

Sri Lanka Institute of Information Technology

IE2062 - Web Security

Final Assignment

Bug Bounty Report 08

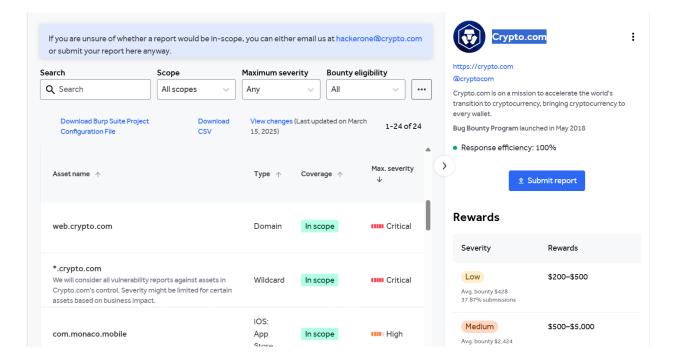
Name: Peiris W.S.S.N

Registration Number: IT23227286

Contents

1.	Introduction	. 3
2.	Reconnaissance	. 4
3.	Vulnerability	6
4.	Vulnerability description	6
5.	Affected Components	. 7
6.	Impact Assessment	. 7
7.	Steps to reproduce	. 8
8.	Proof of concept	. 9
9.	Proposed mitigation or fix	9

1. Introduction



Website: https://web.crypto.com/login

Listed by: Crypto.com

2. Reconnaissance

• Subdomain enumeration using Amass

• Firewall Detection

• Nmap Scan

```
(kali® Sugreewa)-[/mnt/c/Users/hp-pc]
$ nmap web.crypto.com

Starting Nmap 7.95 (https://nmap.org) at 2025-04-26 15:04 +0530

Nmap scan report for web.crypto.com (104.19.223.17)
Host is up (0.019s latency).
Other addresses for web.crypto.com (not scanned): 104.19.222.17 2606:4700::6813:df11 2606:4700::6813:de11 Not shown: 992 filtered tcp ports (no-response)
PORT
25/tcp
            STATE SERVICE
                     smtp
            open
80/tcp
            open
                     http
113/tcp
           closed ident
443/tcp open
                     https
2000/tcp open
5060/tcp open
                     cisco-sccp
                     sip
8080/tcp open
                     http-proxy
8443/tcp open
                     https-alt
Nmap done: 1 IP address (1 host up) scanned in 5.32 seconds
```

3. Vulnerability

CSP: Wildcard Directive

CSP: Wildcard Directive

URL: https://web.crypto.com/login

Risk: Nedium
Confidence: High

Parameter: content-security-policy

Attack:

Evidence: frame-ancestors 'self'; upgrade-insecure-requests;

CWE ID: 693 WASC ID: 15

Source: Passive (10055 - CSP)

Alert Reference: 10055-4

4. Vulnerability description

Content Security Policy (CSP) is an added layer of security that helps to detect and mitigate certain types of attacks. Including (but not limited to) Cross Site Scripting (XSS), and data injection attacks. These attacks are used for everything from data theft to site defacement or distribution of malware. CSP provides a set of standard HTTP headers that allow website owners to declare approved sources of content that browsers should be allowed to load on that page — covered types are JavaScript, CSS, HTML frames, fonts, images and embeddable objects such as Java applets, ActiveX, audio and video files.

5. Affected Components

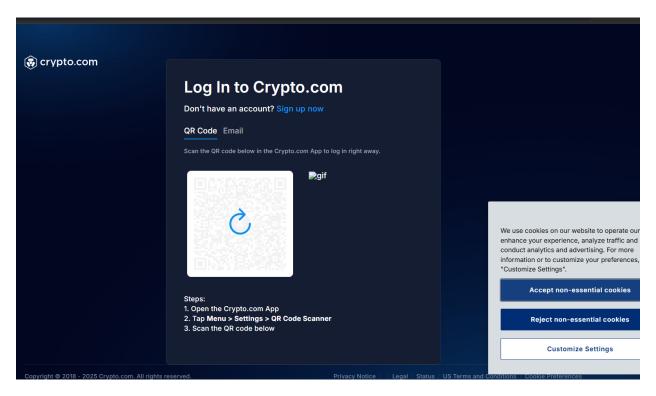
- **Component:** HTTP Response Header → Content-Security-Policy
- Current Policy:
 - o frame-ancestors 'self'; upgrade-insecure-requests;
- Missing or Overly Broad Directives:
 - Script-src, style-src, img-src, connect-src, frame-src, font-src, media-src, object-src, manifest-src, worker-src
- Impacted Pages: All pages where this CSP header is applied.

6. Impact Assessment

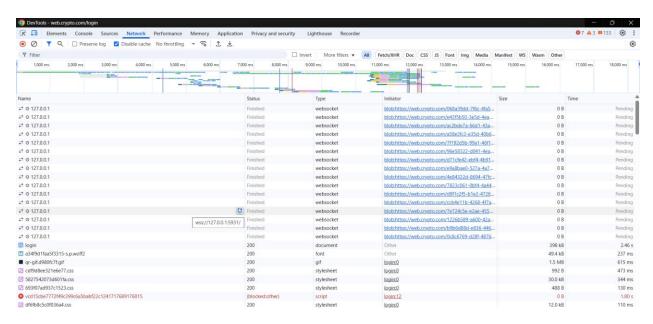
- **Risk Level:** Medium
- Potential Impacts:
 - o Insufficient restriction on where resources can be loaded from
 - Allows injection or execution of malicious scripts, styles, or media from untrusted sources
 - o Reduced protection against XSS and malicious third-party content
 - o Increases exposure to client-side attacks and data leaks

7. Steps to reproduce

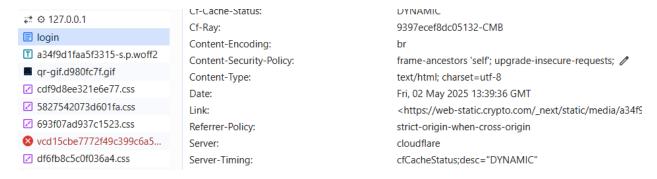
• Open the affected site in a browser.



Open Developer Tools → Network tab → Reload the page.



Inspect the Content-Security-Policy response header.



- Confirm the presence of a **limited or incomplete CSP** (e.g., frame-ancestors 'self' only).
- Note the absence or wildcards (*) in key directives like script-src, style-src, etc.

8. Proof of concept

GET https://web.crypto.com/login HTTP/1.1

host: web.crypto.com

```
user-agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/131.0.0.0 Safari/537.36 pragma: no-cache cache-control: no-cache

HTTP/1.1 200 OK
Date: Fri, 25 Apr 2025 16:12:38 GMT
Content-Type: text/html; charset=utf-8
Connection: keep-alive
Strict-transport-security: max-age=63072000; includeSubDomains; preload x-dns-prefetch-control: on x-content-type-options: nosniff
referrer-policy: strict-origin-when-cross-origin content-security-policy: frame-ancestors self'; upgrade-insecure-requests; vary: RSC, Next-Router-State-Tree, Next-Router-Prefetch, Accept-Encoding link: <a href="https://web-static.crypto.com/.next/static/media/aif9dflaas57315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas57315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2">https://web-static.crypto.com/.next/static/media/aif9dflaas573315-s.p.woff2</a>; rel=preload; as="font"; crossorigin=""; type="font/woff2"
Cache-Control: private, no-cache, no-store, max-age=0, must-revalidate
cf-cache-status: DYMANIC
set-Cookie: __cf_bm=12xxY8gwnNbNgTq
```

9. Proposed mitigation or fix

Ensure that your web server, application server, load balancer, etc. is properly configured to set the Content-Security-Policy header.