

# Sri Lanka Institute of Information Technology



**Sri Lanka Institute of  
Information Technology**

**IE2072 – WEB SECURITY**

**Year 2, Semester 2**

**(Assignment – Individual)-2025**

**\_Bug Bounty Report \_**

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|-------------------------|--------------------|
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## **ACKNOWLEDGEMENT**

As a second semester student at SLIIT majoring in cyber security, I (MADUGASWATHTHA A S) was able to take the course Web Security. I was given the task of researching Web Audit as the subject. I received guidance and help from several specialists in order to lead to a great conclusion. I benefited much from the information I learned during the lecture series. This appreciation is extended to Ms.Ayesha Wijesooriya. I appreciate the advice and assistance you provided so that I could complete the task with complete assurance. My family and coworkers, who assisted and provided assistance in several ways, have my sincere gratitude.

## **ABSTRACT**

Through bug bounty programs, businesses may crowdsource security testing to find and fix flaws. Although the idea of crowdsourcing security testing is relatively new, the fundamental origins may be found in penetration testing efforts. In the past five years, bug bounty schemes have begun to take off in the information security sector. Evaluations of both bug bounty programs and the platforms they are run on are necessary as bug bounty programs continue to spread. This study looked into the development, upkeep, and viability of bug bounty schemes. The bulk of bug bounty programs are managed by a small number of bug bounty platforms. These systems might be difficult to set up initially and keep up, but they provide many security advantages to any firm willing to use them. The results of this study finally showed that a bug reward oversight committee was required, and that there should be more public vulnerability reports. Most often, hackers taking part in bug bounty schemes are hired to find vulnerabilities. Since 2015, programs advertised on bug bounty sites like HackerOne have been responsible for the discovery of tens of thousands of vulnerabilities. As of July 2020, these platforms feature over 200 publicly listed programs. We provide the findings of an empirical research that was conducted utilizing data from two bug bounty platforms in order to comprehend the expenses and advantages of bug bounty programs for both individuals and organizations. We examine the costs and advantages of running bug bounty programs as well as the incentives offered to hackers who contribute to the discovery of vulnerabilities. The average expense of running a bug bounty program for a year is now less than the cost of hiring 2 additional software engineers.

## **What is OWSPS top 10 vulnerabilities**

OWASP creates an updated compilation of the top 10 web application risks every three to four years. The management team uses Open Web Application Security Project as its formal designation. OWASP releases documents that present the ten most dangerous web application threats with descriptions highlighting how they affect web applications and how organizations can prevent them. OWASP stands as a nonprofit organization which dedicates its resources to better internet application security. The complete list was created through information gathered from multiple specialized sources like security consultants and security suppliers and security teams representing different kinds of businesses. The safety management tool stands as an essential practice instrument for online application security standards.

Application developers and security teams are now using the following OWASP TOP 10 web vulnerabilities:

1. Injection
2. Broken Authentication
3. Sensitive Data Exposure
4. XML External Entities (XXE)
5. Broken Access Control
6. Security Misconfiguration
7. Cross-Site Scripting
8. Insecure Deserialization
9. Using Components with Known Vulnerabilities
10. Insufficient Logging and Monitoring

## **OWSPS top 10 vulnerabilities**

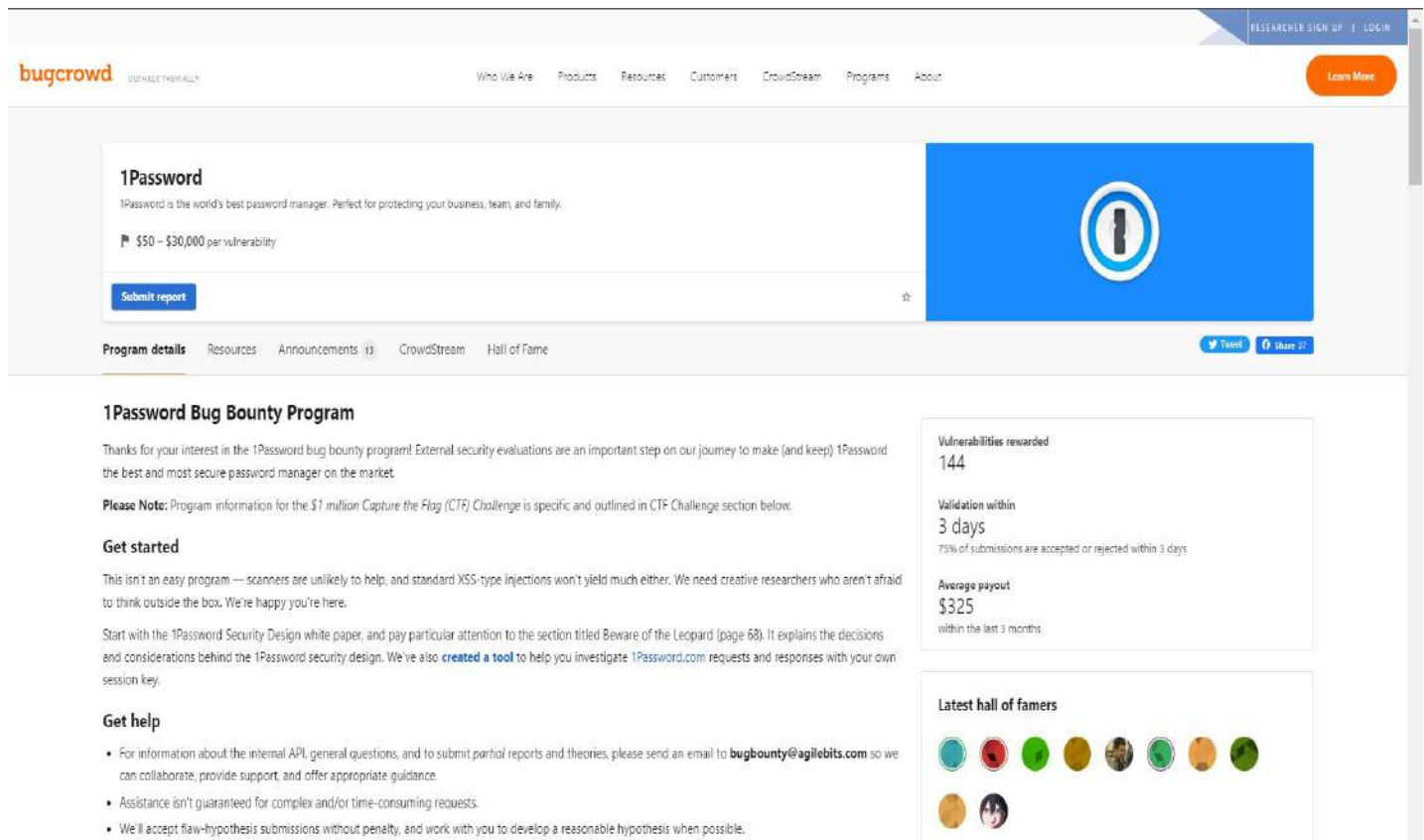
1. The insertion of illicit data into command inquiries or queries produces an injection fault which grants attackers unrestricted control of databases or data access privileges.
2. Unsecured authentication mechanisms that include poor session management policies and weak password storage practices and flawed credential management generate entry points for unauthorized users who endanger user account security.
3. Sensitive data exposure occurs through poor encryption and bad storage practices as well as unsecured transfer methods which culminates in sensitive data disclosure.
4. XML External Entities (XXE) vulnerabilities appear when XML inputs receive improper processing from applications which enables attackers to obtain private files and execute server-side request forgery attacks (SSRF) and run unwanted code.
5. Impaired access control systems lead to unauthorized access of sensitive information and restricted features when authorization verification fails to occur.
6. Security misconfigurations cause various deficiencies by creating vulnerabilities from imprecise system configuration which lets sensitive data become exposed together with inactive functionalities and default setup parameters.
7. XSS flaws enable hackers to embed harmful scripts inside web pages thereby exposing other users to data theft and session hijackings or page defacement attacks.
8. The security vulnerability in insecure deserialization enables hackers to modify serialized objects and results in remote code execution or denial of service attacks and data manipulation incidents.
9. Amino acid sequences bearing known vulnerabilities within their components (such as libraries or frameworks) make applications susceptible to both known vulnerabilities and attacks.
10. A lack of complete logging systems combined with inadequate monitoring makes it difficult to detect security issues thus allowing attackers additional time to create damage.

# Report 01

1password.com



Scope of the security audit according to [https://hackerone.com/crowdstrike/policy\\_scopes](https://hackerone.com/crowdstrike/policy_scopes) is as follows,



The screenshot shows the 1Password Bug Bounty Program page on Bugcrowd. The page header includes the Bugcrowd logo and navigation links. The main content area features the 1Password logo and a description of the program. A 'Submit report' button is visible. Below the main content, there are sections for 'Program details', 'Resources', 'Announcements', 'CrowdStream', and 'Hall of Fame'. The 'Get started' section provides information about the program, including a 'Please Note' about the \$1 million Capture the Flag (CTF) Challenge. The 'Get help' section lists contact information for the bug bounty team. The 'Vulnerabilities rewarded' section shows 144 vulnerabilities rewarded, with a validation period of 3 days and an average payout of \$325. The 'Latest hall of famers' section displays a row of avatars.

**1Password**  
1Password is the world's best password manager. Perfect for protecting your business, team, and family.  
\$50 - \$30,000 per vulnerability  
[Submit report](#)

**1Password Bug Bounty Program**  
Thanks for your interest in the 1Password bug bounty program! External security evaluations are an important step on our journey to make (and keep) 1Password the best and most secure password manager on the market.  
**Please Note:** Program information for the \$1 million Capture the Flag (CTF) Challenge is specific and outlined in CTF Challenge section below.  
**Get started**  
This isn't an easy program — scanners are unlikely to help, and standard XSS-type injections won't yield much either. We need creative researchers who aren't afraid to think outside the box. We're happy you're here.  
Start with the 1Password Security Design white paper, and pay particular attention to the section titled Beware of the Leopard (page 68). It explains the decisions and considerations behind the 1Password security design. We've also [created a tool](#) to help you investigate 1Password.com requests and responses with your own session key.  
**Get help**

- For information about the internal API, general questions, and to submit *partial* reports and theories, please send an email to [bugbounty@agilebits.com](mailto:bugbounty@agilebits.com) so we can collaborate, provide support, and offer appropriate guidance.
- Assistance isn't guaranteed for complex and/or time-consuming requests.
- We'll accept flaw-hypothesis submissions without penalty, and work with you to develop a reasonable hypothesis when possible.

**Vulnerabilities rewarded**  
144  
**Validation within**  
3 days  
75% of submissions are accepted or rejected within 3 days  
**Average payout**  
\$325  
within the last 3 months  
**Latest hall of famers**

## In Scope

### In Scope Targets


✓ In scope

P4 \$50 – \$300

P3 \$300 – \$600


P2 \$600 – \$6000

P1 \$6000 – \$30000

 <Your own 1Password Account subdomain --> https://<your account domain>.1password.com/


API Testing TypeScript

Go +1

 <Your own 1Password Personal Account --> https://my.1password.com/


API Testing TypeScript

Go +1


 <1Password signup page --> https://start.1password.com

API Testing TypeScript

Go +1


 <Your own 1Password account --> Latest stable, beta, or nightly MacOS Build

Rust Electron macOS


 <Your own 1Password account --> Latest stable, beta, or nightly Windows Build

Rust Electron

Windows


 <Your own 1Password account --> Latest stable, beta, or nightly Linux Build

Rust Linux Electron

 <Your own 1Password account --> Latest stable, beta, or nightly iOS Build


Rust ReactNative


Swift +1


 <Your own 1Password account --> Latest stable, beta, or nightly Android Build

Rust Android

ReactNative +1

 <Your own 1Password account --> Latest stable, beta, or nightly Browser Extension (Chrome, Brave, Firefox, Edge, and Safari)

 <Your own 1Password account --> Latest stable, beta, or nightly Command Line Interface (CLI)

 <Your own 1Password account --> https://events.1password.com/ (Event Reporting API is available on 1Password Business Accounts Only)

API Testing Go



## Scanned Vulnerabilities Using ZAP

The screenshot displays the OWASP ZAP (Zed Attack Proxy) interface. The top pane shows the HTTP response details for a request to `https://transcend-cdn.com/cn/fa619274-3c15-4155-bbec-c0cb75733259/airgap.js`. The response is an HTML document with a `Content-Type: text/html; charset=utf-8` and a `Cache-Control: private, max-age=0, no-store, must-revalidate` header. The body contains a script tag with a `script-src` attribute that includes a self-referencing URL and a `nonce` attribute. The bottom pane shows the 'Alerts' list, which contains 21 alerts. The selected alert is 'PII Disclosure' (High risk), which is a 'PII Disclosure' vulnerability. The description states: 'The response contains Personally Identifiable Information, such as CC number, SSN and similar sensitive data.' The 'Other Info' section lists the credit card type as 'Maestro', the bank identification number as '670240', and the brand as 'MAESTRO'. The 'Solution' section advises: 'Check the response for the potential presence of personally identifiable information (PII), ensure nothing sensitive is leaked by the application.'

## Vulnerability Title Vulnerability Title

- PII Disclosure

## Risk type

- High
- PII Disclosure represents a security vulnerability through which personally identifiable information gets revealed to unauthorized users. A response from the application revealed credit card data to OWASP ZAP during its security scan.

## Affected Components

- A comparison page located at <https://1password.com/compare/1password-vs-dashlane> exposes URL as an affected risk vector. Users should avoid viewing the sensitive information found within the HTTP response. Visible HTTP header data indicates that the vulnerability exists within CDN service content delivered by [transcend-cdn.com](https://transcend-cdn.com) and potentially impacts media content found on [images.ctfassets.net](https://images.ctfassets.net).

## Impact Assessment

The ZAP scanner issues a "High" rating with "High" confidence for the severity of this vulnerability. The exposure of this PII information can trigger the following possible adverse effects:

- Personal information exposed to identity thieves allows them to commit financial fraud by using the provided credit card information.
- Data protection violations create the risk for organizations to receive monetary penalties and legal disputes that can harm their reputation.
- The disclosure of PII data results in customers losing their trust because organizations fail to safeguard sensitive information.
- Commercial entities could face substantial regulatory financial penalties based on relevant privacy laws such as GDPR along with HIPAA.

## Steps to Reproduce

- The detection system marks the data as PII.
- According to the "Content Modified" warning the page content includes the detected sensitive information.

## Mitigation

- A four-step mitigation process should be applied to prevent PII disclosure vulnerabilities.
- Data discovery techniques should be implemented to keep sensitive data hidden while it is out of use.
- Strong encryption algorithms must be used to protect both financial information (e.g. credit card details) and all other PII data sets.

- The proper implementation of access controls should accompany PII protection through limiting exposure with authorization management and access restriction.
- Business operations require the minimum amount of PII needed for processing because you should exercise data minimization practices.
- Make sure PII data transmission stays secure through using secure communication protocols (HTTPS) which are set up correctly
- Tests must be conducted to validate that system errors produce messages which avoid revealing sensitive data to users.

## Report 02

### CrowdStrike



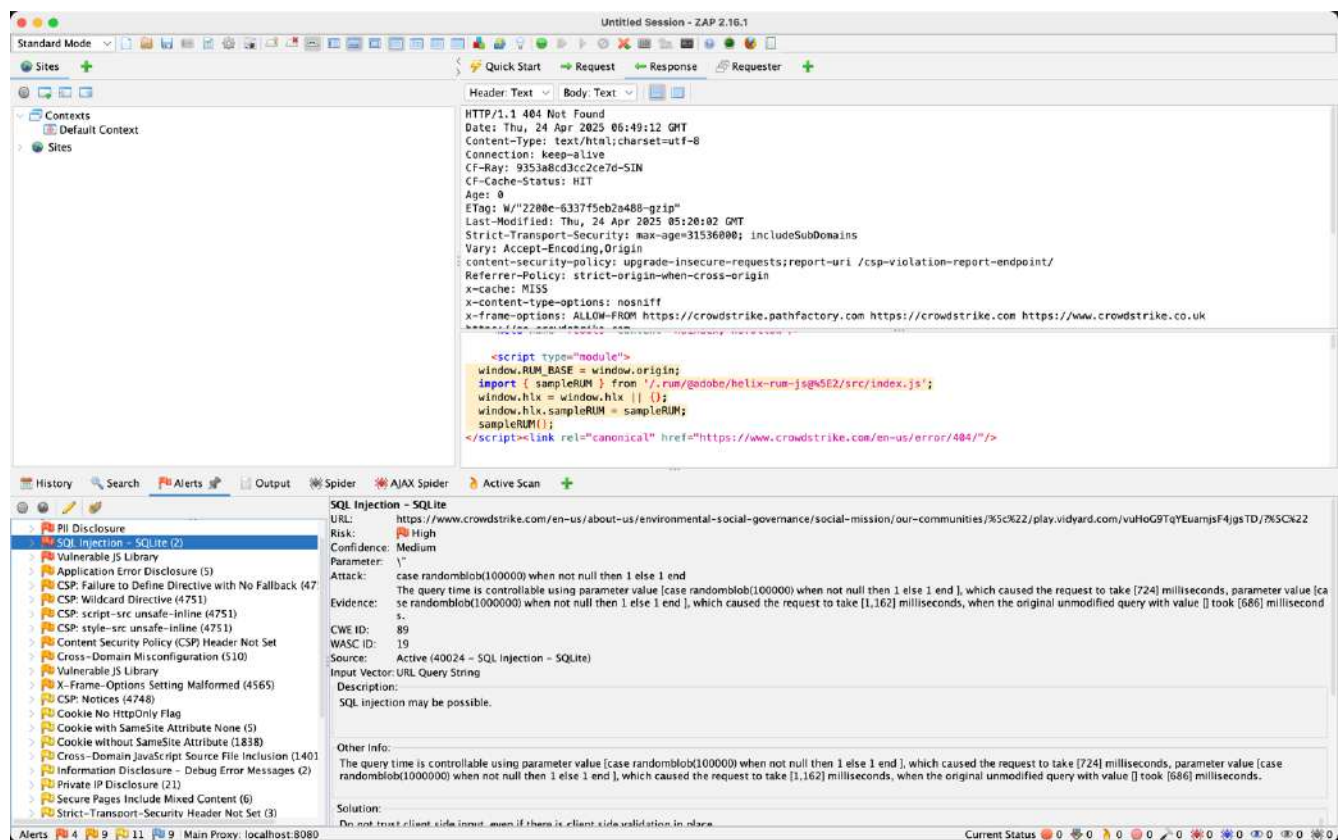
Scope of the security audit according to [https://hackerone.com/crowdstrike/policy\\_scopes](https://hackerone.com/crowdstrike/policy_scopes) is as follows.

The screenshot displays the HackerOne interface for the CrowdStrike bug bounty program. The left sidebar contains navigation links: Security page, Program guidelines, Scope (selected), Hacktivity, Thanks, Updates, and Collaborators. The main content area includes search filters for Scope (All scopes), Maximum severity (Any), and Bounty eligibility (All). Below these filters is a table of assets with columns for Asset name, Type, Coverage, Max. severity, Bounty, Last update, and Resolved Reports. The table lists several assets, including www.crowdstrike.org, play.google.com/store/apps/details?id=com.crowdstrike.falconmobile, \*.adaptive-shield.com, \*.bionic.ai, falcon-sandbox.com, and \*.reposify.com. To the right of the table is a 'Rewards' section showing a table of severity levels and their corresponding rewards. The 'Stats' section is partially visible at the bottom right.

| Asset name                                                         | Type                | Coverage | Max. severity | Bounty   | Last update  | Resolved Reports |
|--------------------------------------------------------------------|---------------------|----------|---------------|----------|--------------|------------------|
| www.crowdstrike.org<br>CrowdStrike Foundation Website              | Domain              | In scope | Critical      | Eligible | Jan 5, 2018  | 3 (-)            |
| play.google.com/store/apps/details?id=com.crowdstrike.falconmobile | Android: Play Store | In scope | Critical      | Eligible | May 2, 2023  | 3 (-)            |
| *.adaptive-shield.com<br>Excluding 3rd party maintained targets    | Wildcard            | In scope | Critical      | Eligible | Dec 2, 2024  | 0 (-)            |
| *.bionic.ai<br>Excluding 3rd party maintained targets              | Wildcard            | In scope | Critical      | Eligible | Jan 11, 2024 | 1 (-)            |
| falcon-sandbox.com                                                 | Domain              | In scope | Critical      | Eligible | Mar 14, 2022 | 2 (-)            |
| *.reposify.com                                                     | Wildcard            | In scope | Critical      | Eligible | May 15,      | 4 (-)            |

| Severity | Rewards                                                      |
|----------|--------------------------------------------------------------|
| Low      | \$250-\$350<br>Avg. bounty \$250<br>60% submissions          |
| Medium   | \$500-\$1,500<br>Avg. bounty \$500<br>28.33% submissions     |
| High     | \$2,000-\$8,000<br>Avg. bounty \$2,000<br>13.33% submissions |
| Critical | \$10,000<br>Avg. bounty n/a<br>0.57% submissions             |

## Scanned Vulnerabilities Using ZAP



### Vulnerability Title Vulnerability Title

- SQL Injection (SQLite)

### Risk type

- High

### Vulnerability Description

- An SQL injection vulnerability actively affects the CrowdStrike website which lets attackers change database queries through injected SQL code. The SQL injection vulnerability depends on time-based blind SQL injection through SQLite randomblob which allows attackers to extend query execution time for verification purposes. This vulnerability belongs to the SQL Injection category using CWE-89 and WASC-19 standards.

## URL

- <https://www.crowdstrike.com/en-us/about-us/environmental-social-governance/social-mission/our-communities/>

## Affected Components

- Web server hosting CrowdStrike's environmental and social governance content
- Backend database system (SQLite database)
- Parameter handling within the URL query string

## Impact Assessment

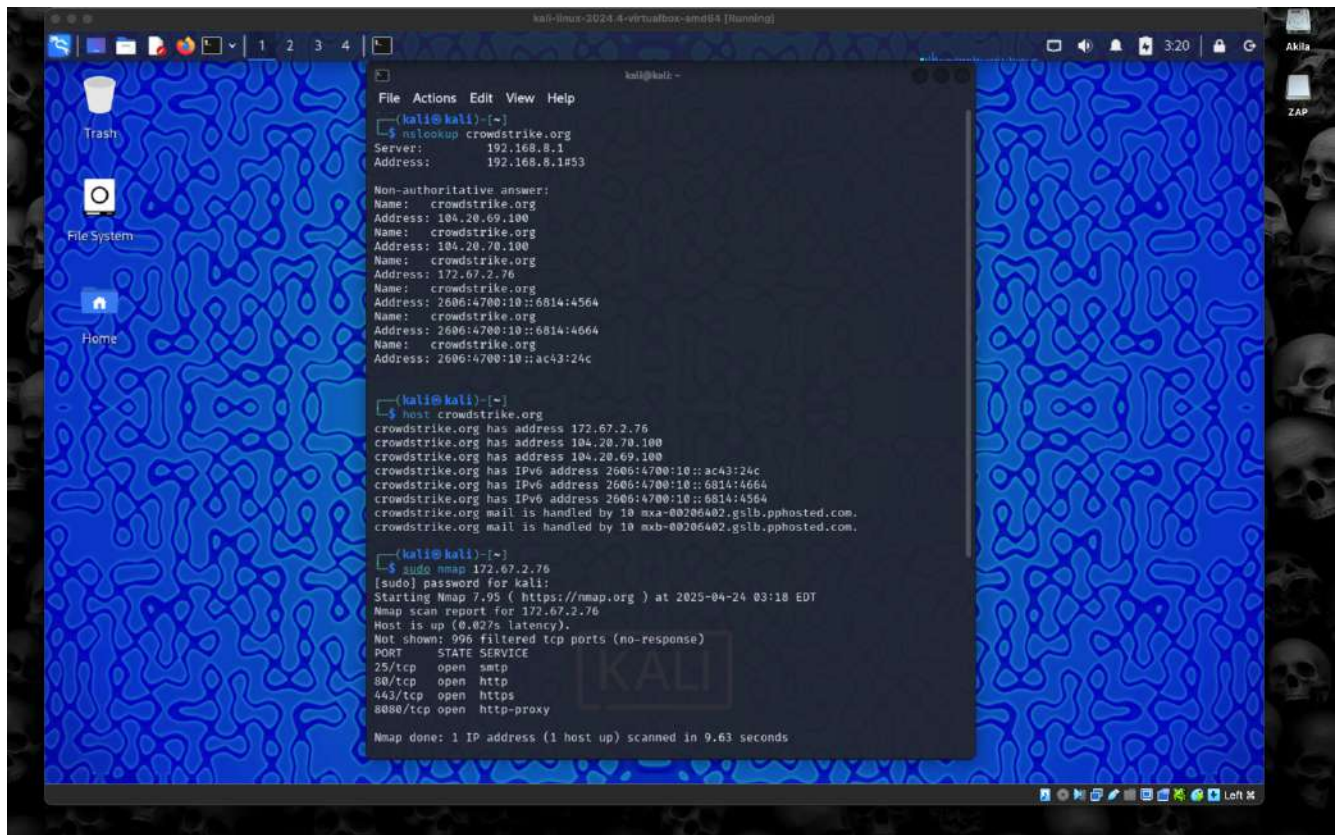
- This vulnerability poses significant risks to the organization:
- Unauthorized access to sensitive database information
- Potential exfiltration of confidential data
- Database corruption or unauthorized modifications
- Authentication bypass possibilities
- Compromise of application integrity
- Potential regulatory compliance violations

## Steps to Reproduce

- Navigate to <https://www.crowdstrike.com/en-us/about-us/environmental-social-governance/social-mission/our-communities/>
- Insert the following payload into the URL parameter: case randblob(100000) when not null then 1 else 1 end
- Observe the delayed response time
- Compare with unmodified query response time
- The significant time difference confirms the SQL injection vulnerability



## Proof of Concept



## Proposed Mitigation or Fix

- The implementation of parameterized queries eliminates dynamic SQL by using prepared statements for creating a clear distinction between code and data content.
- All user inputs need approval through strict validation tests before system processing occurs.
- Programs should use ORM frameworks which perform automatic SQL escaping operations.
- The database must have permission systems which distribute minimum required access to each database user for operational purposes.
- The installation of Web Application Firewalls allows for detection and blocking of SQL injection attempts.
- Organization of error handling must include customized messages that do not reveal sensitive database information to unauthorized persons.
- A full security test must be conducted through periodic testing that detects and fixes procedural weaknesses.
- Radically examine the database interaction code as part of code review operations to detect additional vulnerabilities.

## Report 03

### GitLab



Scope of the security audit according to [https://hackerone.com/gitlab/policy\\_scopes](https://hackerone.com/gitlab/policy_scopes) is as follows.

The screenshot shows the HackerOne interface for the GitLab bug bounty program. The left sidebar contains navigation links: Security page, Program guidelines, Scope (selected), Hacktivity, Thanks, Updates, Collaborators, and Safe harbor. The main content area displays search filters and a table of assets.

**Search filters:**

- Search: [Search]
- Scope: All scopes
- Maximum severity: Any
- Bounty eligibility: All

**Assets Table:**

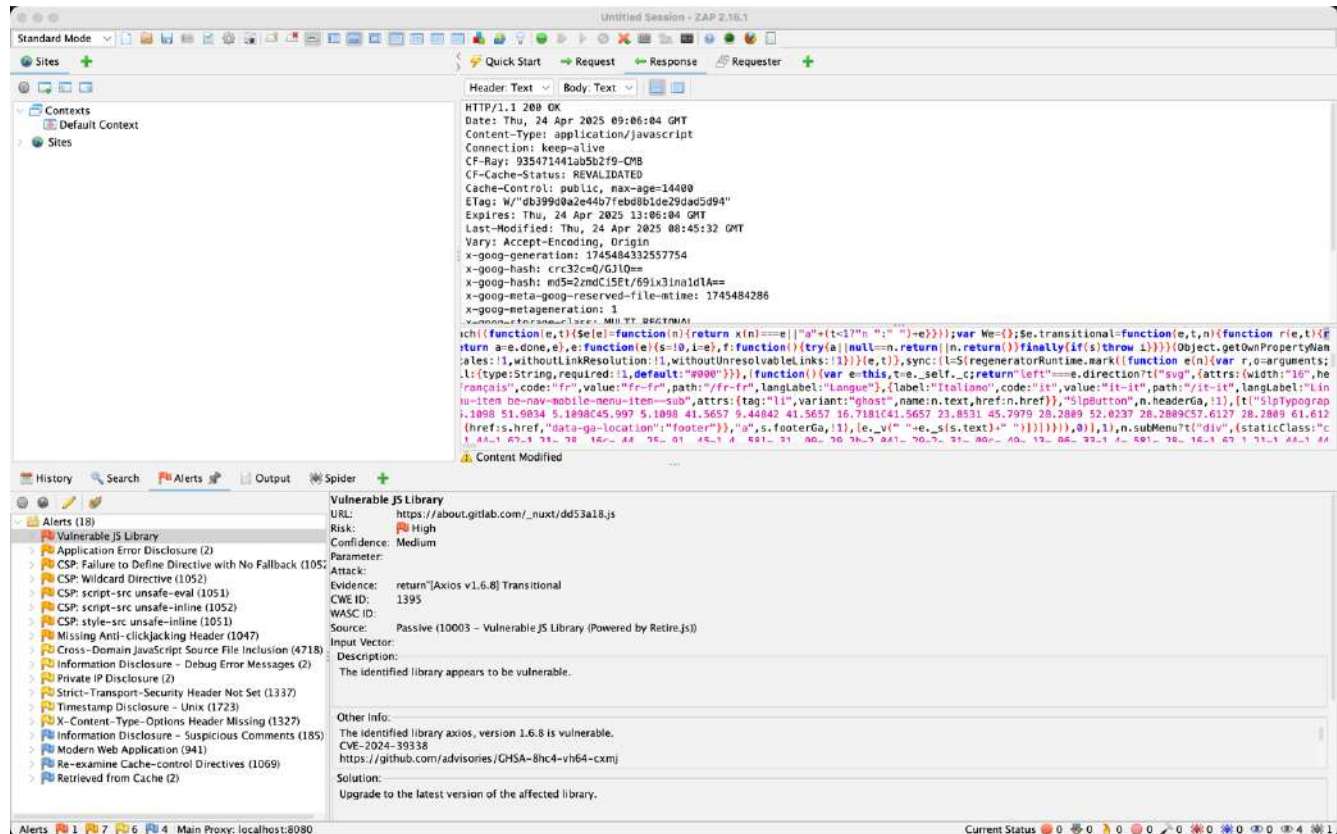
| Asset name                                                                                                                                                              | Type        | Coverage | Max. severity | Bounty   | Last update  | Resolved Reports |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------|---------------|----------|--------------|------------------|
| Go Ruby                                                                                                                                                                 | code        |          |               |          | 2020         |                  |
| <a href="https://gitlab.com/gitlab-org/optrace/optrace">https://gitlab.com/gitlab-org/optrace/optrace</a>                                                               | Source code | In scope | Critical      | Eligible | Jun 4, 2023  | 1 (0%)           |
| <a href="https://gitlab.com/gitlab-org/gitlab-runner">https://gitlab.com/gitlab-org/gitlab-runner</a>                                                                   | Source code | In scope | Critical      | Eligible | Oct 5, 2020  | 7 (0%)           |
| <a href="https://customers.gitlab.com">customers.gitlab.com</a><br>Server-side Denial of Service is out of scope as per our Policy.<br>Google Cloud Platform Rails Ruby | Domain      | In scope | Critical      | Eligible | Jan 31, 2023 | 22 (1%)          |
| Your Own GitLab Instance<br>PostgreSQL Rails Ruby                                                                                                                       | Other       | In scope | Critical      | Eligible | Apr 20, 2020 | 191 (11%)        |

**Rewards Table:**

| Severity                                              | Rewards           |
|-------------------------------------------------------|-------------------|
| Low<br>Avg. bounty \$1,755<br>30.05% submissions      | \$100-\$750       |
| Medium<br>Avg. bounty \$1,726<br>44.48% submissions   | \$1,000-\$2,500   |
| High<br>Avg. bounty \$11,809<br>19.80% submissions    | \$5,000-\$15,000  |
| Critical<br>Avg. bounty \$27,837<br>5.66% submissions | \$20,000-\$35,000 |



## Scanned Vulnerabilities Using ZAP



### Vulnerability Title Vulnerability Title

- Vulnerable JavaScript Library

### Risk type

- High

### Vulnerability Description

- Security professionals have discovered that the application runs Axios JavaScript library version 1.6.8 which contains security vulnerabilities. Workers have identified CVE-2024-39338 as a security vulnerability affecting this Axios JavaScript library within the version v1.6.8. The vulnerability detected by OWASP ZAP security tool was classified as CWE-1395 in the Axios JavaScript library version 1.6.8.

Attackers may exploit the "Transitional" functionality of Axios as it stands as the specific vulnerability affecting the application's systems.

## URL

- [https://about.gitlab.com/\\_nuxt/dd53a18.js](https://about.gitlab.com/_nuxt/dd53a18.js)

## Affected Components

- Axios library version 1.6.8
- GitLab website or application using the vulnerable Axios version
- Any functionality that depends on this JavaScript library for making HTTP requests

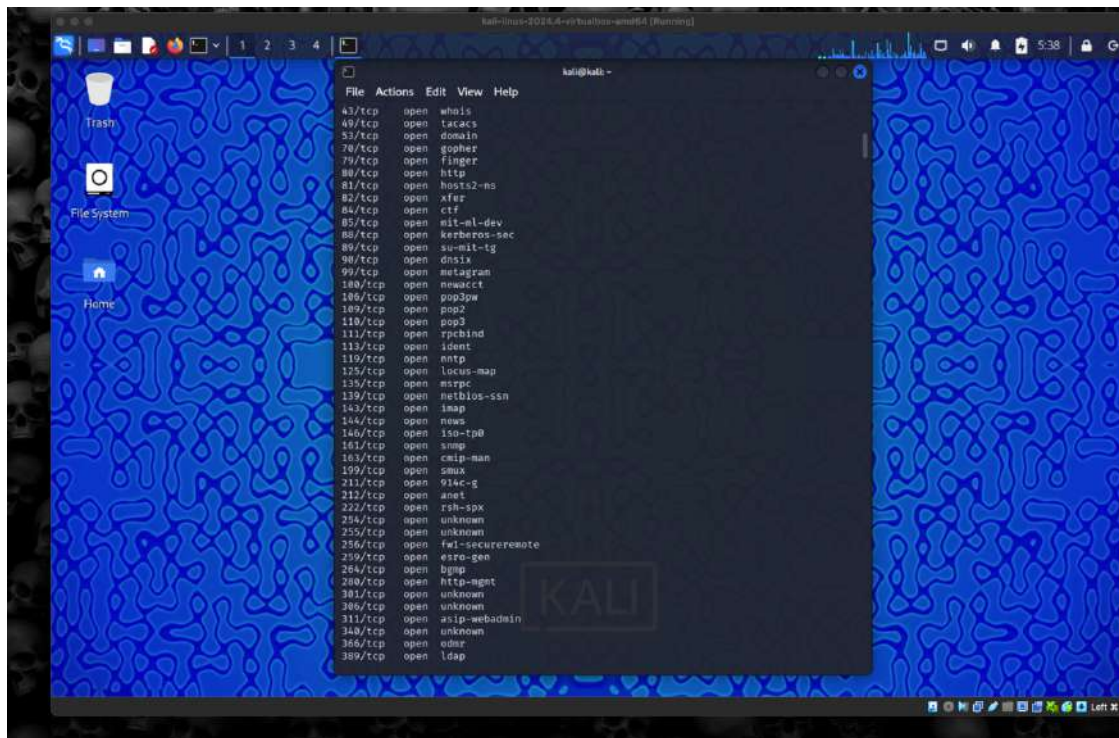
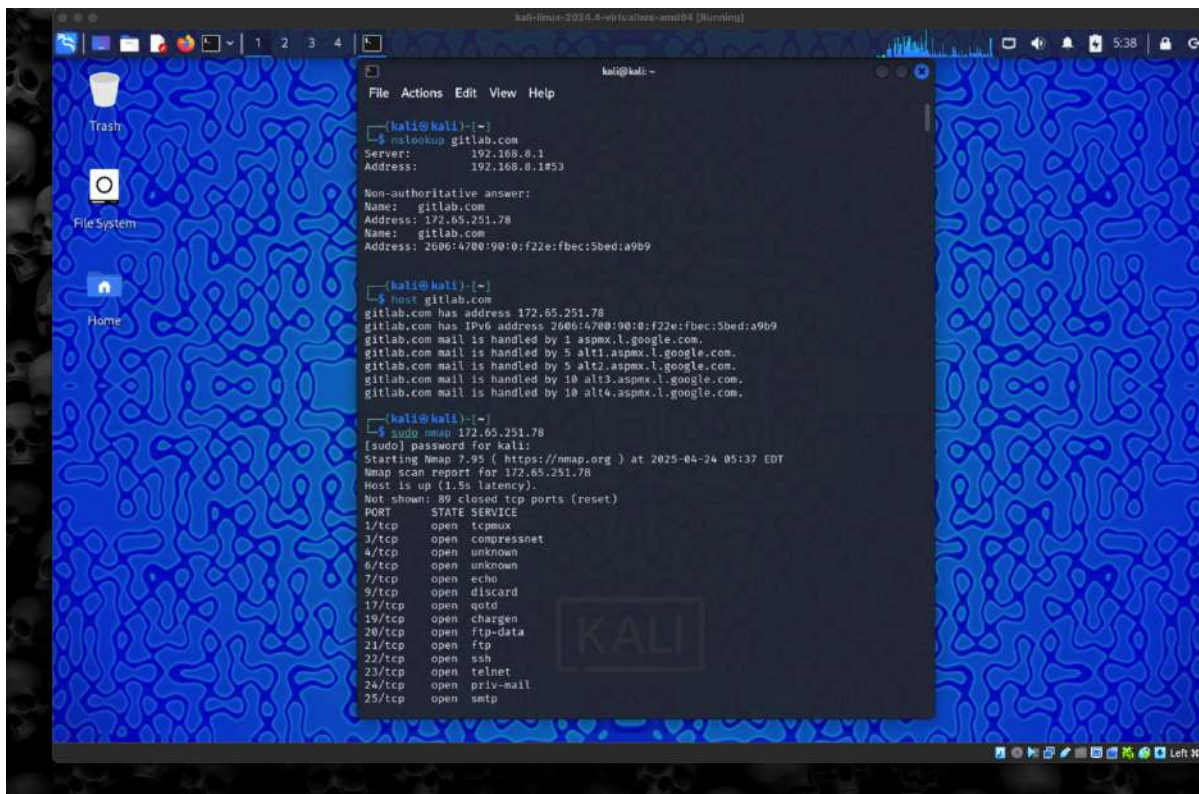
## Impact Assessment

- Execute malicious code
- Compromise data integrity
- Bypass security controls
- Potentially gain unauthorized access to system resources

## Steps to Reproduce

- Navigate to the GitLab website that loads the affected JavaScript file
- Inspect the loaded JavaScript resources in the browser's developer tools
- Locate the Axios library loaded from [https://about.gitlab.com/\\_nuxt/dd53a18.js](https://about.gitlab.com/_nuxt/dd53a18.js)
- Verify the version of Axios being used (v1.6.8)
- Confirm the presence of the vulnerable code by searching for the "[Axios v1.6.8] Transitional" string

## Proof of Concept



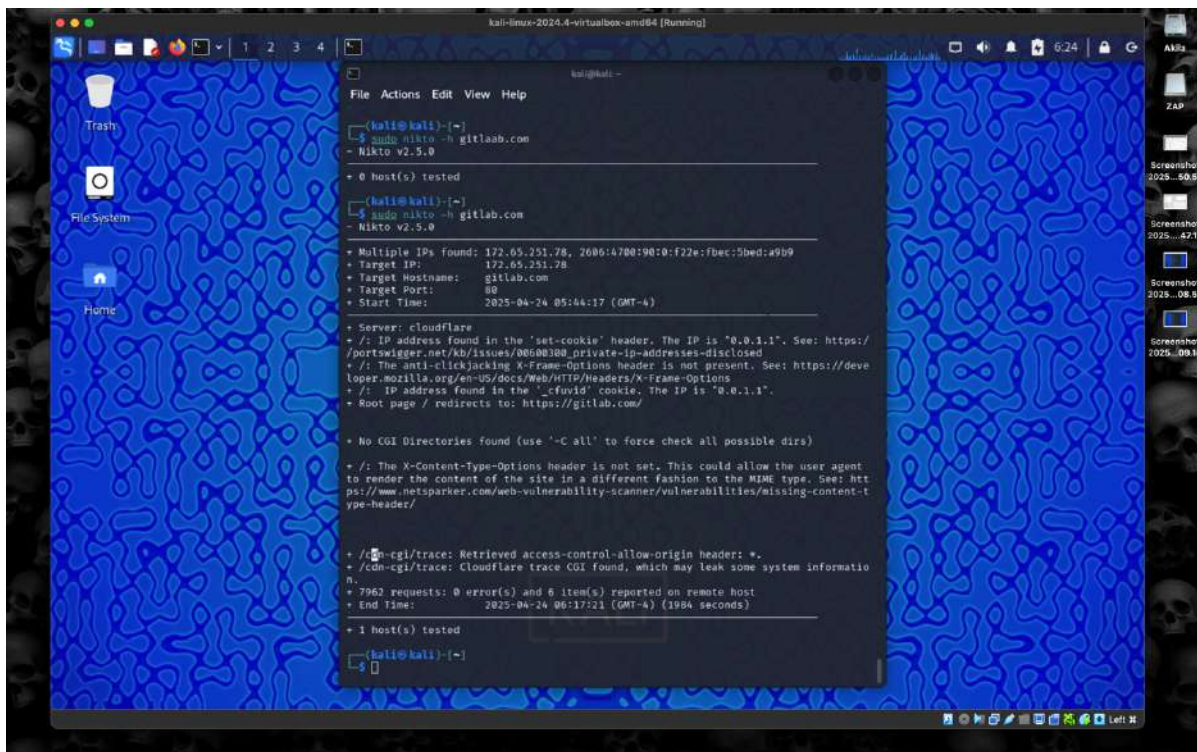


## Proposed Mitigation or Fix

- Moving to the most recent Axios library version ensures the patching of this vulnerability.
- Content Security Policy headers should be added to implement restrictions against potentially harmful script execution.
- The deployment process must include automatic third-party library scanning which detects vulnerabilities before product release.
- Third-party scripts require implementation of Subresource Integrity to verify their unaltered status.
- The application needs a monitoring procedure to track security notifications from all third-party system components which the application utilizes.
- A complete assessment of Axios library utilization throughout the application needs to be carried out by reviewing its implementation patterns to ensure security measures.

## Scanned Vulnerabilities Using NIKTO

Nikto scan results from gitlab.com revealed three security problems including Cloudflare service use and cookies containing "0.0.1.1" internal IP address and the absence of critical X-Frame-Options and X-Content-Type-Options headers which creates clickjacking and MIME-type attack vulnerabilities as well as the /cdn-cgi/trace endpoint accepting any origin and exposing system data. The discovered misconfigurations demonstrate ways in which the site could become more exposed to possible attacks.



```
kali@kali:~$ sudo nikto -h gitlab.com
- Nikto v2.5.0

+ 0 host(s) tested

kali@kali:~$ sudo nikto -h gitlab.com
- Nikto v2.5.0

+ Multiple IPs found: 172.65.251.78, 2606:4700:90:0:f22e:fbec:5bed:a9b9
+ Target IP: 172.65.251.78
+ Target Hostname: gitlab.com
+ Target Port: 80
+ Start Time: 2025-04-24 05:44:17 (GMT-4)

+ Server: cloudflare
+ /: IP address found in the 'set-cookie' header, The IP is '0.0.1.1'. See: https://portswigger.net/kb/issues/00600300_private-ip-addresses-disclosed
+ /: The anti-clickjacking X-Frame-Options header is not present. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
+ /: IP address found in the '_cfuvid' cookie, The IP is '0.0.1.1'.
+ Root page / redirects to: https://gitlab.com/

+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ /: The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/

+ /cdn-cgi/trace: Retrieved access-control-allow-origin header: *.
+ /cdn-cgi/trace: Cloudflare trace CGI found, which may leak some system information.
+ 7962 requests: 0 error(s) and 6 item(s) reported on remote host
+ End Time: 2025-04-24 06:17:21 (GMT-4) (1984 seconds)

+ 1 host(s) tested

kali@kali:~$
```

## Report 04

Silabs.com



Scope of the security audit according to [https://hackerone.com/silabs/policy\\_scopes](https://hackerone.com/silabs/policy_scopes) is as follows.

The screenshot shows the HackerOne interface for the Silicon Labs Vulnerability Disclosure/Bug Bounty Program. The left sidebar contains navigation links: Security page, Program guidelines, Scope (highlighted), Hacktivity, Thanks, Updates, Collaborators, and Safe harbor. The main content area has a search bar and filters for Scope (All scopes), Maximum severity (Any), and Bounty eligibility (All). Below these are links to download a Burp Suite configuration file, a CSV, and a view changes link. A table lists assets with columns for Asset name, Type, Coverage, Max. severity, Bounty, and Last update. The table includes entries for SDK, \*.silabs.com, community.silabs.com, Wireless Microcontrollers (MCUs), and two GitHub repositories. The right sidebar shows the program details, including the launch date (Apr 2025), a 100% response efficiency, a 'Submit report' button, a 'Rewards' table, and 'Stats' for total bounties paid, average bounty, and top bounty.

| Asset name                                                        | Type         | Coverage | Max. severity | Bounty     | Last update  |
|-------------------------------------------------------------------|--------------|----------|---------------|------------|--------------|
| SDK                                                               |              |          |               |            | 2025         |
| *.silabs.com<br>All silabs domains                                | Wildcard     | In scope | Critical      | Ineligible | Apr 8, 2025  |
| community.silabs.com                                              | Domain       | In scope | Critical      | Ineligible | Apr 8, 2025  |
| Wireless Microcontrollers (MCUs)                                  | Hardware/IoT | In scope | Critical      | Eligible   | Apr 8, 2025  |
| https://github.com/SiliconLabsSoftware/renode                     | Source code  | In scope | Critical      | Eligible   | Mar 30, 2025 |
| https://github.com/SiliconLabsSoftware/z-wave-protocol-controller | Source code  | In scope | Critical      | Eligible   | Mar 30, 2025 |

| Severity | Rewards         |
|----------|-----------------|
| Low      | \$50-\$100      |
| Medium   | \$300-\$500     |
| High     | \$1,000-\$2,000 |
| Critical | \$2,500-\$5,000 |

| Stats               |   |
|---------------------|---|
| Total bounties paid | - |
| Average bounty      | - |
| Top bounty          | - |

## Scanned Vulnerabilities Using ZAP

The screenshot shows the ZAP interface with the following details:

- Header Text:** HTTP/1.1 200 OK, X-Content-Type-Options: nosniff, Strict-Transport-Security: max-age=63072000; includeSubDomains, Referrer-Policy: origin-when-cross-origin, Content-Type: text/javascript; charset=UTF-8, Access-Control-Allow-Origin: \*, Last-Modified: Sun, 27 Apr 2025 07:32:23 GMT, Cache-Control: public, max-age=31536000, Date: Mon, 28 Apr 2025 07:32:24 GMT, Connection: keep-alive, Connection: Transfer-Encoding, x-origin-cache-control: public, max-age=31536000, immutable, Akamai-GRN: 0.98324417.1745825543.88280177, content-length: 3634976.
- Body Text:** A large block of JavaScript code, including a function definition for `force` and a `setTimeout` call.
- Alerts (23):** A list of detected vulnerabilities, including SQL Injection - Oracle - Time Based, SQL Injection - SQLite, Vulnerable JS Library (2), Absence of Anti-CSRF Tokens (22), CSP: Failure to Define Directive with No Fallback (11), CSP: Wildcard Directive (111), CSP: script-src unsafe-eval (2), CSP: script-src unsafe-inline (113), CSP: style-src unsafe-inline (113), Cross-Domain Misconfiguration (5), Vulnerable JS Library (2), CSP: Notices (2), Cookie No HttpOnly Flag (27), Cookie with SameSite Attribute None (27), Cross-Domain JavaScript Source File Inclusion (31), Timestamp Disclosure - Unix (102), Authentication Request Identified (2), CSP: Header & Meta (2), and Content Security Policy (CSP) Report-Only Header Fo.
- SQL Injection - Oracle - Time Based:** A detailed view of a selected alert. It shows the URL, Risk (High), Confidence (Medium), Parameter (3), Attack (field: [3], value [ / (SELECT UTL\_INADDR.get\_host\_name('10.0.0.1') from dual union SELECT UTL\_INADDR.get\_host\_name('10.0.0.2') from dual union SELECT UTL\_INADDR.get\_host\_name('10.0.0.3') from dual union SELECT UTL\_INADDR.get\_host\_name('10.0.0.4') from dual union SELECT UTL\_INADDR.get\_host\_name('10.0.0.5') from dual) ]), Evidence (CWE ID: 89, WASC ID: 19), Source (Active (40021 - SQL Injection - Oracle)), Input Vector (URL Query String), Description (SQL injection may be possible.), and Other Info (The query time is controllable using parameter value [ / (SELECT UTL\_INADDR.get\_host\_name('10.0.0.1') from dual union SELECT UTL\_INADDR.get\_host\_name('10.0.0.2') from dual union SELECT UTL\_INADDR.get\_host\_name('10.0.0.3') from dual union SELECT UTL\_INADDR.get\_host\_name('10.0.0.4') from dual union SELECT UTL\_INADDR.get\_host\_name('10.0.0.5') from dual) ], which caused the request to take [12,486] milliseconds, when the original unmodified query with value [ took [4,370] milliseconds.)).

### Vulnerability Title Vulnerability Title

- SQL Injection – Oracle (Time-Based)

### Risk type

- High

### Vulnerability Description

- An attack through time-based SQL injection can target the URL query string parameter at <https://community.silabs.com/s/sfsites/>. The attack technique enables an attacker to embed any desired SQL commands into database queries that could result in unauthorized data access as well as data modification or service disruption through delayed server responses

## URL

- <https://community.silabs.com/s/sfsites/>

## Affected Components

- User-supplied inputs passed through URL query strings get processed at Oracle database backend systems.

## Impact Assessment

- The database suffers from unauthorized access to its critical stored sensitive data.
- Data exfiltration or manipulation
- Service disruption through time-based attacks
- Exploiters would continue to abuse backend applications along with the connected database.

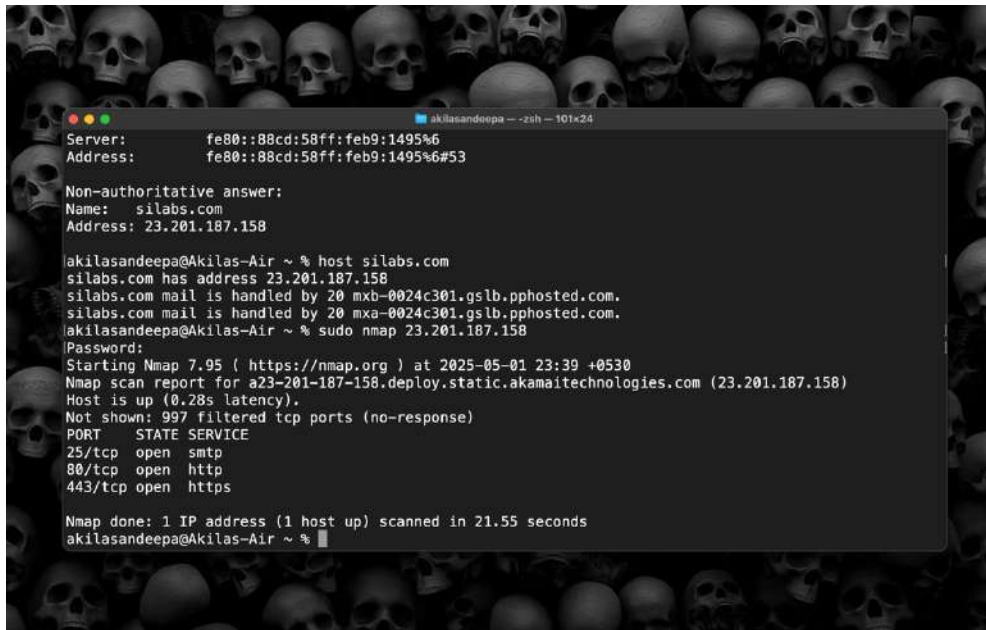
## Steps to Reproduce

- A time-based SQL payload must be inserted into the URL query string parameter by modifying it to function properly.
- Observe the response time. The delayed response after a successful SQL injection attack will reveal the SQL vulnerability of the target system.

## Proposed Mitigation or Fix

- The system must enforce robust input validation together with sanitization practices on each piece of user-supplied data that enters URL query strings.
- The prevention of SQL injection attacks can be achieved through parameterized queries or prepared statements.
- Apply least privilege rights policies to control the privileges of application access accounts that work with the database.
- Update and patch all application software components at regular intervals as well as the database and application frameworks.
- For SQL injection detection and blocking WAF web application firewalls should be employed.

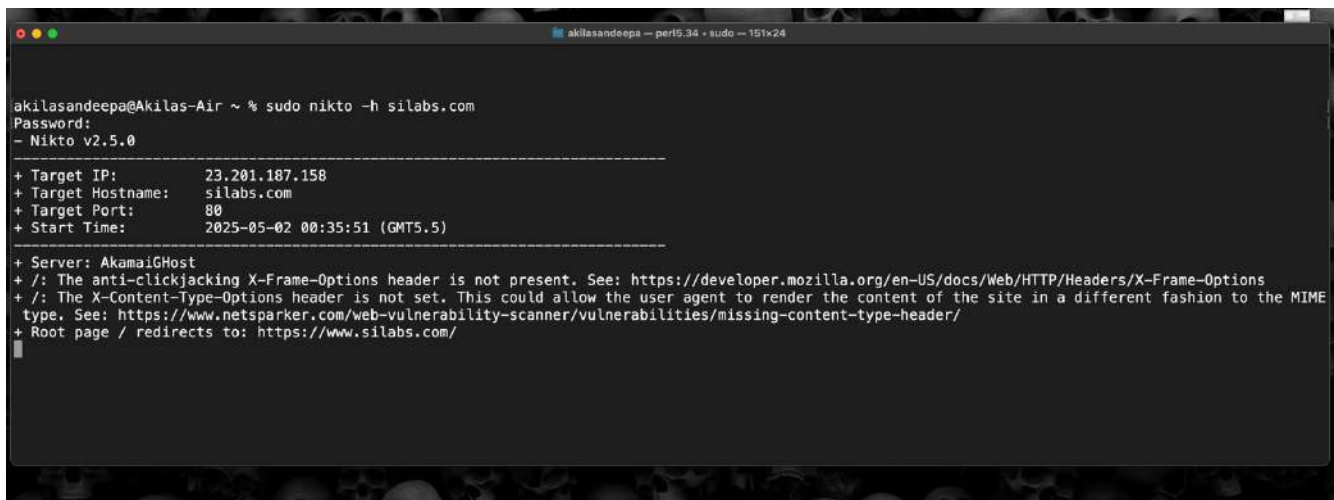
## Proof of Concept

A terminal window with a skull-patterned background. The terminal shows a DNS lookup for silabs.com, followed by an Nmap scan. The Nmap scan reports that the host is up and lists open ports 25/tcp (smtp), 80/tcp (http), and 443/tcp (https).

```
akilasandeepa ~ % host silabs.com
silabs.com has address 23.201.187.158
silabs.com mail is handled by 20 mxb-0024c301.gslb.pphosted.com.
silabs.com mail is handled by 20 mxa-0024c301.gslb.pphosted.com.
akilasandeepa@Akilas-Air ~ % sudo nmap 23.201.187.158
Password:
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-01 23:39 +0530
Nmap scan report for a23-201-187-158.deploy.static.akamaitechnologies.com (23.201.187.158)
Host is up (0.28s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT      STATE SERVICE
25/tcp    open  smtp
80/tcp    open  http
443/tcp   open  https
Nmap done: 1 IP address (1 host up) scanned in 21.55 seconds
akilasandeepa@Akilas-Air ~ %
```

## Scanned Vulnerabilities Using NIKTO

Silabs.com has multiple security header vulnerabilities per a Nikto scan because it lacks both X-Frame-Options protection against clickjacking attacks as well as X-Content-Type-Options protection against browser MIME type misinterpretation making it more prone to web-based attacks.

A terminal window showing the output of a Nikto scan against silabs.com. The scan identifies two vulnerabilities: a missing X-Frame-Options header and a missing X-Content-Type-Options header. It also shows the root page redirecting to https://www.silabs.com/.

```
akilasandeepa@Akilas-Air ~ % sudo nikto -h silabs.com
Password:
- Nikto v2.5.0

+ Target IP:      23.201.187.158
+ Target Hostname: silabs.com
+ Target Port:    80
+ Start Time:     2025-05-02 00:35:51 (GMT5.5)

+ Server: AkamaiGHost
+ /: The anti-clickjacking X-Frame-Options header is not present. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
+ /: The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/
+ Root page / redirects to: https://www.silabs.com/
```



## Report 05

### Temu.com



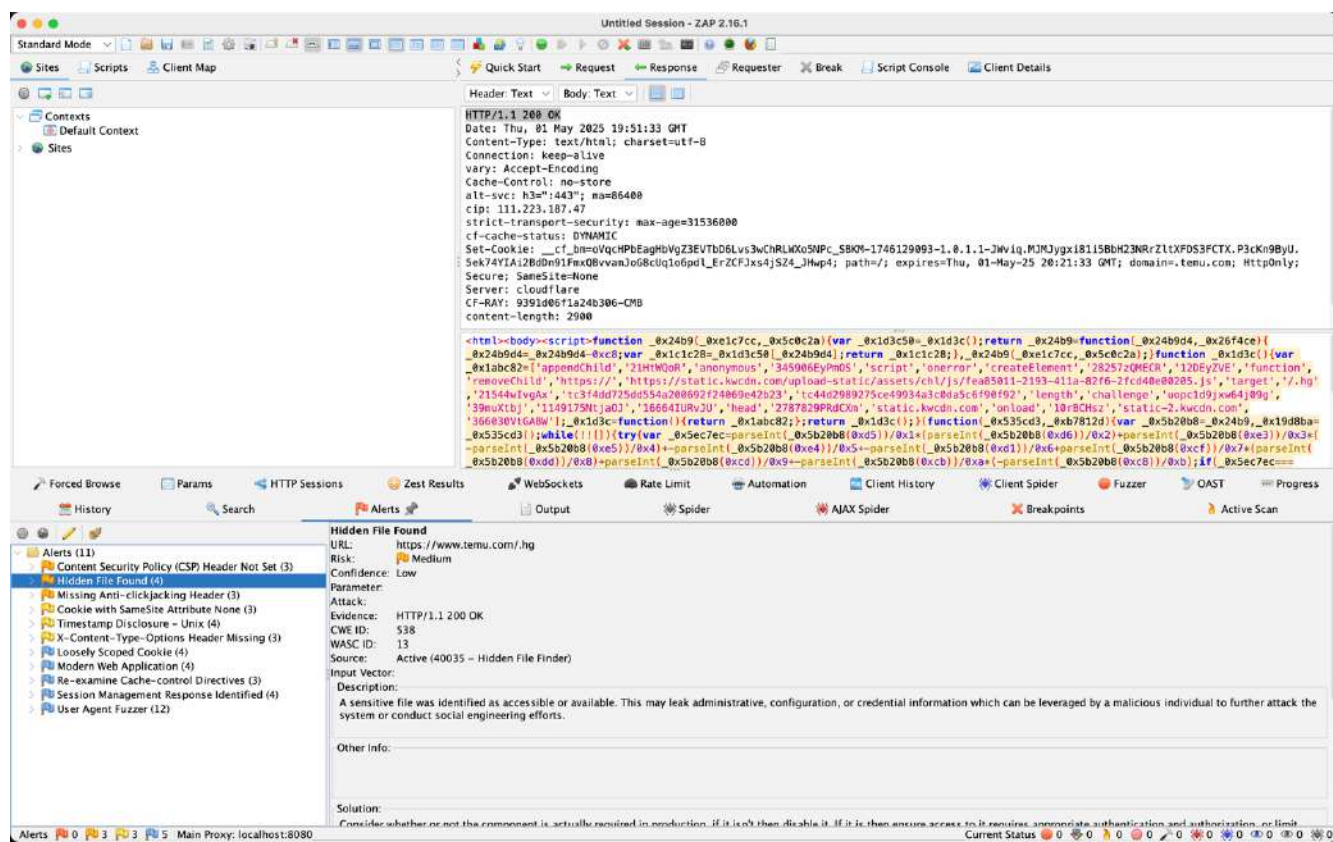
Scope of the security audit according to [https://hackerone.com/temu/policy\\_scopes](https://hackerone.com/temu/policy_scopes) as follows.

The screenshot displays the HackerOne interface for the Temu Bug Bounty Program. The left sidebar contains navigation links: Security page, Program guidelines, Scope (selected), Hacktivity, Thanks, Updates, Collaborators, and Safe harbor. The main content area includes search filters (Search, Scope: All scopes, Maximum severity: Any, Bounty eligibility: All) and a table of assets in scope. The table lists three assets: com.einnovation.temu (Android: Play Store), www.temu.com (Domain), and 1641486558 (iOS: App Store). All assets are marked as 'In scope', 'Critical', and 'Eligible'. The right sidebar shows the Temu logo, a 'Submit report' button, and a 'Rewards' table.

| Asset name           | Type                | Coverage | Max. severity | Bounty   | Last update  | Resolved Reports |
|----------------------|---------------------|----------|---------------|----------|--------------|------------------|
| com.einnovation.temu | Android: Play Store | In scope | Critical      | Eligible | Nov 22, 2023 | 2 (11%)          |
| www.temu.com         | Domain              | In scope | Critical      | Eligible | Nov 3, 2023  | 15 (79%)         |
| 1641486558           | iOS: App Store      | In scope | Critical      | Eligible | Nov 22, 2023 | 1 (5%)           |

| Severity | Rewards                                                      |
|----------|--------------------------------------------------------------|
| Low      | \$500-\$800<br>Avg. bounty \$500<br>26.32% submissions       |
| Medium   | \$1,000-\$4,500<br>Avg. bounty \$2,300<br>47.37% submissions |
| High     | \$5,000-\$10,000<br>Avg. bounty n/a<br>21.05% submissions    |
| Critical | \$12,000-\$25,000<br>Avg. bounty n/a<br>5.26% submissions    |

## Scanned Vulnerabilities Using ZAP

[illegible]

- Hidden File Disclosure —. hg File Accessible

### Risk type

- Medium

## Vulnerability Description

- Accessibility of the hidden .hg file was identified at the URL <https://www.temu.com/.hg>. The system uses Mercurial as its version control solution through this .hg file or directory which risks revealing its administrative and configuration settings and credentials. The exposed file helps attackers execute two different types of attacks: information disclosure and social engineering.

## URL

- [www temu.com](http://www temu.com)

## Affected Components

- Web server hosting [www temu.com](http://www temu.com)
- File system and directory structure, specifically the .hg directory or file

## Impact Assessment

- A successful attack enables attackers to recover important data stored in the repository, including history records and configuration details, along with credentials, which could lead to more cyberattacks or privileged access or social engineering capabilities.

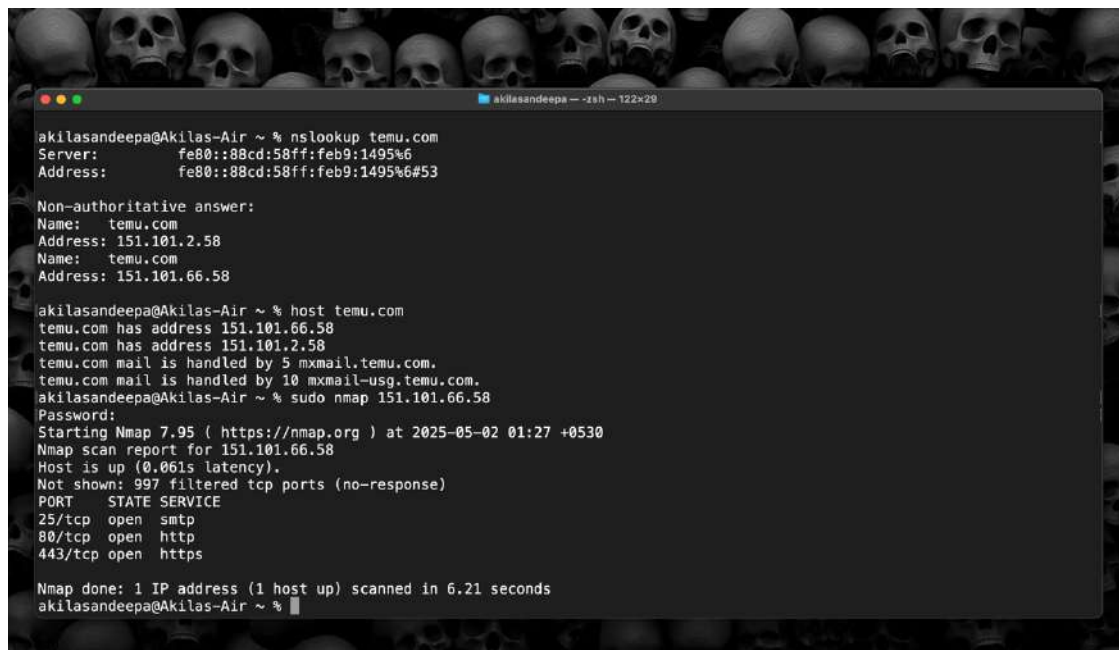
## Steps to Reproduce

- Open a browser or use a tool like curl to access:  
  
<https://www temu.com/.hg>
- If the file or directory is accessible, the server will respond with HTTP 200 OK and display its contents

## Proposed Mitigation or Fix

- Worldwide visibility of the .hg file or directory needs to be blocked from the web root.
- Web server administrators should restrict access to all hidden files and directories which begin with a dot through proper configuration updates.
- Sensitive files and version control data should be monitored in web root audits to stop their accidental release

## Proof of Concept



```
akilasandeepa@Akilas-Air ~ % nslookup temu.com
Server:         fe80::88cd:58ff:feb9:1495%6
Address:        fe80::88cd:58ff:feb9:1495%6#53

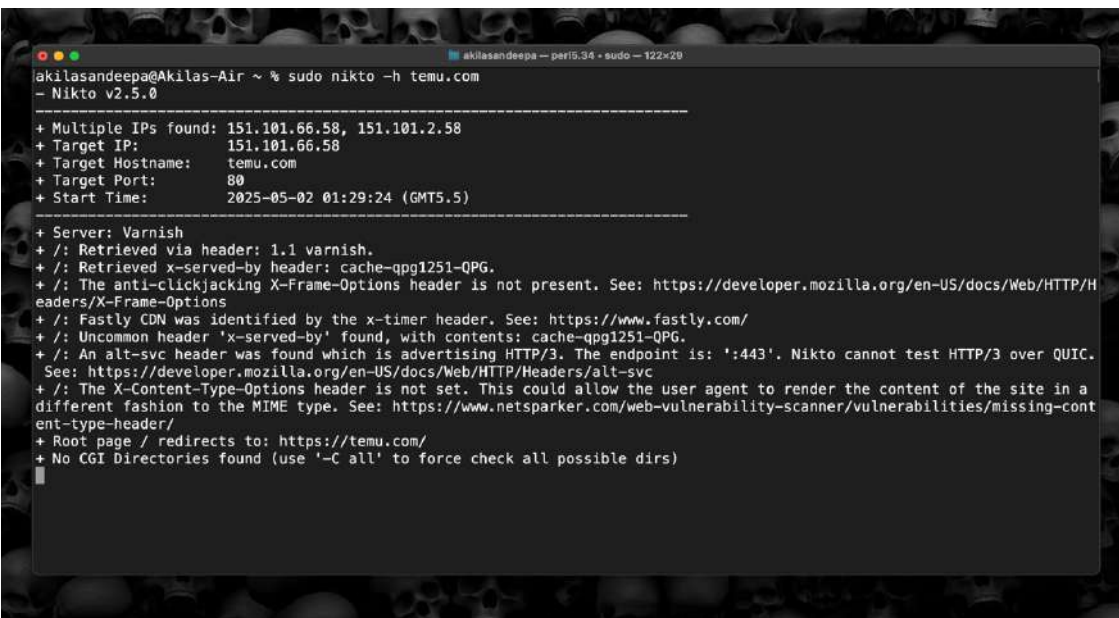
Non-authoritative answer:
Name:   temu.com
Address: 151.101.2.58
Name:   temu.com
Address: 151.101.66.58

akilasandeepa@Akilas-Air ~ % host temu.com
temu.com has address 151.101.66.58
temu.com has address 151.101.2.58
temu.com mail is handled by 5 mxmail.temu.com.
temu.com mail is handled by 10 mxmail-usg.temu.com.
akilasandeepa@Akilas-Air ~ % sudo nmap 151.101.66.58
Password:
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-02 01:27 +0530
Nmap scan report for 151.101.66.58
Host is up (0.061s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT      STATE SERVICE
25/tcp    open  smtp
80/tcp    open  http
443/tcp   open  https

Nmap done: 1 IP address (1 host up) scanned in 6.21 seconds
akilasandeepa@Akilas-Air ~ %
```

## Scanned Vulnerabilities Using NIKTO

- The X-Frame-Options header together with the X-Content-Type-Options header are missing from temu.com during a Nikto scan making the site vulnerable to specific web-based attacks.



```
akilasandeepa@Akilas-Air ~ % sudo nikto -h temu.com
- Nikto v2.5.0

+ Multiple IPs found: 151.101.66.58, 151.101.2.58
+ Target IP: 151.101.66.58
+ Target Hostname: temu.com
+ Target Port: 80
+ Start Time: 2025-05-02 01:29:24 (GMT+5.5)

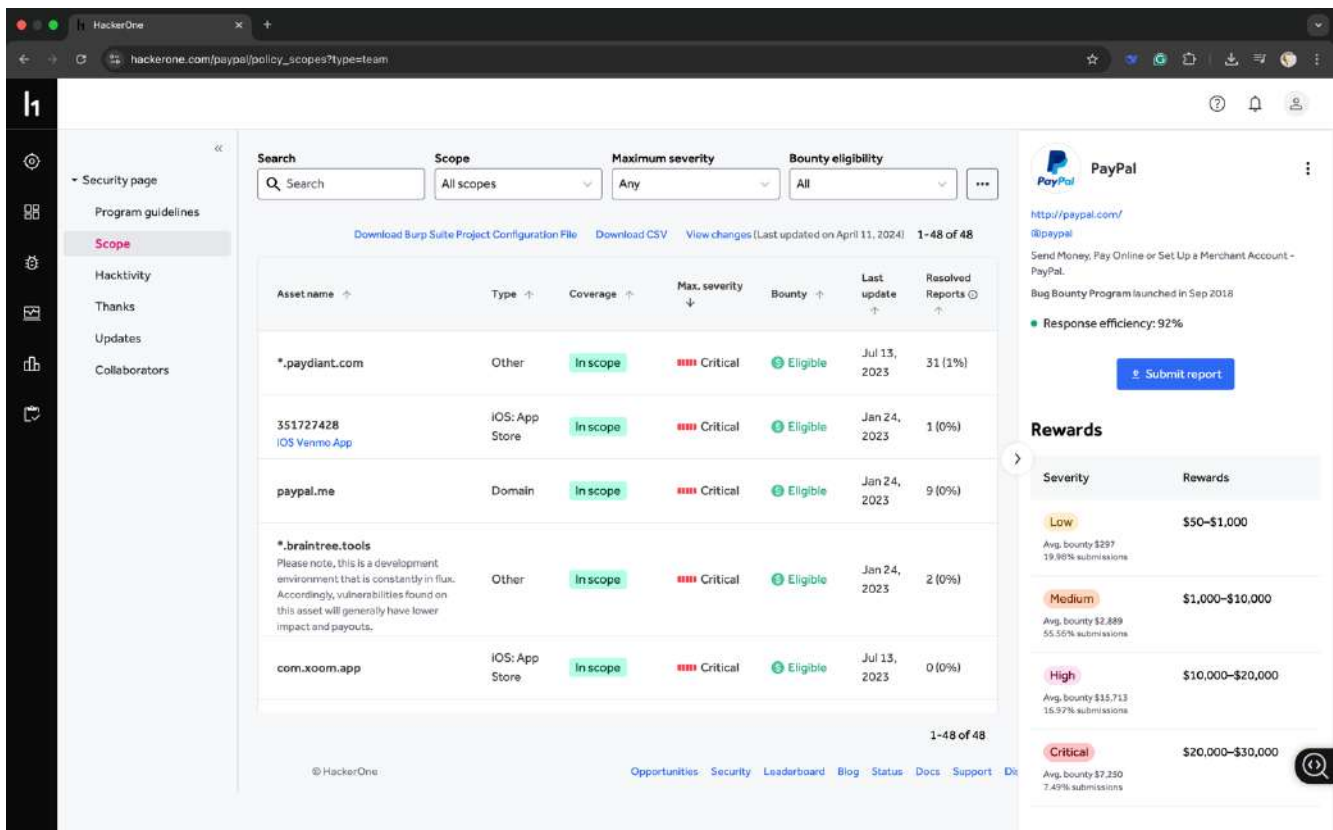
+ Server: Varnish
+ /: Retrieved via header: 1.1 varnish.
+ /: Retrieved x-served-by header: cache-qpg1251-QPG.
+ /: The anti-clickjacking X-Frame-Options header is not present. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
+ /: Fastly CDN was identified by the x-timer header. See: https://www.fastly.com/
+ /: Uncommon header 'x-served-by' found, with contents: cache-qpg1251-QPG.
+ /: An alt-svc header was found which is advertising HTTP/3. The endpoint is: ':443'. Nikto cannot test HTTP/3 over QUIC. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/alt-svc
+ /: The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/
+ Root page / redirects to: https://temu.com/
+ No CGI Directories found (use '-C all' to force check all possible dirs)
```

## Report 06

### Paypal



Scope of the security audit according to [https://hackerone.com/paypal/policy\\_scopes](https://hackerone.com/paypal/policy_scopes) is as follows.

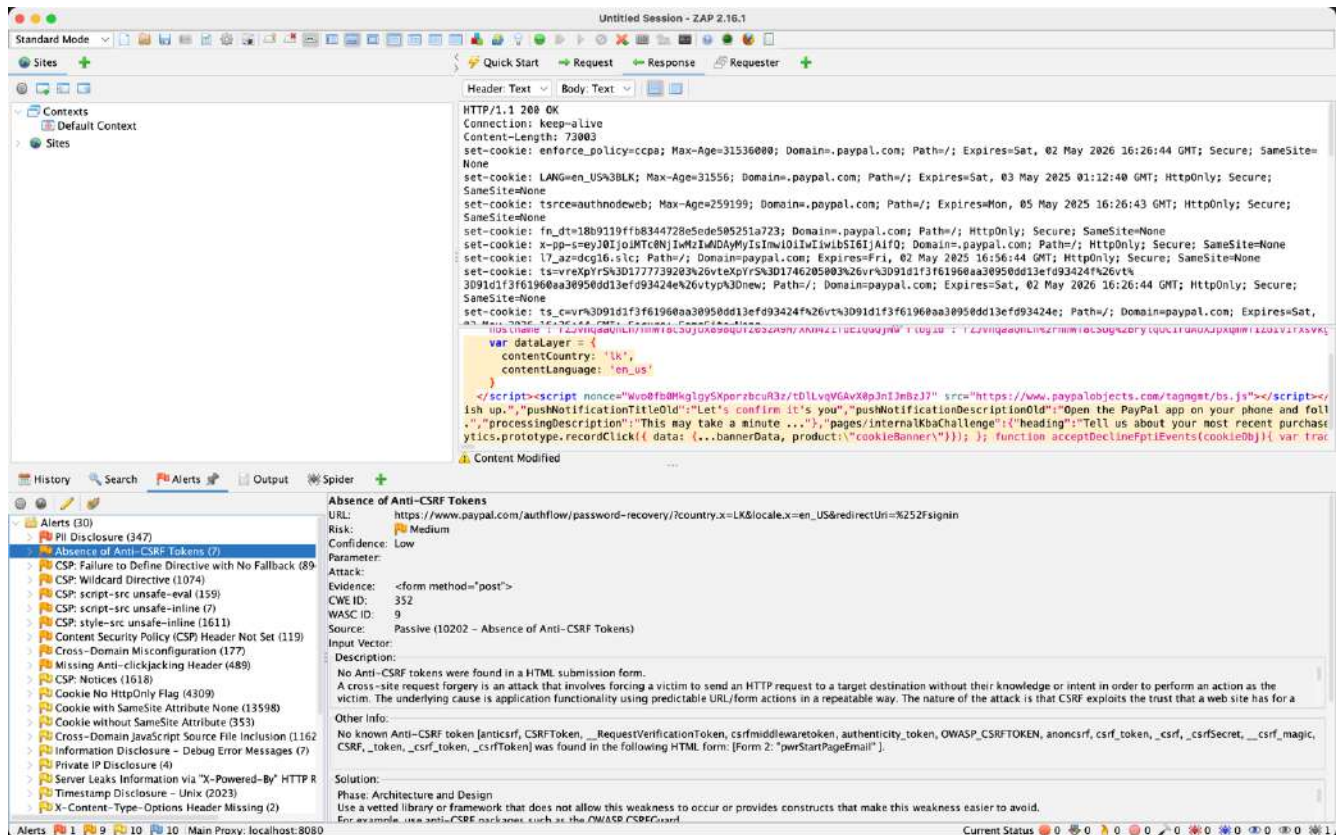


The screenshot displays the HackerOne interface for the PayPal bug bounty program. The left sidebar shows navigation options: Security page, Program guidelines, Scope (selected), Hacktivity, Thanks, Updates, and Collaborators. The main content area features a search bar and filters for Scope (All scopes), Maximum severity (Any), and Bounty eligibility (All). Below these filters, a table lists assets within the scope, including \*.paydiant.com, 351727428 (iOS Venmo App), paypal.me, \*.braintree.tools, and com.xoom.app. Each asset entry shows its Type, Coverage (In scope), Maximum severity (Critical), Bounty status (Eligible), Last update, and Resolved Reports. A right sidebar provides additional information about the PayPal program, including a link to the PayPal website, a description of the bug bounty program, a response efficiency of 92%, and a rewards table.

| Asset name                                                                                                                                                                                     | Type           | Coverage | Max. severity | Bounty   | Last update  | Resolved Reports |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|---------------|----------|--------------|------------------|
| *.paydiant.com                                                                                                                                                                                 | Other          | In scope | Critical      | Eligible | Jul 13, 2023 | 31 (1%)          |
| 351727428<br>iOS Venmo App                                                                                                                                                                     | iOS: App Store | In scope | Critical      | Eligible | Jan 24, 2023 | 1 (0%)           |
| paypal.me                                                                                                                                                                                      | Domain         | In scope | Critical      | Eligible | Jan 24, 2023 | 9 (0%)           |
| *.braintree.tools<br>Please note, this is a development environment that is constantly in flux. Accordingly, vulnerabilities found on this asset will generally have lower impact and payouts. | Other          | In scope | Critical      | Eligible | Jan 24, 2023 | 2 (0%)           |
| com.xoom.app                                                                                                                                                                                   | iOS: App Store | In scope | Critical      | Eligible | Jul 13, 2023 | 0 (0%)           |

| Severity                                             | Rewards           |
|------------------------------------------------------|-------------------|
| Low<br>Avg. bounty \$297<br>19.88% submissions       | \$50-\$1,000      |
| Medium<br>Avg. bounty \$2,889<br>55.55% submissions  | \$1,000-\$10,000  |
| High<br>Avg. bounty \$15,713<br>15.57% submissions   | \$10,000-\$20,000 |
| Critical<br>Avg. bounty \$7,250<br>7.49% submissions | \$20,000-\$30,000 |

## Scanned Vulnerabilities Using ZAP



### Vulnerability Title Vulnerability Title

- Absence of Anti-CSRF Tokens

### Risk type

- Medium

### Vulnerability Description

- A CSRF defense through the implementation of anti-CSRF (Cross-Site Request Forgery) tokens is absent from all HTML submission forms within the application. CSRF attacks become possible when authentication tokens are absent because attackers can make users mistakenly send undesirable requests to the web application that executes commands on behalf of the user without authorization. The lack of this security measure breaches the protective layer between users and their applications by allowing CSRF attacks to abuse sessions which are already authenticated.



## Affected Components

- HTML forms, specifically the password recovery endpoint:  
/authflow/password-recovery/?country.x=LK&locale.x=en\_US&redirectUri=%2Fsignin
- Any other forms lacking anti-CSRF tokens

## Impact Assessment

- Users could become victims to attackers who would induce them to send malicious requests that enable attackers to execute sensitive actions like password resets and account changes. The unauthorized execution could result in unwanted access and both data alteration and compromised accounts

## Steps to Reproduce

- The user needs to access the impacted form such as password recovery form.
- The form submission should not contain any anti-CSRF tokens including csrf\_token or CSRFTOKEN and other similar identifiers.
- Create an easy HTML page which sends a POST request to the identical API while providing handpicked parameters.
- Users should access the malicious HTML page under their victim account authentication.
- The server confirms the request which proves the website has no anti-CSRF protection enabled.

## Proof of Concept

```
akilasandeepa@Akilas-Air ~ % nslookup paypal.com
Server:      fe80::48ad:ffff:feb6:3545%6
Address:     fe80::48ad:ffff:feb6:3545%6#53

Non-authoritative answer:
Name:   paypal.com
Address: 151.101.195.1
Name:   paypal.com
Address: 162.159.141.96
Name:   paypal.com
Address: 151.101.3.1

akilasandeepa@Akilas-Air ~ % host paypal.com
paypal.com has address 151.101.3.1
paypal.com has address 162.159.141.96
paypal.com has address 151.101.195.1
paypal.com mail is handled by 10 mx1.paypalcorp.com.
paypal.com mail is handled by 10 mx2.paypalcorp.com.
akilasandeepa@Akilas-Air ~ % nmap 151.101.3.1
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-03 00:02 +0530
Nmap scan report for 151.101.3.1
Host is up (0.25s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT      STATE SERVICE
25/tcp    open  smtp
80/tcp    open  http
443/tcp   open  https

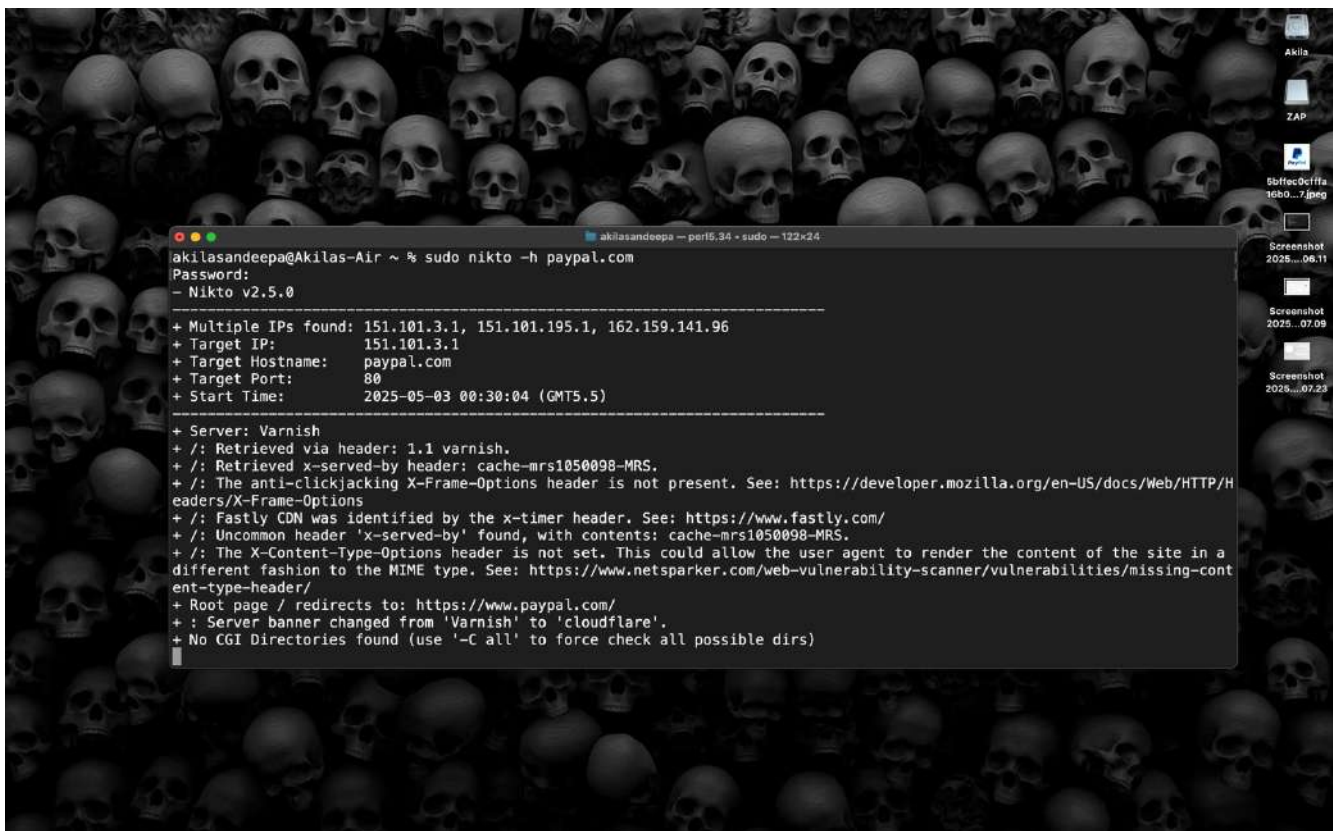
Nmap done: 1 IP address (1 host up) scanned in 160.06 seconds
```

## Proposed Mitigation or Fix

- All state-changing requests and sensitive forms need to incorporate anti-CSRF tokens for protection.
- Every form needs a distinct unpredictable verification token which must be validated by the server upon user submission.
- Making use of well-known frameworks or libraries which include native protection methods against CSRF weak points helps eliminate this vulnerability

## Scanned Vulnerabilities Using NIKTO

The X-Frame-Options header and X-Content-Type-Options header are missing from paypal.com during the Nikto scan because these security headers protect users from clickjacking vulnerabilities and prevent browsers from misinterpreting file types respectively. The scan detected uncommon HTTP headers as well as Fastly CDN and server banner changes yet did not discover any CGI directories or critical vulnerabilities. The security header misconfigurations were identified by the scan without the presence of critical vulnerabilities.



```
akilasandeepa@Akilas-Air ~ % sudo nikto -h paypal.com
Password:
- Nikto v2.5.0

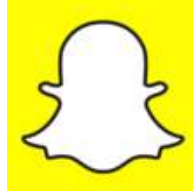
+ Multiple IPs found: 151.101.3.1, 151.101.195.1, 162.159.141.96
+ Target IP: 151.101.3.1
+ Target Hostname: paypal.com
+ Target Port: 80
+ Start Time: 2025-05-03 00:30:04 (GMT5.5)

+ Server: Varnish
+ /: Retrieved via header: 1.1 varnish.
+ /: Retrieved x-served-by header: cache-mrs1050098-MRS.
+ /: The anti-clickjacking X-Frame-Options header is not present. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/headers/X-Frame-Options
+ /: Fastly CDN was identified by the x-timer header. See: https://www.fastly.com/
+ /: Uncommon header 'x-served-by' found, with contents: cache-mrs1050098-MRS.
+ /: The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/
+ Root page / redirects to: https://www.paypal.com/
+ : Server banner changed from 'Varnish' to 'cloudflare'.
+ No CGI Directories found (use '-C all' to force check all possible dirs)
```



## Report 07

# Snapchat



Scope of the security audit according to [https://hackerone.com/snapchat/policy\\_scopes](https://hackerone.com/snapchat/policy_scopes) is as follows.

The screenshot displays the Snapchat Bug Bounty Program page on HackerOne. The page includes a search bar, filters for Scope (All scopes), Maximum severity (Any), and Bounty eligibility (All). A table lists assets with their names, types, coverage, severity, bounty status, last update, and number of reports. The rewards section shows four levels: Low (\$250-\$4,000), Medium (\$250-\$10,000), High (\$1,000-\$20,000), and Critical (\$2,500-\$35,000).

| Asset name                                                                                                                                                                                                         | Type                | Coverage | Max. severity | Bounty   | Last update  | Resolve Report |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|---------------|----------|--------------|----------------|
| web.snapchat.com                                                                                                                                                                                                   | Domain              | In scope | Critical      | Eligible | Jan 24, 2023 | 19 (3%)        |
| app.snapchat.com<br>[Core asset]<br>Main server-side application hosted on Google App Engine under the hostname feelinsonice-hrd.appspot.com and app.snapchat.com.                                                 | Domain              | In scope | Critical      | Eligible | Jan 24, 2023 | 51 (7%)        |
| com.snapchat.android<br>[Core asset][Google Play Store]<br>( <a href="https://play.google.com/store/apps/details?id=com.snapchat.android">https://play.google.com/store/apps/details?id=com.snapchat.android</a> ) | Android: Play Store | In scope | Critical      | Eligible | Nov 1, 2023  | 64 (9%)        |
| business.snapchat.com<br>Snapchat's Business Manager.                                                                                                                                                              | Domain              | In scope | Critical      | Eligible | Jan 24, 2023 | 9 (1%)         |

© HackerOne

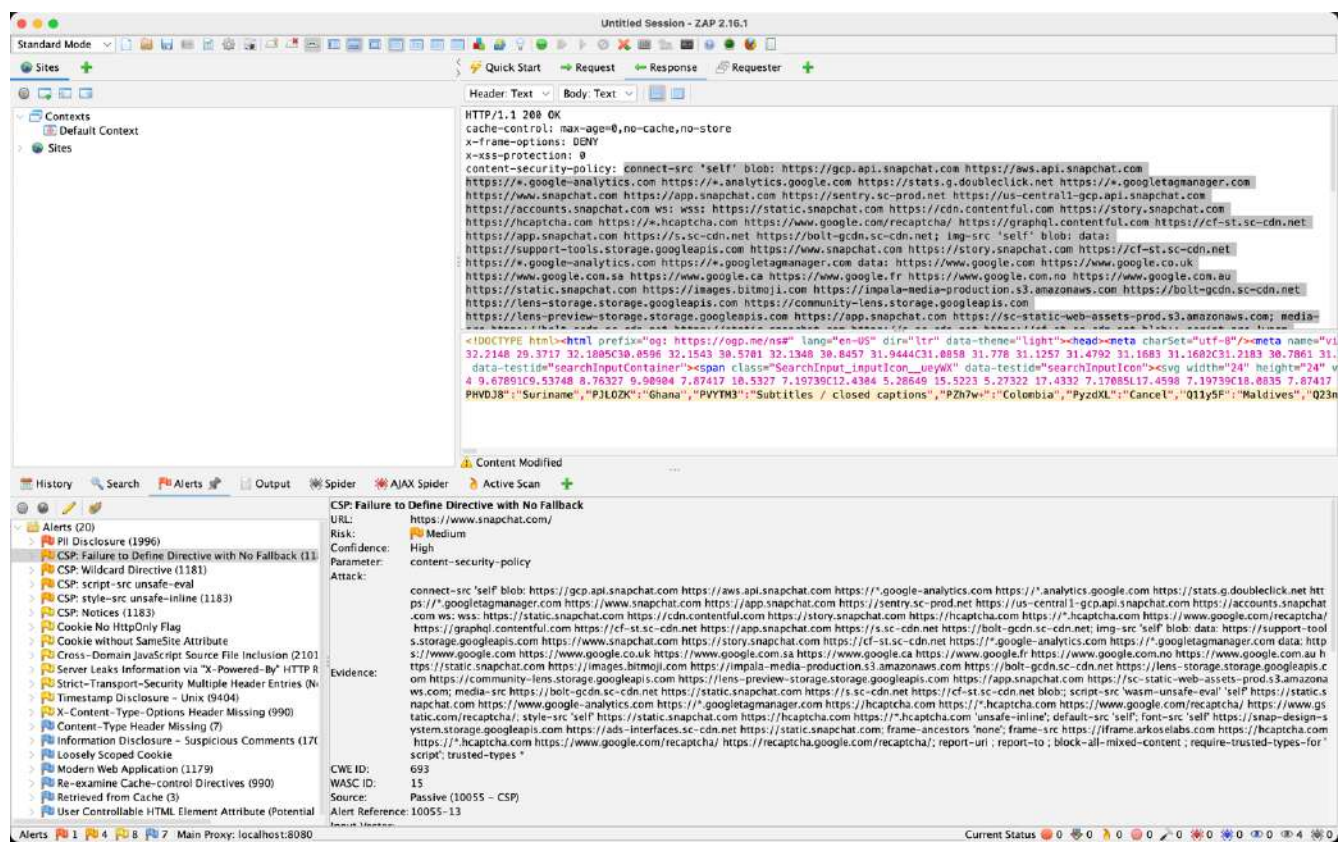
Opportunities Security Leaderboard Blog Status Docs Support

**Rewards**

| Severity | Rewards                                                        |
|----------|----------------------------------------------------------------|
| Low      | \$250-\$4,000<br>Avg. bounty \$617<br>\$1.69% submissions      |
| Medium   | \$250-\$10,000<br>Avg. bounty \$5,063<br>33% submissions       |
| High     | \$1,000-\$20,000<br>Avg. bounty \$11,000<br>10.93% submissions |
| Critical | \$2,500-\$35,000<br>Avg. bounty \$25,000<br>4.37% submissions  |

**Stats**

## Scanned Vulnerabilities Using ZAP

[illegible]

- CSP: Failure to Define Directive with No Fallback

### Risk type

- Medium

## Vulnerability Description

- The Content Security Policy (CSP) of the site has an incomplete configuration by withholding essential explicit instructions while dropping default-src as backup. Browsers allow content from various sources for missing directives that would otherwise protect the application from web-based attacks including XSS and clickjacking

## URL

- <https://www.snapchat.com/>

## Affected Components

- HTTP response headers for <https://www.snapchat.com/>
- Specifically, the Content-Security-Policy header and its configuration

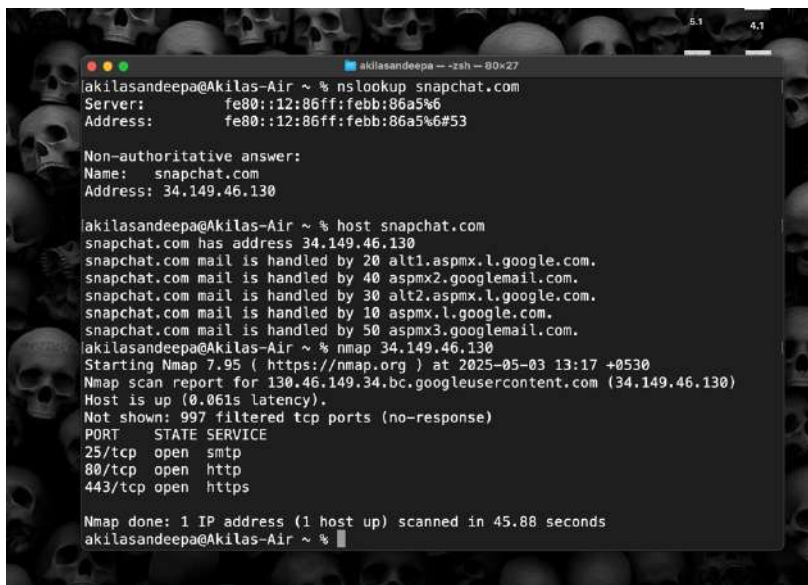
## Impact Assessment

- Absence of proper CSP directives allows attackers to inject harmful scripts and load dangerous resources and embed sites within iframes which creates conditions for XSS attacks, data theft and clickjacking vulnerabilities.

## Steps to Reproduce

- Access <https://www.snapchat.com/> in a browser or use a web proxy tool (e.g., OWASP ZAP).
- The Content-Security-Policy header must be examined in HTTP response headers.
- Notice how several directives (including frame-ancestors) either have not been explicitly specified or they are absent from the policy.
- Ensure that these directives avoid settings that would result in default-src deactivated policies which leave domains open without restrictions

## Proof of Concept



```
akilasandeepa ~ % nslookup snapchat.com
Server:      fe80::12:86ff:febb:86a5%6
Address:     fe80::12:86ff:febb:86a5%6#53

Non-authoritative answer:
Name:   snapchat.com
Address: 34.149.46.130

akilasandeepa ~ % host snapchat.com
snapchat.com has address 34.149.46.130
snapchat.com mail is handled by 20 alt1.aspmx.l.google.com.
snapchat.com mail is handled by 40 aspmx2.googlemail.com.
snapchat.com mail is handled by 30 alt2.aspmx.l.google.com.
snapchat.com mail is handled by 10 aspmx.l.google.com.
snapchat.com mail is handled by 50 aspmx3.googlemail.com.

akilasandeepa ~ % nmap 34.149.46.130
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-03 13:17 +0530
Nmap scan report for 130.46.149.34.bc.googleusercontent.com (34.149.46.130)
Host is up (0.061s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT      STATE SERVICE
25/tcp    open  smtp
80/tcp    open  http
443/tcp    open  https

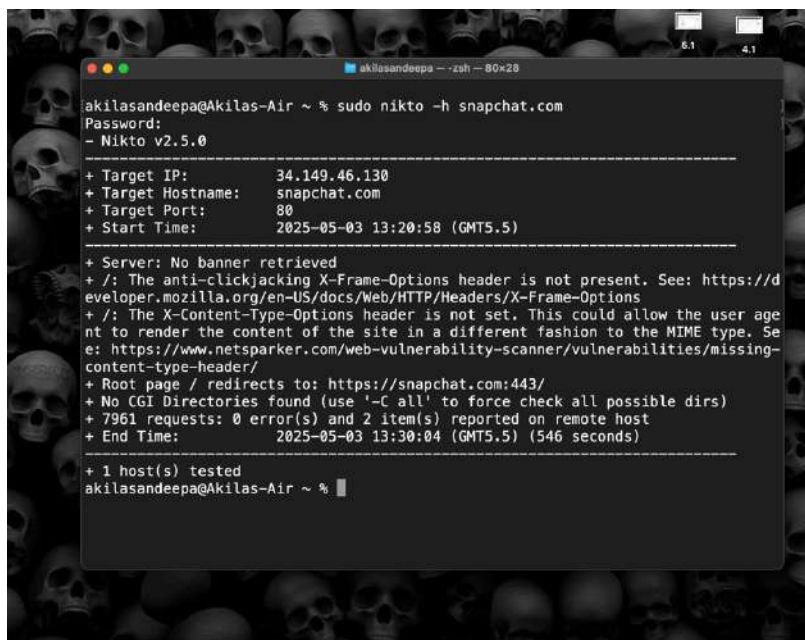
Nmap done: 1 IP address (1 host up) scanned in 45.88 seconds
akilasandeepa ~ %
```

## Proposed Mitigation or Fix

- Explicitly define all CSP directives that do not fallback to default-src, such as frame-ancestors, in the Content-Security-Policy header.

## Scanned Vulnerabilities Using NIKTO

Nikto revealed that snapchat.com lacks two critical security headers including X-Frame-Options for clickjacking protection as well as X-Content-Type-Options for content-sniffing defense. The website lacks necessary security headers which presents possible web-based vulnerabilities but the scan did not identify any critical vulnerabilities or CGI directories.

A terminal window with a skull-patterned background. The terminal shows the command 'sudo nikto -h snapchat.com' being executed. The output displays scan details: Target IP (34.149.46.130), Target Hostname (snapchat.com), Target Port (80), and Start Time (2025-05-03 13:20:58). It notes that the anti-clickjacking X-Frame-Options header is missing and the X-Content-Type-Options header is not set. The scan also reports that the root page redirects to https://snapchat.com:443/, no CGI directories were found, and 7961 requests resulted in 0 errors and 2 items reported on the remote host. The scan ended at 2025-05-03 13:30:04 (546 seconds) after testing 1 host.

```
akilasandeepa@Akilas-Air ~ % sudo nikto -h snapchat.com
Password:
~ Nikto v2.5.0

+ Target IP: 34.149.46.130
+ Target Hostname: snapchat.com
+ Target Port: 80
+ Start Time: 2025-05-03 13:20:58 (GMT5.5)

+ Server: No banner retrieved
+ /: The anti-clickjacking X-Frame-Options header is not present. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
+ /: The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/
+ Root page / redirects to: https://snapchat.com:443/
+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ 7961 requests: 0 error(s) and 2 item(s) reported on remote host
+ End Time: 2025-05-03 13:30:04 (GMT5.5) (546 seconds)

+ 1 host(s) tested
akilasandeepa@Akilas-Air ~ %
```

## Report 08

# Netflix



Scope of the security audit according to [https://hackerone.com/netflix/policy\\_scopes](https://hackerone.com/netflix/policy_scopes) is as follows.

The screenshot displays the Netflix Bug Bounty Program page on HackerOne. The page includes a search bar, filters for Scope, Maximum severity, and Bounty eligibility, and a table of assets. The assets table lists various targets and their associated rewards.

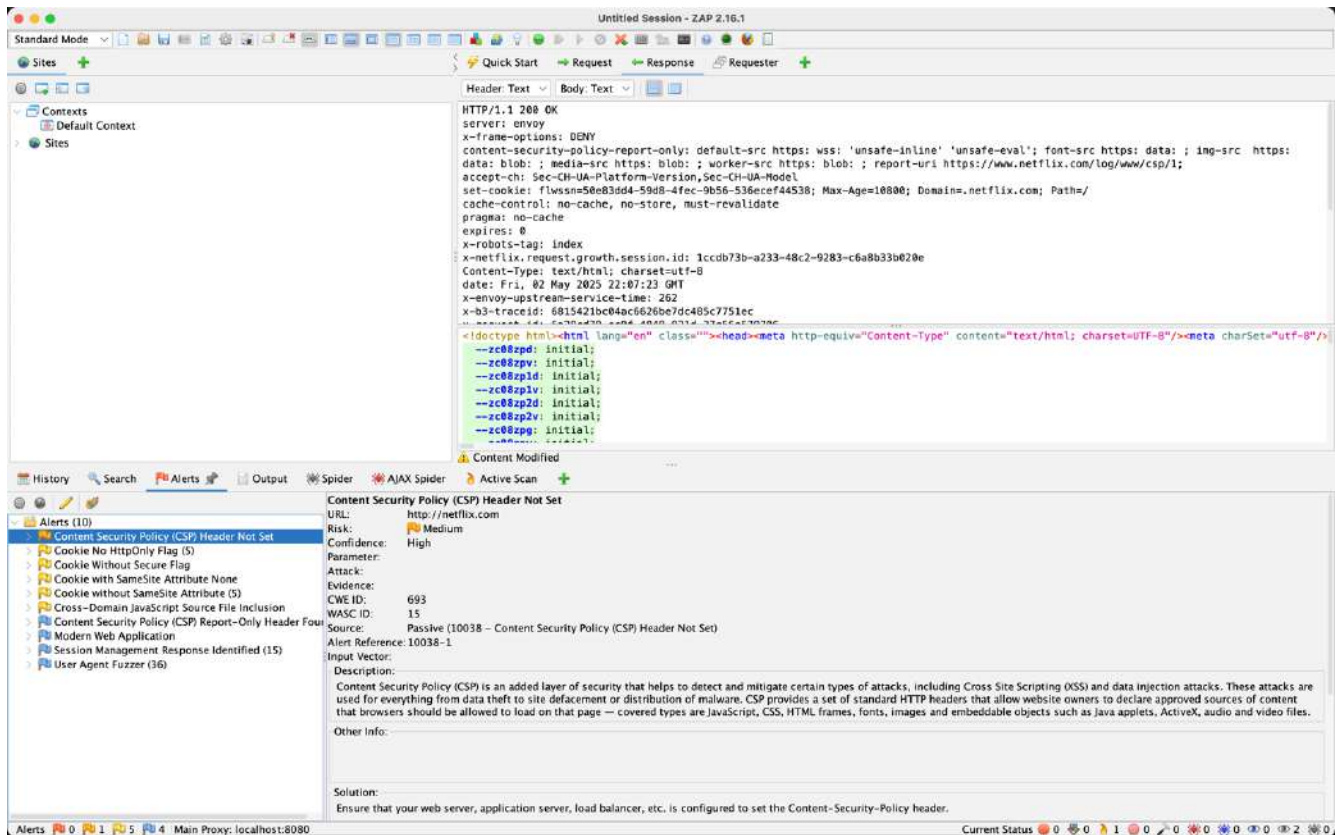
| Asset name                                                                                                                                            | Type   | Coverage | Max. severity | Bounty   | Last update  | Resolved Reports |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|----------|--------------|------------------|
| beacon.netflix.com<br>Primary Target<br>Beacon is a logging endpoint used to collect client information from member's browsers and streaming devices. | Domain | In scope | Critical      | Eligible | Jan 12, 2024 | 17 (1%)          |
| Open Source - Spectator<br><a href="https://github.com/Netflix/spectator">https://github.com/Netflix/spectator</a><br>Secondary Target                | Other  | In scope | Critical      | Eligible | Jan 11, 2024 | 0 (0%)           |
| Open Source - Dispatch<br><a href="https://github.com/Netflix/dispatch">https://github.com/Netflix/dispatch</a><br>Secondary Target                   | Other  | In scope | Critical      | Eligible | Jan 12, 2024 | 12 (0%)          |
| Open Source - Consoleme<br><a href="https://github.com/netflix/consoleme">https://github.com/netflix/consoleme</a>                                    | Other  | In scope | Critical      | Eligible | Jan 11, 2024 | 6 (0%)           |

**Rewards**

| Severity | Rewards                                                       |
|----------|---------------------------------------------------------------|
| Low      | \$300-\$600<br>Avg. bounty \$617<br>33.46% submissions        |
| Medium   | \$300-\$2,000<br>Avg. bounty \$780<br>42.74% submissions      |
| High     | \$500-\$5,000<br>Avg. bounty \$1,875<br>15.09% submissions    |
| Critical | \$2,000-\$25,000<br>Avg. bounty \$25,000<br>8.72% submissions |



## Scanned Vulnerabilities Using ZAP



### Vulnerability Title Vulnerability Title

- Content Security Policy (CSP) Header Not Set

### Risk type

- Medium

### Vulnerability Description

- The web server of netflix.com fails to present the Content Security Policy (CSP) HTTP header in its generated responses. CSP functions as a security standard which stops multiple attacks like XSS and data injection through browser restrictions on source content loading and execution. The site becomes more vulnerable to client-side attacks because it lacks the Content Security Policy header which protects against such threats

## Affected Components

- Web server and HTTP response configuration for netflix.com

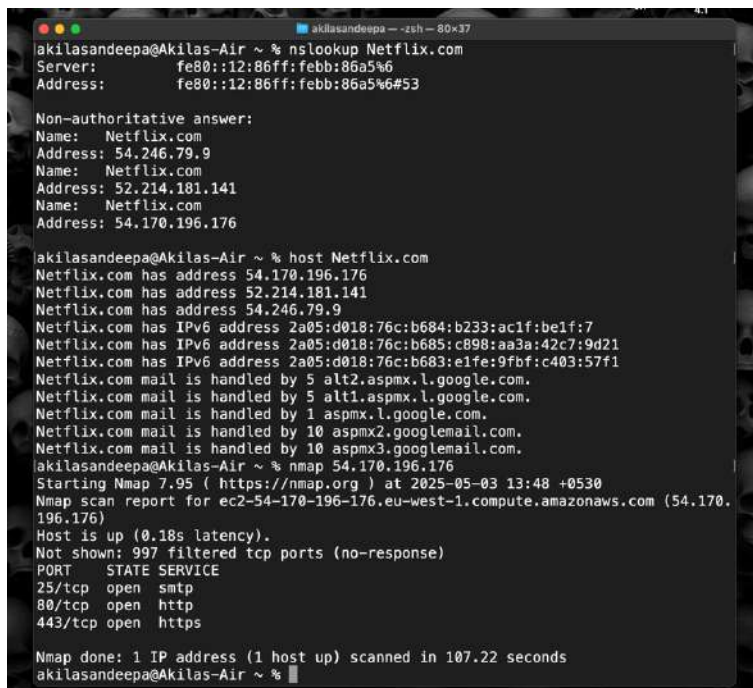
## Impact Assessment

- The website faces threats from attackers who could undertake malicious actions by injecting dangerous code while stealing data and damaging its appearance.
- Browsers receive unrestricted access to load any resources (scripts, styles, images) without administrator control

## Steps to Reproduce

- The OWASP ZAP or similar web proxy tool should intercept HTTP responses that originate from netflix.com.
- Proceed to check HTTP headers for the absence of Content-Security-Policy header

## Proof of Concept



```
akilasandeepa@Akilas-Air ~ % nslookup Netflix.com
Server:         fe80::12:86ff:febb:86a5%6
Address:        fe80::12:86ff:febb:86a5%6#53

Non-authoritative answer:
Name:   Netflix.com
Address: 54.246.79.9
Name:   Netflix.com
Address: 52.214.181.141
Name:   Netflix.com
Address: 54.170.196.176

akilasandeepa@Akilas-Air ~ % host Netflix.com
Netflix.com has address 54.170.196.176
Netflix.com has address 52.214.181.141
Netflix.com has address 54.246.79.9
Netflix.com has IPv6 address 2a05:d018:76c:b684:b233:ac1f:belf:7
Netflix.com has IPv6 address 2a05:d018:76c:b685:c898:aa3a:42c7:9d21
Netflix.com has IPv6 address 2a05:d018:76c:b683:e1fe:9fbf:c403:57f1
Netflix.com mail is handled by 5 alt2.aspmx.l.google.com.
Netflix.com mail is handled by 5 alt1.aspmx.l.google.com.
Netflix.com mail is handled by 1 aspmx.l.google.com.
Netflix.com mail is handled by 10 aspmx2.googlemail.com.
Netflix.com mail is handled by 10 aspmx3.googlemail.com.
akilasandeepa@Akilas-Air ~ % nmap 54.170.196.176
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-03 13:48 +0530
Nmap scan report for ec2-54-170-196-176.eu-west-1.compute.amazonaws.com (54.170.196.176)
Host is up (0.18s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT      STATE SERVICE
25/tcp    open  smtp
80/tcp    open  http
443/tcp    open  https

Nmap done: 1 IP address (1 host up) scanned in 107.22 seconds
akilasandeepa@Akilas-Air ~ %
```

## Proposed Mitigation or Fix

- All outgoing HTTP responses should contain a strict Content-Security-Policy header through configuration of either the web server or application.
- Implement ongoing CSP monitoring to allow necessary resources through updates that minimize client-side security dangers.

## Scanned Vulnerabilities Using NIKTO

The security header X-Frame-Options is absent from netflix.com alongside X-Content-Type-Options which protects against incorrect browser file interpretation thus causing greater vulnerabilities to web-based attacks and misconfigurations.

```
akilasandeepa@Akilas-Air ~ % sudo nikto -h Netflix.com
Password:
- Nikto v2.5.0

+ Multiple IPs found: 52.214.181.141, 54.246.79.9, 54.170.196.176, 2a05:d018:76c:b683:a2cd:4240:8669:6d4, 2a05:d018:76c:b684:8ab7:ac02:667b:e
863, 2a05:d018:76c:b685:e8ab:afd3:af51:3aed
+ Target IP: 52.214.181.141
+ Target Hostname: Netflix.com
+ Target Port: 80
+ Start Time: 2025-05-03 13:52:38 (GMT5.5)

+ Server: No banner retrieved
+ /: Retrieved via header: 1.1 i-01297edb09810bd46 (eu-west-1).
+ /: The anti-clickjacking X-Frame-Options header is not present. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
+ /: Uncommon header 'x-netflix-headerandcookie.profileguid.match' found, with contents: NA.
+ /: Uncommon header 'x-netflix-cookieandmsl.profileguid.match' found, with contents: NA.
+ /: Uncommon header 'x-netflix-headerandmsl.profileguid.match' found, with contents: NA.
+ /: Uncommon header 'x-netflix.proxy.execution-time' found, with contents: 1.
+ /: Uncommon header 'x-netflix.nfstatus' found, with contents: 1 21.
+ /: Uncommon header 'x-originating-url' found, with contents: http://Netflix.com/.
+ /: Cookie nfvddid created without the httponly flag. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Cookies
+ Root page / redirects to: https://Netflix.com/
+ /PUaJEL0W.jsp+: The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a differ
ent fashion to the MIME type. See: https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/
+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ /clientaccesspolicy.xml contains 16 lines which should be manually viewed for improper domains or wildcards. See: https://www.acunetix.com/
vulnerabilities/web/insecure-clientaccesspolicy-xml-file/
+ /crossdomain.xml contains 1 line which include the following domains: *.netflix.com . See: http://jeremiahgrossman.blogspot.com/2008/05/cro
ssdomainxml-invites-cross-site.html
+ /site.tar: Uncommon header 'x-request-id' found, with contents: 84b5bb8e-96a8-4dfd-9154-61eb633de3b7.
+ /site.tar: Uncommon header 'x-envoy-upstream-service-time' found, with contents: 0.
+ /site.tar: Uncommon header 'x-b3-traceid' found, with contents: 6815d2a867a81aa3a07f55a91ca7bf15.
+ /site.tar: Uncommon header 'x-envoy-decorator-operation' found, with contents: lo_svc.
+ /site.tar: Uncommon header 'x-netflix.executor-time' found, with contents: 0.
+ /site.tar: Uncommon header 'x-netflix.request.toplevel.uid' found, with contents: 7d7ddf33-77f7-45b5-9a9e-40ce7e182868-111290077.
+ OPTIONS: Allowed HTTP Methods: GET, HEAD, POST, PUT, DELETE, TRACE, OPTIONS, SCRIPT .
+ HTTP method ('Allow' Header): 'PUT' method could allow clients to save files on the web server.
+ HTTP method ('Allow' Header): 'DELETE' may allow clients to remove files on the web server.
+ ERROR: Error limit (20) reached for host, giving up. Last error: error reading HTTP response
+ Scan terminated: 20 error(s) and 21 item(s) reported on remote host
+ End Time: 2025-05-03 14:05:05 (GMT5.5) (747 seconds)

+ 1 host(s) tested
akilasandeepa@Akilas-Air ~ %
```



## Report 09

# Whoop Bug Bounty



Scope of the security audit according to [https://hackerone.com/whoop\\_bug\\_bounty/policy\\_scopes](https://hackerone.com/whoop_bug_bounty/policy_scopes) is as follows.

The screenshot displays the Whoop Bug Bounty page on HackerOne. The page includes a sidebar with navigation links such as 'Security page', 'Program guidelines', 'Scope', 'Hacktivity', 'Thanks', 'Updates', 'Collaborators', and 'Safe harbor'. The main content area features a search bar and filters for 'Scope' (All scopes), 'Maximum severity' (Any), and 'Bounty eligibility' (All). Below these filters is a table listing assets under audit:

| Asset name        | Type                | Coverage | Max. severity | Bounty   | Last update | Resolved Reports |
|-------------------|---------------------|----------|---------------|----------|-------------|------------------|
| com.whoop.iphone  | iOS: App Store      | In scope | Critical      | Eligible | Jan 9, 2025 | 0 (0%)           |
| com.whoop.android | Android: Play Store | In scope | Critical      | Eligible | Jan 9, 2025 | 0 (0%)           |
| WHOOP 4.0 STRAP   | Other               | In scope | Critical      | Eligible | Jan 9, 2025 | 0 (0%)           |
| app.whoop.com     | Domain              | In scope | Critical      | Eligible | Mar 3, 2025 | 1 (5%)           |

Below the table, there is a note about destructive actions being prohibited. The right sidebar contains the Whoop Bug Bounty logo, a 'Submit report' button, and a 'Rewards' section with a table showing bounty amounts for different severity levels:

| Severity | Rewards |
|----------|---------|
| Low      | \$150   |
| Medium   | \$500   |
| High     | \$1,500 |
| Critical | \$3,000 |

The page also includes a 'Stats' section at the bottom right.

## Scanned Vulnerabilities Using ZAP

The screenshot shows the ZAP interface with the following details:

- Header Text:** HTTP/1.1 200 OK, Accept-Ranges: bytes, Access-Control-Allow-Origin: \*, Age: 27356, Cache-Control: public, max-age=0, must-revalidate, Content-Disposition: inline, Content-Length: 513717, Content-Security-Policy: default-src 'self'; script-src 'unsafe-inline' 'unsafe-eval' https://\*.dynamicsield.com https://cdnjs.cloudflare.com/ajax/libs/Swiper/4.4.6/\* https://www.googletagmanager.com https://www.google-analytics.com; connect-src \* data: https://\*.dy-api.com https://\*.dynamicsield.com https://www.googletagmanager.com https://www.google-analytics.com; style-src \* 'unsafe-inline' https://\*.dynamicsield.com https://cdnjs.cloudflare.com/ajax/libs/Swiper/4.4.6/\*; img-src \* data: https://\*.dynamicsield.com https://images.ctfassets.net; font-src \* https://fonts.googleapis.com https://fonts.gstatic.com; frame-src \*; frame-ancestors \* https://app.contentful.com; media-src \*; worker-src 'self' blob;
- Body Text:** <!DOCTYPE html><html lang="en"><head><meta charset="utf-8"><link rel="preconnect" href="https://cdn.dynamicsield.com"><link rel="preconnect" href="https://www.whoop.com/hk/it/difference/"><link rel="alternate" hrefLang="pt-BR" href="https://www.whoop.com/hk/pt/difference/"><link rel="context" href="https://schem.org", "type": "Organization", "url": "https://www.whoop.com/us/en/", "logo": "https://images.ctfassets.net/rb2qg6pelqia/1yTHjaEgJ81NX0NG8Sc8v/678fa3e14ab0b1cddb478a8e3d0292/WHOOP\_Logo\_R\_Black.png", "name": "WHOOP | Unlock Your Potential", "description": "Monitor your sleep, strain, recovery, and health with the most advanced fitness and health wearable available today. W
- Alerts List:** CSP: Wildcard Directive (180), CSP: script-src unsafe-eval (180), CSP: style-src unsafe-inline (180), Cross-Domain Misconfiguration (62), Server Leaks Information via "X-Powered-By" HTTP Re (42), Timestamp Disclosure - Unix (42), Information Disclosure - Suspicious Comments (306), Modern Web Application (3), Re-examine Cache-control Directives (181), Retrieved from Cache (191).
- Alert Details:** CSP: Wildcard Directive, URL: https://www.whoop.com/us/en/difference/, Risk: Medium, Confidence: High, Parameter: Content-Security-Policy, Attack: default-src 'self'; script-src \* 'unsafe-inline' 'unsafe-eval' https://\*.dynamicsield.com https://cdnjs.cloudflare.com/ajax/libs/Swiper/4.4.6/\* https://www.googletagmanager.com https://www.google-analytics.com; connect-src \* data: https://\*.dy-api.com https://\*.dynamicsield.com https://www.googletagmanager.com https://www.google-analytics.com; style-src \* 'unsafe-inline' https://\*.dynamicsield.com https://cdnjs.cloudflare.com/ajax/libs/Swiper/4.4.6/\*; img-src \* data: https://\*.dynamicsield.com https://images.ctfassets.net; font-src \* https://fonts.googleapis.com https://fonts.gstatic.com; frame-src \*; frame-ancestors \* https://app.contentful.com; media-src \*; worker-src 'self' blob;

### Vulnerability Title Vulnerability Title

- CSP Wildcard Directive and Unsafe Source Allowance

### Risk type

- Medium

### Vulnerability Description

- Whoop.com executes its Content Security Policy on its URL /en/difference/ using wildcard policies which admit both 'unsafe-inline' and 'unsafe-eval' source categories. The weak configuration of the CSP policy weakens security effectiveness making https://www.whoop.com/en/difference/ susceptible to attacks through XSS and data injection vectors because attackers can inject malicious scripts

## Affected Components

- HTTP response headers, specifically the Content-Security-Policy header

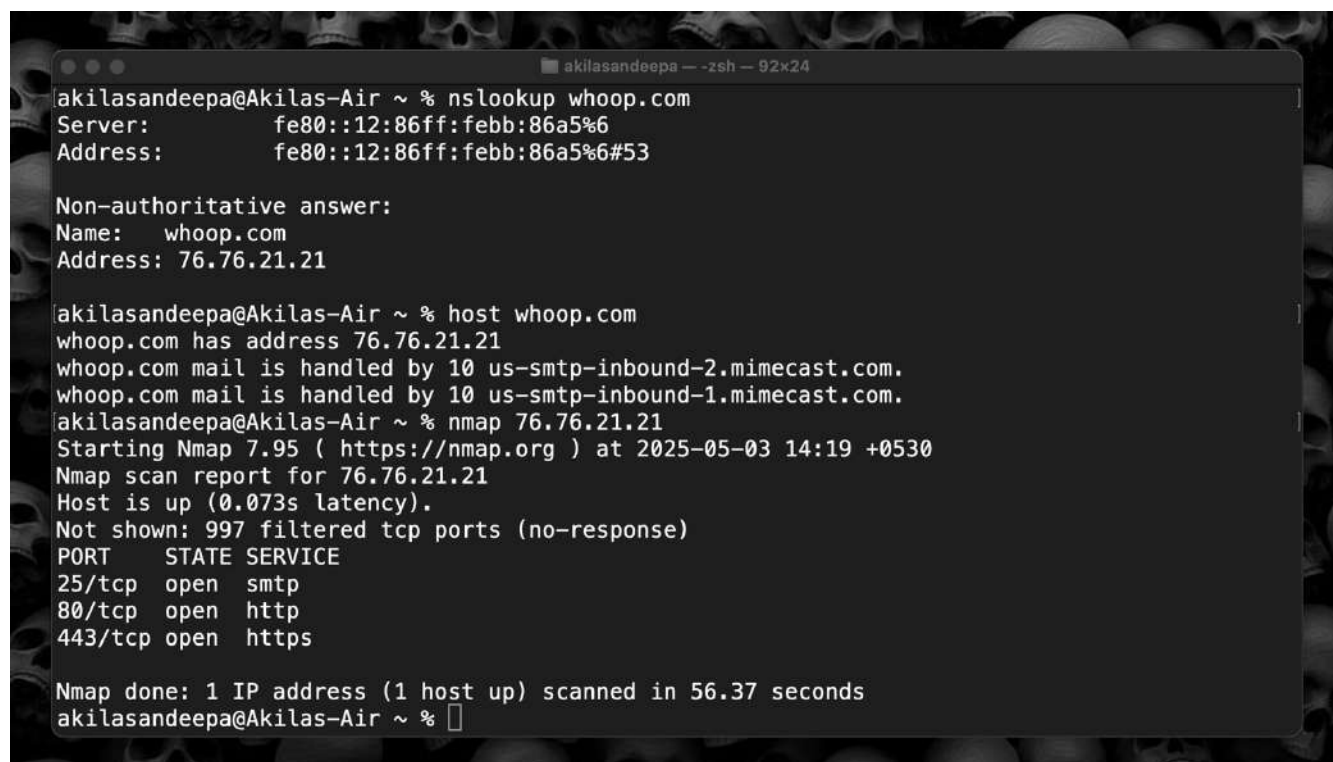
## Impact Assessment

- Attackers use such security flaws to execute unauthorized browser scripts that target users' systems

## Steps to Reproduce

- can reach [www.whoop.com/en/difference/](http://www.whoop.com/en/difference/) through any browser but also through a proxy tool like OWASP ZAP.
- Check whether the HTTP response headers contain a Content-Security-Policy header.
- Examine how the policy makes use of wildcard sources (\*) while containing two unsafe directives ('unsafe-inline', 'unsafe-eval')

## Proof of Concept

A terminal window titled 'akilasandeepa - zsh - 92x24' showing a series of network-related commands and their outputs. The user 'akilasandeepa' is at the 'Akilas-Air' machine. The commands and outputs are as follows:

```
akilasandeepa@Akilas-Air ~ % nslookup whoop.com
Server:         fe80::12:86ff:febb:86a5%6
Address:        fe80::12:86ff:febb:86a5%6#53

Non-authoritative answer:
Name:   whoop.com
Address: 76.76.21.21

akilasandeepa@Akilas-Air ~ % host whoop.com
whoop.com has address 76.76.21.21
whoop.com mail is handled by 10 us-smtp-inbound-2.mimecast.com.
whoop.com mail is handled by 10 us-smtp-inbound-1.mimecast.com.
akilasandeepa@Akilas-Air ~ % nmap 76.76.21.21
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-03 14:19 +0530
Nmap scan report for 76.76.21.21
Host is up (0.073s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT      STATE SERVICE
25/tcp    open  smtp
80/tcp    open  http
443/tcp    open  https

Nmap done: 1 IP address (1 host up) scanned in 56.37 seconds
akilasandeepa@Akilas-Air ~ %
```

## Proposed Mitigation or Fix

- The access allowed by CSP must exclude wildcard (\*). Additionally the 'unsafe-inline' and 'unsafe-eval' script directive values must not be used in the policy.
- Each CSP directive should contain its sources limited to only verified domains.
- The CSP requires frequent assessments to maintain its effectiveness by establishing strict limitations for script and style and image and additional resource sources.
- Check the enhanced policy to make sure it maintains all functional aspects of the site without compromising security measures

## Scanned Vulnerabilities Using NIKTO

A Nikto scan of whoop.com reveals security header deficiencies which include X-Frame-Options and X-Content-Type-Options because these protections prevent clickjacking vulnerabilities and browser security issues.

```
akilasandeepa@Akilas-Air ~ % sudo nikto -h whoop.com
Password:
- Nikto v2.5.0

-----
+ Target IP:      76.76.21.21
+ Target Hostname: whoop.com
+ Target Port:    80
+ Start Time:     2025-05-03 14:22:46 (GMT5.5)
-----

+ Server: Vercel
+ /: The anti-clickjacking X-Frame-Options header is not present. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
+ /: Uncommon header 'refresh' found, with contents: 0;url=https://whoop.com/.
+ /: The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/
+ Root page / redirects to: https://whoop.com/
+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ /dump.tar: IP address found in the 'x-vercel-id' header. The IP is "1::6". See: https://portswigger.net/kb/issues/00600300_private-ip-addresses-disclosed
+ /dump.tar: Uncommon header 'x-vercel-id' found, with contents: sin1::6mksb-1746262418061-ac388a3daa4b.
+ /file/../../../../../../../../etc/: Uncommon header 'x-vercel-mitigated' found, with contents: challenge.
+ /file/../../../../../../../../etc/: Uncommon header 'x-vercel-challenge-token' found, with contents: 2.1746262633.60.YWQzZWY0YjUyOTcyYmFLYzQwY2ZlYWJkYzBiN2YwZDc7YmVhMGFkNjI7YTY0ODRlZTkYOGM1MDMyMjMxMzFLYTg4ZDFLZjk3ZjIxODlhZWYwMjszOzSWkUQU03cHhKS0ZrMIiNvCj8I+9d7LB1Wyja7XVAd4N0XWIL9MCzVhSQtt7Iw+l7t1XUvFK1q++JRzGV+ZX4=.8a50c2a836aded9d4a02dfab129c5a16.
+ /.well-known/acme-challenge: Retrieved access-control-allow-origin header: *.
+ /dana-na/./dana/html5acc/guacamole/../../../../../../../../etc/passwd?/dana/html5acc/guacamole/: Uncommon header 'x-vercel-error' found, with contents: BAD_REQUEST.
+ 7967 requests: 6 error(s) and 9 item(s) reported on remote host
+ End Time:      2025-05-03 14:44:16 (GMT5.5) (1290 seconds)

-----
+ 1 host(s) tested
akilasandeepa@Akilas-Air ~ %
```

## Report 10

# Zooplus



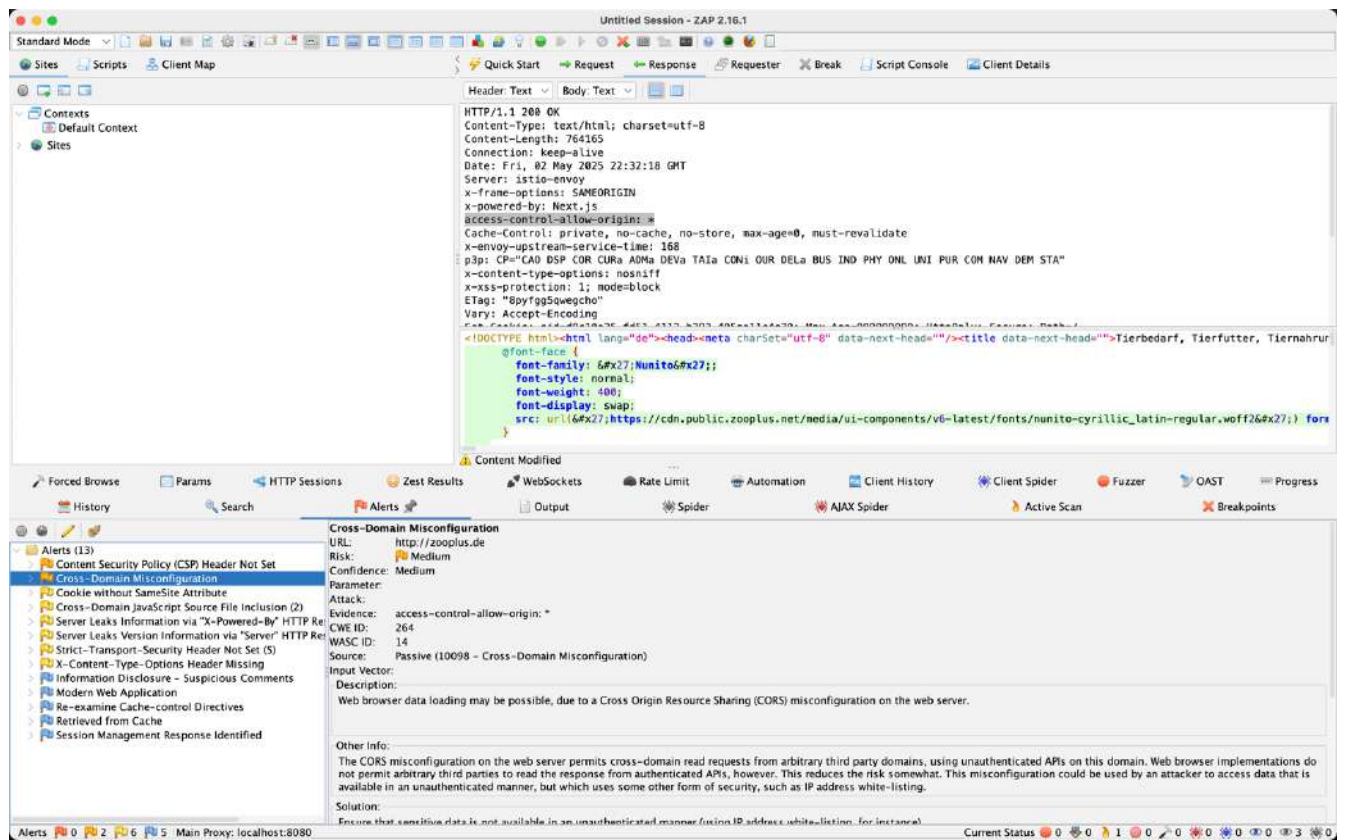
Scope of the security audit according to [https://hackerone.com/zooplus/policy\\_scopes](https://hackerone.com/zooplus/policy_scopes) is as follows.

The screenshot displays the Zooplus Bug Bounty Program page on HackerOne. The page includes a search bar, filters for Scope, Maximum severity, and Bounty eligibility, and a list of assets. The assets table shows details for www.zooplus.co.uk, including its type (Domain), coverage (In scope), maximum severity (Critical), bounty eligibility (Eligible), last update (Jun 11, 2024), and resolved reports (6 (2%)). The rewards table on the right shows the following structure:

| Severity | Rewards |
|----------|---------|
| Low      | \$500   |
| Medium   | \$1,000 |
| High     | \$2,000 |
| Critical | \$5,000 |



## Scanned Vulnerabilities Using ZAP



### Vulnerability Title Vulnerability Title

- Cross-Domain Misconfiguration (CORS)

### Risk type

- Medium

### Vulnerability Description

- The web server at zooplus.de contains a weak Cross-Origin Resource Sharing (CORS) configuration that allows third-party origins through its access-control-allow-origin: \* header. The server misconfiguration allows web browsers to load cross-domain data from any third-party origin site which may disclose sensitive information to unauthorized external domains



## Affected Components

- Web server at zooplus.de
- HTTP response headers, particularly CORS configuration

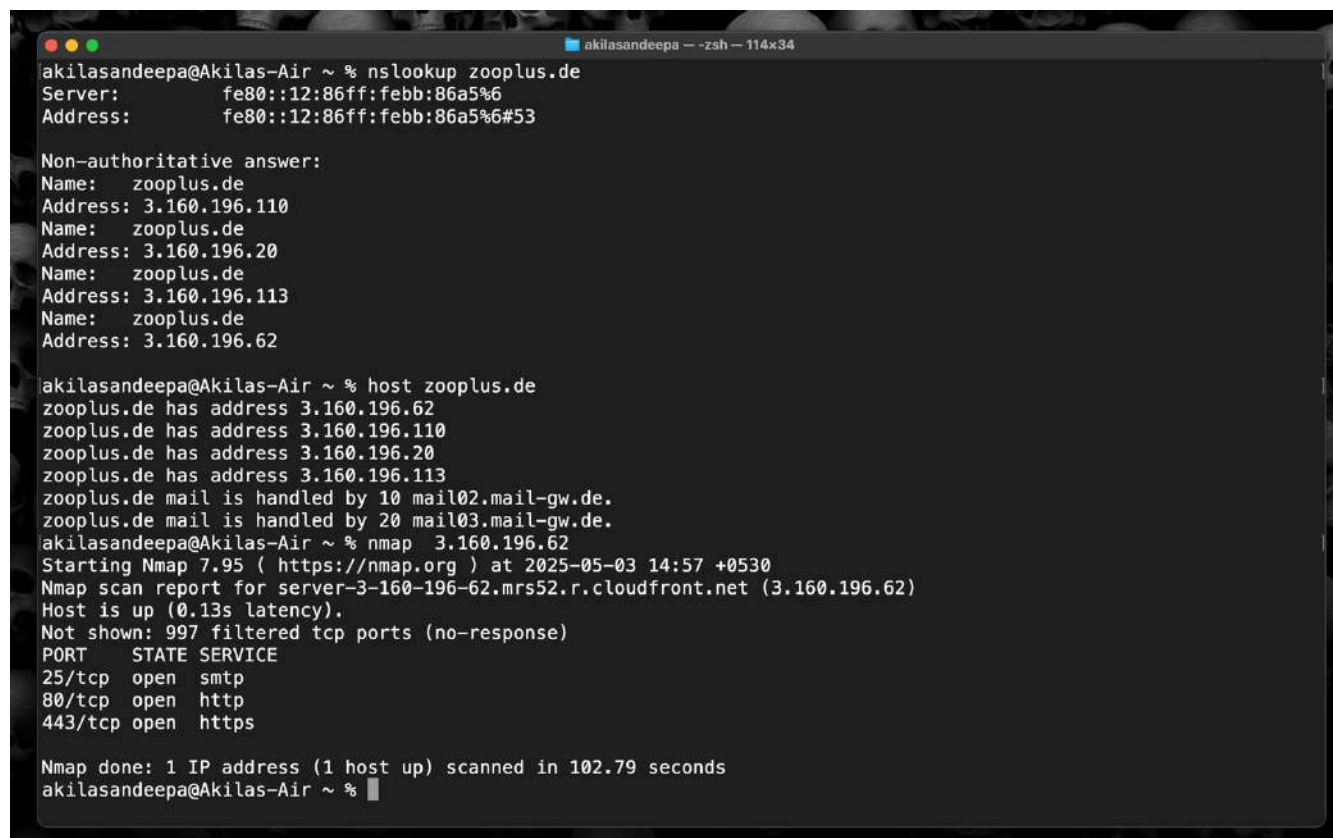
## Impact Assessment

- Unauthorized third-party domains which make API requests plus access responses result in increased data exposure risks.
- A lack of proper security measures allows attackers to acquire protected data or carry out actions under user identities when this occurs.

## Steps to Reproduce

- Through OWASP ZAP users can intercept HTTP responses which transmit from <http://zooplus.de>.
- Verify if the HTTP response headers stay visible while looking for access-control-allow-origin: \* in the header section.

## Proof of Concept

A terminal window titled 'akilasandeepa ~ -zsh - 114x34' showing the following commands and output:

```
akilasandeepa@Akilas-Air ~ % nslookup zooplus.de
Server:         fe80::12:86ff:febb:86a5%6
Address:        fe80::12:86ff:febb:86a5%6#53

Non-authoritative answer:
Name:   zooplus.de
Address: 3.160.196.110
Name:   zooplus.de
Address: 3.160.196.20
Name:   zooplus.de
Address: 3.160.196.113
Name:   zooplus.de
Address: 3.160.196.62

akilasandeepa@Akilas-Air ~ % host zooplus.de
zooplus.de has address 3.160.196.62
zooplus.de has address 3.160.196.110
zooplus.de has address 3.160.196.20
zooplus.de has address 3.160.196.113
zooplus.de mail is handled by 10 mail02.mail-gw.de.
zooplus.de mail is handled by 20 mail03.mail-gw.de.
akilasandeepa@Akilas-Air ~ % nmap 3.160.196.62
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-03 14:57 +0530
Nmap scan report for server-3-160-196-62.mrs52.r.cloudfront.net (3.160.196.62)
Host is up (0.13s latency).
Not shown: 997 filtered tcp ports (no-response)
PORT      STATE SERVICE
25/tcp    open  smtp
80/tcp    open  http
443/tcp    open  https

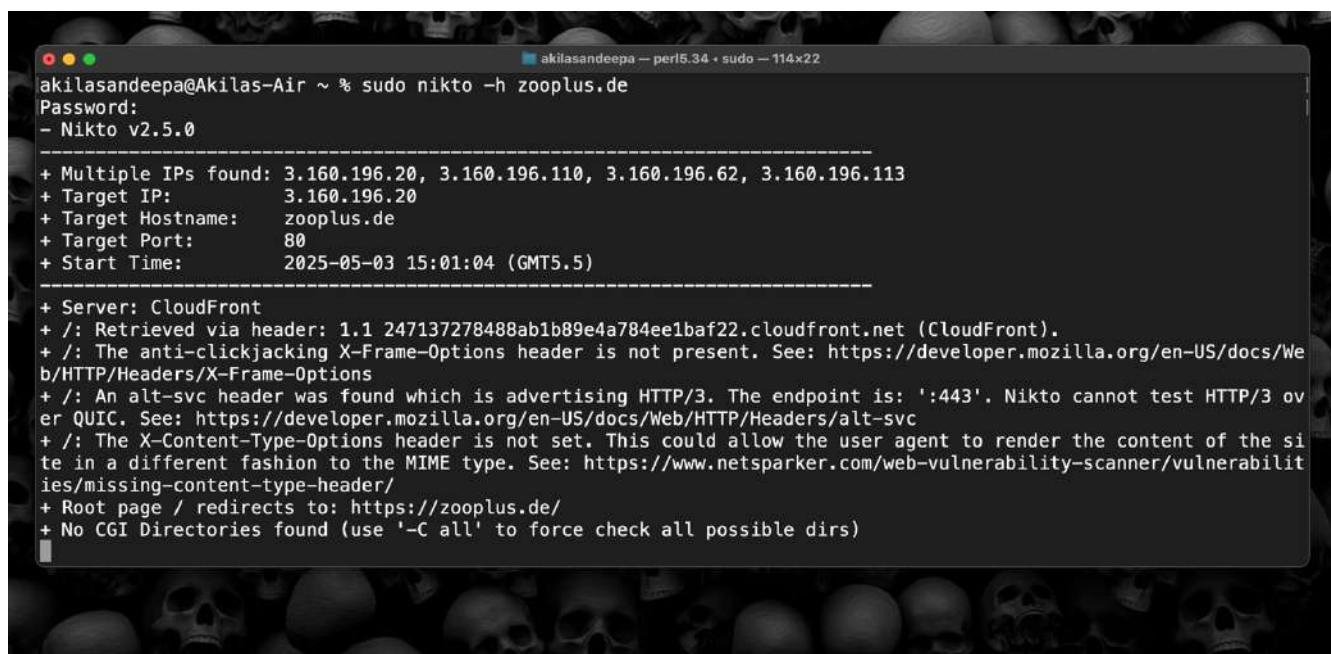
Nmap done: 1 IP address (1 host up) scanned in 102.79 seconds
akilasandeepa@Akilas-Air ~ %
```

## Proposed Mitigation or Fix

- The Access-Control-Allow-Origin header should contain restricted domains instead of using the wildcard format.
- Organizations must enforce CORS policies that limit permissions by origin sites as well as by HTTP methods and response headers.
- Regular tests and audits of CORS configurations must be performed to confirm the admission of proper cross-origin request permissions.

## Scanned Vulnerabilities Using NIKTO

During the Nikto scan of zooplus.de multiple security vulnerabilities emerged because the website lacked essential X-Frame-Options protection and did not implement X-Content-Type-Options and had an alt-svc header revealing HTTP/3 although QUIC testing was unavailable while no CGI directories existed alongside root page redirection to HTTPS.



```
akilasandeepa@Akilas-Air ~ % sudo nikto -h zooplus.de
Password:
- Nikto v2.5.0
-----
+ Multiple IPs found: 3.160.196.20, 3.160.196.110, 3.160.196.62, 3.160.196.113
+ Target IP:      3.160.196.20
+ Target Hostname: zooplus.de
+ Target Port:    80
+ Start Time:     2025-05-03 15:01:04 (GMT5.5)
-----
+ Server: CloudFront
+ /: Retrieved via header: 1.1 247137278488ab1b89e4a784ee1baf22.cloudfront.net (CloudFront).
+ /: The anti-clickjacking X-Frame-Options header is not present. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
+ /: An alt-svc header was found which is advertising HTTP/3. The endpoint is: ':443'. Nikto cannot test HTTP/3 over QUIC. See: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/alt-svc
+ /: The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type. See: https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/missing-content-type-header/
+ Root page / redirects to: https://zooplus.de/
+ No CGI Directories found (use '-C all' to force check all possible dirs)
```