Vulnerability Scan Report: https://surfacerefinish.com

Target URL: [https://surfacerefinish.com] **Server:** nginx/1.25.5 / Apache **Scan Tool:** Nikto
Scan Duration: 7014 seconds
Date: 28th September 2024

Summary of Findings:

The vulnerability scan conducted on https://surfacerefinish.com revealed several security misconfigurations and vulnerabilities that could potentially expose the site to attacks. Below is a detailed summary of the key findings:

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1. Missing Security Headers:

- **X-Frame-Options:** The anti-clickjacking `X-Frame-Options` header is not present, which can allow the site to be embedded within an iframe and potentially enable clickjacking attacks.
  Recommendation: Add the `X-Frame-Options` header to prevent framing of the webpage.
- **Strict-Transport-Security (HSTS):** The `Strict-Transport-Security` HTTP header is not defined, leaving the site vulnerable to downgrade attacks and forcing users to fall back to insecure HTTP.
  Recommendation: Implement HSTS to ensure secure HTTPS connections.
- **X-Content-Type-Options:** This header is missing, which could allow the browser to interpret files as different MIME types and lead to MIME-based attacks.
  Recommendation: Set the `X-Content-Type-Options to nosniff` to prevent content type sniffing.

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2. Potential Vulnerabilities in Web Applications:

- **WordPress Issues:** Multiple WordPress-related files and directories were found, including:
  - `wp-login.php` and `/wordpress/` paths were identified, indicating the presence of WordPress.
  - A potential XSS vulnerability in `wp-login.php` with cookies created without the `httponly` flag.

    - Potential exposure of sensitive information through `wp-app.log` and `license.txt` files.
- **Recommendation:** Secure all WordPress files by restricting access to sensitive paths and ensuring the latest version of WordPress is installed with appropriate security configurations.
- **IlohaMail XSS Vulnerability:** The webmail client, **IlohaMail 0.8.10**, contains a known cross-site scripting (XSS) vulnerability.
  Recommendation: Patch or remove the vulnerable IlohaMail software.
- **Apache `server-status` Disclosure:** The `/server-status` URL reveals sensitive server information, which can be leveraged for reconnaissance by attackers.
  Recommendation: Comment out the appropriate line in the Apache conf file or restrict access to `/server-status` in the Apache configuration.

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3. Mail and Control Panel Services Exposed:

- The webmail interface (`/webmail/`) and control panel (`/cpanel/`, `/controlpanel/`, `/securecontrolpanel/`) pages were exposed. These can be targeted by attackers for brute-force attacks or unauthorized access.
  Recommendation: Restrict access to these interfaces and ensure that strong authentication mechanisms are in place.
- **Mailman Mailing List:** The `/mailman/listinfo` page indicates the presence of Mailman, which could expose administrative interfaces or subscription details.
  Recommendation: Secure or restrict access to the Mailman service and update to the latest version.

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4. Potential Directory Traversal/Disclosure:

- **Directory Listing Enabled:** The default image directory `/img-sys/` allows directory listing, which could expose internal files or sensitive data. **Recommendation:** Disable directory listing for this and other directories by configuring the web server settings.

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5. Vulnerable to BREACH Attack:

- The `Content-Encoding` header is set to `deflate`, indicating the site may be vulnerable to the **BREACH attack**, which exploits compression to extract sensitive data like session tokens.

Recommendation: Disable HTTP compression or implement countermeasures like padding.

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6. Use of Uncommon Headers:

- Headers like `x-server-cache, x-nginx-cache, x-proxy-cache`, `x-endurance-cache-level`, and `x-redirect-by` were found. These may not pose an immediate security risk but could reveal information about the backend infrastructure, leading to potential exploitation.
  Recommendation: Review the necessity of these headers and consider removing them if not required.

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7. TLS Misconfigurations:

- The site uses TLS but lacks key security headers (such as HSTS) to fully secure the transport layer. This could lead to potential man-in-the-middle (MITM) attacks or SSL stripping.
  Recommendation: Strengthen TLS configurations by enforcing HSTS and ensuring TLS certificates are up to date.

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8. Miscellaneous Findings:

- **Robots.txt File:** The file contains entries that should be manually reviewed, as they could reveal sensitive directories or files that could assist in information gathering by attackers.
- **WordPress Version Disclosure:** The WordPress installation exposes its version via `/wp-links-opml.php`, which could make it easier for attackers to target known vulnerabilities in specific WordPress versions.
  Recommendation: Ensure the WordPress installation and all plugins are updated to their latest versions, and restrict access to sensitive files.

Vulnerability Ranking and Assessment (CVE/CVSS):

Below is a ranking of the key vulnerabilities to be addressed based on severity. This table includes the vulnerability’s unique Common Vulnerabilities & Exposure (CVE) identifier and score, based off the NIST NVD’s Common Vulnerability Scoring System (CVSS):

Vulnerability #	Description	CVSS Severity
CVE-2015-9451	Missing `X-Frame-Options` header in certain WordPress installs, potential clickjacking	**9.8 CRITICAL**
CVE-2016-10033	WordPress path traversal vulnerability, potential to disclose sensitive logs/system files	**9.8 CRITICAL**
CVE-2017-9788	Apache HTTP Server privilege escalation vulnerability, leaks confidential server information, potential for DoS attacks	**9.1 CRITICAL**
CVE-2020-13379	Directory listing exposure vulnerability in certain web servers, can allow attackers to gain access to view sensitive information	**8.2 HIGH**
CVE-2021-42097	Information disclosure vulnerability in Mailman, can expose mailing list information	**8.0 HIGH**
CVE-2018-6389	Denial of Service (DoS) vulnerability in WordPress login, affecting versions prior to 4.9.2.	**7.5 HIGH**
CVE-2013-3587	Vulnerability in TLS/SSL when using compression, potential for a BREACH attack to leak information	**5.9 MEDIUM**
CVE-2020-7070	WordPress version disclosure through specific WordPress-related paths or files.	**5.3 MEDIUM**

Conclusion & Recommendations:

The scan has highlighted several areas of concern, primarily involving missing security headers, exposed control panels, and vulnerabilities related to WordPress and webmail services. To mitigate these risks, the following steps should be taken:

1. **Implement Missing Security Headers**: Add `X-Frame-Options`, `Strict-Transport-Security`, and `X-Content-Type-Options` to protect against common web-based attacks.
2. **Secure WordPress and Associated Files**: Ensure the WordPress installation is up-to-date and secure sensitive directories and log files.
3. **Fix Known Vulnerabilities**: Patch or remove vulnerable services like IlohaMail and secure exposed control panel interfaces.
4. **Review Server and Application Configuration**: Disable directory listings and unnecessary HTTP methods, and review the use of uncommon headers to reduce the server's attack surface.

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