LAPORAN ANALISIS PASSIVE DAN ACTIVE RECONNAISSANCE

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KELAS : 5JKA ETHICAL HACKING

A. SKENARIO DAN RUANG LINGKUP

1. Peran dan Tujuan

- Peran: Konsultan Keamanan Siber
- Tujuan Umum: Melakukan pengujian fase Reconnaissance untuk mengumpulkan informasi terkait infrastruktur target dan mengidentifikasi potensi titik masuk.

Table 1.1 target audit

Fase	Target yang Diaudit
Passive Reconnaissance	Website Pemerintah Kabupaten Gowa (gowakab.go.id)
Active Reconnaissance	VM Lab Rentan – IP: 172.20.10.3

- Batasan (Rules of Engagement)

  Semua aktivitas pemindaian aktif hanya dilakukan pada VM Lab IP 172.20.10.3.

A. TAHAPAN 1: PASSIVE RECONNAISSANCE (Pengintaian Pasif)

- **Tujuan**

  Mengidentifikasi informasi publik tanpa melakukan interaksi langsung dengan server target.

- **Target**

  Website Pemerintah Kabupaten Gowa (gowakab.go.id)

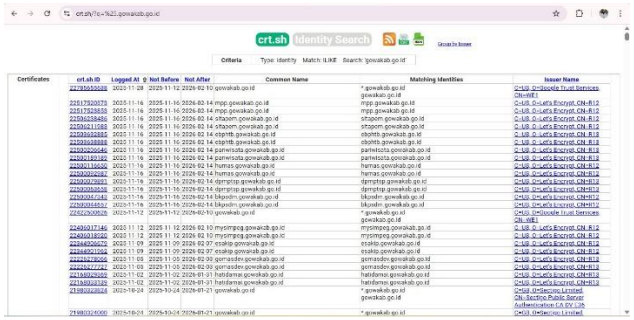
Tabel 1.2 Hasil Passive Reconnaissance

Kategori Informasi	Informasi yang Ditemukan	(Alat/Website)	Alasan Relevansi
Pencarian Sub-domain	gowakab.go.id pariwisata.gowakab.go.id humas.gowakab.go.id dinsos.gowakab.go.id mpp.gowakab.go.id diskominfo.gowakab.go.id	crt.sh https://crt.sh/?q=gowakab.go.id	Menunjukkan permukaan serangan (attack surface) yang lebih luas.
Informasi Karyawan	Farhan Makmur, S.H. (Kabid TI) Dhyni Widyaswari D. (Kabid Komunikasi Publik)	Website Resmi Pemkab Gowa Diskomin https://diskominfo.gowakab.go.id/profil-pejabat/	Untuk memahami struktur organisasi

	Sabrina Rukka, S.E. (Kabid Persandian)		dan pihak yang relevan.
Format Email	info@gowakab.go.id	https://gowakab.go.id/site/	Digunakan untuk validasi pola email dalam simulasi keamanan.
Teknologi Website	Cloudflare React Cloudflare Web Analytics	BuiltWith https://builtwith.com/gowakab.go.id	Menunjukkan penggunaan WAF dan potensi analisis keamanan sisi klien.
Informasi Sensitif Terpapar	Repository GitHub: dystianen/gowakab	GitHub Search (OSINT)	Potensi kebocoran source code atau kredensial.

- **Bukti Dokumentasi**

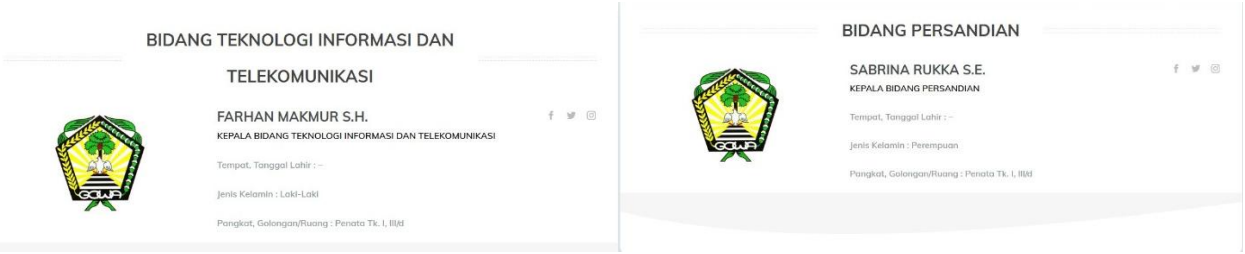
1. Pencarian Domain dan Sub-domain



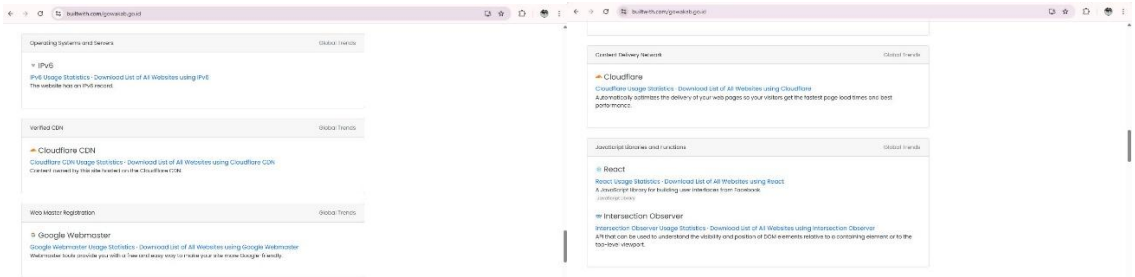
2. Informasi email dan karyawan

- Informasi email

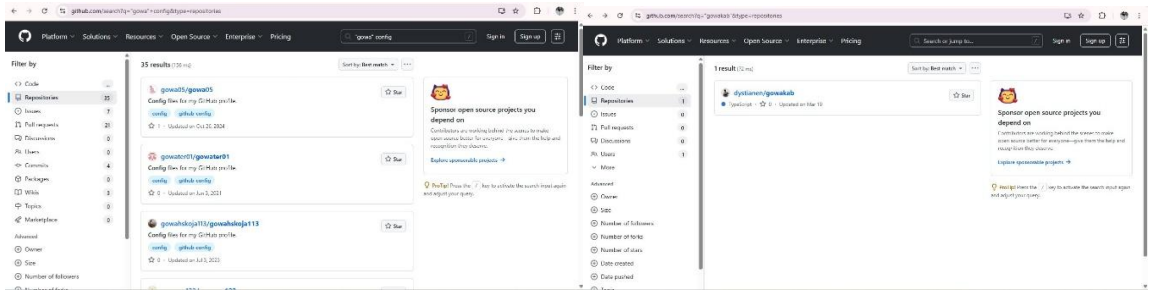
- Karyawan diskominfo



3. Teknologi yang digunakan

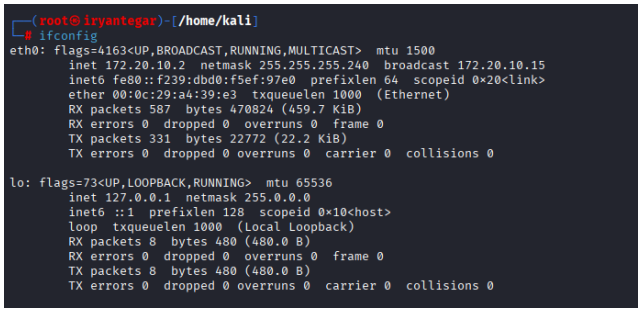


4. Informasi sensitive yang terpapar



B. TAHAPAN ACTIVE RECONNAISSANCE (PENGINTAIAN AKTIF)

IF CONFIG



Dilakukan **hanya** pada lingkungan lab IP 172.20.10.2

1. Host Discovery dan Port Scanning

Tugas	Command	Hasil	Potensi Dampak
Host Discovery	sudo netdiscover -r 172.20.10.0/24	Target ditemukan: 172.20.10.3	Memastikan host aktif di jaringan.
TCP SYN Scan	sudo nmap -sS 172.20.10.3	Port terbuka: 22, 80, 6667	Permukaan serangan layanan aktif.
UDP Scan	sudo nmap -sU --top-ports 20 172.20.10.3	Open/Filtered: 53, 67	DNS dan DHCP berpotensi menjadi target analisis.

a. Dokumentasi

- Host discovery

```
┌──(root㉿iryantegar)-[/home/kali]
└─# sudo netdiscover -r 172.20.10.0/24
```

```
Session  Actions  Edit  View  Help
 Currently scanning: Finished!   |   Screen View: Unique Hosts

 3 Captured ARP Req/Rep packets, from 3 hosts.   Total size: 180
 IP            At MAC Address     Count     Len  MAC Vendor / Hostname
-----------------------------------------------------------------------------
 172.20.10.3     00:0c:29:93:5c:58      1      60  VMware, Inc.
 172.20.10.7     d4:e9:8a:32:bf:a4      1      60  Intel Corporate
 172.20.10.1     96:0c:98:60:18:64      1      60  Unknown vendor
```

- TCP SYN scan

```
┌──(root㉿iryantegar)-[/home/kali]
└─# sudo nmap -sS -p- 172.20.10.3
Starting Nmap 7.95 ( https://nmap.org ) at 2025-12-07 09:36 EST
Nmap scan report for 172.20.10.3
Host is up (0.00060s latency).
Not shown: 65532 closed tcp ports (reset)
PORT     STATE SERVICE
22/tcp   open  ssh
80/tcp   open  http
6667/tcp open  irc
MAC Address: 00:0C:29:93:5C:58 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 3.56 seconds
```

- UDP scn

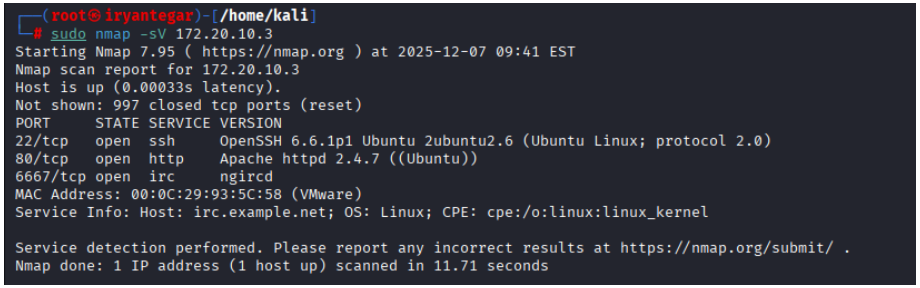
```
┌──(root㉿iryantegar)-[/home/kali]
└─# sudo nmap -sU --top-ports 20 172.20.10.3
Starting Nmap 7.95 ( https://nmap.org ) at 2025-12-07 09:39 EST
Nmap scan report for 172.20.10.3
Host is up (0.0035s latency).

PORT      STATE         SERVICE
53/udp    open|filtered domain
67/udp    open|filtered dhcps
68/udp    open|filtered dhcpc
69/udp    open|filtered tftp
123/udp   open|filtered ntp
135/udp   closed        msrpc
137/udp   open|filtered netbios-ns
138/udp   closed        netbios-dgm
139/udp   closed        netbios-ssn
161/udp   closed        snmp
162/udp   closed        snmptrap
445/udp   closed        microsoft-ds
500/udp   closed        isakmp
514/udp   closed        syslog
520/udp   closed        route
631/udp   closed        ipp
1434/udp  open|filtered ms-sql-m
1900/udp  closed        upnp
4500/udp  closed        nat-t-ike
49152/udp open|filtered unknown
MAC Address: 00:0C:29:93:5C:58 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 8.26 seconds
```

2. **Service and Version Detection**

   sudo nmap -sV 172.20.10.3

Port	Service	Version	Analisis Risiko
22	SSH	OpenSSH 6.6.1p1	Versi lama → potensi brute force & enumeration.
80	HTTP	Apache 2.4.7	Banyak CVE publik untuk versi lama.
6667	IRC	ngircd	Layanan tidak umum untuk server produksi.

- Bukti service detection

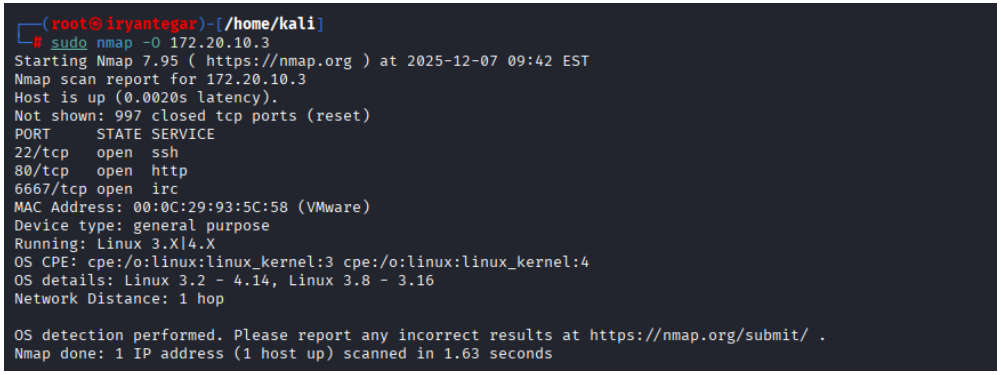


3. OS Fingerprinting

   sudo nmap -O 172.20.10.3

Hasil	Detail OS	Analisis
OS Terdeteksi	Linux Kernel 3.x – 4.x	Menunjukkan OS lawas yang berpotensi memiliki celah keamanan.

- Bukti OS fingerprinting



4. Network Protocol Analysis

   Tool: Wireshark

   Analisis:

   Ditemukan pola **SYN → SYN/ACK → RST** saat proses pemindaian Nmap, menunjukkan penggunaan metode **SYN Scan (-sS)**.

- Bukti network protocol analysis