

Penetration Test Report UnCensored Waves

June 2025

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Risk Classification

The criticality of findings in Cyberscope's smart contract audits is determined by evaluating multiple variables. The two primary variables are:

- 1. **Likelihood of Exploitation**: This considers how easily an attack can be executed, including the economic feasibility for an attacker.
- 2. **Impact of Exploitation**: This assesses the potential consequences of an attack, particularly in terms of the loss of funds or disruption to the contract's functionality.

Based on these variables, findings are categorized into the following severity levels:

- Critical: Indicates a vulnerability that is both highly likely to be exploited and can result in significant fund loss or severe disruption. Immediate action is required to address these issues.
- Medium: Refers to vulnerabilities that are either less likely to be exploited or would have a moderate impact if exploited. These issues should be addressed in due course to ensure overall contract security.
- Minor: Involves vulnerabilities that are unlikely to be exploited and would have a
 minor impact. These findings should still be considered for resolution to maintain
 best practices in security.
- 4. **Informative**: Points out potential improvements or informational notes that do not pose an immediate risk. Addressing these can enhance the overall quality and robustness of the contract.

Severity	Likelihood / Impact of Exploitation
 Critical 	Highly Likely / High Impact
Medium	Less Likely / High Impact or Highly Likely/ Lower Impact
Minor / Informative	Unlikely / Low to no Impact



Review

Domain	https://ucwaves.netlify.app/home
Assessment Scope	Landing Page

Audit Updates

Initial Audit	9 June 2025
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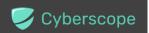
Overview

Cyberscope has conducted a comprehensive penetration test on the web application "UnCensored Waves" hosted at https://ucwaves.netlify.app/home. This report focuses on evaluating the security and performance aspects of the web application. The assessment encompasses various facets of the application, including but not limited to authentication and authorization mechanisms, data handling and storage practices, network security measures, and response to high traffic volumes.

The expansion of blockchain technology has introduced a myriad of innovative applications, each with its own unique security challenges. Tenex as a prime example within the realm of digital currency ecosystems, ensures robust protection of user data and system integrity.

Penetration Assessment Scope

The scope of this assessment extends to identifying vulnerabilities and weaknesses in the application's architecture and functionality, with the aim of providing actionable recommendations to enhance its security posture. The evaluation focused specifically on the landing page of the web app. The assessment included only the landing page of the web app. The report aims to offer a comprehensive understanding of the application's strengths and areas for improvement, facilitating informed decision-making to mitigate risks, fortify against potential cyber threats, and bolster overall security resilience.



Web Technologies

Technology	Category	Version
React	JavaScript Frameworks	N/A
React Router	JavaScript Frameworks	7.6.2
Netlify	CDN	N/A
PDF.js	Miscellaneous	4.8.69
HSTS	Security	N/A
Framer Motion	JavaScript Libraries	N/A



Findings Breakdown



Sev	verity	Unresolved	Acknowledged	Resolved	Other
•	Critical	0	0	0	0
•	Medium	0	0	0	0
	Minor / Informative	6	0	0	0



Diagnostics

Critical
 Medium
 Minor / Informative

Severity	Code	Description	Status
•	BPC	Best Practices Compliance	Unresolved
•	LTC	Latency And Throughput Challenges	Unresolved
•	MACH	Missing Anti-Clickjacking Header	Unresolved
•	MCSPH	Missing Content Security Policy (CSP) Header	Unresolved
•	MXH	Missing X-Content-Type-Options Header	Unresolved
•	SIUL	Server Instability Under Load	Unresolved



BPC - Best Practices Compliance

Criticality	Minor / Informative
Status	Unresolved

Description

Several issues spanning performance, security, and best practices were identified as part of the assessment. Performance metrics including First Contentful Paint, Largest Contentful Paint, Speed Index, and Total Blocking Time indicate subpar performance levels, which could significantly impact user experience and engagement. These findings underscore the importance of addressing these issues promptly to ensure the application's usability, security, and compliance with industry standards.

In summary, the assessment identified the following issues:

- First Contentful Paint
- Largest Contentful Paint
- Speed Index
- Total Blocking Time

Metric	Time
First Contentful Paint	1.7s
Largest Contentful Paint	18.2s
Speed Index	6.3s
Total Blocking Time	760ms



Recommendation

The team is advised to address the identified issues and improve the overall quality of the application. Specifically, the team could ensure compliance with web development best practices by addressing the aforementioned issues. By addressing the identified issues, the application can improve its performance, security posture, and compliance with industry standards, ultimately enhancing user satisfaction and engagement.



LTC - Latency And Throughput Challenges

Criticality	Minor / Informative
Status	Unresolved

Description

As part of the rate-limiting test, the web app highlighted concerns regarding latency and throughput, with varying response times across percentiles and an average latency of 688.91 milliseconds. Additionally, fluctuations in data transfer rates indicate potential bottlenecks or inefficiencies in data processing and transmission, impacting system performance.

Stat	Avg	Stdev	Min	Max
Latency	688.91 ms	828.14 ms	54 ms	10,375 ms
Req/Sec	1072.27	1773.98	1	5080
Bytes/Sec	1.23 MB	2.04 MB	0.2 KB	5.88 MB

Recommendation

To enhance system performance, a comprehensive performance analysis is recommended. This analysis should focus on identifying and addressing latency bottlenecks, such as inefficient database queries, resource-intensive operations, or network congestion. Optimization efforts should target the codebase, database queries, and network configurations to improve response times and enhance overall system throughput, resulting in a smoother user experience and improved system efficiency.



MACH - Missing Anti-Clickjacking Header

Criticality	Minor / Informative
Status	Unresolved

Description

The absence of an Anti-Clickjacking header exposes the application to potential Clickjacking attacks. Clickjacking is a malicious technique that tricks users into clicking on unintended elements by disguising them as legitimate UI elements. This can lead to unauthorized actions being performed without the user's knowledge or consent. Without proper protection mechanisms in place, attackers can exploit Clickjacking vulnerabilities to perform actions on behalf of users, such as making purchases, changing account settings, or clicking on malicious links.

The following URLs are a sample where the response does not include either Content-Security-Policy with 'frame-ancestors' directive or X-Frame-Options to protect against 'ClickJacking' attacks.

- 1. https://ucwaves.netlify.app/home
- 2. https://ucwaves.netlify.app/robots.txt
- 3. https://ucwaves.netlify.app/sitemap.xml
- 4. https://ucwaves.netlify.app/UCLogo.png

Recommendation

Modern Web browsers support the Content-Security-Policy and X-Frame-Options HTTP headers. The team is advised to ensure one of them is set on all web pages returned by the site/app.

If the team expects the page to be framed only by pages on their server (e.g. it's part of a FRAMESET) then they'll want to use SAMEORIGIN, otherwise if the team never expects the page to be framed, they should use DENY. Alternatively, the team could consider implementing Content Security Policy's "frame-ancestors" directive.

Reference: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options



MCSPH - Missing Content Security Policy (CSP) Header

Criticality	Minor / Informative
Status	Unresolved

Description

Content Security Policy (CSP) is an added layer of security that helps to detect and mitigate certain types of attacks, including 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.

The following URLs are a sample of a missing Content Security Policy (CSP) header.

- 1. https://ucwaves.netlify.app/home
- 2. https://ucwaves.netlify.app/UCLogo.png
- 3. https://ucwaves.netlify.app/sitemap.xml
- 4. https://ucwaves.netlify.app/robots.txt

Recommendation

To address the absence of Content Security Policy (CSP) headers and enhance the security of the application, the following steps are recommended:

- Verify that your web server, application server, load balancer, or any other relevant components are properly configured to set the Content-Security-Policy header in HTTP responses.
- Define a comprehensive CSP policy tailored to the specific requirements and functionalities of your application. Consider including directives such as default-src, script-src, style-src, img-src, font-src, connect-src, frame-src, media-src, object-src, and sandbox, among others, to restrict content loading from unauthorized sources.
- Utilize CSP reporting mechanisms to monitor policy violations and fine-tune your
 CSP directives over time based on real-world usage and detected issues.



By implementing a robust Content Security Policy (CSP) and adhering to best practices for CSP configuration and management, you can significantly reduce the risk of XSS attacks, data injection vulnerabilities, and other web security threats, thereby enhancing the overall security posture of your application.

References:

- 1. Mozilla Developer Network: Introducing Content Security Policy
- 2. OWASP Content Security Policy Cheat Sheet
- 3. W3C Content Security Policy Specification



MXH - Missing X-Content-Type-Options Header

Criticality	Minor / Informative
Status	Unresolved

Description

The absence of the X-Content-Type-Options header exposes the application to potential MIME-sniffing attacks, particularly affecting older versions of Internet Explorer and Chrome. This vulnerability allows browsers to interpret response bodies as content types other than the declared type, potentially leading to security breaches and data exposure. Even error pages (e.g., 401, 403, 500) remain susceptible to such attacks, necessitating immediate action to safeguard against injection vulnerabilities.

The following URLs are a sample of all the occurrences where an X-Content-Type-Options header was not set.

- 1. https://ucwaves.netlify.app/assets/wallet-close-BAIBTnE-.png
- 2. https://ucwaves.netlify.app/assets/wallet-open-C7epiAbi.png
- 3. https://ucwaves.netlify.app/assets/wallet-placeholder-DIWmMre5.js
- 4. https://ucwaves.netlify.app/home
- 5. https://ucwaves.netlify.app/robots.txt

Recommendation

To mitigate this risk, the team is advised to ensure that the application or web server configures the Content-Type header accurately and includes the X-Content-Type-Options header set to 'nosniff' for all web pages. Additionally, consider recommending users employ modern, standards-compliant web browsers that either abstain from MIME-sniffing or allow for its suppression via directives from the server or application.

Reference:

https://learn.microsoft.com/en-us/previous-versions/windows/internet-explorer/ie-develope r/compatibility/gg622941(v=vs.85) https://owasp.org/www-community/Security_Headers



SIUL - Server Instability Under Load

Criticality	Minor / Informative
Status	Unresolved

Description

The web app highlighted a concerning number of errors (5,538), out of which 5,514 were timeouts during the assessment period, indicating potential challenges with server stability and resource allocation. Such issues can significantly impact user experience and necessitate a deeper investigation into server health and capacity planning.

In summary:

- The conducted test used 3000 concurrent connections in 30 seconds.
- The number of requests that were sent was 40,746 requests in 30.77 seconds.
- The number of connection errors (including timeouts) that occurred was 5,538.
- The number of connection timeouts that occurred was 5,514.

Recommendation

To mitigate these challenges, it is advised to conduct a comprehensive analysis of server logs and infrastructure to pinpoint the underlying causes of errors and timeouts. This analysis should inform the optimization of server configurations, potential resource upgrades, and the implementation of robust error-handling mechanisms. By addressing these areas, disruptions to user access can be minimized, ensuring a smoother and more reliable service experience.



Summary

This report provides a thorough assessment of the web application's security and performance. Through meticulous analysis, the report identifies vulnerabilities and weaknesses in key areas such as data handling and network security. Recommendations are provided to address these issues and enhance the application's resilience against cyber threats.

Overall, the report serves as a valuable resource, offering insights into the application's security posture and actionable recommendations to fortify its defenses. By implementing the suggested measures, the team can strengthen the app's security foundation and maintain trust among users.



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Blockchain technology and cryptographic assets present a high level of ongoing risk Cyberscope's position is that each company and individual are responsible for their own due diligence and continuous security Cyberscope's goal is to help reduce the attack vectors and the high level of variance associated with utilizing new and consistently changing technologies and in no way claims any guarantee of security or functionality of the technology we agree to analyze. The assessment services provided by Cyberscope are subject to dependencies and are under continuing development. You agree that your access and/or use including but not limited to any services reports and materials will be at your sole risk on an as-is where-is and as-available basis Cryptographic tokens are emergent technologies and carry with them high levels of technical risk and uncertainty. The assessment reports could include false positives false negatives and other unpredictable results. The services may access and depend upon multiple layers of third parties.

About Cyberscope

Cyberscope is a blockchain cybersecurity company that was founded with the vision to make web3.0 a safer place for investors and developers. Since its launch, it has worked with thousands of projects and is estimated to have secured tens of millions of investors' funds.

Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.



The Cyberscope team

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