REPORT

Title: Information Gathering Report for testphp.vulnweb.com

Date: 28th October, 2023

Prepared by: Ssozi Malik

Position: Cybersecurity Intern

Objective:

The objective of this report is to present the findings of the information gathering and reconnaissance activities conducted on senselearner.com in a legal and ethical manner. The information collected is intended for security assessment and risk analysis.

Table of Contents

EXECUTIVE SUMMARY

Provide a brief overview of the key findings and highlights of my information gathering efforts.

INTRODUCTION

This report outlines the results of my ethical and lawful information gathering and reconnaissance activities on testphp.vulnweb.com. My aim is to provide security insights and risk analysis during my internship. My efforts are geared towards helping testphp.vulnweb.com enhance its security, protect sensitive data and maintain user trust. All my actions adhered to legal and ethical guidelines, respecting the platform's integrity. This report details my methods, findings and recommendations for a safer digital environment.

DOMAIN INFORMATION

Domain Name: testphp.vulnweb.com

IP Address: 44.228.249.3

Registrar:

```
Registry Registrant ID:
Registrant Name: Acunetix Acunetix
Registrant Organization: Acunetix Ltd
Registrant Street: 3rd Floor,, J&C Building,, Road Town
Registrant City: Tortola
Registrant State/Province:
Registrant Postal Code: VG1110
Registrant Country: VG
Registrant Phone: +1.23456789
Registrant Fax:
Registrant Email: administrator@acunetix.com
Registry Admin ID:
Admin Name: Acunetix Acunetix
Admin Organization: Acunetix Ltd
Admin Street: 3rd Floor,, J&C Building,, Road Town
Admin City: Tortola
Admin State/Province:
Admin Postal Code: VG1110
Admin Country: VG
Admin Phone: +1.23456789
Admin Fax:
Admin Email: administrator@acunetix.com
Registry Tech ID:
Tech Name: Acunetix Acunetix
Tech Organization: Acunetix Ltd
Tech Street: 3rd Floor,, J&C Building,, Road Town
Tech City: Tortola
Tech State/Province:
Tech Postal Code: VG1110
Tech Country: VG
Tech Phone: +1.23456789
Tech Fax:
Tech Email: administrator@acunetix.com
```

Creation, registration and updated Dates:

Domain Whois record

Queried **whois.internic.net** with "**dom vulnweb.com**"...

```
   Domain Name: VULNWEB.COM
   Registry Domain ID: 1602006391_DOMAIN_COM-VRSN
   Registrar WHOIS Server: whois.eurodns.com
   Registrar URL: http://www.EuroDNS.com
   Updated Date: 2023-05-26T07:56:15Z
   Creation Date: 2010-06-14T07:50:29Z
   Registry Expiry Date: 2025-06-14T07:50:29Z
   Registrar: EuroDNS S.A.
   Registrar IANA ID: 1052
   Registrar Abuse Contact Email: legalservices@eurodns.com
   Registrar Abuse Contact Phone: +352.27220150
   Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
   Name Server: NS1.EURODNS.COM
   Name Server: NS2.EURODNS.COM
   Name Server: NS3.EURODNS.COM
   Name Server: NS4.EURODNS.COM
   DNSSEC: unsigned
   URL of the ICANN Whois Inaccuracy Complaint Form: https://www.icann.org/wicf/
>>> Last update of whois database: 2023-10-27T08:49:42Z <<<
```

Status: Active

Ping

```
PING testphp.vulnweb.com (44.228.249.3) 56(84) bytes of data.
64 bytes from ec2-44-228-249-3.us-west-2.compute.amazonaws.com (44.228.249.3): icmp_seq=1 ttl=42 time=60.2 ms
64 bytes from ec2-44-228-249-3.us-west-2.compute.amazonaws.com (44.228.249.3): icmp_seq=2 ttl=42 time=60.2 ms
64 bytes from ec2-44-228-249-3.us-west-2.compute.amazonaws.com (44.228.249.3): icmp_seq=3 ttl=42 time=60.2 ms
64 bytes from ec2-44-228-249-3.us-west-2.compute.amazonaws.com (44.228.249.3): icmp_seq=4 ttl=42 time=60.2 ms
64 bytes from ec2-44-228-249-3.us-west-2.compute.amazonaws.com (44.228.249.3): icmp_seq=5 ttl=42 time=60.2 ms

--- testphp.vulnweb.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4000ms
rtt min/avg/max/mdev = 60.241/60.253/60.275/0.011 ms
```

DNS FOOTPRINTING

Name Servers:

```
Tech Email: administrator@acunetix.com
Name Server: ns1.eurodns.com
Name Server: ns2.eurodns.com
Name Server: ns3.eurodns.com
Name Server: ns4.eurodns.com
DNSSEC: unsigned
URL of the ICANN Whois Inaccuracy Complaint Form: https://www.icann.org/wicf/
>>> Last update of WHOIS database: 2023-10-27T08:49:55Z <<<
```

Where these Name Servers come from

vulnweb.com	IN	NS	ns2.eurodns.com	86400s (1.00:00:00)
vulnweb.com	IN	NS	ns3.eurodns.com	86400s (1.00:00:00)
vulnweb.com	IN	NS	ns4.eurodns.com	86400s (1.00:00:00)
vulnweb.com	IN	NS	ns1.eurodns.com	86400s (1.00:00:00)

DNS Records:

A records

testphp.vulnweb.com	A	2286	44.228.249.3

SOA records

DNS Records for testphp.vulnweb.com

Hostname	Type	TTL	Priority	Content
testphp.vulnweb.com	SOA	1017		ns1.eurodns.com hostmaster@eurodns.com 2021110100 86400 7200 604800 86400

PTR records

3.249.228.44.in-addr.arpa IN PTR ec2-44-228-249-3.us-west-2.compute.amazonaws.com 300s (00:05:00)

TXT records

TXT Records ** Find more hosts in Sender Policy Framework (SPF) configurations

"google-site-verification:toEctYsulNIxgraKk7H3z58PCyz2IOCc36pIupEPmYQ"

Subdomains:

```
┌──(kali㉿kali)-[~/Desktop]
└─$ sudo subfinder -d testphp.vulnweb.com
[INF] Detected old /root/.config/subfinder/config.yaml config file, trying to migrate p
roviders to /root/.config/subfinder/provider-config.yaml
[INF] Migration successful from /root/.config/subfinder/config.yaml to /root/.config/su
bfinder/provider-config.yaml.

                projectdiscovery.io

[INF] Current subfinder version v2.6.0 [redacted]
[INF] Loading provider config from /root/.config/subfinder/provider-config.yaml
[INF] Enumerating subdomains for testphp.vulnweb.com
www.testphp.vulnweb.com
[INF] Found 1 subdomains for testphp.vulnweb.com in 2 seconds 699 milliseconds

┌──(kali㉿kali)-[~/Desktop]
└─$
```

WEB FOOTPRINTING

Web Server Information:

Web Servers

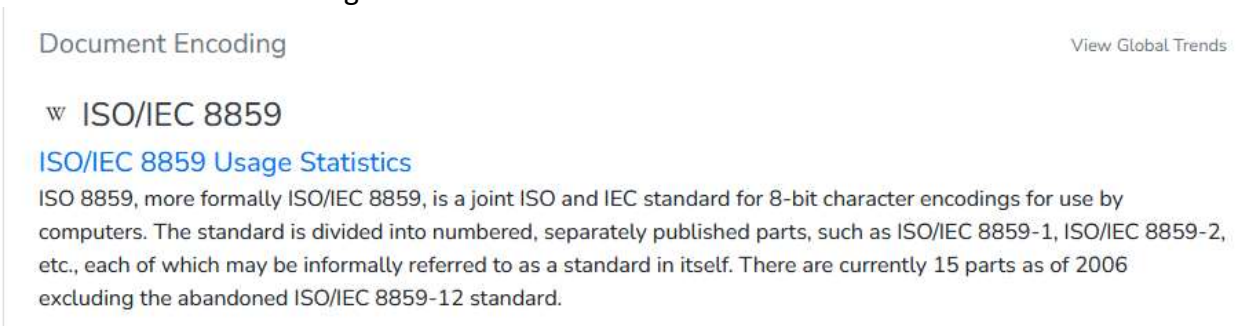
nginx

nginx Usage Statistics · Download List of All Websites using nginx

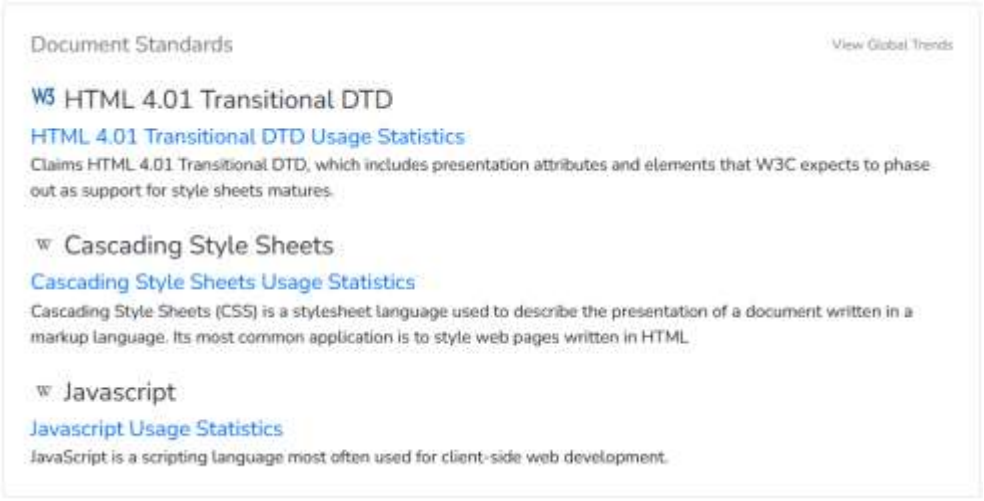
nginx [engine x] is a HTTP server and mail proxy server written by Igor Sysoev.

Web Server Version:

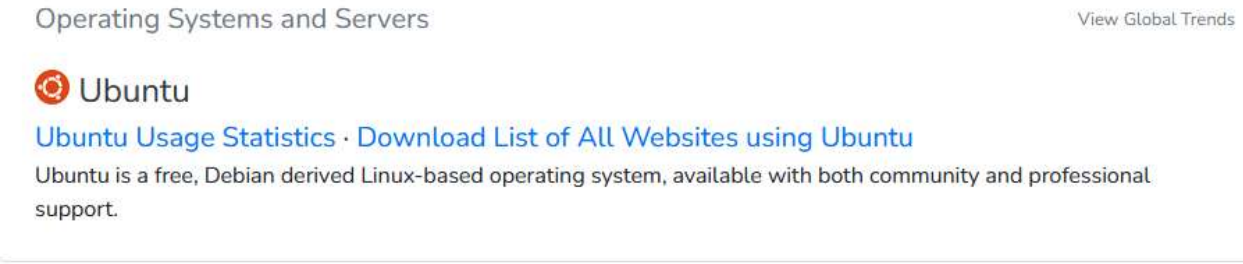
Document Encoding:



Document Standards:

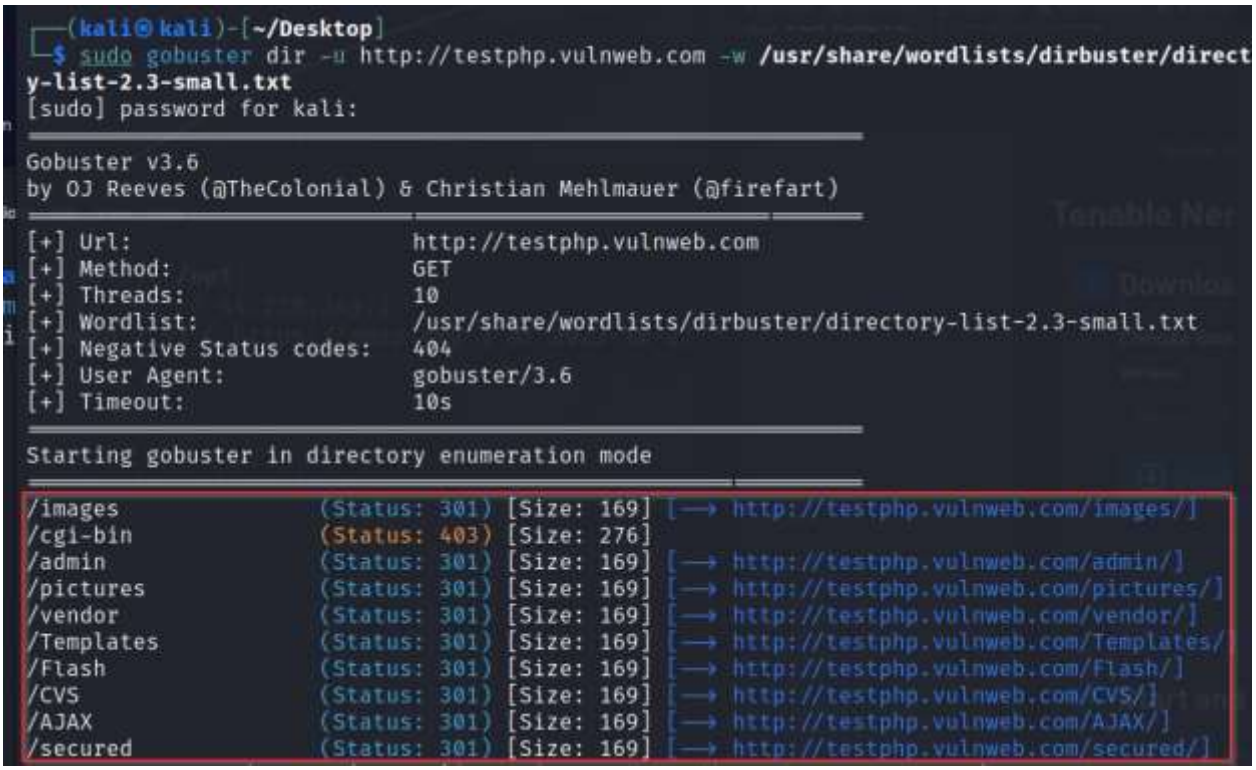


Operating system:



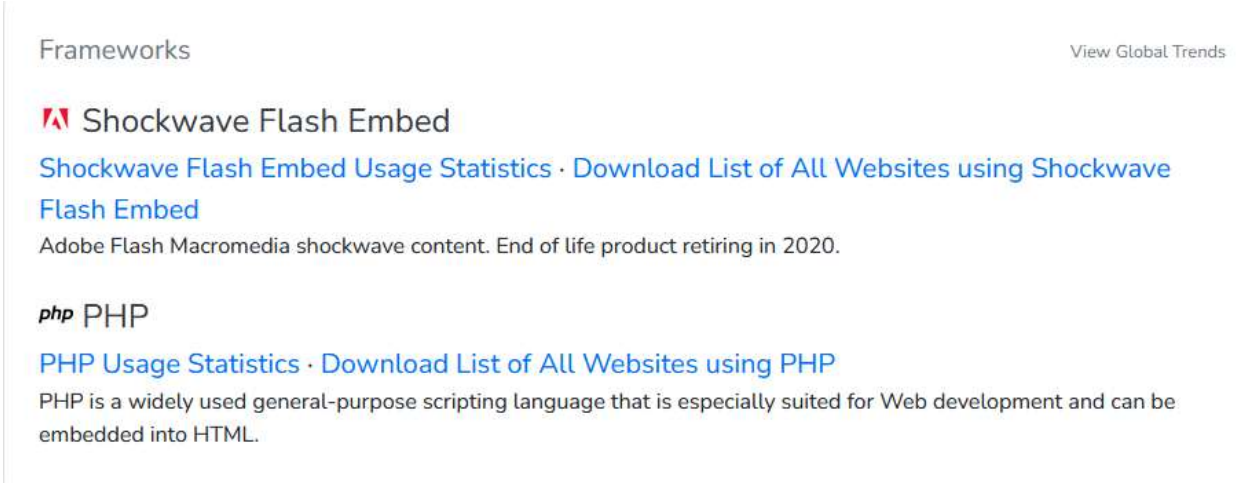
Operating system version:

Hidden Directories and File Structure:



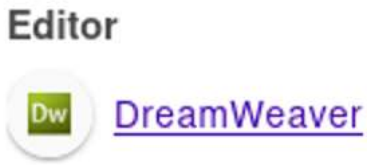
Technologies in Use:

Frameworks:



Framework version:

Editor:



Reverse Proxies:

Scripting Languages:

```
┌──(kali㉿kali)-[/opt]
└─$ whatweb http://testphp.vulnweb.com
http://testphp.vulnweb.com [200 OK] ActiveX[D27CDB6E-AE6D-11cf-96B8-444553540000], Adob
e-Flash, Country[UNITED STATES][US], Email[wvs@acunetix.com], HTTPServer[nginx/1.19.0],
 IP[44.228.249.3], Object[http://download.macromedia.com/pub/shockwave/cabs/flash/swfla
sh.cab#version=6,0,29,0][clsid:D27CDB6E-AE6D-11cf-96B8-444553540000], PHP[5.6.40-38+ubu
ntu20.04.1+deb.sury.org+1], Script[text/JavaScript], Title[Home of Acunetix Art], X-Pow
ered-By[PHP/5.6.40-38+ubuntu20.04.1+deb.sury.org+1], nginx[1.19.0]
```

NETWORK AND WHOIS ENUMERATION

Network Scans:

ASN Information:

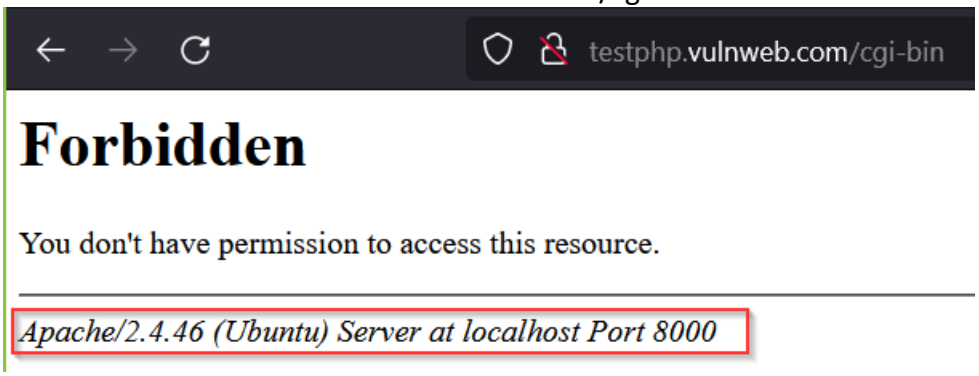
AS Number	AS16509

VULNERABILITIES AND SECURITY CONCERNS

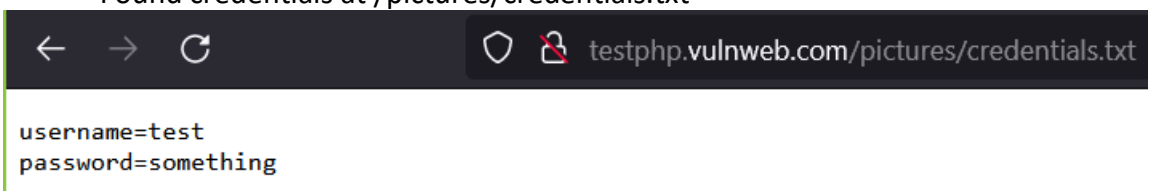
Identify any vulnerabilities or security concerns based on the gathered information. This could include outdated software, exposed directories, or other potential issues that may pose a security risk.

While browsing the found hidden directories, I discovered the following;

Unintended Information Disclosure at /cgi-bin



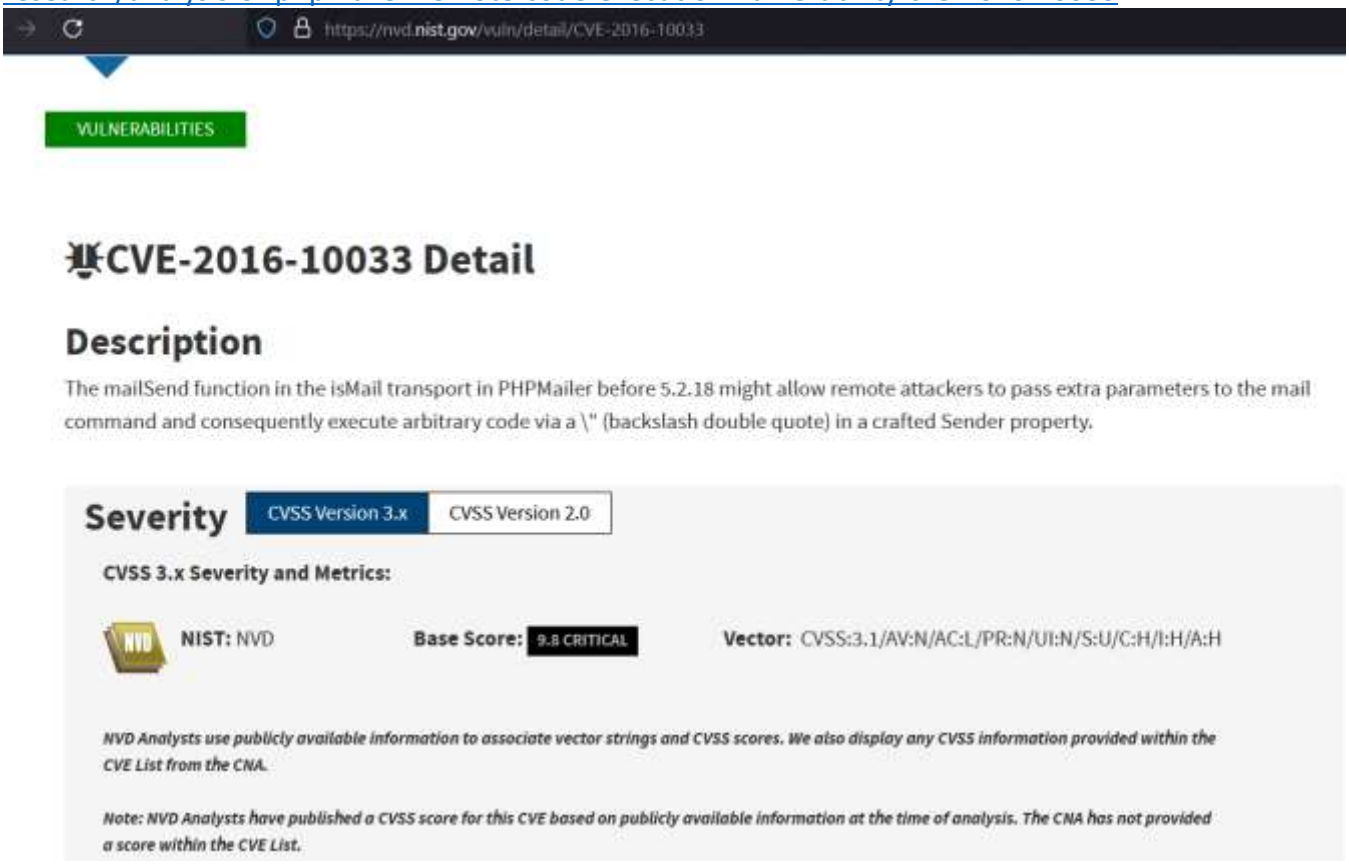
Found credentials at /pictures/credentials.txt



HTML Transitional DTD used has a vulnerability

CVE-2016-10033 → PHPMailer Remote Code Execution

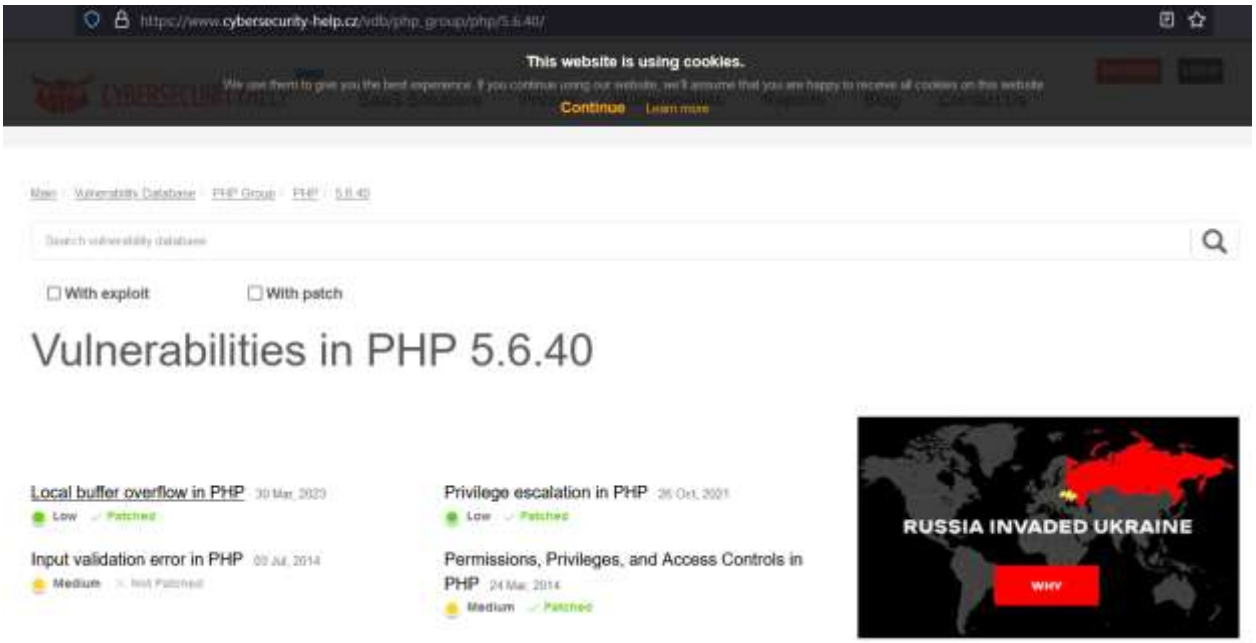
More details about this vulnerability can be found here: https://www.fortinet.com/blog/threat-research/analysis-of-phpmailer-remote-code-execution-vulnerability-cve-2016-10033



PHP v5.6.40 used on the website has several critical vulnerabilities like

- CVE-2022-4900 → Local Buffer overflow in PHP
- CVE-2021-21703 → Privilege Escalation in PHP
- CVE-2014-3538 → Input Validation Error in PHP
- CVE-2013-7345 → Permissions, Privileges & Access Controls in PHP

More details about these vulnerabilities can be found via: https://www.cybersecurity-help.cz/vdb/php_group/php/5.6.40/

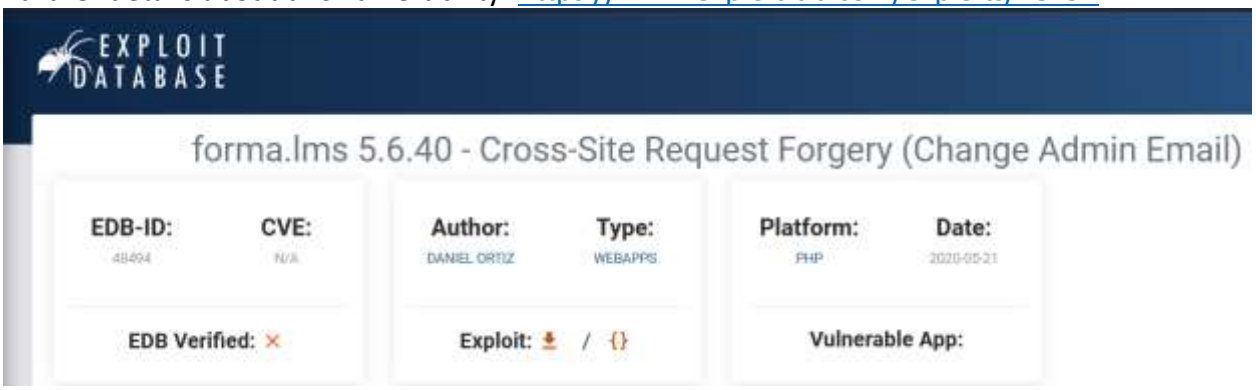


CVE-2019-9021
For more details: https://www.rapid7.com/db/vulnerabilities/php-cve-2019-9021/

PHP Vulnerability: CVE-2019-9021

Severity	CVSS	Published	Created	Added	Modified
8	(AV:N/AC:L /Au:N/C:P	02/22/2019	03/19/2019	02/27/2019	07/21/2021

And CSRF (Change Admin Email)
Further details about this vulnerability: https://www.exploit-db.com/exploits/48494



Nginx for web services also has several vulnerabilities like

- CVE-2022-41741
- CVE-2022-41742

- CVE-2021-3618 → Security Restrict Bypass in Nginx
- CVE-2021-23017 → Remote Code Execution

More details about these vulnerabilities are at: https://www.cybersecurity-help.cz/vdb/SB2022101941

Apache Web Server version also has several vulnerabilities

- CVE-2006-20001, CVE-2021-39275 and CVE-2021-44790 → Buffer overflow
- CVE-2020-35452 → Stack-based Buffer overflow

- CVE-2022-36760, CVE-2022-22720, CVE-2022-26377 and CVE-2021-33193 → Inconsistent interpretation of HTTP requests

- CVE-2022-37436 → HTTP response splitting
- CVE-2022-23943 → Out-of-bounds write
- CVE-2022-22721 → Integer overflow
- CVE-2022-22719, CVE-2021-30641 and CVE-2022-29404 → Input validation error

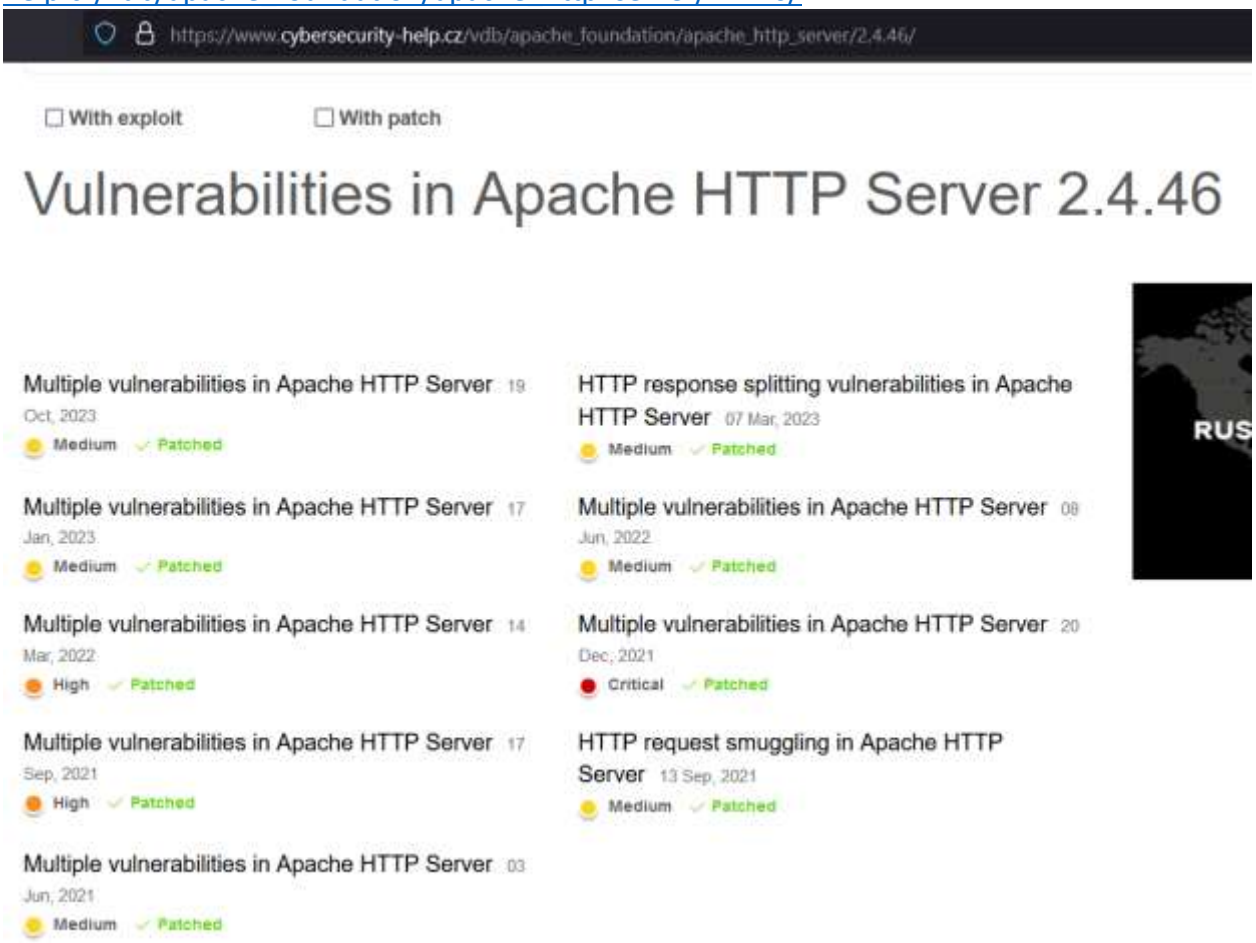
- CVE-2021-34798, CVE-2021-31618, CVE-2021-26691, CVE-2021-26690 and CVE-2020-13950 → NULL pointer dereference

- CVE-2021-36160, CVE-2022-28330, CVE-2022-28614, CVE-2022-28615, CVE-2022-30556 and CVE-2023-31122 → Out-of-bounds read

- CVE-2021-40438 and CVE-2021-44224 → Server-Side Request Forgery (SSRF)
- CVE-2020-13938 → Improper Privilege Management

- CVE-2019-17567 → Security restrictions bypass
- CVE-2023-25690 and CVE-2023-27522 → HTTP response splitting
- CVE-2022-30522 → Resource exhaustion
- CVE-2022-31813 → Improper Authentication
- CVE-2023-45802 and CVE-2023-43622 → Resource management error

More details are at: https://www.cybersecurity-help.cz/vdb/apache_foundation/apache_http_server/2.4.46/



RECOMMENDATIONS

- Updating PHP to the latest version.
- Updating Apache and Nginx Web services to the latest version
- Updating Ubuntu OS to the latest version
- Enhancing server security configurations.
- Securing sensitive information.
- Implementing best practices for online privacy.

CONCLUSION

Thank you for the learning opportunity.

REFERENCES

The following are the tools used during the information gathering process.

Domain Footprinting

- who.is
- dnsdumpster.com
- Domain dossier https://centralops.net/co/DomainDossier.aspx
- Hurricane Electric Internet Services (he.net)

Web footprinting

- Wappalyzer
- BuiltWith
- WhatWeb

Sub-domain Finding

- Sub-finder

Network Scanning

- Nmap

Hidden Directories

- Gobuster

END