent conversions.



### 1.1. HTTP request to MySite.com

User sends HTTP request to MySite.com, for a page. This request includes

- URL
- IP Address
- First Party Cookies
- Referrer (intentional spelling)
- User Agent

### 1.2. MySite.com Makes API Request to Optimize

MySite.com servers inspect the request, and identify there is no cookie present which indicates the variant to show to them. MySite.com servers issue Webtrends OTS REST API request, to enquire which page variant should be shown to the user. The request passes along various attributes from the incoming HTTP request, to enable Optimize to decide which project and segment to match. This includes:

- URL
- IP Address
- First Party Cookies
- Referrer (intentional spelling)
- User Agent

Example API Call for a “staging mode” test:

Request	
protocol	http/1.1
hostname	ots.optimize.webtrends.com
port	80
path	/ots/api/rest-1.1/control/1063710-ta_ServerSideDemo
method	POST
Headers	
Content-Type	application/json
User-Agent	Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/36.0.1985.143 Safari/537.36
X-Forwarded-For	127.0.0.1
referer	http://www.serversidedemo.mysite.com:8888/?_wt.mode=staging
Content-Encoding	gzip Optional – recommended if large responses are expected
Body	
<pre>{   "keyToken":"abcdefghijklmnopqrstuvwxy0123456789",   "_wt.encrypted":"true",   "_wt.track":"true",   "_wm_referer":"http://www.serversidedemo.mysite.com:8888/?",   "s_mode":"staging" }</pre>	

Response	
Status	200 Other response types should be handled elegantly
Headers	
Content-Type	application/json;charset=UTF-8
Set-Cookie	JSESSIONID=QWERTYUIOPASDFGHJKLZXCVBNM; Path=/ots Can be ignored
Content-Encoding	Gzip Returned if appropriate header was sent in the request
Transfer-Encoding	chunked If a large JSON object is returned, it may be delivered in chunks
Body	
<pre>{   "body":{     "cookies":{       "_wt.control-1234567-ta_ServerSideDemo":{         "timeout":7776000000,         "type":"persisted",         "value":"WT3s1TVOEcHyqqnO0gr0viYEM6sFx8a_rfSUE66tyt426PRtnIbUoF1zZoLnoSyr3uR83XB4HWdUOoHD2iWv7CTZdMXLDVbcVdU-gMZkulX3qk2QJSfg0mYSIQ0morrjkjt4zTH2RqJMhkF_UbGBhS6pq9JH_Aq3ObG0ULPxJM_3JZpOfwhuhCRUFuW5zLHFbfSzKetZ05cX5cFUG20PWY3VqkHJ04S-5Lcc_PA-bQRpHzSm53HFjIQw~~~"       },       "_wt.mode-1234567":{ </pre>	

```

    "timeout":300000,
    "type":"session",
    "value":"WT321iZ3mOM4al~"
  },
  "_wt.user-1234567":{
    "timeout":7776000000,
    "type":"persisted",
    "value":"WT3Ce6665bPECiHybmC0ejOYaXnVSPyTJeBsuJMOqwIJBz8TI94mbzXI_4TYbcYzU
QNf30-R7gQYKK12gfxO_tAfNfQJn30Xb9uxe7c2EPSkdjaT-
PdorFbB_E6AWAbbh590yU8BrQr9RzS3PRtEo2yJLeSkwCxrs9w_F1YAkG0Y3upuMteSaMzA~~"
  }
},
"factors":[
  {
    "name":"$wt_m_SiteVersion_0",
    "operation":3,
    "value":"3"
  }
],
"metadata":"\"1063733=united kingdom,1063730=Chrome,1063741=surrey,1063737=Windo
ws 7,1063742=Europe/London\"",
"preScript":"This is the pre-
render script of the \"Staging mode Test\", in the \"Servers Side Demo\" Project"
},
"opcode":"process",
"opstatus":"success",
"params":{
  "_wt_sessionID":"14092480065032298",
  "cookieDomain":".mysite.com",
  "guid":"1234567-ta_ServerSideDemo-1234567-1234567",
  "r_experimentID":1234567,
  "r_paused":"false",
  "r_runID":1234567,
  "r_runState":"TEST",
  "r_testID":1234567,
  "r_type":"AB",
  "systemUID":"4850978968196921850",
  "testAlias":"ta_ServerSideDemo",
  "trackingGuid":"1-1234567-1234567-1234567-1234567"
}
}
}

```

### 1.3. Optimize Chooses Variation

Webtrends Optimize processes the request, matching the user to the appropriate project & segment, and replies with JSON indicating variation B should be shown. The response JSON includes the definition of cookies which should be sent on the users' browser, which indicate which contain details of the user, the assigned project, throttling settings etc.

### 1.4. MySite.com Servers Deliver Page

MySite.com servers interpret the response from Webtrends, including:

- Generate the page to send to the user, taking into account the variation indicated by Optimize
- Convert the "cookies" described in the JSON into cookies in the HTTP response header, to be sent to the user
- Add a session cookie which MySite.com can use to indicate that for the remaining period of this browsing session page version X can be shown to the user, without the need to ask Optimize

The page is then delivered to the user.

### 1.5. Page Is Rendered

The test variation is rendered in the browser. Cookies to identify the user and test variation seen are saved in the browser.

### 1.6. User Navigates

The user progresses down the conversion funnel, to page 2, on which the Optimize JavaScript file initialises.

### 1.7. Page-Load Conversion

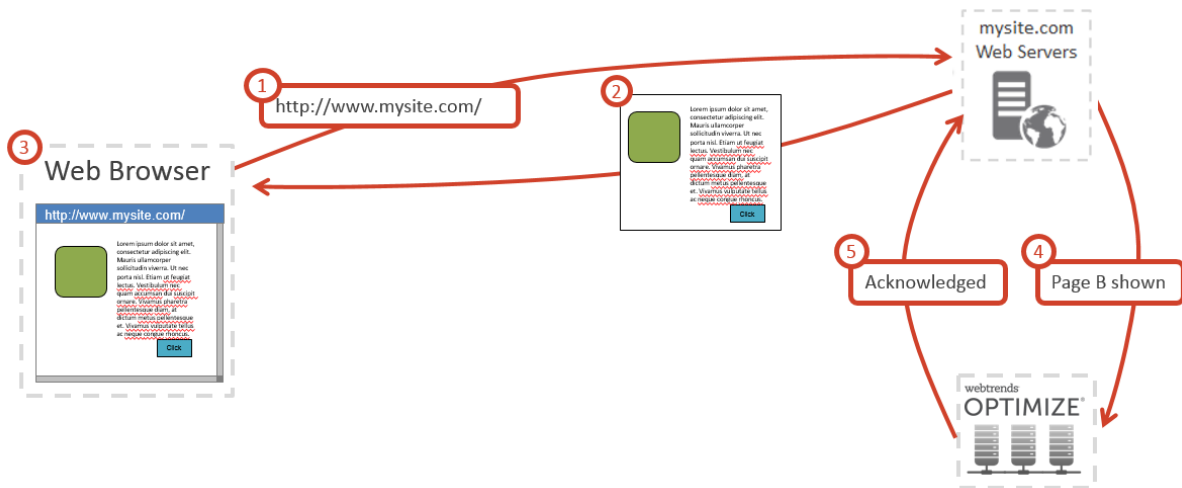
Optimize JavaScript gathers first party cookies and sends a request to Optimize to indicate that the user has progressed to a new page in the conversion funnel. The page URL and cookies are used to identify against which projects a conversions should be registered. To this, Optimize delivers a confirmation that the page-load conversion has been registered.

### 1.8. Click Tracking

To track clicks and other on-page interactions as required, JavaScript is delivered to the page, which when activated would send further messages directly to Optimize.

## 2. Second Page View

The following diagram and subsequent details explain the process when a user is viewing the second page in a session. For a minimalistic implementation, you could use a setup which is completely identical to the flow described in 1, however the small changes described below are purely to improve performance.



### 2.1. HTTP request to MySite.com

User sends HTTP request to MySite.com, for a page. This request includes

- URL
- IP Address
- First Party Cookies
- Referer (intentional spelling)
- User Agent

### 2.2. MySite.com Servers Deliver Page

First party cookie set earlier in this session identifies that this user should see version B of the page. MySite.com servers generate the page to send to the user, taking into account the variation indicated by the cookie.

### 2.3. Page Is Rendered

The test variation is rendered in the browser.

### 2.4. MySite.com Makes API Request to Optimize

MySite.com servers send a “page view” to Optimize, to record that the user has seen the test page again.

Note that this API call is done later than the flow described in 1 – there is no need to wait for the roundtrip to Optimize, before the page is delivered to the user.

Example API Call for a “staging mode” test:

Request	
Headers	<i>As per section 1.2</i>
Body	<i>As per section 1.2</i>
Body	<pre> {   "keyToken": "abcdefghijklmnopqrstuvwxyz0123456789",   "_wt.encrypted": "true",   "_wt.track": "true",   "cookies": {     "_wt.control-1234567-ta_ServerSideDemo": {       "value": "WT3s1TVOEcHyqqnO0gr0viYEM6sFx8a_rfSUE66tyt426PRtnIbUoF1zZoLnoSyr3uR83 XB4HWDuOoHD2iWv7CTZdMXLDVbcVdU- gMZkulX3qk2QJSfg0mYSIQ0morrjkt4zTH2RqJMhkF_UbGBhS6pq9JH_Aq3ObG0ULPxJM_3JZpOfwh uhCRUFuW5zLHFbfSzKetZ05cX5cFUG20PWY3VqkHJ04S-5LCc_PA-bQRpHzSm53HFjIQw~~~"     },     "_wt.mode-1234567": {       "value": "WT321iZ3mOM4al~"     },     "_wt.user-1234567": {       "value": "WT3Ce6665bPECiHybmC0ejOYaXnVSPyTJeBsuJMOqwlJJBz8TI94mbzXI_4TYbcYzUQ Nf30-R7gQYKK12gfxO_tAfNfQJn30Xb9uxe7c2EPSkdjaT- PdorFbB_E6AWAbbh590yU8BrQr9RzS3PRtEo2yJLeSkwCxrs9w_F1YAkG0Y3upuMteSaMzA~~~"     },     "SiteVersion": {       "value": "3"     }   },   "s_mode": "staging" } </pre>

API response is as per section 1.2.

## 2.5. Optimize Acknowledgment

Optimize responds to acknowledge receipt of the page view.

## 2.6. Downstream Conversions

Conversion tracking operates as per the setup described in 1.6 to 1.8.

### 3. Returning User, for Subsequent Session

The following details explain the process when a user returns to the site, after having previously been exposed to an Optimize project. At a high level, this is the same as scenario 1, but includes details of additional Optimize cookies, how stickiness works and why this cannot be the same as scenario 2.

#### 3.1. HTTP request to MySite.com

User sends HTTP request to MySite.com, for a page. This request includes

- URL
- IP Address
- First Party Cookies
- Referer (intentional spelling)
- User Agent

#### 3.2. MySite.com Makes API Request to Optimize

MySite.com servers inspect the request, and identify there is no cookie which indicates to them, the variant to show. There are however existing Optimize cookies. MySite.com servers issue Webtrends OTS REST API request, to enquire which page variant should be shown to the user. The request passes along various attributes from the incoming HTTP request, to enable a decision about which project and segment to match. This includes:

- URL
- IP Address
- First Party Cookies, including those which are Optimize specific
- Referer (intentional spelling)
- User Agent

#### 3.3. Optimize Chooses Variation

Webtrends Optimize processes the request, matching the user to the appropriate project & segment. Existing Optimize cookies will indicate which variation was previously shown, so the same variation can be re-displayed to maintain a consistent user experience. If the project has come to an end, a winner or the control variation may be selected instead.

A reply is delivered, containing JSON indicating which should be shown. As usual, the response JSON includes the definition of cookies which should be sent on the users' browser, which indicate which contain details of the user, the assigned project, throttling settings etc

#### 3.4. MySite.com Servers Deliver Page

MySite.com servers' interpret the response and follow on logic is as per section 1.4.

#### 3.5. Page Render and Conversions

Page rendering and downstream conversion tracking operate as described in 1.5 to 1.8.