Sri Lanka Institute of Information Technology

IE2062-Web Security

IT Number	Name
IT22581402	C.D.Aluthge

Information gathering and reconnaissance phase

a. Subdomain enumeration
    i. Recon-ng

b. Getting alive subdomains
    i. Nslookup

c. DNS enumeration
    i. Dnsrecon
    ii. nikto
    iii. Dnsdumper

d. Public devices enumeration
    i. Censys
    ii. Whatweb
    iii. Whois

e. Find WAF (web application firewall) protection.
    i. Wafwoof

f. Find open ports.
    i. Nmap

g. Exploitation
    i. sqlmap

vulnerability analysis phase

1. Target domain: http://oyorooms.com

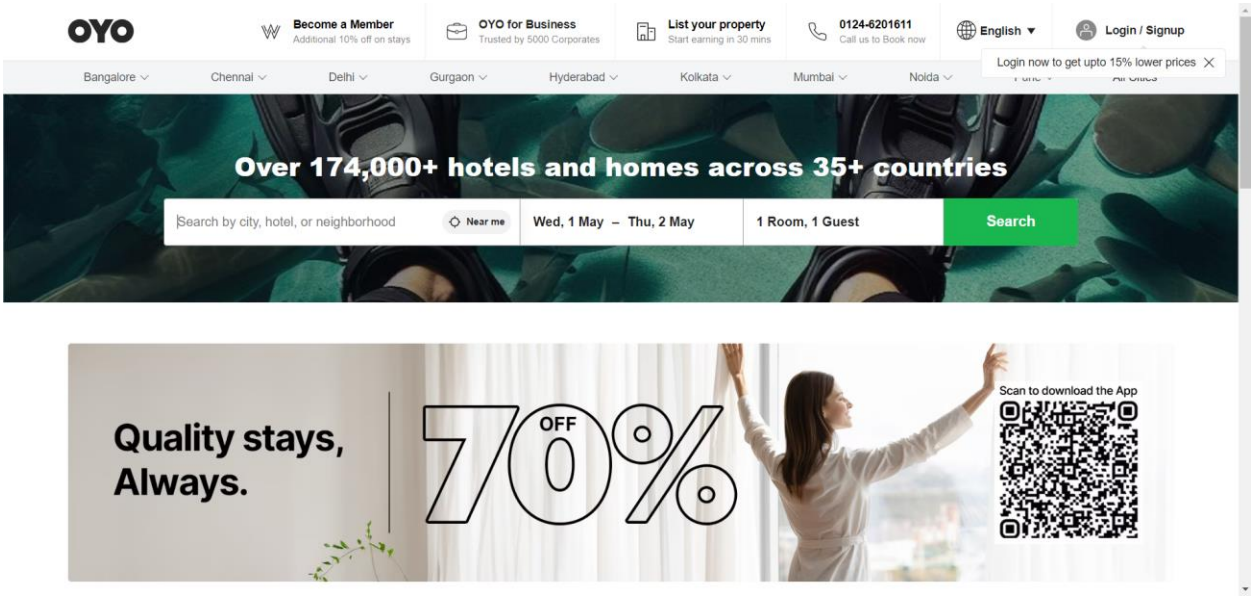
    a. Missing X-Frame-Options Header
    b. HTTP Strict Transport Security (HSTS) Policy Not Enabled
    c. Weak Ciphers Enabled
    d. Missing X-XSS-Protection Header

Conclusion

Scope:

OYO Rooms is an Indian hospitality company founded in 2013 by Ritesh Agarwal. It specializes in providing standardized, budget-friendly

accommodations through partnerships with hotels and guesthouses. OYO gained popularity for its easy booking process and clean, comfortable rooms with basic amenities. The company expanded internationally and diversified into vacation rentals, mid-market hotels, and premium economy hotels under different brands. OYO's innovative approach and rapid growth have made it a significant player in the budget and mid-market hospitality sectors.



In Scope:

Asset name	Type	Coverage	Max. severity	Bounty	Last update
com.oyo.consumer	Android: Play Store	In scope	Critical	Ineligible	Oct 4, 2022
com.oyo.oyo-ios	iOS: App Store	In scope	Critical	Ineligible	Oct 4, 2022
http://*.oyohotels.cn	Wildcard	In scope	Critical	Ineligible	Oct 12, 2022
http://*.oyohotels.top	Wildcard	In scope	Critical	Ineligible	Oct 12, 2022
http://*.oyoos.com	Wildcard	In scope	Critical	Ineligible	Oct 12, 2022
http://*.oyorooms.com	Wildcard	In scope	Critical	Ineligible	Oct 12, 2022
http://*.dancenter.se	Wildcard	In scope	Critical	Ineligible	Oct 12, 2022
http://*.belvilla.com	Wildcard	In scope	Critical	Ineligible	Oct 12, 2022
http://*.traum-ferienwohnungen.de	Wildcard	In scope	Critical	Ineligible	Oct 12, 2022
com.oyo.partnerapp	Android: Play Store	In scope	High	Ineligible	Oct 12, 2022
com.oyo.property	Android: Play Store	In scope	High	Ineligible	Oct 12, 2022
com.belvilla.rental	iOS: App Store	In scope	High	Ineligible	Oct 12, 2022
com.oyo.partnerapp	iOS: App Store	In scope	High	Ineligible	Oct 12, 2022
com.oyo.campus	iOS: App Store	In scope	High	Ineligible	Oct 12, 2022
http://*.admiralstrand.dk	Wildcard	In scope	High	Ineligible	Oct 12, 2022
http://*.villaxl.com	Wildcard	In scope	High	Ineligible	Oct 12, 2022
http://*.tui-ferienhaus.de	Wildcard	In scope	High	Ineligible	Oct 12, 2022
http://*.leisure-partners.net	Wildcard	In scope	High	Ineligible	Oct 12, 2022
http://*.oyocircle.com	Wildcard	In scope	High	Ineligible	Oct 12, 2022
http://*.topictravel.nl	Wildcard	In scope	High	Ineligible	Oct 12, 2022
traum-ferienwohnungen.de	Domain	In scope	High	Ineligible	Oct 12, 2022
http://*.danland.dk	Wildcard	In scope	High	Ineligible	Oct 12, 2022
http://*.stugsommar.se	Wildcard	In scope	High	Ineligible	Oct 12, 2022
http://*.belvilla.fr	Wildcard	In scope	High	Ineligible	Oct 12, 2022

preprod.oyorooms.ms	Domain	In scope	Medium	Ineligible	Oct 12, 2022
http://patron.oyo.com/blog/in	URL	In scope	Medium	Ineligible	Oct 12, 2022
http://*.oyolasvegas.com	Wildcard	In scope	Medium	Ineligible	Oct 12, 2022
http://*.weddingz.in	Wildcard	In scope	Medium	Ineligible	Oct 12, 2022
http://*.oyorooms.io	Wildcard	In scope	Medium	Ineligible	Jul 21, 2023
com.jedi.jediaudit	Android: Play Store	In scope	Low	Ineligible	Oct 12, 2022
com.oyorooms.coworkfoodvendor	Android: Play Store	In scope	Low	Ineligible	Oct 12, 2022
com.oyo.consumerlite	Android: Play Store	In scope	Low	Ineligible	Oct 12, 2022
com.guerrilla.innov8coworking	Android: Play Store	In scope	Low	Ineligible	Oct 12, 2022
com.oyorooms.weddingz.content	Android: Play Store	In scope	Low	Ineligible	Oct 12, 2022
work.innov8.mobilecowork	iOS: App Store	In scope	Low	Ineligible	Oct 12, 2022
com.oyorooms.weddingz.content	iOS: App Store	In scope	Low	Ineligible	Oct 12, 2022
work.innov8.mobilecowork	iOS: App Store	In scope	Low	Ineligible	Oct 12, 2022
com.oyorooms.weddingz.content	iOS: App Store	In scope	Low	Ineligible	Oct 12, 2022
http://*.innov8.work	Wildcard	In scope	Low	Ineligible	Oct 12, 2022
http://*.oyotownhouse.com	Wildcard	In scope	Low	Ineligible	Oct 12, 2022
http://*.workflobyoyo.com	Wildcard	In scope	Low	Ineligible	Oct 12, 2022
http://*.oyoworkspaces.com	Wildcard	In scope	Low	Ineligible	Oct 12, 2022

OWASP top 10 vulnerabilities

- Broken Access Control
- Cryptographic Failures
- Injection
- Insecure Design
- Security Misconfiguration
- Vulnerable and Outdated Components
- Identification and Authentication Failures

- Software and Data Integrity Failures
- Security Logging and Monitoring Failures
- Server-Side Request Forgery

Broken Access Control

When users are unable to adequately impose limitations on what they can access or do within a system, this is known as broken access control. This vulnerability makes it possible for unauthorized individuals to access private data or carry out tasks that shouldn't be permitted. Insecure references to objects, improperly configured permissions, and a lack of authentication checks are the causes of it. Because it can result in illegal data exposure, manipulation, or system penetration, it's a major problem.

Cryptographic Failures

Cryptographic collapses are the result of poor algorithms, incorrect implementations, or improper management of encryption keys, which compromise the security of information encrypted via encryption techniques. Undermining security safeguards and perhaps leading in data breaches, this can lead to unauthorized access to or exposure of sensitive data.

Injection

Injection: it is a type of security vulnerability in which untrusted data is sent to an interpreter as part of a command or query. Most often, attackers use this to inject malicious code into input fields, for example, login forms or search boxes. The interpreter then executes this code, which can give the attacker unauthorized access to data, alter the application's behavior, or gain full control over the system. There are many types of injections, such as SQL injection, where the attackers manipulate database queries, or cross-site scripting, where the malicious script is injected into a web page that other users view.

Insecure Design

Insecure design means the security flaws within the fundamental system or application design born out of insufficient attention to security at the design time. Consequently, systems have vulnerabilities that enable unauthorized system access or breaches. Examples are poor user authentication or no network segmentation. To fix insecure design, significant changes to the architecture are needed to develop the designs securely.

Security Misconfiguration

Imagine you accidentally leave your front door closed but not locked. That's what a security misconfiguration is like. Essentially, it's not properly securing your software systems, servers, or web applications. This can include default settings, shipped insecurely, or unnecessary features. Unauthorized users might target such vulnerabilities to access your info or disrupt the operation. Therefore, one should monitor and update security measures continuously to avoid misconfiguration.

Vulnerable and Outdated Components

Vulnerable components are software elements that are known to contain security flaws that could be exploited by hackers. However, software components that have not received an upgrade in a long time are known as outdated components, and they may not include important security updates and bug fixes. In order to maintain a secure system environment, both sorts of components present security concerns and should be routinely updated and monitored.

Identification and Authentication Failures

When systems are unable to accurately confirm user identities or authenticate their access credentials, identification and authentication failures take place. Whereas authentication failures are caused by an inability to verify user identities, identification failures are the consequence of incorrect user recognition. In order to identify and fix system vulnerabilities, strong authentication procedures and frequent security assessments are essential. These failures might result in unauthorized access and security breaches.

Software and Data Integrity Failures

Software code or data accuracy, consistency, and reliability are jeopardized in software and data integrity issues. Data integrity problems are caused by mistakes, unauthorized access, or cyberattacks, whereas programming errors, malicious code, or unauthorized alterations are the causes of software integrity problems. To reduce risks and guarantee system security and dependability, preventive measures include backups, data encryption, access controls, and regular updates.

Security Logging and Monitoring Failures

Failed security logging and monitoring systems result in a delayed detection of security incidents and higher risks since they are unable to reliably capture and evaluate security-related events. Monitoring failures are caused by insufficient tools

or response protocols, whereas logging failures are caused by misconfigurations or deactivated logging systems. Organizations should establish strong response protocols, use comprehensive logging practices, deploy efficient monitoring tools like SIEM tools, train security teams, and continuously improve logging and monitoring configurations in light of best practices and emerging threats in order to address these failures. By taking these steps, cybersecurity defenses are strengthened and the effects of security events are lessened.

Server-Side Request Forgery

A security flaw known as server-side request forgery (SSRF) allows attackers to take control of a susceptible server and send unwanted requests, usually to external or internal systems. Unauthorized access, data loss, and more exploitation may result from this. Input validation, whitelisting authorized resources, network segmentation, and access controls are all part of prevention. Frequent security testing improves overall system security by assisting in the identification and mitigation of SSRF threats.

Information gathering and reconnaissance phase.

> The objective is to gather as much pertinent data as you can about the intended system or organization. Understanding the target's infrastructure, seeing potential vulnerabilities, and organizing additional security testing operations are all made easier with the aid of this information.

Domain: http://oyorooms.com

Subdomain enumeration

- Recon-ng

Recon-ng is an open-source reconnaissance tool with Python foundation that is used for penetration testing and security evaluations. It collects data from domains, IPs, emails, and social media platforms using a modular framework with different modules. The advantages of recon-ng are its flexibility for scripting and automation, integration with many data sources, and data enrichment capabilities. It is used by security experts to gather and evaluate intelligence, spot possible weaknesses, and improve overall security posture during the first reconnaissance phase. Its vibrant community guarantees continuous upgrades and support, which makes it an invaluable addition to cybersecurity toolkits.

Proof of concept:

To get google website give this command.

```
[recon-ng][default] > marketplace search google
[*] Searching module index for 'google' ...

  +-----------------------------------------------------------------------------+
  |                Path                | Version |   Status  |  Updated   | D | K |
  +-----------------------------------------------------------------------------+
  | recon/domains-hosts/google_site_web | 1.0     | installed | 2019-06-24 |   |   |
  +-----------------------------------------------------------------------------+

  D = Has dependencies. See info for details.
  K = Requires keys. See info for details.

[recon-ng][default] > marketplace install recon/domains-hosts/google_site_web
[*] Module installed: recon/domains-hosts/google_site_web
[*] Reloading modules ...
[recon-ng][default] > show info
Shows various framework items

Usage: show <companies|contacts|credentials|domains|hosts|leaks|locations|netblocks|ports|profiles|pushpins|re
positories|vulnerabilities>

[recon-ng][default] > marketplace search google
[*] Searching module index for 'google' ...
```

- You can see it’s not installed yet. We must download installation path.
- After installing path using show info to see its download or not.

```
  +-----------------------------------------------------------------------------+
  |                Path                | Version |   Status  |  Updated   | D | K |
  +-----------------------------------------------------------------------------+
  | recon/domains-hosts/google_site_web | 1.0     | installed | 2019-06-24 |   |   |
  +-----------------------------------------------------------------------------+

  D = Has dependencies. See info for details.
  K = Requires keys. See info for details.

[recon-ng][default] > modules load recon/domains-hosts/google_site_web
[recon-ng][default][google_site_web] > info

      Name: Google Hostname Enumerator
    Author: Tim Tomes (@lanmaster53)
   Version: 1.0

Description:
  Harvests hosts from Google.com by using the 'site' search operator. Updates the 'hosts' table with
  the results.
```

Load the installed module path and use info see options.

Go to options and set source to our targeted domain indrive.com and run it.

```
Options:
  Name    Current Value  Required  Description
  ------  -------------  --------  -----------
  SOURCE  booking.com    yes       source of input (see 'info' for details)

Source Options:
  default        SELECT DISTINCT domain FROM domains WHERE domain IS NOT NULL
  <string>       string representing a single input
  <path>         path to a file containing a list of inputs
  query <sql>    database query returning one column of inputs

[recon-ng][default][google_site_web] > options set source oyorooms.com
SOURCE => oyorooms.com
[recon-ng][default][google_site_web] > run
```

```
-------------
OYOROOMS.COM
-------------
[*] Searching Google for: site:oyorooms.com
[*] Country: None
[*] Host: business.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------
[*] Country: None
[*] Host: www.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------
```

```
[*] Searching Google for: site:oyorooms.com -site:business.oyorooms.com -site:www.oyorooms.com
[*] Country: None
[*] Host: link.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------
[*] Country: None
[*] Host: deals.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------
[*] Country: None
[*] Host: share.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------
```

```
[*] ------------------------------------------------------------
[*] Country: None
[*] Host: share.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------------
[*] Country: None
[*] Host: globaldesk.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------------
[*] Country: None
[*] Host: details.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------------
```

```
[*] Searching Google for: site:oyorooms.com -site:business.oyorooms.com -site:www.oyorooms.com -site:link.oyorooms.com -site:deals.oyorooms.com -site:share.oyorooms.com -site:globaldesk.oyorooms.com -site:details.oyorooms.com -site:holead-dancenter-dk-prod.oyorooms.com -site:web.oyorooms.com -site:travelagent.oyorooms.com -site:tech.oyorooms.com -site:patron.oyorooms.com -site:identity-gateway.oyorooms.com -site:partners.oyorooms.com -site:games.oyorooms.com -site:holead-dancenter-se-prod.oyorooms.com -site:hub.oyorooms.com
[*] Country: None
[*] Host: holead-admiralstrand-dk-prod.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------------
[*] Country: None
[*] Host: internalcst.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------------
```

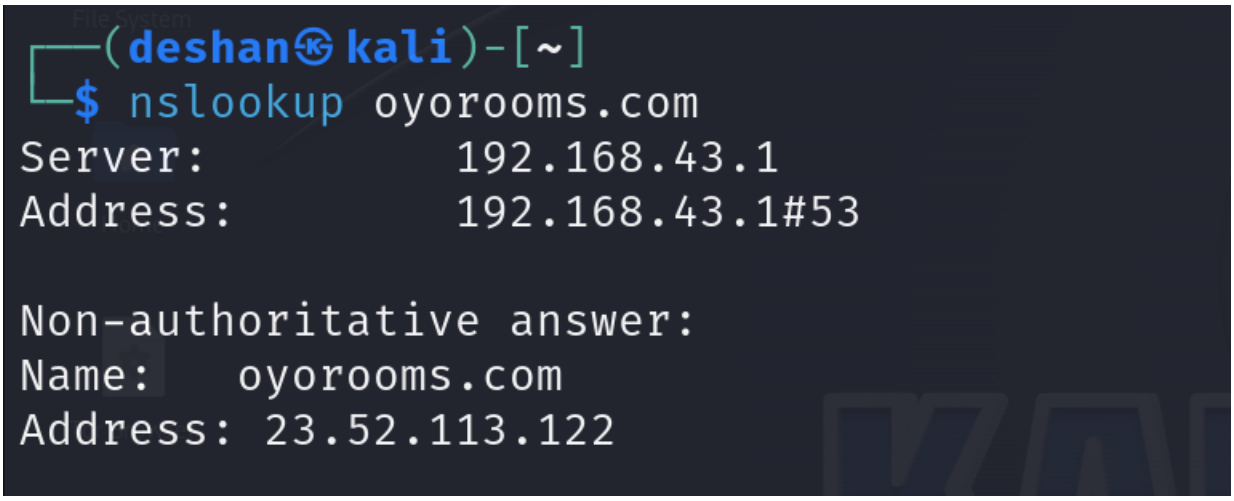
```
[*] ------------------------------------------------------------
[*] Country: None
[*] Host: ovh-images.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------------
[*] Country: None
[*] Host: mpower.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------------
[*] Country: None
[*] Host: hr.oyorooms.com
[*] Ip_Address: None
[*] Latitude: None
[*] Longitude: None
[*] Notes: None
[*] Region: None
[*] ------------------------------------------------------------
```

Getting alive subdomains

- Nslookup

A command-line utility called `nslookup` is used to query DNS (Domain Name System) servers and get DNS-related data. In addition to performing reverse DNS lookups and retrieving other DNS records like A, AAAA, MX, NS, PTR, and TXT records, it resolves domain names to IP addresses. It is flexible for diagnosing DNS problems, validating DNS configurations, and testing DNS servers because it may be used in both interactive and non-interactive modes. Network administrators and cybersecurity experts frequently utilize `nslookup`, which runs on several platforms, for DNS-related activities and diagnostics.

Proof of concept:



DNS enumeration

- Dnsdumpster

DNSDumpster is an online tool focused on DNS information gathering for a target domain. It assists in discovering subdomains, viewing DNS records (A, AAAA, MX, NS, SOA, TXT), mapping domain names to IP addresses, and providing visual representations of DNS-related data. Security professionals and penetration testers use DNSDumpster during reconnaissance to understand a domain's infrastructure, identify potential vulnerabilities, and aid in security assessments. While it offers valuable insights, users should supplement its findings with other tools for a comprehensive analysis, considering that its data may not always be the most current or complete.

- **Proof of concept:**

DNS Servers

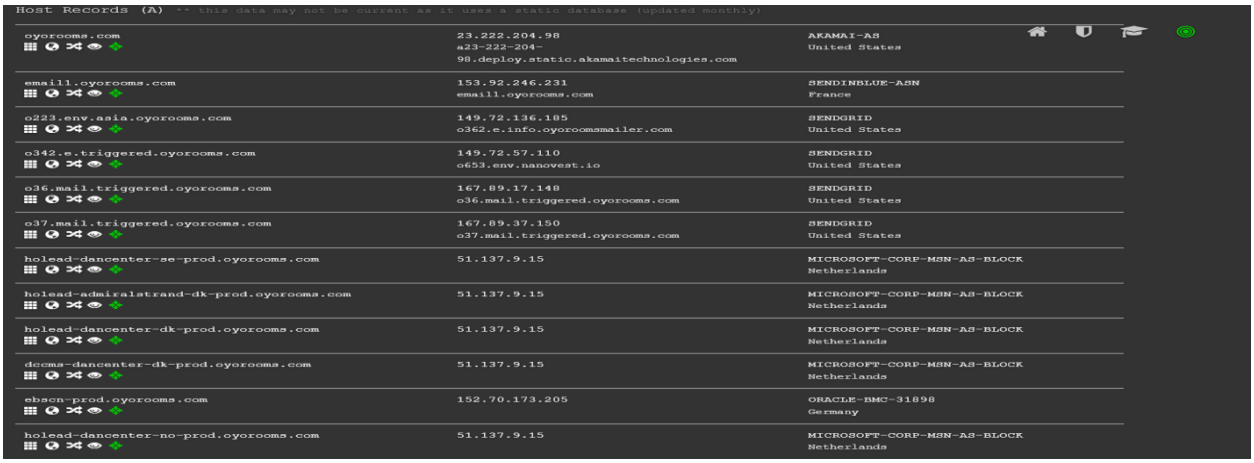
a1-173.akam.net.	193.108.91.173	AKAMAI-ASN2 The Netherlands
a16-65.akam.net.	23.211.132.65	AKAMAI-ASN2 United States
a3-67.akam.net.	96.7.49.67	AKAMAI-ASN2 United States
a11-64.akam.net.	84.53.139.64	AKAMAI-ASN2 The Netherlands
a8-64.akam.net.	2.16.40.64	AKAMAI-ASN2 The Netherlands
a24-66.akam.net.	2.16.130.66	AKAMAI-ASN2 The Netherlands

- **Proof of concept:**

MX Records ** This is where email for the domain goes...

10 alt3.aspmx.l.google.com.	142.250.27.26	GOOGLE United States
10 alt4.aspmx.l.google.com.	142.250.153.26	GOOGLE United States
30 aspmx3.googlemail.com.	64.233.184.27	GOOGLE United States
5 alt1.aspmx.l.google.com.	209.85.202.26	GOOGLE United States
10 aspmx.l.google.com.	172.253.122.27	GOOGLE United States
0 oyorooms-com.mail.protection.outlook.com.	52.101.144.3	MICROSOFT-CORP-MSN-AS-BLOCK India
5 alt2.aspmx.l.google.com.	64.233.184.26	GOOGLE United States
30 aspmx2.googlemail.com.	209.85.202.27	GOOGLE United States

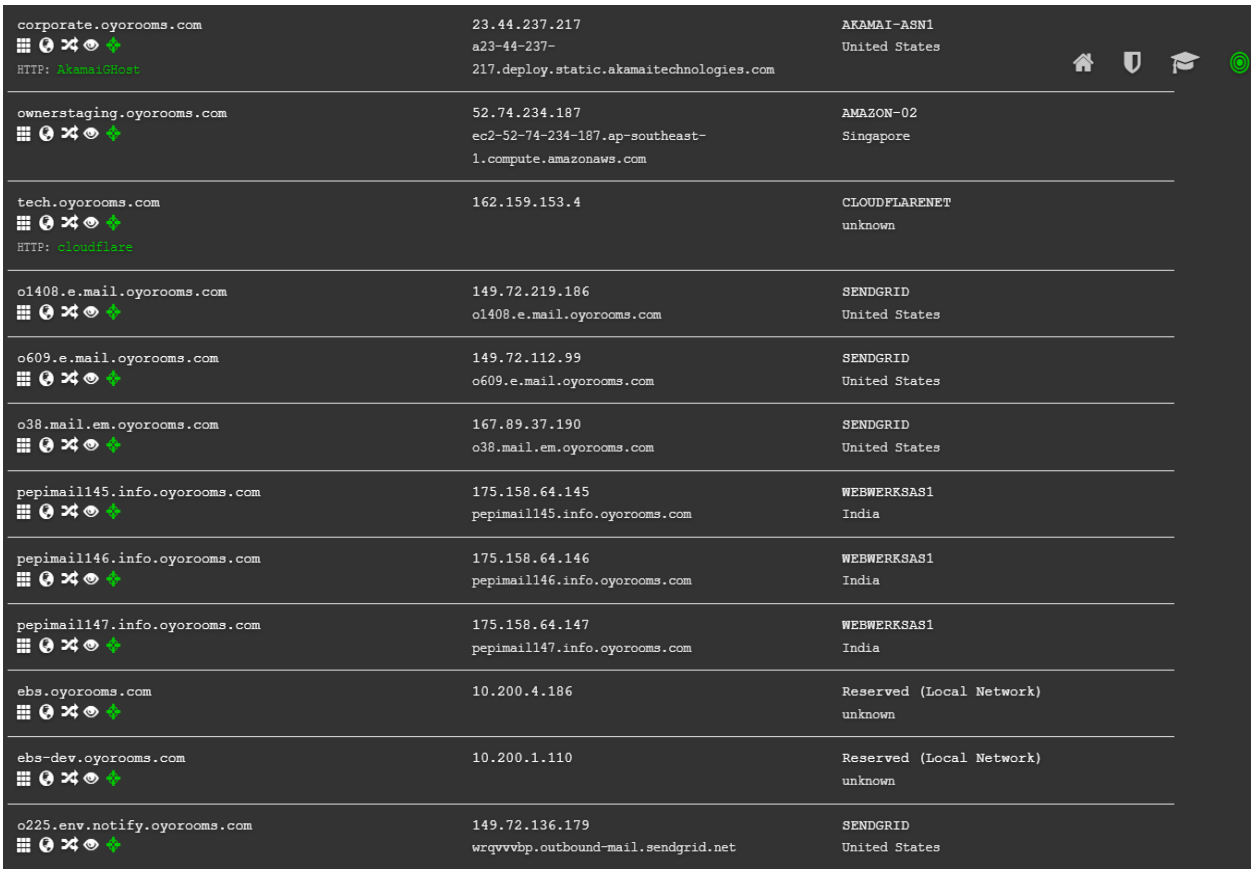
- **Proof of concept:**



Host Records (A) ** this data may not be current as it uses a static database (updated monthly)

oyorooms.com	23.222.204.98 a23-222-204-98.deploy.static.akamaitechnologies.com	AKAMAI-AS United States
email1.oyorooms.com	153.92.246.231 email1.oyorooms.com	SENDINBLUE-ASN France
o223.env.asia.oyorooms.com	149.72.136.185 o362.e.info.oyoroomsmailer.com	SENDGRID United States
o342.e.triggered.oyorooms.com	149.72.57.110 o653.env.nanovest.io	SENDGRID United States
o36.mail.triggered.oyorooms.com	167.89.17.148 o36.mail.triggered.oyorooms.com	SENDGRID United States
o37.mail.triggered.oyorooms.com	167.89.37.150 o37.mail.triggered.oyorooms.com	SENDGRID United States
holead-dancenter-se-prod.oyorooms.com	51.137.9.15	MICROSOFT-CORP-MSN-AS-BLOCK Netherlands
holead-admiralstrand-dk-prod.oyorooms.com	51.137.9.15	MICROSOFT-CORP-MSN-AS-BLOCK Netherlands
holead-dancenter-dk-prod.oyorooms.com	51.137.9.15	MICROSOFT-CORP-MSN-AS-BLOCK Netherlands
decma-dancenter-dk-prod.oyorooms.com	51.137.9.15	MICROSOFT-CORP-MSN-AS-BLOCK Netherlands
ebscn-prod.oyorooms.com	152.70.173.205	ORACLE-BMC-31898 Germany
holead-dancenter-no-prod.oyorooms.com	51.137.9.15	MICROSOFT-CORP-MSN-AS-BLOCK Netherlands

- **Proof of concept:**

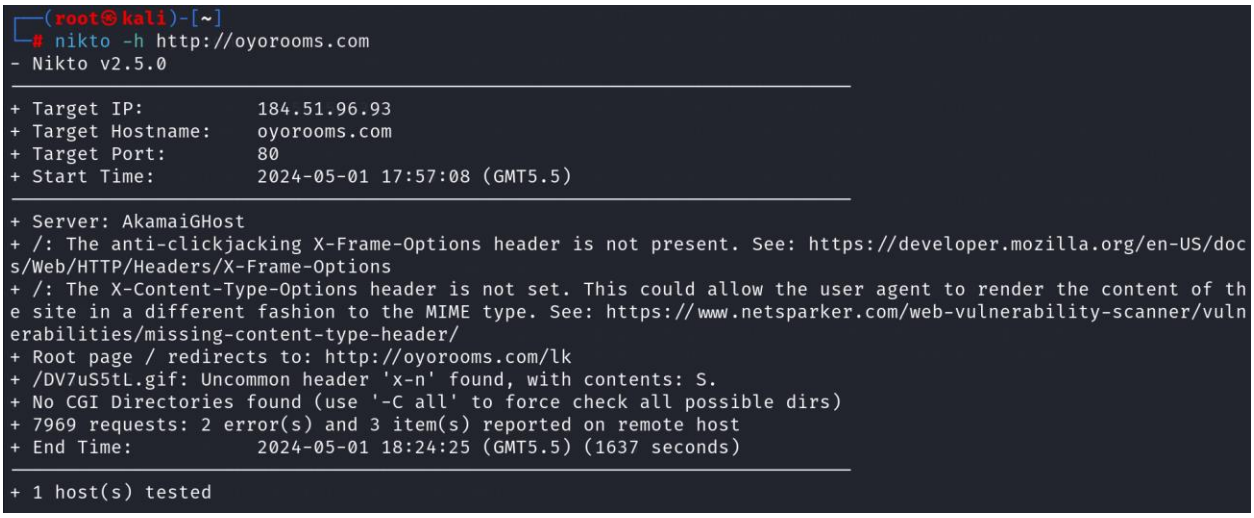


corporate.oyorooms.com HTTP: AkamaiGHost	23.44.237.217 a23-44-237-217.deploy.static.akamaitechnologies.com	AKAMAI-ASN1 United States
ownerstaging.oyorooms.com	52.74.234.187 ec2-52-74-234-187.ap-southeast-1.compute.amazonaws.com	AMAZON-02 Singapore
tech.oyorooms.com HTTP: cloudflare	162.159.153.4	CLOUDFLARENET unknown
o1408.e.mail.oyorooms.com	149.72.219.186 o1408.e.mail.oyorooms.com	SENDGRID United States
o609.e.mail.oyorooms.com	149.72.112.99 o609.e.mail.oyorooms.com	SENDGRID United States
o38.mail.em.oyorooms.com	167.89.37.190 o38.mail.em.oyorooms.com	SENDGRID United States
pepimail145.info.oyorooms.com	175.158.64.145 pepimail145.info.oyorooms.com	WEBWERKSAS1 India
pepimail146.info.oyorooms.com	175.158.64.146 pepimail146.info.oyorooms.com	WEBWERKSAS1 India
pepimail147.info.oyorooms.com	175.158.64.147 pepimail147.info.oyorooms.com	WEBWERKSAS1 India
ebs.oyorooms.com	10.200.4.186	Reserved (Local Network) unknown
ebs-dev.oyorooms.com	10.200.1.110	Reserved (Local Network) unknown
o225.env.notify.oyorooms.com	149.72.136.179 wrqvvvbp.outbound-mail.sendgrid.net	SENDGRID United States

- Nikto

Nikto is an open-source web server scanner made to find possible security holes in applications and web servers. With its extensive scanning capabilities, it may identify problems including out-of-date software, unsafe configurations, weak scripts, and incorrect SSL/TLS settings. In addition to producing comprehensive results after scanning, Nikto may be customized and scripted, connects with automated workflows, and receives community assistance and frequent database upgrades. For security experts performing web security assessments, it's a useful tool that helps with vulnerability discovery and mitigation to improve overall security posture.

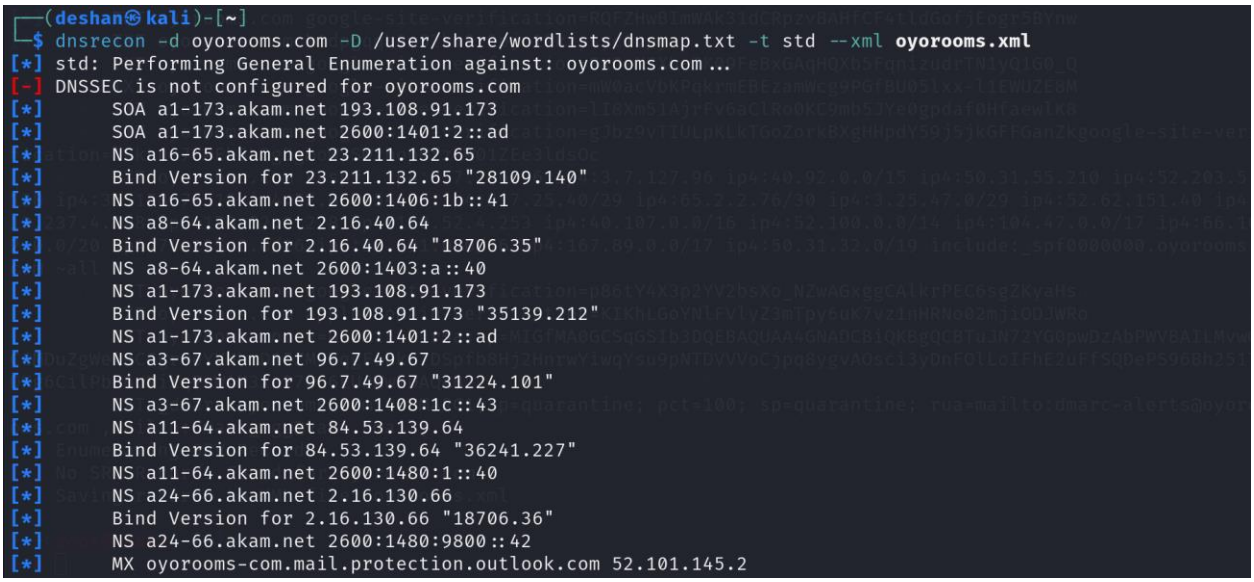
- **Proof of concept:**



- Dnsrecon

For security evaluations and penetration tests, DNSRecon is a powerful open-source tool for DNS reconnaissance that finds and counts DNS information. It is particularly good at finding subdomains, enumerating DNS records (A, AAAA, MX, NS, SOA, TXT), transferring DNS zones, and it can handle wordlist-based and brute-force attacks. With its automation, customization, and integration features, it's a useful tool for figuring out possible attack points, comprehending target infrastructure, and raising security awareness in general. DNSRecon is still a dependable option for DNS reconnaissance operations because of its community support and frequent updates.

Proof of concept:



Proof of concept:

```
[*]      MX oyorooms-com.mail.protection.outlook.com 52.101.144.3
[*]      MX oyorooms-com.mail.protection.outlook.com 52.101.144.0
[*]      MX aspmx.l.google.com 74.125.200.27
[*]      MX alt2.aspmx.l.google.com 142.250.141.27
[*]      MX alt3.aspmx.l.google.com 142.250.115.26
[*]      MX alt4.aspmx.l.google.com 64.233.171.26
[*]      MX alt1.aspmx.l.google.com 173.194.202.27
[*]      MX aspmx2.googlemail.com 173.194.202.27
[*]      MX aspmx3.googlemail.com 142.250.141.27
[*]      MX aspmx.l.google.com 2404:6800:4003:c11::1b
[*]      MX alt2.aspmx.l.google.com 2607:f8b0:4023:c0b::1a
[*]      MX alt3.aspmx.l.google.com 2607:f8b0:4023:1004::1b
[*]      MX alt4.aspmx.l.google.com 2607:f8b0:4003:c15::1b
[*]      MX alt1.aspmx.l.google.com 2607:f8b0:400e:c00::1b
[*]      MX aspmx2.googlemail.com 2607:f8b0:400e:c00::1a
[*]      MX aspmx3.googlemail.com 2607:f8b0:4023:c0b::1b
[*]      A oyorooms.com 23.43.33.118
[*]      TXT oyorooms.com google-site-verification=rxJ7engyEkoLbBwR00Zd7EPGnBDxajVxHiThAaj5sDI
[*]      TXT oyorooms.com eo8r7i80vcmc81m05o5chnfm5k
[*]      TXT oyorooms.com cp64dz3bbs0kyhchdpvnrzsrqt68hpwn
[*]      TXT oyorooms.com google-site-verification=0tarWnj5lYV781ia5tHATpSEebHDo2YfjCzgTysSkgI
[*]      TXT oyorooms.com ea4oqke2aig6u2e6bll0mfes3l
[*]      TXT oyorooms.com google-site-verification=p86tY4X3p2YV2bsXo_NZwAGxggCAlkrPEC6sgZKyaHs
[*]      TXT oyorooms.com google-site-verification=Qrjdksh12pteyI9fGYbU9iiwm91b4088XsB5P-REOhw
```

```
[*]      TXT oyorooms.com google-site-verification=RM_f8C2ctiYnMeECNMvQa9N2U_spvfIp68hkvWl7urk
[*]      TXT oyorooms.com google-site-verification=tHZK-vk0mx_6K7pHxDLACjNUhgH316r7Gr_1MGjlP4s
[*]      TXT oyorooms.com vxv62d665k5bs2593xyxn0995ky45yt9
[*]      TXT oyorooms.com google-site-verification=m7l7TV-q9AUqxUe3ckfcLNbulT6JI64x7SB3s5YRSkI
[*]      TXT oyorooms.com google-site-verification=SKDzK7Xh-7K09FeBxGAqHQXb5FqnizudrTN1yQ1G0_Q
[*]      TXT oyorooms.com v=spf1 ip4:3.7.196.96 ip4:3.7.127.96 ip4:40.92.0.0/15 ip4:50.31.55.210 ip4:52.203.5.
138 ip4:35.158.71.15 ip4:52.66.154.99 ip4:3.7.25.40/29 ip4:65.2.2.76/30 ip4:3.25.47.0/29 ip4:52.62.151.40 ip4:
13.237.4.248 ip4:170.52.3.228 ip4:170.52.4.253 ip4:40.107.0.0/16 ip4:52.100.0.0/14 ip4:104.47.0.0/17 ip4:66.10
2.0.0/20 ip4:74.125.0.0/16 ip4:35.191.0.0/16 ip4:167.89.0.0/17 ip4:50.31.32.0/19 include:_spf0000000.oyorooms.
com ~all
[*]      TXT oyorooms.com google-site-verification=gJbz9vTIULpKLkTGoZorkBXgHHpdY59j5jkGFFGanZkgoogle-site-veri
fication=lCkLu-7S0Eb5LOgDgmoWxSWzbopNfzKW01ZEe3ldsOc
[*]      TXT oyorooms.com atlassian-domain-verification=v7LaRHcowom9A9urapxRP7kMkNkJU9dt43nWDlqh8j33n/12×2cYB6
cRHyV0NVHF
[*]      TXT oyorooms.com google-site-verification=mW0acVbKPqkrmEBEzamWcg9PGfBU05lxx-l1EWUZE8M
[*]      TXT oyorooms.com apple-domain-verification=KIKhLGoYNlFVlyZ3mTpy6uK7vz1nHRNo02mjiODJWRo
[*]      TXT oyorooms.com b5b6hqsh491zj7kjy1zbx35fs3wh17dm
[*]      TXT _dmarc.oyorooms.com v=DMARC1; p=quarantine; pct=100; sp=quarantine; rua=mailto:dmarc-alerts@oyoro
oms.com ,mailto:dmarc_agg@vali.email;
[*] Enumerating SRV Records
[-] No SRV Records Found for oyorooms.com
[*] Saving records to XML file: oyorooms.xml
```

Public devices enumeration

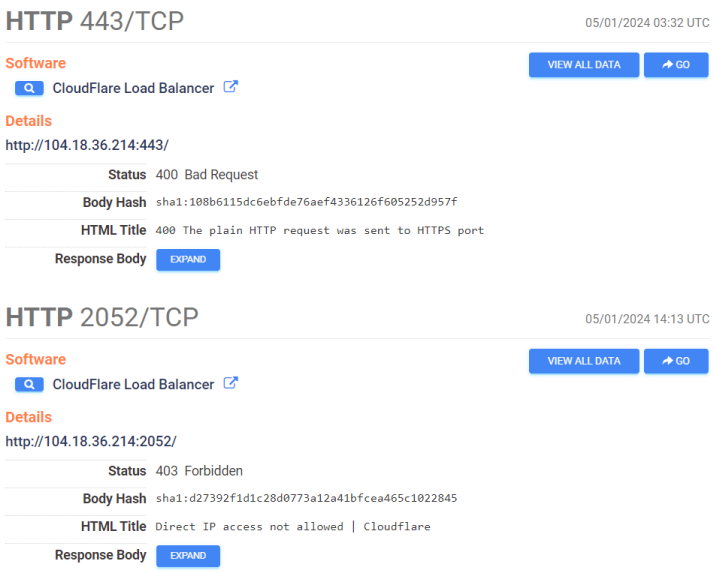
- Censys

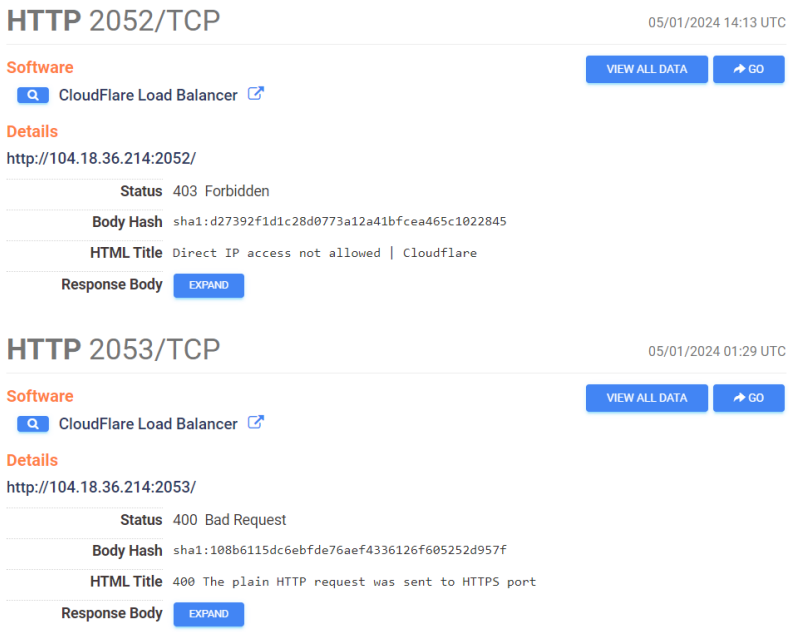
Censys is a potent internet scanning tool that scans and monitors devices, networks, and services online all the time. It performs thorough scans, keeps track of SSL/TLS

certificates, keeps an eye on attack surfaces, finds vulnerabilities, and offers threat information. Large volumes of data may be searched and analyzed, processes can be automated with the help of the API, and Censys can be integrated into security workflows. In the connected digital world of today, Censys is useful for asset discovery, vulnerability management, compliance monitoring, and proactive risk reduction.

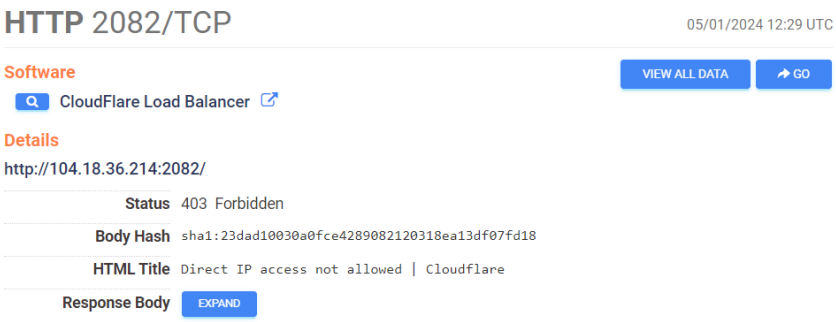
Proof of concept:

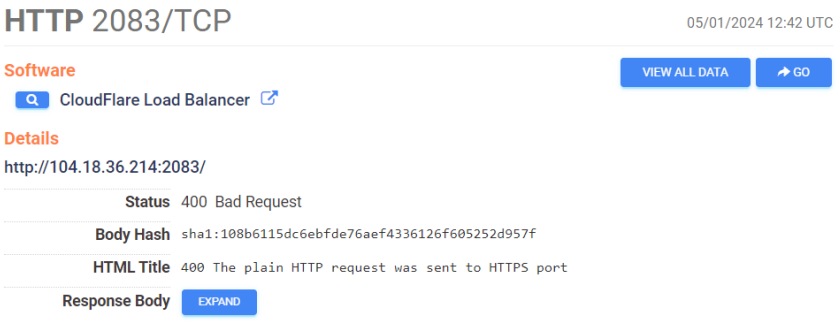
Proof of concept:

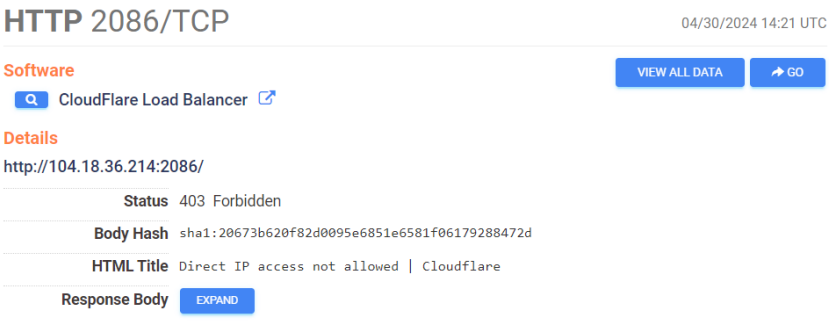


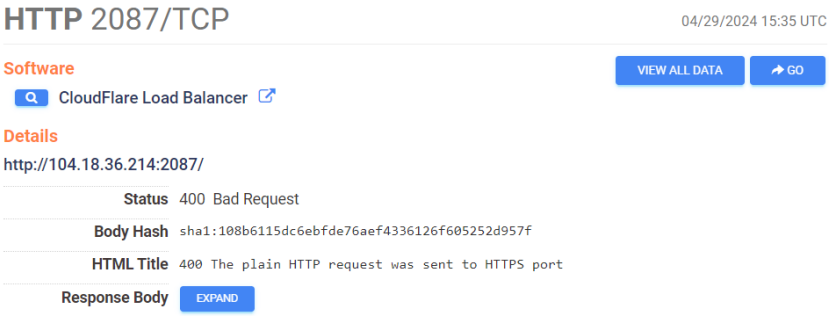


Proof of concept:

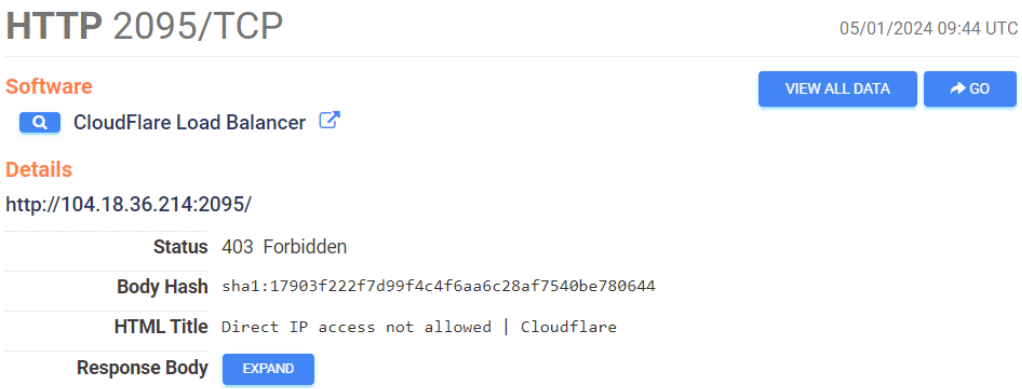


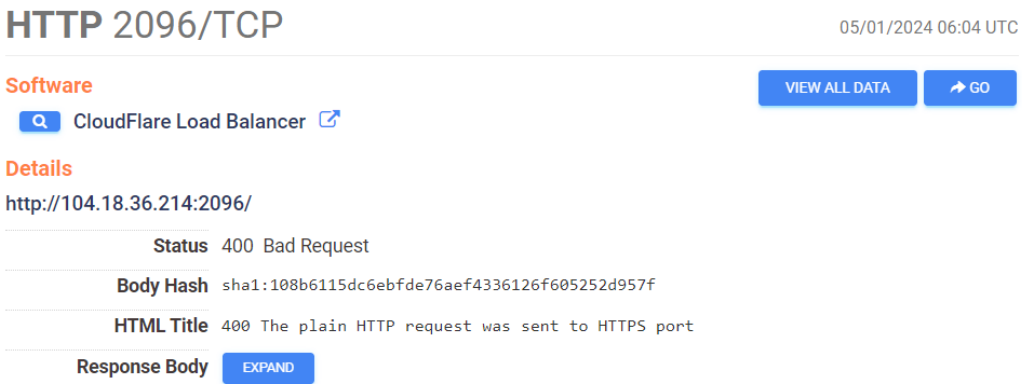


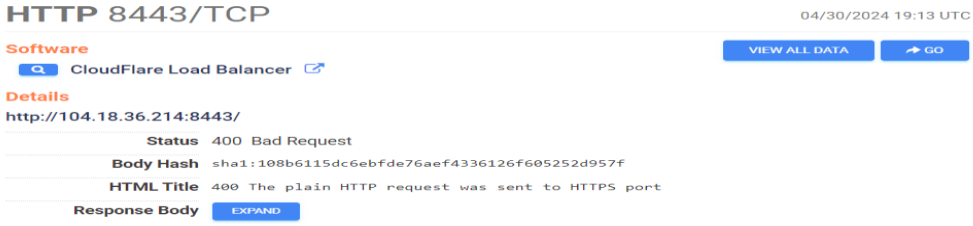




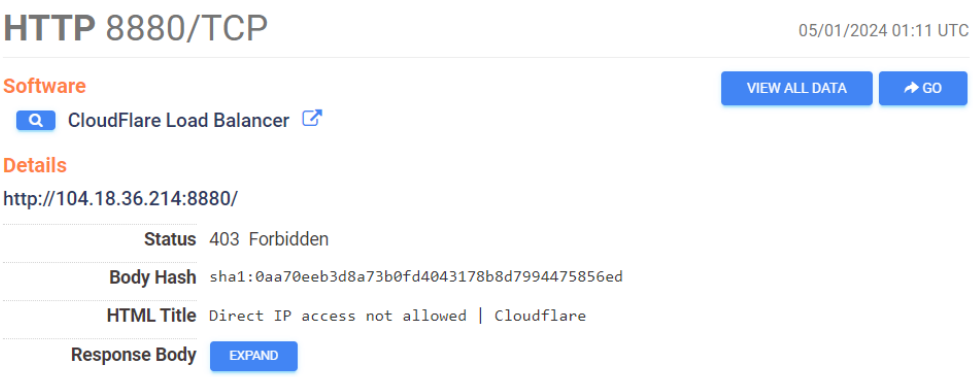
Proof of concept:







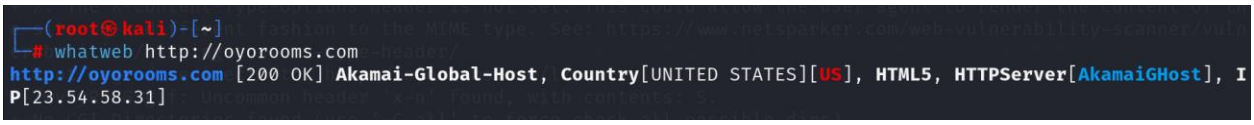
Proof of concept:



- **Whatweb**

WhatWeb is a powerful open-source website scanner that specializes in identifying the technologies utilized by websites. It excels in detecting web servers, frameworks, content management systems (CMS), programming languages, and more through its fingerprinting and HTTP header analysis capabilities. Security professionals leverage WhatWeb during reconnaissance and vulnerability assessments to gather insights into target websites' technology stacks, assess security risks associated with detected technologies, and identify potential vulnerabilities or outdated components. Its scriptable and customizable nature, along with integration options, makes it a valuable tool for automating scanning workflows and enhancing security assessments.

- **Proof of concept:**



- Whois

A key networking tool and protocol, whois is used to query databases and obtain data on IP addresses, domain names, and autonomous system numbers (ASNs). It offers information about domain registration, owner contact details, DNS information, IP address allocation, and ASN ownership. Whois is frequently used for domain research, network problems, IP geolocation, abuse investigations, and domain registration questions by network administrators, cybersecurity experts, domain registrars, and law enforcement organizations. Due to privacy concerns, registrars have started offering privacy services that conceal personal information from view in public Whois data. While Whois provides insightful information, users should be aware of potential limits across multiple Whois servers, privacy concerns, and data accuracy.

- **Proof of concept:**

```
┌──(root㉿kali)-[~]
└─# whois oyorooms.com
   Domain Name: OYOROOMS.COM
   Registry Domain ID: 1818414297_DOMAIN_COM-VRSN
   Registrar WHOIS Server: whois.godaddy.com
   Registrar URL: http://www.godaddy.com
   Updated Date: 2022-09-14T16:18:40Z
   Creation Date: 2013-07-29T18:17:31Z
   Registry Expiry Date: 2024-07-29T18:17:31Z
   Registrar: GoDaddy.com, LLC
   Registrar IANA ID: 146
   Registrar Abuse Contact Email: abuse@godaddy.com
   Registrar Abuse Contact Phone: 480-624-2505
   Domain Status: clientDeleteProhibited https://icann.org/epp#clientDeleteProhibited
   Domain Status: clientRenewProhibited https://icann.org/epp#clientRenewProhibited
   Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
   Domain Status: clientUpdateProhibited https://icann.org/epp#clientUpdateProhibited
   Name Server: A1-173.AKAM.NET
   Name Server: A11-64.AKAM.NET
   Name Server: A16-65.AKAM.NET
   Name Server: A24-66.AKAM.NET
   Name Server: A3-67.AKAM.NET
   Name Server: A8-64.AKAM.NET
   DNSSEC: unsigned
   URL of the ICANN Whois Inaccuracy Complaint Form: https://www.icann.org/wicf/
```

```
>>> Last update of whois database: 2024-05-01T15:10:07Z <<<

For more information on Whois status codes, please visit https://icann.org/epp

NOTICE: The expiration date displayed in this record is the date the
registrar's sponsorship of the domain name registration in the registry is
currently set to expire. This date does not necessarily reflect the expiration
date of the domain name registrant's agreement with the sponsoring
registrar.  Users may consult the sponsoring registrar's Whois database to
view the registrar's reported date of expiration for this registration.

TERMS OF USE: You are not authorized to access or query our Whois
database through the use of electronic processes that are high-volume and
automated except as reasonably necessary to register domain names or
modify existing registrations; the Data in VeriSign Global Registry
Services' ("VeriSign") Whois database is provided by VeriSign for
information purposes only, and to assist persons in obtaining information
about or related to a domain name registration record. VeriSign does not
guarantee its accuracy. By submitting a Whois query, you agree to abide
by the following terms of use: You agree that you may use this Data only
for lawful purposes and that under no circumstances will you use this Data
to: (1) allow, enable, or otherwise support the transmission of mass
unsolicited, commercial advertising or solicitations via e-mail, telephone,
or facsimile; or (2) enable high volume, automated, electronic processes
that apply to VeriSign (or its computer systems). The compilation,
```

- **Proof of concept:**

```
repackaging, dissemination or other use of this Data is expressly
prohibited without the prior written consent of VeriSign. You agree not to
use electronic processes that are automated and high-volume to access or
query the Whois database except as reasonably necessary to register
domain names or modify existing registrations. VeriSign reserves the right
to restrict your access to the Whois database in its sole discretion to ensure
operational stability.  VeriSign may restrict or terminate your access to the
Whois database for failure to abide by these terms of use. VeriSign
reserves the right to modify these terms at any time.

The Registry database contains ONLY .COM, .NET, .EDU domains and
Registrars.
Domain Name: OYOROOMS.COM
Registry Domain ID: 1818414297_DOMAIN_COM-VRSN
Registrar WHOIS Server: whois.godaddy.com
Registrar URL: https://www.godaddy.com
Updated Date: 2014-10-30T15:10:45Z
Creation Date: 2013-07-29T13:17:31Z
Registrar Registration Expiration Date: 2024-07-29T13:17:31Z
Registrar: GoDaddy.com, LLC
Registrar IANA ID: 146
Registrar Abuse Contact Email: abuse@godaddy.com
Registrar Abuse Contact Phone: +1.4806242505
Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
Domain Status: clientUpdateProhibited https://icann.org/epp#clientUpdateProhibited
```

```
Domain Status: clientDeleteProhibited https://icann.org/epp#clientDeleteProhibited
Registry Registrant ID: Not Available From Registry
Registrant Name: Registration Private
Registrant Organization: Domains By Proxy, LLC
Registrant Street: DomainsByProxy.com
Registrant Street: 2155 E Warner Rd
Registrant City: Tempe
Registrant State/Province: Arizona
Registrant Postal Code: 85284
Registrant Country: US
Registrant Phone: +1.4806242599
Registrant Phone Ext:
Registrant Fax:
Registrant Fax Ext:
Registrant Email: Select Contact Domain Holder link at https://www.godaddy.com/whois/results.aspx?domain=OYORO
OMS.COM
Registry Admin ID: Not Available From Registry
Admin Name: Registration Private
Admin Organization: Domains By Proxy, LLC
Admin Street: DomainsByProxy.com
Admin Street: 2155 E Warner Rd
Admin City: Tempe
Admin State/Province: Arizona
Admin Postal Code: 85284
Admin Country: US
```

- **Proof of concept:**

```
Admin Phone: +1.4806242599
Admin Phone Ext:
Admin Fax:
Admin Fax Ext:
Admin Email: Select Contact Domain Holder link at https://www.godaddy.com/whois/results.aspx?domain=OYOROOMS.C
OM
Registry Tech ID: Not Available From Registry
Tech Name: Registration Private
Tech Organization: Domains By Proxy, LLC
Tech Street: DomainsByProxy.com
Tech Street: 2155 E Warner Rd
Tech City: Tempe
Tech State/Province: Arizona
Tech Postal Code: 85284
Tech Country: US
Tech Phone: +1.4806242599
Tech Phone Ext:
Tech Fax:
Tech Fax Ext:
Tech Email: Select Contact Domain Holder link at https://www.godaddy.com/whois/results.aspx?domain=OYOROOMS.CO
M
Name Server: A1-173.AKAM.NET
Name Server: A11-64.AKAM.NET
Name Server: A16-65.AKAM.NET
Name Server: A24-66.AKAM.NET
```

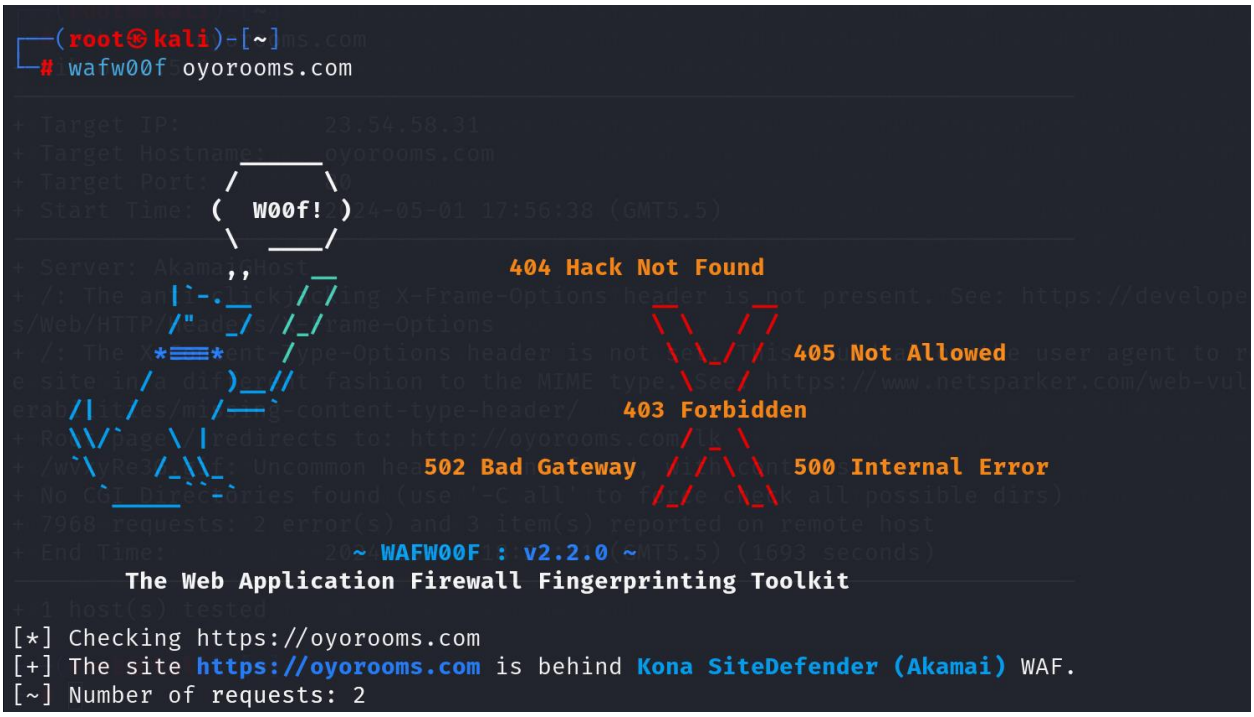
```
Name Server: A3-67.AKAM.NET
Name Server: A8-64.AKAM.NET
DNSSEC: unsigned
URL of the ICANN WHOIS Data Problem Reporting System: http://wdprs.internic.net/
>>> Last update of WHOIS database: 2024-05-01T15:10:28Z <<<
For more information on Whois status codes, please visit https://icann.org/epp

TERMS OF USE: The data contained in this registrar's Whois database, while believed by the
registrar to be reliable, is provided "as is" with no guarantee or warranties regarding its
accuracy. This information is provided for the sole purpose of assisting you in obtaining
information about domain name registration records. Any use of this data for any other purpose
is expressly forbidden without the prior written permission of this registrar. By submitting
an inquiry, you agree to these terms and limitations of warranty. In particular, you agree not
to use this data to allow, enable, or otherwise support the dissemination or collection of this
data, in part or in its entirety, for any purpose, such as transmission by e-mail, telephone,
postal mail, facsimile or other means of mass unsolicited, commercial advertising or solicitations
of any kind, including spam. You further agree not to use this data to enable high volume, automated
or robotic electronic processes designed to collect or compile this data for any purpose, including
mining this data for your own personal or commercial purposes. Failure to comply with these terms
may result in termination of access to the Whois database. These terms may be subject to modification
at any time without notice.
```

Find WAF (web application firewall) protection.

Wafwoof

Wafw00f is an open-source program that uses content patterns, HTTP responses, and header analysis to detect and fingerprint web application firewalls (WAFs). It gives testers and security experts information about the particular WAF technology or vendor being used as well as assists them in determining whether a web application is protected by a WAF. In addition to being user-friendly and seamlessly integrating with automated testing workflows, Wafw00f also keeps an updated database of WAF signatures and offers community support. It is a useful tool for security assessment and reconnaissance jobs, supporting the creation of efficient testing plans and workarounds.

Proof of concept:



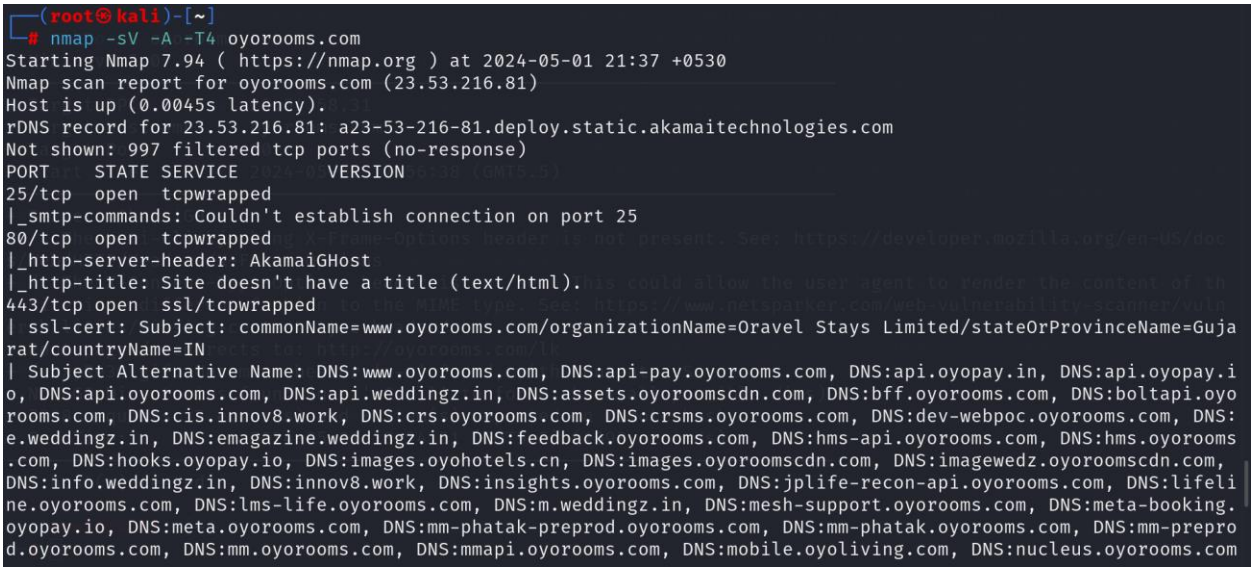
Find open ports.

Nmap

Nmap, sometimes known as "Network Mapper," is a potent open-source network scanning program used for vulnerability analysis, security audits, and network discovery. It is particularly good at operating system detection, host discovery, port scanning, and service version detection. Because it supports custom scripting and

automation, Nmap's scripting engine (NSE) is adaptable to a wide range of security activities and integration requirements. Because of its dependability, adaptability, and large feature set, network administrators, security experts, and penetration testers frequently use it for network reconnaissance, security audits, and network monitoring.

Proof of concept:



Proof of concept:

```
om, DNS:oyovacationhomes.com, DNS:oyoworkspaces.com, DNS:partner-app.oyorooms.com, DNS:partner.oyocircle.com, D
NS:partner.oyorooms.com, DNS:partners-admin.oyorooms.com, DNS:pay.oyorooms.com, DNS:plugin.oyorooms.com, DNS:pr
eprod.oyolife.in, DNS:proctor.oyopay.io, DNS:property-insights.oyorooms.com, DNS:refunds.oyorooms.com, DNS:scan
.oyorooms.com, DNS:scm-api.oyorooms.com, DNS:secure.oyopay.io, DNS:staging.oyoos.com, DNS:staging.weddingz.in,
DNS:stayyourway.oyorooms.com, DNS:stg-api.weddingz.in, DNS:testbff.oyorooms.com, DNS:vikreta.oyorooms.com, DNS:
virtualoffice.oyoworkspaces.com, DNS:wakai.oyorooms.com, DNS:weddingz.in, DNS:workflobyoyo.com, DNS:www.innov8.
work, DNS:www.mobile.oyoliving.com, DNS:www.oyocampus.in, DNS:www.oyocircle.com, DNS:www.oyohotels.cn, DNS:www.
oyohotels.com, DNS:www.oyolife.co.id, DNS:www.oyolife.co.in, DNS:www.oyolife.in, DNS:www.oyoliving.com, DNS:www
.oyoos.com, DNS:www.oyopay.in, DNS:www.oyopay.io, DNS:www.oyotownhouse.com, DNS:www.oyoworkspaces.com, DNS:www.
powerstationbyoyo.com, DNS:www.weddingz.in, DNS:www.workflobyoyo.com, DNS:zp-api-pay.oyorooms.com, DNS:zp-hooks
.oyopay.io, DNS:zp-proctor.oyopay.io, DNS:zp-proxy.oyopay.io, DNS:zp-secure.oyopay.io
| Not valid before: 2023-10-19T00:00:00
|_Not valid after:  2024-06-25T23:59:59
|_http-trane-info: Problem with XML parsing of /evox/about
|_http-server-header: AkamaiGHost
|_ssl-date: TLS randomness does not represent time
|_http-title: Site doesn't have a title (text/html).
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
OS fingerprint not ideal because: Missing a closed TCP port so results incomplete
No OS matches for host
Network Distance: 1 hop
```

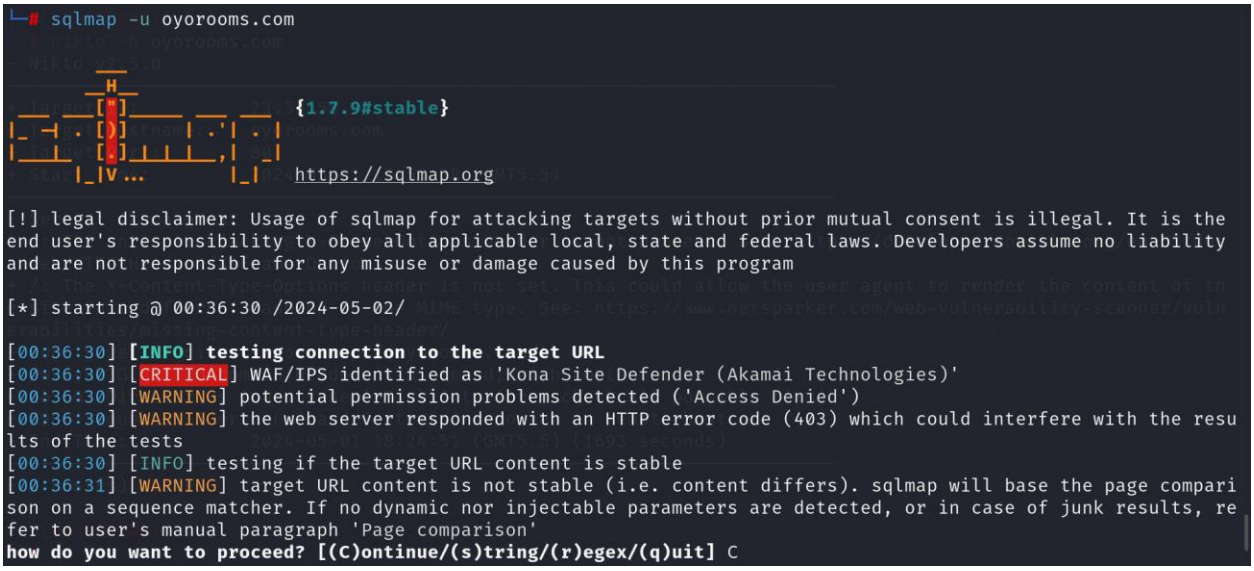
```
TRACEROUTE (using port 80/tcp)
HOP RTT      ADDRESS
1   0.22 ms a23-53-216-81.deploy.static.akamaitechnologies.com (23.53.216.81)

OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 71.11 seconds
```

Exploitation

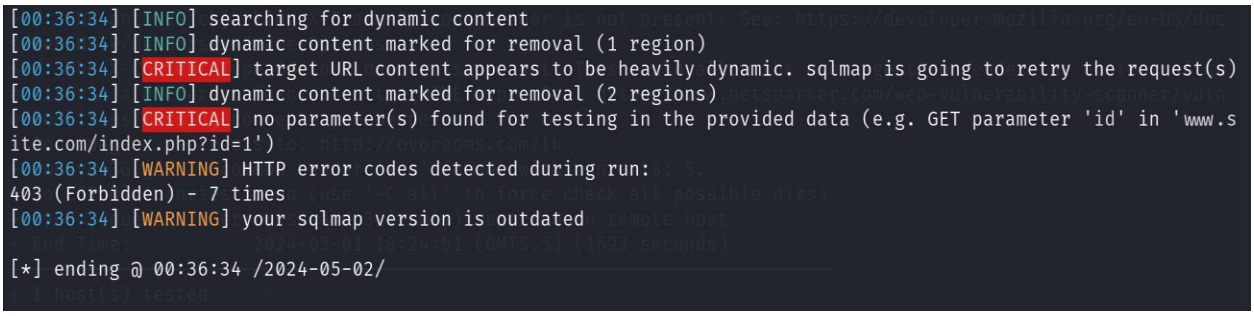
- Sqlmap

Web applications with SQL injection vulnerabilities can be automatically found and exploited with SQLMap, an open-source penetration testing tool. It employs a number of detecting methods, supports a number of database management systems, and provides customization choices. Security experts and penetration testers find SQLMap useful as it automates testing, enumeration, data extraction, and reporting procedures during security assessments. It should, therefore, be utilized sensibly, morally, and with the appropriate authorization to test programs and systems.

Proof of concept:



Proof of concept:



Vulnerability analysis phase

I used tool like netsparker to process and catch bugs and vulnerabilities are based on OWASP top 10.

Targeted Domain: - http://oyorooms.com

- Netsparker

An automated web application security scanner known for its precision and extensive vulnerability finding capabilities is called Netsparker. It simplifies the procedure for examining online applications and finds many security flaws, such as SQL injection, XSS, and misconfigurations. With its ability to provide comprehensive reports for compliance audits and vulnerability monitoring, Netsparker seamlessly interacts with development workflows. Because of its intuitive interface, sophisticated features like support for continuous monitoring and authentication, and free support and upgrades, it's a great resource for security

experts and companies looking to effectively strengthen their web application security posture.

Vulnerability title

Missing X-Frame-Options Header

Netsparker detected a missing X-Frame-Options header on the website, leaving it vulnerable to clickjacking attacks. This header, sent in HTTP responses, controls whether the site's content can be embedded in frames or iframes on other domains. Clickjacking involves tricking users into unintended actions by overlaying deceptive elements on legitimate pages. By correctly implementing the X-Frame-Options header with directives like "DENY" or "SAMEORIGIN," websites can prevent malicious framing and enhance overall security against clickjacking threats.

Impact assessment

Clickjacking is when an attacker uses multiple transparent or opaque layers to trick a user into clicking on a button or link on a framed page when they were intending to click on the top level page. Thus, the attacker is "hijacking" clicks meant for their page and routing them to other another page, most likely owned by another application, domain, or both.

Using a similar technique, keystrokes can also be hijacked. With a carefully crafted combination of stylesheets, iframes, and text boxes, a user can be led to believe they are typing in the password to their email or bank account but are instead typing into an invisible frame controlled by the attacker.

Affected components

The missing X-Frame-Options header affects the security of the entire website, as it leaves all pages vulnerable to potential clickjacking attacks. Clickjacking attacks can target any part of a website that can be displayed within a frame or iframe on another domain. This includes login forms, sensitive data, action buttons, or any interactive elements that users might interact with. Therefore, all components and functionalities of the website that can be manipulated or misused through clickjacking would be affected by the absence of the X-Frame-Options header.

How to mitigate?

To mitigate the risk of clickjacking attacks caused by the missing X-Frame-Options header:

1. **Set X-Frame-Options Header:** Configure your web server to include the X-Frame-Options header in HTTP responses.

2. **Choose Correct Directive:** Decide on the appropriate directive (DENY, SAMEORIGIN, or ALLOW-FROM) based on your security needs.

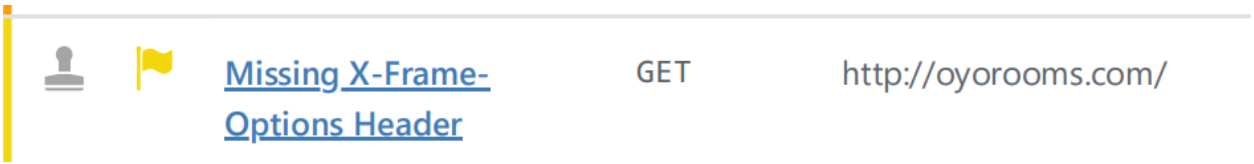
3. **Implement Header:** Add the X-Frame-Options header to your server's HTTP responses in the server configuration or .htaccess file.

4. **Test Implementation:** Verify the header implementation using security tools or browser developer tools.

5. **Regular Audits:** Conduct periodic security audits to detect and address any new vulnerabilities, including clickjacking risks.

These steps will help prevent unauthorized framing of your website's content and enhance overall security against clickjacking threats.

Proof of concept:



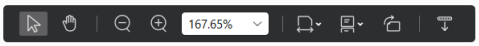
Vulnerabilities

3.1. http://oyorooms.com/

Certainty

Request

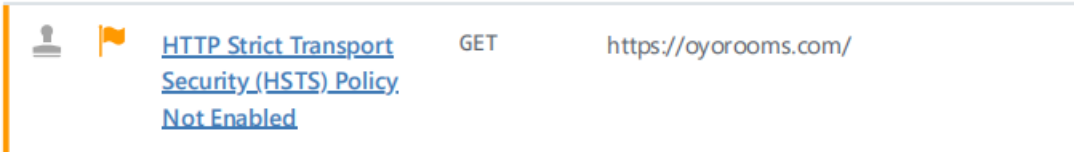
```
GET / HTTP/1.1
Host: oyorooms.com
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8
Accept-Encoding: gzip, deflate
Accept-Language: en-us,en;q=0.5
Cache-Control: no-cache
User-Agent: Mozilla/5.0 (Windows NT 10.0; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/70.0.3538.
77 Safari/537.36
X-Scanner: Netsparker
```



Other vulnerabilities were identified during the scan

- HTTP Strict Transport Security (HSTS) Policy Not Enabled

Proof of concept:



Vulnerabilities

1.1. https://oyorooms.com/

Certainty

Request

```
GET / HTTP/1.1
Host: oyorooms.com
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8
Accept-Encoding: gzip, deflate
Accept-Language: en-us,en;q=0.5
Cache-Control: no-cache
Connection: Keep-Alive
User-Agent: Mozilla/5.0 (Windows NT 10.0; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/70.0.3538.
77 Safari/537.36
X-Scanner: Netsparker
```

Proof of concept:

Response

Response Time (ms) : 351.6657 Total Bytes Received : 606 Body Length : 362 Is Compressed : No

```
HTTP/1.1 403 Forbidden
Server: AkamaiGHost
Content-Length: 362
Expires: Wed, 01 May 2024 16:12:27 GMT
Connection: close
Mime-Version: 1.0
Content-Type: text/html
Date: Wed, 01 May 2024 16:12:27 GMT
Cache-Control: no-store, max-age=0

<HTML><HEAD>
<TITLE>Access Denied</TITLE>
</HEAD><BODY>
<H1>Access Denied</H1>

You don't have permission to access "http&#58;&#47;&#47;oyorooms&#46;com&#47;" on this server.<P>
Reference&#32;&#35;18&#46;deac3017&#46;1714579947&#46;95fc229d
<P>https&#58;&#47;&#47;errors&#46;edgesuite&#46;net&#47;18&#46;deac3017&#46;1714579947&#46;95fc229d</P>
</BODY>
</HTML>
```

Remedy

Configure your webserver to redirect HTTP requests to HTTPS.

i.e. for Apache, you should have modification in the httpd.conf. For more configurations, please refer to External References section.

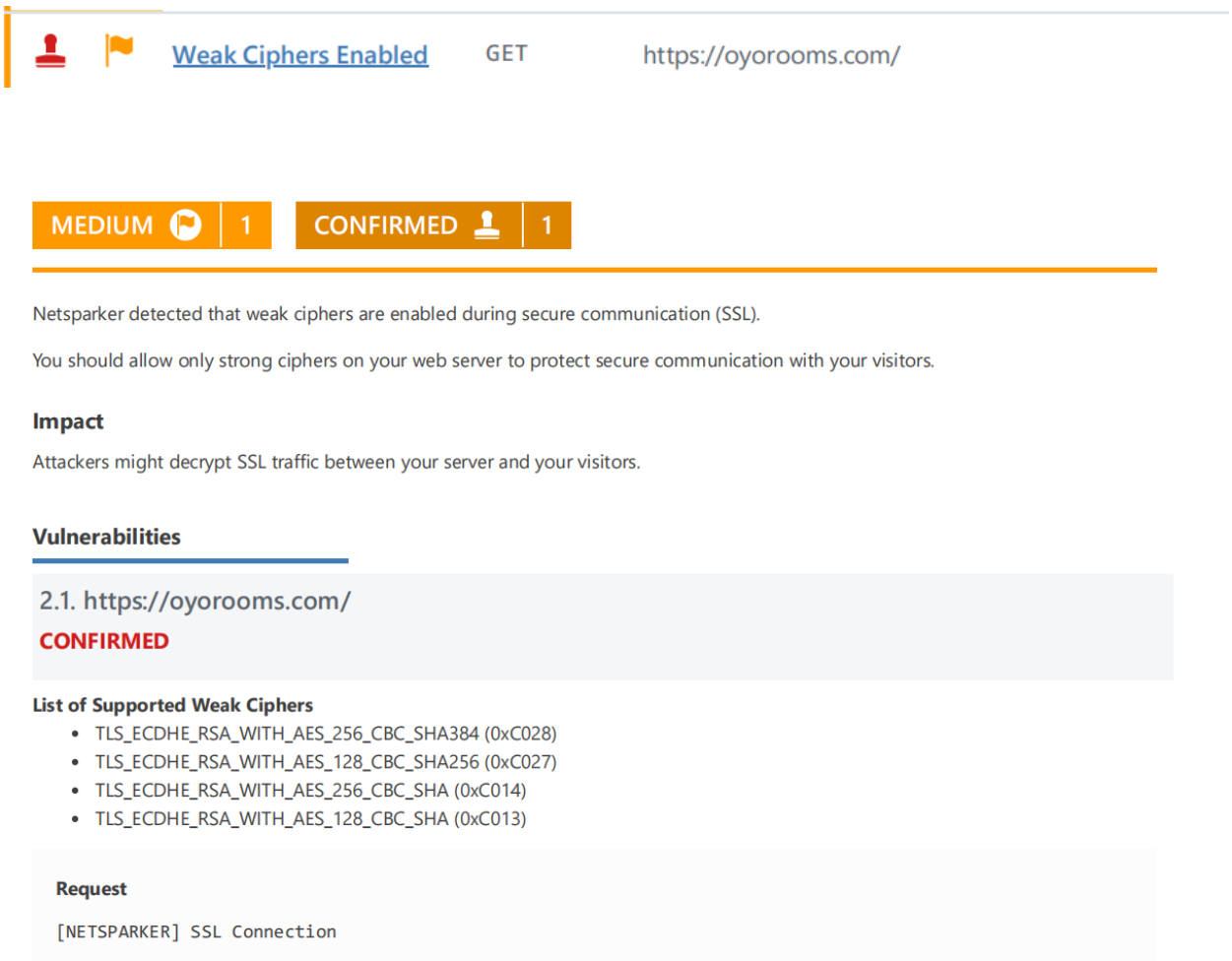
```
# load module
LoadModule headers_module modules/mod_headers.so

# redirect all HTTP to HTTPS (optional)
<VirtualHost *:80>
       ServerAlias *
       RewriteEngine On
       RewriteRule ^(.*)$ https://%{HTTP_HOST}$1 [redirect=301]
</VirtualHost>

# HTTPS-Host-Configuration
<VirtualHost *:443>
      # Use HTTP Strict Transport Security to force client to use secure connections only
      Header always set Strict-Transport-Security "max-age=31536000; includeSubDomains"

      # Further Configuration goes here
      [...]
```



```
</VirtualHost>
```

- Weak Ciphers Enabled

Proof of concept:



Weak Ciphers Enabled GET https://oyorooms.com/

MEDIUM 1 CONFIRMED 1

Netsparker detected that weak ciphers are enabled during secure communication (SSL).

You should allow only strong ciphers on your web server to protect secure communication with your visitors.

Impact

Attackers might decrypt SSL traffic between your server and your visitors.

Vulnerabilities

2.1. https://oyorooms.com/

CONFIRMED

List of Supported Weak Ciphers

- TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 (0xC028)
- TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 (0xC027)
- TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA (0xC014)
- TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (0xC013)

Request

```
[NETSPARKER] SSL Connection
```

Proof of concept:

Response

Response Time (ms) : 1 Total Bytes Received : 27 Body Length : 0 Is Compressed : No

```
[NETSPARKER] SSL Connection
```

Actions to Take

1. For Apache, you should modify the SSLCipherSuite directive in the `httpd.conf`.

```
SSLCipherSuite HIGH:MEDIUM:!MD5:!RC4
```

2. Lighttpd:


```
ssl.honor-cipher-order = "enable"
ssl.cipher-list = "EECDH+AESGCM:EDH+AESGCM"
```

3. For Microsoft IIS, you should make some changes to the system registry. **Incorrectly editing the registry may severely damage your system. Before making changes to the registry, you should back up any valued data on your computer.**

   a.Click Start, click Run, type `regedt32`or type `regedit`, and then click OK.
   b.In Registry Editor, locate the following registry key: `HKLM\SYSTEM\CurrentControlSet\Control\SecurityProviders`
   c.Set "Enabled" DWORD to "0x0" for the following registry keys:

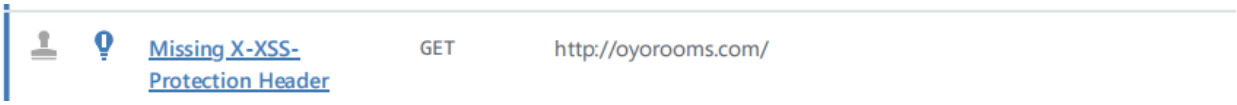
```
SCHANNEL\Ciphers\DES 56/56
SCHANNEL\Ciphers\RC4 64/128
SCHANNEL\Ciphers\RC4 40/128
SCHANNEL\Ciphers\RC2 56/128
SCHANNEL\Ciphers\RC2 40/128
SCHANNEL\Ciphers\NULL
SCHANNEL\Hashes\MD5
```

Remedy

Configure your web server to disallow using weak ciphers.

- Missing X-XSS-Protection Header

Proof of concept:



Netsparker detected a missing `X-XSS-Protection` header which means that this website could be at risk of a Cross-site Scripting (XSS) attacks.

Impact

This issue is reported as additional information only. There is no direct impact arising from this issue.

Vulnerabilities

5.1. http://oyorooms.com/

Certainty

Request

```
GET / HTTP/1.1
Host: oyorooms.com
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8
Accept-Encoding: gzip, deflate
Accept-Language: en-us,en;q=0.5
Cache-Control: no-cache
User-Agent: Mozilla/5.0 (Windows NT 10.0; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/70.0.3538.
77 Safari/537.36
X-Scanner: Netsparker
```

Proof of concept:

Response

Response Time (ms) : 160.227 Total Bytes Received : 606 Body Length : 362 Is Compressed : No

```
HTTP/1.1 403 Forbidden
Server: AkamaiGHost
Content-Length: 362
Expires: Wed, 01 May 2024 16:12:18 GMT
Connection: close
Mime-Version: 1.0
Content-Type: text/html
Date: Wed, 01 May 2024 16:12:18 GMT
Cache-Control: no-store, max-age=0

<HTML><HEAD>
<TITLE>Access Denied</TITLE>
</HEAD><BODY>
<H1>Access Denied</H1>

You don't have permission to access "http&#58;&#47;&#47;oyorooms&#46;com&#47;" on this server.<P>
Reference&#32;&#35;18&#46;deac3017&#46;1714579938&#46;95fafd68
<P>https&#58;&#47;&#47;errors&#46;edgesuite&#46;net&#47;18&#46;deac3017&#46;1714579938&#46;95fafd68</P>
</BODY>
</HTML>
```

Remedy

Add the X-XSS-Protection header with a value of "1; mode= block".

- `X-XSS-Protection: 1; mode=block`

Conclusion

The security assessment of http://oyorooms.com using various tools like Recon-ng, nslookup, Dnsrecon, Nikto, and others revealed critical vulnerabilities including Weak Ciphers, Missing X-Frame-Options Header, Missing X-XSS-Protection Header, and absence of HTTP Strict Transport Security (HSTS) Policy. Of these, the missing X-Frame-Options Header poses a significant risk of clickjacking attacks, impacting the entire website's security. Mitigation strategies recommended include configuring appropriate HTTP headers, conducting regular security audits, and promptly addressing identified vulnerabilities. Implementing these measures is crucial to fortify the website's overall security posture and protect against common web application threats.