

ExecutiveSummaryReport

Risk Category

The category describes the risk level of the vulnerability which is derived as follows. These risk categories have been defined by Skillmine's vast experience in system security testing, based on available Common Vulnerabilities and Exposures (CVEs):

Risk Level	Description	
High	This risk level indicates that successful exploitation of the vulnerability may result in a significant impact on the information accessible through the server or even the backend resources like databases, operating systems, etc. It may also lead to damage to reputation.	
Medium	This risk level indicates that successful exploitation of the vulnerability may reveal information about the server and its underlying infrastructure that may be used by an attacker in conjunction with another vulnerability to gain further access.	
Low	This risk level indicates that successful exploitation of the vulnerability may result in little or no loss of sensitive information but may enable an attacker to gain enough information regarding the server and its underlying infrastructure, which he/she may use to narrow down the attack approach.	





Quick View

The table below is designed to provide a quick view of all the identified findings and their respective risk rating. Please see the following section for a detailed listing of the identified findings:

S no.	Issue found	Impact	Risk
1.	Missing Web Application Firewall	The impact of the missing vulnerability in the WAF could be severe, leading to unauthorized access, data breaches, injection attacks, and other web application vulnerabilities. Attackers may exploit this weakness to bypass security controls, execute malicious code, or gain unauthorized access to sensitive information. Additionally, the website may be vulnerable to common web attacks such as SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF), posing a significant risk to both the website's users and the organization's data.	HIGH
2.	Vulnerable Version of the Library 'jQuery' Found	Affected by multiple cross site scripting vulnerabilities.	MEDIUM
3.	HSTS not enabled	The HTTP Strict Transport Security policy defines a timeframe where a browser must connect to the web server via HTTPS. Without a Strict Transport Security policy, the web application is vulnerable against several attacks: If the web application mixes usage of HTTP and HTTPS, an attacker can manipulate pages in the unsecured area of the application or change redirection targets in a manner that the switch to the secured page is not performed or done in a manner, that the attacker remains between client and server. If there is no HTTP server, an attacker in the same network could simulate a HTTP server and motivate the user to click on a prepared URL by a social engineering attack. The protection is effective only for the given amount of time. Multiple occurrences of this header could cause undefined behaviour in browsers and should be avoided.	LOW





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4.	Missing Content Security Policy	The vulnerability arising from the absence of a Content Security Policy exposes our web application to heightened risks of XSS attacks, data manipulation, and unauthorized script executions. Without a CSP in place, malicious actors can exploit these vulnerabilities, potentially compromising user data, session integrity, and the overall confidentiality of our system. Furthermore, the lack of content restrictions may lead to the injection of harmful scripts, undermining the trust and reliability of our web services.	LOW
5.	Cookie without HttpOnly flag set	The cookie appears to contain a session token, which may increase the risk associated with this issue.	LOW
6.	Missing X-Frame-Options Header	Clickjacking is when an attacker uses multiple transparent or opaque layers to trick a user into clicking on a button or link on a framed page when they were intending to click on the top-level page. Thus, the attacker is "hijacking" clicks meant for their page and routing them to other another page, most likely owned by another application, domain, or both. Using a similar technique, keystrokes can also be hijacked. With a carefully crafted combination of stylesheets, iframes, and text boxes, a user can be led to believe they are typing in the password to their email or bank account but are instead typing into an invisible frame controlled by the attacker.	LOW
7.	Referrer-Policy Not Implemented	Referrer header is a request header that indicates the site which the traffic originated from. If there is no adequate prevention in place, the URL itself, and even sensitive information contained in the URL will be leaked to the cross-site. The lack of Referrer-Policy header might affect privacy of the users and sites itself.	LOW
8.	Missing 'X-Content-Type- Options' Header	MIME type sniffing is a standard functionality in browsers to find an appropriate way to render data where the HTTP headers sent by the server are either inconclusive or missing. This allows older versions of Internet Explorer and Chrome to perform MIME-	LOW





		sniffing on the response body, potentially causing the response body to be interpreted	
		and displayed as a content type other than	
		the intended content type.	
		the intended content type.	
		The problem arises once a website allows	
		users to upload content which is then	
		published on the web server. If an attacker	
		can carry out XSS (Cross-site Scripting) attack	
		by manipulating the content in a way to be	
		accepted by the web application and	
		rendered as HTML by the browser, it is	
		possible to inject code in e.g. an image file	
		and make the victim execute it by viewing	
		the image.	
		Some browsers, including Internet Explorer,	
		contain built-in filters designed to protect	
		against cross-site scripting (XSS) attacks.	
		Applications can instruct browsers to disable	
		this filter by setting the following response	
		header: • X-XSS-Protection: 0 This behavior	
		does not in itself constitute a vulnerability; in	
9.	Web browser XSS protection not	some cases, XSS filters may themselves be	LOW
9.	enabled	leveraged to perform attacks against	LOVV
		application users. However, in typical	
		situations XSS filters do provide basic	
		protection for application users against some	
		XSS vulnerabilities in applications. The	
		presence of this header should be reviewed	
		to establish whether it affects the	
		application's security posture.	
		If a response specifies an incorrect content	
	Content type incorrectly stated	type, then browsers may process the	
		response in unexpected ways. If the content	
		type is specified to be a renderable text-	
		based format, then the browser will usually	
		attempt to interpret the response as being in	
		that format, regardless of the actual contents	
10.		of the response. Additionally, some other	
		specified content types might sometimes be	
		interpreted as HTML due to quirks in	LOW
		particular browsers. This behavior might lead	LOVV
		to otherwise "safe" content such as images	
		being rendered as HTML, enabling cross-site	
		scripting attacks in certain conditions.	
		The presence of an incomest content to	
		The presence of an incorrect content type	
		statement typically only constitutes a	
		security flaw when the affected resource is	
		dynamically generated, uploaded by a user,	
		or otherwise contains user input. You should	





	review the contents of affected responses, and the context in which they appear, to determine whether any vulnerability exists.	
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Detailed Vulnerability Information and Recommendations

The detailed explanation of the vulnerabilities as well as the recommendations for the same are explained below:

Issue #01 - Missing Web Application Firewall | HIGH

Abstract

We observed no Web Application Firewall on the website.

Path

/

Impact

The impact of the missing vulnerability in the WAF could be severe, leading to unauthorized access, data breaches, injection attacks, and other web application vulnerabilities. Attackers may exploit this weakness to bypass security controls, execute malicious code, or gain unauthorized access to sensitive information. Additionally, the website may be vulnerable to common web attacks such as SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF), posing a significant risk to both the website's users and the organization's data.

Recommendation

Implement and configure Web Application Firewall.





Issue #02 - Vulnerable Version of the Library 'jQuery' Found | MEDIUM

Abstract

Cross Site Scripting vulnerability in jQuery before 3.5.0 allows a remote attacker to execute arbitrary code via the <options> element.

Path

/assets/js/all.min.js

Impact

Affected by multiple cross site scripting vulnerabilities.

Recommendation

Upgrade to JQuery version 3.5.0 or later.

```
- = =
Request
                                                                                                                                                                Response
                                                                                                                                   In =
                                                                                                                                                                                 Raw
                                                                                                                                                                                                                                                                                                               5 \n ≡
                                                                                                                                                                Pretty Raw Hex Render

1 HTTP/1.1 200 0K
2 Date: Thu, 18 Jan 2024 11:49:30 GMT
3 Server: Apache
4 Last-Hodified: Thu, 13 Jul 2023 13:37:32 GMT
5 ETag: "70a66-6005e6f28c5be-gzip"
6 Accept-Ranges: bytes
7 Vary: Accept-Encoding
8 Connection: close
9 Content Type: Prescript (Augustit)
   GET /assets/js/all.min.js HTTP/1.1
 2 Host: vipindustries.co.in
3 Cookie: XSRF-TOKEN=
   Cookie: XSRF-TOKENe
eypdaileInivUS91SVE4YVpueGJSTDFNd01rMc9PSIsInZhbHV1IjoiEGFhUkluLlhWV
HpDTHAxL3BLY1BLWG1UT21ETV1wc2FTOEVNQUdySGYrdWVoNkJIVXQvQkVGSnJPYmc5Tn
2221dHUUd5UT2RZVE8jaXNTHm96a1Yvd1d1c01BV8ZxMGV5NHJuRzduk3kGUJ2TWFM1cE4
venkl8SOWHOUCUTDBOUGciLCJ5YWWidigyMyxMayJ2DS1TvcXZD65ZDEATWZhHYYY
NGH4YTh1NDgONTM1MTcxZTRIZTY3MzYwNmJ1ZGJJ0GMzNzFhIiwidGFnIjoiInO%3D;
    laravel_session=
eyJpdi161mVnZjg00WdncUV2czhXTmVLcUF2d1E9PSIsInZhbHV1IjoiaTFVT3NMbWRJU
                                                                                                                                                                    Content-Type: application/javascript
Content-Length: 461414
    eyopaileimvhojquowancov.cznkimvicu.albs9sisihzhbaviljolaisvisahomkov
y-3STBZUWSYNWir.RGFelhn2Jdhn2gnPtDhsTPREckplWCPRH29H2ZRQlm1pUbde=WES7)
BBQjIOMOFXVHdk:ek1MbmVFQlV2ZTFBU1RZTmF0cHRLUOc3d0xOSFZmbDhmTVV6dWFyU2x
VeUxiYUpPeGdbUTU0BkUiLCJeYWMi0iI3OTYxZDROZjAxZTgwMDBkMGIzM2IyNjY4MThh
                                                                                                                                                                     /* j@uery v_3.3.1 | (c) JS Foundation and other contributors | jquery.org/license */ !function(t,e){
                                                                                                                                                                        "use strict";
"object"==typeof module.exports?module.exports=
    MmJmYTNjZTk2YjFmNzVmNzBiYjJiYmMOZWNjNzkxNmQ4ZGQOIiwidGFnIjoiInO$3D
   Sec-Ch-Ua: "Not_A Brand";v="8", "Chromium";v="120"
    Sec-Ch-Ua-Mobile: 20
                                                                                                                                                                        t.document?e(t,!0):function(t){
  if(!t.document)throw Error("jQuery requires a window with a document")
   Sec-Un-Ua-Mobile: 70 Wiser-Agent: Moxilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/120.0.6099.71 Safari/537.36 Sec-Un-Ua-Platform: "Windows"
                                                                                                                                                                        }
:e(t)
   Accept: */*
Sec-Fetch-Site: same-origin
Sec-Fetch-Hode: no-cors
Sec-Fetch-Dest: script
Referer: https://vipindustries.co.in/
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.9
Priority_us2
                                                                                                                                                                      "undefined"!=typeof window?window:this,function(t,e){
    "use strict";
    var i=[],s=t.document,n=Object.getPrototypeOf,o=i.slice,r=i.concat,a=i.
    push,l=i.indexOf,h={
   Priority: u=2
Connection: close
                                                                                                                                                                          c=h.toString,u=h.hasOwnProperty,d=u.toString,p=d.call(Object),f={
                                                                                                                                                                        },
g=function t(e) {
   return"function"==typeof e&&"number"!=typeof e.nodeType
                                                                                                                                                                        m=function t(e){
return null!=e&&e===e.window
```





← → C º5 vipindustries.co.in/assets/js/all.min.js







Issue #03 - HSTS not enabled | LOW

Abstract

There was no "Strict-Transport-Security" header in the server response at multiple instances.

Path

```
/
/assets/img/find-bg.webp
/assets/img/bt-arrow.png
/assets/img/02.webp
/assets/img/dlip.webp
/assets/img/News&Media_HomePage_04.webp
/assets/img/News&Media_HomePage_03.webp
/robots.txt
```

Impact

The HTTP Strict Transport Security policy defines a timeframe where a browser must connect to the web server via HTTPS. Without a Strict Transport Security policy, the web application is vulnerable against several attacks:

- If the web application mixes usage of HTTP and HTTPS, an attacker can manipulate pages in the unsecured area of the application or change redirection targets in a manner that the switch to the secured page is not performed or done in a manner, that the attacker remains between client and server.
- If there is no HTTP server, an attacker in the same network could simulate a HTTP server and motivate the user to click on a prepared URL by a social engineering attack. The protection is effective only for the given amount of time. Multiple occurrences of this header could cause undefined behaviour in browsers and should be avoided.

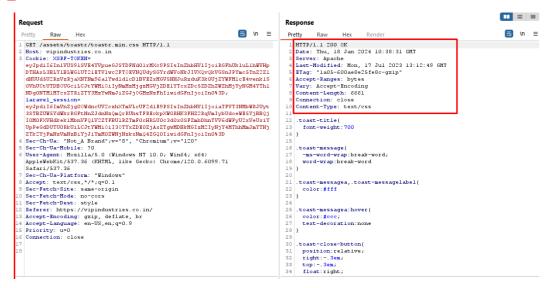
Recommendation

A Strict-Transport-Security HTTP header should be sent with each HTTPS response. The syntax is as follows:

Strict-Transport-Security: max-age=<seconds> [; includeSubDomains]. The parameter max-age gives the time frame for requirement of HTTPS in seconds and should be chosen quite high, e.g., several months. A value below 7776000 is considered too low. The flag includeSubDomains defines that the policy applies also for sub domains of the sender of the response.







HSTS is missing in the header.

```
C:\Program Files (x86)\Nmap>nmap -p 443 --script http-security-headers vipindustries.co.in
Starting Nmap 7.94 ( https://nmap.org ) at 2024-01-17 12:48 India Standard Time
Nmap scan report for vipindustries.co.in (15.207.64.222)
Host is up (0.029s latency).
rDNS record for 15.207.64.222: ec2-15-207-64-222.ap-south-1.compute.amazonaws.com

PORT STATE SERVICE
443/tcp open https
| http-security-headers:
| Strict_Transport_Security:
| HSTS not configured in HTTPS Server
| Cookies
| Cookies are secured with Secure Flag in HTTPS Connection
| Cache_Control:
| Header: Cache-Control: no-cache, private

Nmap done: 1 IP address (1 host up) scanned in 5.78 seconds
```





Issue #04 - Missing Content Security Policy | LOW

Abstract

The absence of a Content Security Policy (CSP) poses a significant vulnerability to our web application's security. CSP serves as a critical defense mechanism against various web-based attacks, including cross-site scripting (XSS) and data injection. This report outlines the impact of the missing CSP and provides strategic recommendations to implement and enforce a robust Content Security Policy across our web environment.

Path

/

Impact

The vulnerability arising from the absence of a Content Security Policy exposes our web application to heightened risks of XSS attacks, data manipulation, and unauthorized script executions. Without a CSP in place, malicious actors can exploit these vulnerabilities, potentially compromising user data, session integrity, and the overall confidentiality of our system. Furthermore, the lack of content restrictions may lead to the injection of harmful scripts, undermining the trust and reliability of our web services.

Recommendation

To address the identified vulnerability, it is imperative to implement and enforce a comprehensive Content Security Policy (CSP) across our web application. A well-structured CSP can significantly mitigate the risks associated with XSS attacks, providing a robust defense layer against unauthorized script executions and data manipulation. The implementation should include a thorough review of trusted sources for scripts, styles, and other resources, defining and adhering to a policy that restricts the acceptance of content from untrusted origins. Regular audits and updates to the CSP will ensure ongoing protection against emerging threats, reinforcing the overall security posture of our web infrastructure.





Response Headers

https://vipindustries.co.in/

cache-control: no-cache, private

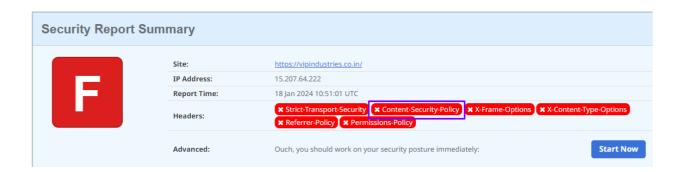
connection: Keep-Alive
content-encoding: gzip

content-type: text/html; charset=UTF-8
date: Wed, 17 Jan 2024 07:24:56 GMT
keep-alive: timeout=5, max=100

server: Apache

transfer-encoding: chunked vary: Accept-Encoding

200 OK







Issue #05 - Cookie without HttpOnly flag set | LOW

Abstract

The following cookie was issued by the application and does not have the HttpOnly flag set: XSRF-TOKEN

Path

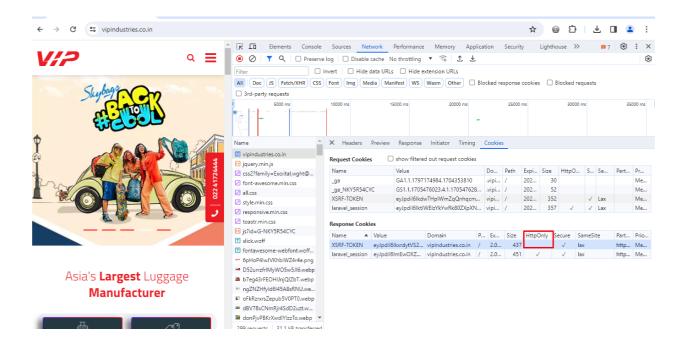
/

Impact

The cookie appears to contain a session token, which may increase the risk associated with this issue.

Recommendation

To enhance the security posture of our web application, it is strongly recommended to systematically implement the HttpOnly flag for cookies. This precautionary measure serves as a fundamental defense against cross-site scripting (XSS) attacks by restricting client-side script access to cookies. By enforcing the HttpOnly flag, we mitigate the risk of unauthorized access to sensitive user data stored in cookies, thereby fortifying the security of user sessions. It is imperative that we prioritize a comprehensive review and update of our cookie settings, ensuring the consistent application of the HttpOnly flag throughout our web application. This proactive approach is integral to maintaining the integrity and resilience of our security framework.







Name XSRF-TOKEN

Value eyJpdil6InFuSUJhZkZYM1M1eHpheW9LRHRibGc9PSIsInZhbHVIIjoiWjhPZ2RqMUZ0U3Z3VTRHZW5BcttDZkVYSjkzUmlrMk5PYldSTEJrNXFncDR2RWtYVWZpSIQrTnpiWWNBVnBqN2NXZ3NjY2wrb2j
Host vipindustries.co.in

Path /

Expires Thu, 18 Jan 2024 12:49:41 GMT

Secure Yes

HttpOnly No





Issue #06 - Missing X-Frame-Options Header | LOW

Abstract

The X-Frame-Options HTTP header field indicates a policy that specifies whether the browser should render the transmitted resource within a frame or an iframe. Servers can declare this policy in the header of their HTTP responses to prevent clickjacking attacks, which ensures that their content is not embedded into other pages or frames.

Path

/

Impact

Clickjacking is when an attacker uses multiple transparent or opaque layers to trick a user into clicking on a button or link on a framed page when they were intending to click on the top level page. Thus, the attacker is "hijacking" clicks meant for their page and routing them to other another page, most likely owned by another application, domain, or both.

Using a similar technique, keystrokes can also be hijacked. With a carefully crafted combination of stylesheets, iframes, and text boxes, a user can be led to believe they are typing in the password to their email or bank account but are instead typing into an invisible frame controlled by the attacker.

Recommendation

Sending the proper X-Frame-Options in HTTP response headers that instruct the browser to not allow framing from other domains.

X-Frame-Options: DENY It completely denies being loaded in frame/iframe.

X-Frame-Options: SAMEORIGIN It allows only if the site which wants to load has the same origin.

X-Frame-Options: ALLOW-FROM URL It grants a specific URL to load itself in a iframe. However please pay attention to that, not all browsers support this.

Employing defensive code in the UI to ensure that the current frame is the most top-level window.





Site: https://vipindustries.co.in/ IP Address: 15.207.64.222 Report Time: 18 Jan 2024 10:51:01 UTC Headers: X Strict-Transport-Security X Content-Security-Policy X X-Frame-Options X X-Content-Type-Options X Referrer-Policy X Permissions-Policy Advanced: Ouch, you should work on your security posture immediately: Start Now



Issue #07 - Referrer-Policy Not Implemented | LOW

Abstract

We observed that no Referrer-Policy header was implemented. Referrer-Policy is a security header designed to prevent cross-domain Referrer leakage.

Path

/

Impact

Referrer header is a request header that indicates the site which the traffic originated from. If there is no adequate prevention in place, the URL itself, and even sensitive information contained in the URL will be leaked to the cross-site.

The lack of Referrer-Policy header might affect privacy of the users and sites itself.

Recommendation

Implement a Referrer-Policy by using the Referrer-Policy response header or by declaring it in the meta tags. It's also possible to control referrer information over an HTML-element by using the rel attribute.

Proof of Concept:

Response Headers

https://vipindustries.co.in/

```
cache-control: no-cache, private
connection: Keep-Alive
content-encoding: gzip
content-type: text/html; charset=UTF-8
date: Thu, 18 Jan 2024 11:20:54 GMT
keep-alive: timeout=5, max=100
server: Apache
transfer-encoding: chunked
vary: Accept-Encoding
```

Referrer-policy is missing in response header





Security Report Summary



Site: https://vipindustries.co.in/

IP Address: 15.207.64.222

Report Time: 18 Jan 2024 10:51:01 UTC

Headers: X Strict-Transport-Security Content-Security-Policy X X-Frame-Options X X-Content-Type-Options

X Referrer-Policy Permissions-Policy

Advanced: Ouch, you should work on your security posture immediately: Start Now



Issue #08 - Missing 'X-Content-Type-Options' Header | LOW

Abstract

The HTTP 'X-Content-Type-Options' response header prevents the browser from MIME-sniffing a response away from the declared content-type.

The server did not return a correct 'X-Content-Type-Options' header, which means that this website could be at risk of a Cross-Site Scripting (XSS) attack.

Path

/

Impact

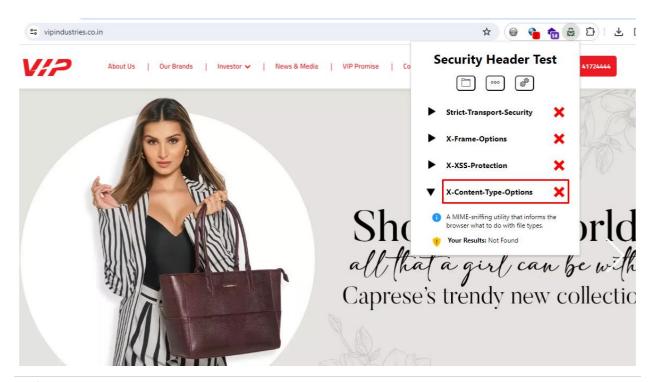
MIME type sniffing is a standard functionality in browsers to find an appropriate way to render data where the HTTP headers sent by the server are either inconclusive or missing.

This allows older versions of Internet Explorer and Chrome to perform MIME-sniffing on the response body, potentially causing the response body to be interpreted and displayed as a content type other than the intended content type.

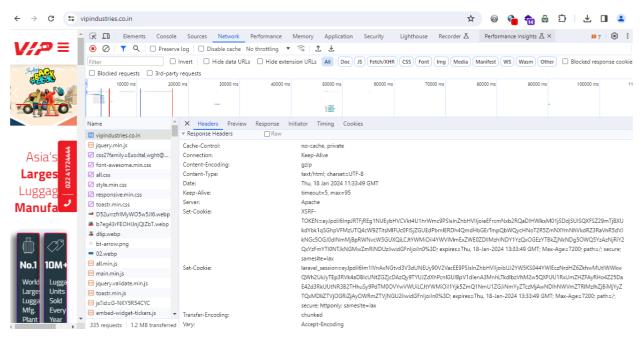
The problem arises once a website allows users to upload content which is then published on the web server. If an attacker can carry out XSS (Cross-site Scripting) attack by manipulating the content in a way to be accepted by the web application and rendered as HTML by the browser, it is possible to inject code in e.g. an image file and make the victim execute it by viewing the image.

Recommendation

Configure your web server to include an 'X-Content-Type-Options' header with a value of 'nosniff'.









Issue #09 - Web browser XSS protection not enabled | LOW

Abstract

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. Hackers use XSS attacks to trick trusted websites into delivering malicious content.

Path

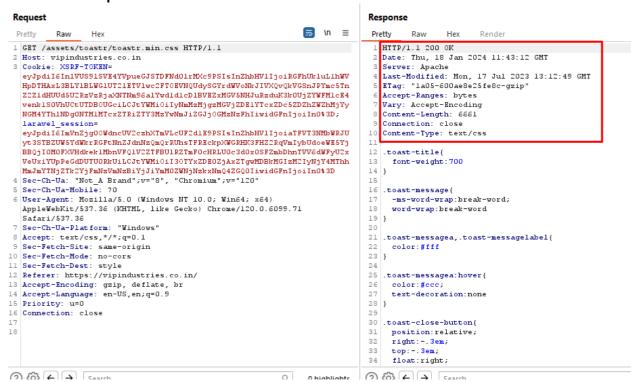
/

Impact

Some browsers, including Internet Explorer, contain built-in filters designed to protect against cross-site scripting (XSS) attacks. Applications can instruct browsers to disable this filter by setting the following response header: • X-XSS-Protection: 0 This behavior does not in itself constitute a vulnerability; in some cases, XSS filters may themselves be leveraged to perform attacks against application users. However, in typical situations XSS filters do provide basic protection for application users against some XSS vulnerabilities in applications. The presence of this header should be reviewed to establish whether it affects the application's security posture.

Recommendation

Review whether the application needs to disable XSS filters. In most cases you can gain the protection provided by XSS filters without the associated risks by using the following response header: • X-XSS-Protection: 1; mode=block When this header is set, browsers that detect an XSS attack will simply render a blank page instead of attempting to sanitize the injected script. This behaviour is considerably less likely to introduce new security issues.



X-XSS protection header is missing





Issue #10 - Content type incorrectly stated | LOW

Abstract

The response states that the content type is font/woff. However, it actually appears to contain a WOFF font. If the URL path can be manipulated to end with ".html", the following browsers may interpret the response as HTML:

Internet Explorer 11

Internet Explorer 11 (Compatibility Mode)

Path

/assets/css/fonts/slick.woff

Impact

If a response specifies an incorrect content type then browsers may process the response in unexpected ways. If the content type is specified to be a renderable text-based format, then the browser will usually attempt to interpret the response as being in that format, regardless of the actual contents of the response. Additionally, some other specified content types might sometimes be interpreted as HTML due to quirks in particular browsers. This behavior might lead to otherwise "safe" content such as images being rendered as HTML, enabling cross-site scripting attacks in certain conditions.

The presence of an incorrect content type statement typically only constitutes a security flaw when the affected resource is dynamically generated, uploaded by a user, or otherwise contains user input. You should review the contents of affected responses, and the context in which they appear, to determine whether any vulnerability exists.

Recommendation

For every response containing a message body, the application should include a single Contenttype header that correctly and unambiguously states the MIME type of the content in the response body.

Additionally, the response header "X-content-type-options: nosniff" should be returned in all responses to reduce the likelihood that browsers will interpret content in a way that disregards the Content-type header.







