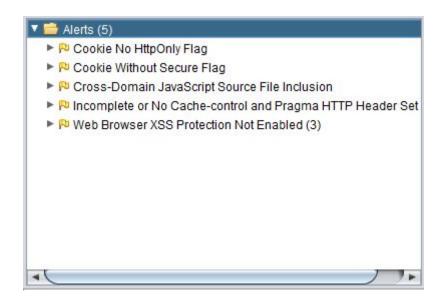
ZAP Vulnerability Report 08/06/18

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Vulnerabilities detected by Owasp ZAP:



1. Cookie No HttpOnly Flag



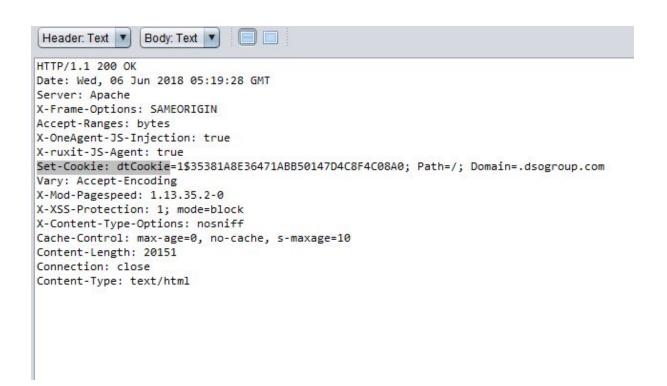
Description:

A cookie has been set without the HttpOnly flag, which means that the cookie can be accessed by JavaScript. If a malicious script can be run on this page then

the cookie will be accessible and can be transmitted to another site. If this is a session cookie then session hijacking may be possible.

Request and Response





Solution:

Ensure that the HttpOnly flag is set for all cookies.

Cookie no http-only flag (Low Risk)

If a cookie has no http-only flag its accessible from JavaScript. When the page has a cross site scripting (XSS) vulnerability the value of the cookie may be stolen and used to hijack the session if its a session cookie. Make sure that the http-only modifier is set on the cookie. There are various ways to do it. The easiest is when you have a Servlet API 3.0 container, there you can just declare it in the web.xml: web.xml

```
<session-config>
  <cookie-config>
   <http-only>true</http-only>
  </cookie-config>
<session-config>
```

2. Cookie Without Secure Flag



Description:

A cookie has been set without the secure flag, which means that the cookie can be accessed via unencrypted connections.

Solution:

The purpose of the secure flag is to prevent cookies from being observed by unauthorized parties due to the transmission of a the cookie in clear text. If possible, ensure all communication occurs over an encrypted channel and add the 'secure' attribute to all session cookies or any cookies containing sensitive data.

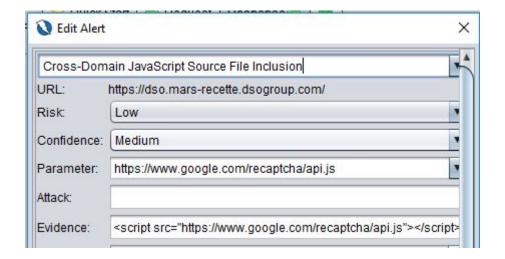
```
In the <system.web> element, add the following element:
<httpCookies requireSSL="true" />

In that case, you need to add the requireSSL="true" attribute to the forms element as well.

So you will end up with:

<system.web>
<authentication mode="Forms">
<forms requireSSL="true">
/* forms content */ </forms>
</authentication>
</authentication>
</authentication>
```

3. Cross-Domain Javascript



```
chtel>
chead>
chead http-equiv="X-UA-Compatible" content="IE=edge">
chead http-equiv="X-UA-Compatible" content="IE=edge">
chead http-equiv="X-UA-Compatible" content="IE=edge">
chead http-equiv="X-UA-Compatible" content="width=device-width, initial-scale=1, maximum-scale=1, user-scalable=no">
chead http-equiv="x-UA-Compatible" content="width=device-width, initial-scale=1, maximum-scale=1, user-scalable=no">
chead http-equiv="x-UA-Compatible" content="width=device-width, initial-scale=1, maximum-scale=1, user-scalable=no">
chead http-equiv="X-UA-Compatible" content="width=device-width, initial-scale=1, user-scalable=no">
chead http-equiv="x-UA-Compatible" content="user-scalable=no">
chead http-equiv="x-UA-Compatible no" content="user-scalable=no">
chead http-equiv="x-UA-Compatible no" content="user-scalable=no" content="user-sc
```

Request and Response





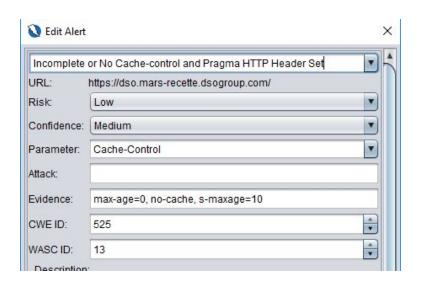
Description:

The page includes one or more script files from a third-party which is outside the control of this web application and as such may contain 'unexpected' functionality.

Solution:

Ensure JavaScript source files are loaded from only trusted sources, and the sources can't be controlled by end users of the application.

4. Incomplete or no Cache-Control and Pragma HTTP Header Set



Request and Response

GET https://dso.mars-recette.dsogroup.com/resources/css/lib/bootstrap.min.css HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache Cache-Control: no-cache Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Date: Wed, 06 Jun 2018 05:19:35 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Last-Modified: Tue, 22 May 2018 11:56:42 GMT

ETag: "18679-56cca1c90d280"

Accept-Ranges: bytes Content-Length: 99961 Vary: Accept-Encoding

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff

Connection: close Content-Type: text/css

GET https://dso.mars-recette.dsogroup.com/resources/css/lib/font-awesome.min.css HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache Cache-Control: no-cache Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Cookie: dtCookie=1\$EA475B26A7925954F09103BC4763A1A4

HTTP/1.1 200 OK

Date: Wed, 06 Jun 2018 05:19:32 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Last-Modified: Tue, 22 May 2018 11:56:42 GMT

ETag: "6857-56cca1c90d280" Accept-Ranges: bytes Content-Length: 26711 Vary: Accept-Encoding

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff

Connection: close Content-Type: text/css

GET https://dso.mars-recette.dsogroup.com/resources/css/lib/ClearButton.css HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache

Cache-Control: no-cache Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Date: Wed, 06 Jun 2018 05:19:34 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Last-Modified: Tue, 22 May 2018 11:56:42 GMT

ETag: "5ae-56cca1c90d280" Accept-Ranges: bytes Content-Length: 1454 Vary: Accept-Encoding

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff

Connection: close Content-Type: text/css

GET https://dso.mars-recette.dsogroup.com/resources/css/lib/converse.js/converse.min.css HTTP/1.1

User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache Cache-Control: no-cache Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Cookie: dtCookie=1\$EA475B26A7925954F09103BC4763A1A4

HTTP/1.1 200 OK

Date: Wed, 06 Jun 2018 05:19:32 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Last-Modified: Tue, 22 May 2018 11:56:42 GMT

ETag: "7cf0-56cca1c90d280" Accept-Ranges: bytes

Content-Length: 31984 Vary: Accept-Encoding

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff

Connection: close Content-Type: text/css

GET https://dso.mars-recette.dsogroup.com/resources/css/fonts.css HTTP/1.1

User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache

Cache-Control: no-cache Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Date: Wed, 06 Jun 2018 05:19:35 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Last-Modified: Tue, 22 May 2018 11:56:42 GMT

ETag: "24e-56cca1c90d280" Accept-Ranges: bytes Content-Length: 590 Vary: Accept-Encoding

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff

Connection: close Content-Type: text/css

GET https://dso.mars-recette.dsogroup.com/resources/css/lib/jquery.Jcrop.min.css HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache Cache-Control: no-cache Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Cookie: dtCookie=1\$EA475B26A7925954F09103BC4763A1A4

HTTP/1.1 200 OK

Date: Wed, 06 Jun 2018 05:19:33 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Last-Modified: Tue, 22 May 2018 11:56:42 GMT

ETag: "827-56cca1c90d280" Accept-Ranges: bytes Content-Length: 2087 Vary: Accept-Encoding

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff

Connection: close Content-Type: text/css

GET https://dso.mars-recette.dsogroup.com/resources/css/main.css HTTP/1.1

User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache

Cache-Control: no-cache
Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Date: Wed, 06 Jun 2018 05:19:34 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Last-Modified: Tue, 22 May 2018 11:56:42 GMT

ETag: "8ff-56cca1c90d280" Accept-Ranges: bytes

Content-Length: 2303 Vary: Accept-Encoding

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff

Connection: close Content-Type: text/css

GET https://dso.mars-recette.dsogroup.com/resources/css/jquery.percentageloader-0.1.css HTTP/1.1

User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache Cache-Control: no-cache Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Cookie: dtCookie=1\$EA475B26A7925954F09103BC4763A1A4

HTTP/1.1 200 OK

Date: Wed, 06 Jun 2018 05:19:37 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Last-Modified: Tue, 22 May 2018 11:56:42 GMT

ETag: "a2-56cca1c90d280" Accept-Ranges: bytes Content-Length: 162 Vary: Accept-Encoding

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff

Connection: close Content-Type: text/css

GET https://dso.mars-recette.dsogroup.com/resources/select2/select2.min.css HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache

Cache-Control: no-cache Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Date: Wed, 06 Jun 2018 05:19:37 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Last-Modified: Tue, 22 May 2018 11:56:42 GMT

ETag: "2278-56cca1c90d280"

Accept-Ranges: bytes Content-Length: 8824 Vary: Accept-Encoding

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff

Connection: close Content-Type: text/css

GET https://dso.mars-recette.dsogroup.com/resources/css/themes/theme-grey.css HTTP/1.1 User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache

Cache-Control: no-cache Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Cookie: dtCookie=1\$EA475B26A7925954F09103BC4763A1A4

HTTP/1.1 200 OK

Date: Wed, 06 Jun 2018 05:19:36 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Last-Modified: Tue, 22 May 2018 11:56:42 GMT

ETag: "f2d-56cca1c90d280" Accept-Ranges: bytes Content-Length: 3885 Vary: Accept-Encoding

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff

Connection: close Content-Type: text/css

GET https://dso.mars-recette.dsogroup.com/workflow/css/A.query-builder.css.pagespeed.cf.bVRQuQ4NF6.css HTTP/1.1

User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.0

Pragma: no-cache Cache-Control: no-cache Content-Length: 0

Referer: https://dso.mars-recette.dsogroup.com/

Host: dso.mars-recette.dsogroup.com

Date: Wed, 06 Jun 2018 05:19:33 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Accept-Ranges: bytes

X-XSS-Protection: 1; mode=block X-Content-Type-Options: nosniff Expires: Thu, 06 Jun 2019 05:16:51 GMT

Expires. Illu, oo Juli 2019 05.10.51

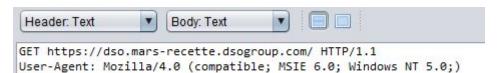
Cache-Control: max-age=31536000

Etag: W/"0"

Last-Modified: Wed, 06 Jun 2018 05:16:51 GMT

X-Original-Content-Length: 5224

Vary: Accept-Encoding Content-Length: 4042 Connection: close Content-Type: text/css



Pragma: no-cache

Cache-Control: no-cache

Content-Length: 0

Host: dso.mars-recette.dsogroup.com



Description:

- The cache-control and pragma HTTP header have not been set properly or are missing allowing the browser and proxies to cache content.
- After a session has been closed, it might be possible to access the private or sensitive data exchanged within the session through the web browser cache.

Solution:

 Whenever possible ensure the cache-control HTTP header is set with no-cache, no-store, must-revalidate; and that the pragma HTTP header is set with no-cache.

How to set it?

Using PHP:

```
header("Cache-Control: no-cache, no-store, must-revalidate"); // HTTP 1.1.
header("Pragma: no-cache"); // HTTP 1.0.
header("Expires: 0"); // Proxies.
```

Using Java Servlet, or Node.js:

```
response.setHeader("Cache-Control", "no-cache, no-store, must-revalidate"); // HTTP 1.1. response.setHeader("Pragma", "no-cache"); // HTTP 1.0. response.setHeader("Expires", "0"); // Proxies.
```

Using ASP.NET-MVC

```
Response.Cache.SetCacheability(HttpCacheability.NoCache); // HTTP 1.1.
Response.Cache.AppendCacheExtension("no-store, must-revalidate");
Response.AppendHeader("Pragma", "no-cache"); // HTTP 1.0.
Response.AppendHeader("Expires", "0"); // Proxies.
```

Using ASP.NET Web API:

```
// `response` is an instance of System.Net.Http.HttpResponseMessage
response.Headers.CacheControl = new CacheControlHeaderValue
{
    NoCache = true,
    NoStore = true,
    MustRevalidate = true
};
response.Headers.Pragma.ParseAdd("no-cache");
// We can't use `response.Content.Headers.Expires` directly
// since it allows only `DateTimeOffset?` values.
response.Content?.Headers.TryAddWithoutValidation("Expires", 0.ToString());
```

5. Web Browser XSS Protection Not Enabled

Description:

 Web Browser XSS Protection is not enabled, or is disabled by the configuration of the 'X-XSS-Protection' HTTP response header on the web server.

Request and Response

```
GET https://dso.mars-recette.dsogroup.com/.%5Cfavicon.ico HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39
Pragma: no-cache
Cache-Control: no-cache
Content-Length: 0
Referer: https://dso.mars-recette.dsogroup.com/
Host: dso.mars-recette.dsogroup.com
Cookie: dtCookie=1$EA475B26A7925954F09103BC4763A1A4
```

```
HTTP/1.1 404 Not Found
Date: Wed, 06 Jun 2018 05:19:31 GMT
Server: Apache
X-Frame-Options: SAMEORIGIN
Content-Length: 211
Connection: close
```

Content-Type: text/html; charset=iso-8859-1

```
GET https://dso.mars-recette.dsogroup.com/robots.txt HTTP/1.1
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/3
Pragma: no-cache
Cache-Control: no-cache
Content-Length: 0
Host: dso.mars-recette.dsogroup.com
```

HTTP/1.1 404 Not Found

Date: Wed, 06 Jun 2018 05:19:29 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Content-Length: 208 Connection: close

Content-Type: text/html; charset=iso-8859-1

GET https://dso.mars-recette.dsogroup.com/sitemap.xml HTTP/1.1

User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:39.0) Gecko/20100101 Firefox/39.

Pragma: no-cache Cache-Control: no-cache Content-Length: 0

Host: dso.mars-recette.dsogroup.com

Cookie: dtCookie=1\$EA475B26A7925954F09103BC4763A1A4

HTTP/1.1 404 Not Found

Date: Wed, 06 Jun 2018 05:19:30 GMT

Server: Apache

X-Frame-Options: SAMEORIGIN

Content-Length: 209 Connection: close

Content-Type: text/html; charset=iso-8859-1

Solution:

x-xss-Protection: 1 : Force XSS protection (useful if XSS protection was disabled by the

user)

X-XSS-Protection: 0 : Disable XSS protection

The token mode=block will prevent browser (IE8+ and Webkit browsers) to render pages (instead of sanitizing) if a potential XSS reflection (= non-persistent) attack is detected.

Warning, mode=block creates a vulnerability in IE8

Références:

Owasp.org. (2018). *HttpOnly - OWASP*. [online] Available at: http://www.owasp.org/index.php/HttpOnly [Accessed 6 Jun. 2018].

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