RELATÓRIO TÉCNICO DE CIBERSEGURANÇA LAB DE REDE SEGMENTADA

Auditoria de Rede Simulada • Análisé Técnica • 2025



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Sumário Executivo.......1

Este relatório apresenta os achados técnicos obtidos na análise de uma rede corporativa segmentada em ambiente simulado. Foram identificados hosts ativos, serviços expostos, riscos operacionais e falhas de segmentação que podem comprometer a segurança da organização, três sub-redes com dispositivos como estações, servidores e impressoras. Vários serviços estão expostos (ex: FTP, Samba, MySQL). Riscos como portas abertas e falta de isolamento foram observados. Recomenda-se segmentação e desativação de serviços desnecessários

Principais riscos identificados:

- Serviços obsoletos expostos à rede de visitantes - Possibilidade de movimento lateral via impressoras e compartilhamento de arquivos (Samba) - Falta de isolamento entre redes internas e externas

Recomendações imediatas:

- Isolamento da rede de visitantes via VLAN - Remoção ou proteção de portas sensíveis (FTP, Samba) - Implantação de regras de firewall entre sub-redes

| 01- | | - |
|-----|-------|---|
| UDI | etivo | Z |
| | | |

Avaliar a estrutura de rede segmentada de uma organização simulada, identificando riscos, falhas de exposição e oportunidades de melhoria na segurança do ambiente onde é realizada uma análise técnica identificando serviços, vulnerabilidades e riscos operacionais.



Escopo e Contexto3

A análise foi realizada dentro de um ambiente Docker simulado, com múltiplos hosts e sub-redes, acessado via Kali Linux.

Interfaces identificadas:

| eth0 | 10.10.30.0/24 | guest |
|------|---------------|--------|
| eth1 | 10.10.10.0/24 | infra |
| eth2 | 10.10.50.0/24 | gestão |

Foram utilizados scans em cada sub-rede para mapeamento dos dispositivos e serviços.



Metodologia------4

Foram utilizadas abordagens de reconhecimento ativo para identificar dispositivos, serviços e possíveis riscos na rede simulada. Todas as evidências foram coletadas por meio de comandos no terminal (prints e logs), organizadas por sub-rede para facilitar a análise.

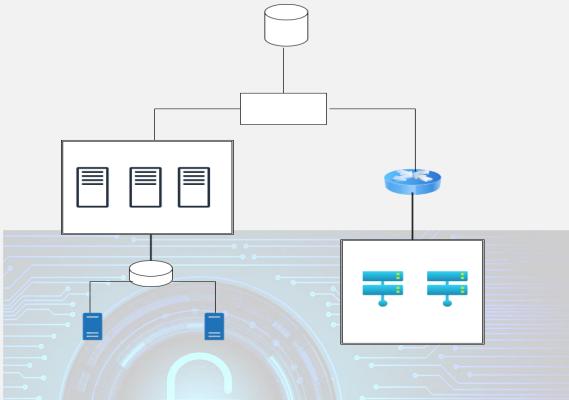
Ferramentas Utilizadas:

| ip a | Identificação da interface e IP local | |
|--|--|--|
| ping | Teste de conectividade com hosts | |
| Arp-scan | Arp-scan Descoberta de hosts via ARP na rede local | |
| Netdiscover Reconhecimento passivo/ativo da rede | | |
| Nmap Identificação de hosts, portas abertas e serviços | | |
| Rustscan | Scaner rápido de portas com integração ao Nmap | |
| Whois, dig, traceroute | Resolução de Ips e roteamento | |

Tabela de Ferramentas e evidências

| Ferramenta | Evidência (Print) Comando Usado | | |
|------------------------|---|--|--|
| Docker ps + exec | Entrada no container | Docker ps / docker exec –it analyst bash | |
| Arp-s <mark>can</mark> | Arp scan.png | Arp-scan –interface=eth0 –localnet | |
| Nmap (ping scan) | Nmap oG.png | Nmap -sn 10.10.X.0/24 -oG - \ grep Up | |
| Nmap (serviços) | Nmap. <mark>pn</mark> g, nmap 10.10.30.1.png | Nmap -sS -sV -Pn 10.10.X.X | |
| Ping | Ping.png | Ping –c 3 IP | |
| Rustscan | Rustscan.png | Rustscan –a 10.10.30.10sV | |

Diagnóstico Técnico------5



Descoberta de Rede (ARP-SCAN)-----

-5.1

O comando a seguir foi utilizado para detectar os dispositivos presentes na sub-rede <u>10.10.30.0/24</u>, conectada à interface eth0: <u>arp-scan --interface=eth0 –localnet</u>.

Resultado obtido:

| Interface: eth0, type: EN10MB, MAC: 36:3d:4a:56:40:d0, IPv4: 10.10.30.2 | | | | |
|--|--|-----------------------------|--|--|
| WARNING: Cannot open MAC/Vendor file ieee-oui.txt: Permission denied | | | | |
| WARNING: Cannot ope | WARNING: Cannot open MAC/Vendor file mac-vendor.txt: Permission denied | | | |
| Starting arp-scan 1.10.0 with 256 hosts (https://github.com/royhills/arp-scan) | | | | |
| 10.10.30.1 | 66:cb:fc:8e:af:65 | Unknow:locally administered | | |
| 10.10.30.10 | de:07:80:c0:4f:76 | Unknow:locally administered | | |
| 10.10.30.11 | 7e:a4:d0:fc:d1:f9 | Unknow:locally administered | | |
| | | Unknow:locally administered | | |
| | | Unknow:locally administered | | |
| 10.10.30.117 | 96:82:b3:ec:8c:a7 | Unknow:locally administered | | |
| 10.10.30.227 | 12:6c:5f:95:74:88 | Unknow:locally administered | | |
| 7 packets received by filter, 0 packets dropped by kernel | | | | |
| Ending arp-scan 1.10.0: 256 hosts scanned in 1.894 seconds (135.16 hosts/sec). 7 responded | | | | |

nding arp-scan 1.10.0: 256 hosts scanned in 1.894 seconds (135.16 hosts/sec). 7 responded

Foram identificados 7 hosts ativos na rede da interface <u>eth0</u>, com seus respectivos endereços IP e MAC. Este passo é importante para o levantamento inicial do inventário da rede.

```
TERMINAL
 --(root@c68112acc59d)-[/home/analyst]
# arp-scan --interface=eth0 --localnet
Interface: eth0, type: EN10MB, MAC: 36:3d:4a:56:40:d
0.30.2
WARNING: Cannot open MAC/Vendor file ieee-oui.txt: P
WARNING: Cannot open MAC/Vendor file mac-vendor.txt:
Starting arp-scan 1.10.0 with 256 hosts (https://git
lls/arp-scan)
10.10.30.1
                66:cb:fc:8e:af:65
                                        (Unknown: lo
tered)
10.10.30.10
                de:07:80:c0:4f:76
                                        (Unknown: lo
tered)
10.10.30.11
                7e:a4:d0:fc:d1:f9
                                        (Unknown: lo
tered)
10.10.30.15
                46:9b:70:46:2d:88
                                        (Unknown: lo
tered)
10.10.30.17
                ee:1b:4a:29:bd:5b
                                        (Unknown: lo
tered)
10.10.30.117
                96:82:b3:ec:8c:a7
                                        (Unknown: lo
tered)
10.10.30.227
                12:6c:5f:95:74:88
                                        (Unknown: lo
tered)
7 packets received by filter, 0 packets dropped by k
Ending arp-scan 1.10.0: 256 hosts scanned in 1.873 s
8 hosts/sec). 7 responded
```

5.2 Mapeamento de Serviços (NMAP, Rustscan)

```
TERMINAL
                  c59d)-[/home/analyst]
# nmap -sS -sV -Pn 10.10.30.1
Starting Nmap 7.95 ( https://nmap.org ) at 2025-07-2
Nmap scan report for 10.10.30.1
Host is up (0.000041s latency).
Not shown: 999 closed tcp ports (reset)
PORT STATE SERVICE VERSION
111/tcp open rpcbind 2-4 (RPC #100000)
MAC Address: 66:CB:FC:8E:AF:65 (Unknown)
Service detection performed. Please report any incor
at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 23.03
   -(root%c68112acc59d)-[/home/analyst]
# nmap -sS -sV -Pn 10.10.30.10 10.10.30.11 10.10.3
.17 10.10.30.117 10.10.30.227
Starting Nmap 7.95 ( https://nmap.org ) at 2025-07-2
Nmap scan report for ftp-server.projeto_final_opcao_
10.10.30.10)
Host is up (0.000049s latency).
Not shown: 999 closed tcp ports (reset)
PORT STATE SERVICE VERSION
21/tcp open ftp Pure-FTPd
MAC Address: DE:07:80:C0:4F:76 (Unknown)
Nmap scan report for mysql-server.projeto_final_opca
 (10.10.30.11)
Host is up (0.000052s latency).
```

```
-(root@c68112acc59d)-[/home/analyst]
# nmap -sn 10.10.10.0/24 -oG - | grep Up
-sn 10.10.50.0/24 -oG - | grep Up
nmap -sn 10.10.30.0/24 -oG - | grep Up
Host: 10.10.10.1 () Status: Up
Host: 10.10.10.10 (WS_001.projeto_final_opcao_1_corp
Host: 10.10.10.101 (WS_002.projeto_final_opcao_1_cor
tatus: U
Host: 10.10.10.127 (WS_003.projeto_final_opcao_1_cor
tatus: Ur
Host: 10.10.10.222 (WS_004.projeto_final_opcao_1_cor
tatus: U
Host: 10.10.10.2 (c68112acc59d) Status: Up
(root € c68112acc59d)-[/home/analyst]
# arp-scan -I eth0 10.10.0/24
Interface: eth0, type: EN10MB, MAC: 36:3d:4a:56:40:d
0.30.2
WARNING: Cannot open MAC/Vendor file ieee-oui.txt: P
ied
WARNING: Cannot open MAC/Vendor file mac-vendor.txt:
enied
Starting arp-scan 1.10.0 with 256 hosts (https://git
lls/arp-scan)
10.10.10.1
                66:cb:fc:8e:af:65
                                         (Unknown: lo
tered)
1 packets received by filter, 0 packets dropped by k
```

TERMINAL

PROBLEMAS SAÍDA CONSOLE DE DEPURAÇÃO TERMINAL # nmap -sS -sV -Pn 10.10.30.0/24 Starting Nmap 7.95 (https://nmap.org) at 2025-07-2 Nmap scan report for 10.10.30.1 Host is up (0.000048s latency). Not shown: 999 closed tcp ports (reset) PORT STATE SERVICE VERSION 111/tcp open rpcbind 2-4 (RPC #100000) MAC Address: 66:CB:FC:8E:AF:65 (Unknown) Nmap scan report for ftp-server.projeto final opcao 10.10.30.10) Host is up (0.000053s latency). Not shown: 999 closed tcp ports (reset) PORT STATE SERVICE VERSION 21/tcp open ftp Pure-FTPd MAC Address: DE:07:80:C0:4F:76 (Unknown) Nmap scan report for mysql-server.projeto_final_opca (10.10.30.11)Host is up (0.000053s latency). Not shown: 999 closed tcp ports (reset) STATE SERVICE VERSION 3306/tcp open mysql MySQL 8.0.43 MAC Address: 7E:A4:D0:FC:D1:F9 (Unknown) Nmap scan report for samba-server.projeto_final_opca (10.10.30.15)Host is up (0.000055s latency). Not shown: 998 closed tcp ports (reset)

PROBLEMAS SAÍDA CONSOLE DE DEPURAÇÃO **TERMINAL** PORTAS SONARQUBE -(root%c68112acc59d)-[/home/analyst] # rustscan -a 10.10.30.10 -- -sV The Modern Day Port Scanner. : https://discord.gg/GFrQsGy : https://github.com/RustScan/RustScan : Please contribute more quotes to our GitHub https://github.com/ru stscan/rustscan [~] The config file is expected to be at "/root/.rustscan.toml" [~] File limit higher than batch size. Can increase speed by incr easing batch size '-b 1048476'. Open 10.10.30.10:21 [~] Starting Script(s) [>] Script to be run Some("nmap -vvv -p {{port}} {{ip}}}") [~] Starting Nmap 7.95 (https://nmap.org) at 2025-07-28 02:12 U NSE: Loaded 47 scripts for scanning. Initiating ARP Ping Scan at 02:12 Scanning 10.10.30.10 [1 port] Completed ARP Ping Scan at 02:12, 0.09s elapsed (1 total hosts) Initiating Parallel DNS resolution of 1 host. at 02:12 Completed Parallel DNS resolution of 1 host, at 02:12, 0.00s elap

Diagnóstico (Achados)

| □ IP | Função | Porta | Serviço/Versão |
|-------------|--------------|----------|----------------|
| 10.10.30.1 | Host RPC | 111/tcp | Rpcbind |
| 10.10.30.10 | FTP Server | 21/tcp | Pure-FTPd |
| 10.10.30.11 | MySQL Server | 3306/tcp | MySQL 8.0.43 |
| 10.10.30.15 | Samba Server | 139, 445 | SMB |

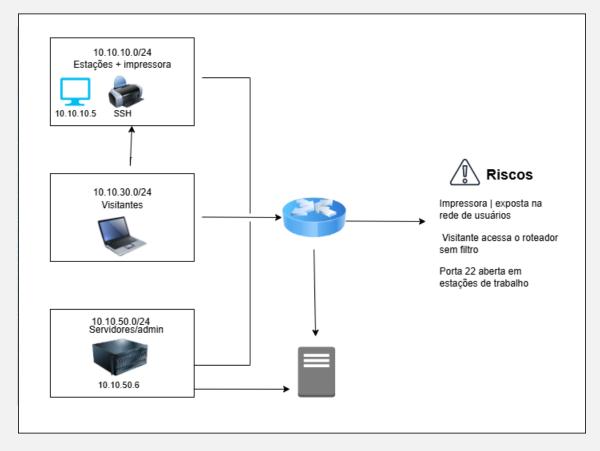
Diagrama de topologia------6

O diagrama abaixo representa a segmentação lógica da rede analisada durante o laboratório técnico. Foram identificadas três sub-redes principais:

10.10.10.0/24: Rede interna de estações de trabalho e impressoras.

10.10.30.0/24: Rede de visitantes (guest).

10.10.50.0/24: Rede de servidores e administração



Riscos e Vulnerabilidades-----7

Durante a análise das três sub-redes, foram encontrados os seguintes pontos críticos:

- Portas expostas sem criptografia. A rede de visitantes possui serviços em portas acessíveis sem autenticação ou criptografia
- Impressora na mesma rede de estações. A presença de uma impressora com porta aberta em 10.10.10.20, na mesma rede de usuários
- Falta de segmentação lógica efetiva. A rede guest 10.10.30.0/24- consegue alcançar serviços sensíveis nas redes internas, o que indica ausência de regras de firewall eficazes.
- Serviços obsoletos. Algumas portas abertas indicam versões de serviços conhecidos por vulnerabilidades, ocorrendo a violação do princípio de menor privilégio

Recomendações------8

Isolar a rede 10.10.30.0/24 (guest) com VLANs - Remover o serviço FTP ou migrar para SFTP - Aplicar regras de firewall entre as redes internas - Monitorar portas dinâmicas e atividades incomuns

Conclusão-----9

A análise da rede segmentada revelou riscos significativos na estrutura atual, especialmente relacionados à exposição de serviços sensíveis em redes acessíveis por visitantes. Com a aplicação das recomendações, é possível mitigar esses riscos e alcançar uma postura de segurança mais robusta. Este relatório demonstra a capacidade de investigar, interpretar e propor soluções em um cenário realista, refletindo habilidades práticas fundamentais na atuação em segurança da informação.

Plano de ação ------10 Plano de Ação (80/20) | Ação | Impacto | Facilidade | Prioridade | |-----| | Isolar a rede Guest com VLAN | Alto | Média | Alta | Remover FTP sem criptografia | Médio | Alta | Alta | Média Atualizar serviços obsoletos | Médio | Média | Média

Anexos (Prints e Saídas) ------11

TERMINAL -(root&c68112acc59d)-[/home/analyst] arp-scan --interface=eth0 --localnet Interface: eth0, type: EN10MB, MAC: 36:3d:4a:56:40:d WARNING: Cannot open MAC/Vendor file ieee-oui.txt: P ied WARNING: Cannot open MAC/Vendor file mac-vendor.txt: enied Starting arp-scan 1.10.0 with 256 hosts (https://git lls/arp-scan) 10.10.30.1 66:cb:fc:8e:af:65 (Unknown: lo tered) 10.10.30.10 de:07:80:c0:4f:76 (Unknown: lo tered) 10.10.30.11 7e:a4:d0:fc:d1:f9 (Unknown: lo tered) 10.10.30.15 46:9b:70:46:2d:88 (Unknown: lo tered) 10.10.30.17 ee:1b:4a:29:bd:5b (Unknown: lo tered) 10.10.30.117 96:82:b3:ec:8c:a7 (Unknown: lo tered) 10.10.30.227 12:6c:5f:95:74:88 (Unknown: lo tered) 7 packets received by filter, 0 packets dropped by k Ending arp-scan 1.10.0: 256 hosts scanned in 1.873 s 8 hosts/sec). 7 responded

```
CONSOLE DE DEPURAÇÃO
                                      TERMINAL
  -(root@c68112acc59d)-[/home/analyst]
# ip a
1: lo: <LOOPBACK, UP, LOWER UP> mtu 65536 qdisc noqueu
WN group default glen 1000
   link/loopback 00:00:00:00:00:00 brd 00:00:00:00:
   inet 127.0.0.1/8 scope host lo
      valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host proto kernel_lo
      valid_lft forever preferred_lft forever
2: eth0@if44: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu
queue state UP group default
    link/ether 36:3d:4a:56:40:d0 brd ff:ff:ff:ff:
id 0
    inet 10.10.30.2/24 brd 10.10.30.255 scope global
      valid_lft forever preferred_lft forever
3: eth1@if54: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu
queue state UP group default
   link/ether 06:9b:bb:5a:d0:47 brd ff:ff:ff:ff:
id 0
    inet 10.10.10.2/24 brd 10.10.10.255 scope global
      valid lft forever preferred lft forever
4: eth2@if58: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu
queue state UP group default
   link/ether 92:f0:ba:93:47:71 brd ff:ff:ff:ff:
id 0
    inet 10.10.50.6/24 brd 10.10.50.255 scope global
      valid lft forever preferred lft forever
  (root@c68112acc59d)-[/home/analyst]
```

```
(root@c68112acc59d)-[/home/analyst]
# arp-scan --interface=eth0 --localnet
Interface: eth0, type: EN10MB, MAC: 36:3d:4a:56:40:d0, IPv4: 10.10.30.2
WARNING: Cannot open MAC/Vendor file ieee-oui.txt: Permission denied
WARNING: Cannot open MAC/Vendor file mac-vendor.txt: Permission denied
Starting arp-scan 1.10.0 with 256 hosts (https://github.com/royhills/arp-scan)
                                        (Unknown: locally administered)
10.10.30.1
               66:cb:fc:8e:af:65
10.10.30.10
                de:07:80:c0:4f:76
                                        (Unknown: locally administered)
10.10.30.11
                7e:a4:d0:fc:d1:f9
                                        (Unknown: locally administered)
10.10.30.15
                46:9b:70:46:2d:88
                                        (Unknown: locally administered)
10.10.30.17
                                        (Unknown: locally administered)
                ee:1b:4a:29:bd:5b
10.10.30.117
                96:82:b3:ec:8c:a7
                                        (Unknown: locally administered)
                12:6c:5f:95:74:88
                                        (Unknown: locally administered)
10.10.30.227
7 packets received by filter, 0 packets dropped by kernel
Ending arp-scan 1.10.0: 256 hosts scanned in 1.894 seconds (135.16 hosts/sec). 7 responded
   (root@c68112acc59d)-[/home/analyst]
```

```
CONSOLE DE DEPURAÇÃO
                                      TERMINAL
                                                                              CONSOLE DE DEPURAÇÃO
                                                                                                   TERMINAL
# nmap -sS -sV -Pn 10.10.30.0/24
                                                              -(root&c68112acc59d)-[/home/analyst]
                                                            # nmap -sS -sV -Pn 10.10.30.1
Starting Nmap 7.95 ( https://nmap.org ) at 2025-07-2
Nmap scan report for 10.10.30.1
                                                            Starting Nmap 7.95 ( https://nmap.org ) at 2025-07-2
Host is up (0.000048s latency).
                                                            Nmap scan report for 10.10.30.1
Not shown: 999 closed tcp ports (reset)
                                                            Host is up (0.000041s latency).
PORT STATE SERVICE VERSION
                                                            Not shown: 999 closed tcp ports (reset)
111/tcp open rpcbind 2-4 (RPC #100000)
                                                                    STATE SERVICE VERSION
MAC Address: 66:CB:FC:8E:AF:65 (Unknown)
                                                            111/tcp open rpcbind 2-4 (RPC #100000)
                                                            MAC Address: 66:CB:FC:8E:AF:65 (Unknown)
Nmap scan report for ftp-server.projeto_final_opcao_
10.10.30.10)
                                                            Service detection performed. Please report any incor
Host is up (0.000053s latency).
                                                            at https://nmap.org/submit/ .
Not shown: 999 closed tcp ports (reset)
                                                            Nmap done: 1 IP address (1 host up) scanned in 23.03
PORT STATE SERVICE VERSION
21/tcp open ftp
                    Pure-FTPd
                                                              -(root@c68112acc59d)-[/home/analyst]
MAC Address: DE:07:80:C0:4F:76 (Unknown)
                                                            map -sS -sV -Pn 10.10.30.10 10.10.30.11 10.10.3
                                                            .17 10.10.30.117 10.10.30.227
Nmap scan report for mysql-server.projeto final opca
                                                            Starting Nmap 7.95 (https://nmap.org) at 2025-07-2
 (10.10.30.11)
                                                            Nmap scan report for ftp-server.projeto_final_opcao_
Host is up (0.000053s latency).
                                                            10.10.30.10)
Not shown: 999 closed tcp ports (reset)
                                                            Host is up (0.000049s latency).
         STATE SERVICE VERSION
PORT
                                                            Not shown: 999 closed tcp ports (reset)
3306/tcp open mysql MySQL 8.0.43
                                                            PORT STATE SERVICE VERSION
MAC Address: 7E:A4:D0:FC:D1:F9 (Unknown)
                                                                                 Pure-FTPd
                                                            21/tcp open ftp
                                                            MAC Address: DE:07:80:C0:4F:76 (Unknown)
Nmap scan report for samba-server.projeto_final_opca
 (10.10.30.15)
                                                            Nmap scan report for mysql-server.projeto_final_opca
Host is up (0.000055s latency).
                                                             (10.10.30.11)
Not shown: 998 closed tcp ports (reset)
                                                            Host is up (0.000052s latency).
```

```
PROBLEMAS SAÍDA CONSOLE DE DEPURAÇÃO TERMINAL PORTAS SONARQUBE POSTMAN CONSOLE
                                                                                                                                                                                                                                                                                                                                                                                                     ☑ wsl + ~ Ⅲ 前 ··· [] ×
                                                        notebook-carlos
 b436f892771b ubuntu
                                                                                                                                                                 "tail -f /dev/null
                        2 hours ago
WS_002
                                                                                Up 18 minutes
 3043d833ca4f ubuntu
                                                                                                                                                                 "tail -f /dev/null
                                                                               Up 18 minutes
                       2 hours ago
3327403ef2d2 ubuntu
Leues ago Up 18 minutes
                                                                                                                                                                 "tail -f /dev/null
                       Bef202
2 hours ago
WS_003
 6e99bd6fefcf ubuntu
                                                                                                                                                                 "tail -f /dev/null
                        2 hours ago
WS_004
                                                                                Up 18 minutes
 ef5da763684f ubuntu
                                                                                                                                                                "tail -f /dev/null"
                                                                                                                                                                                                                                                      2 hours ago
                                                                                                                                                                                                                                                                                                                 Up 18 minutes
" 2 hours ago Up 18 minutes
legacy-server
"/sbin/tini -- /usr/..." 2 hours ago
493df42312e9 stilliard/pure-ftpd
                                                                                                                                                                                                                                                                                                                 Up 18 minutes
                                                                                                                                                                                                                                                      2 hours ago
                                                                                                                                                                Up 18 minutes (healthy)
"/bin/sh -c '/run.sh..."
                                                                                                                                                                                                                                                   139/tcp, 137-138/udp, 445/tcp
2 hours ago Up 18 minutes
                                                                                                                                                                                                                                                                                                                                                                                                          21/tcp, 30000-30009/tcp
                         ftp-server
4d5a74bf7259 zabbix/zabbix-appliance "/sbin/tini -- /usr/..." 2 hours ago Up 18 minutes 80/tcp, 443/tcp, 10051/tc sdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersdev@HOME:/mnt/c/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users/Users
 o_final_opcao_1$ docker exec -it analyst /bin/bash
```



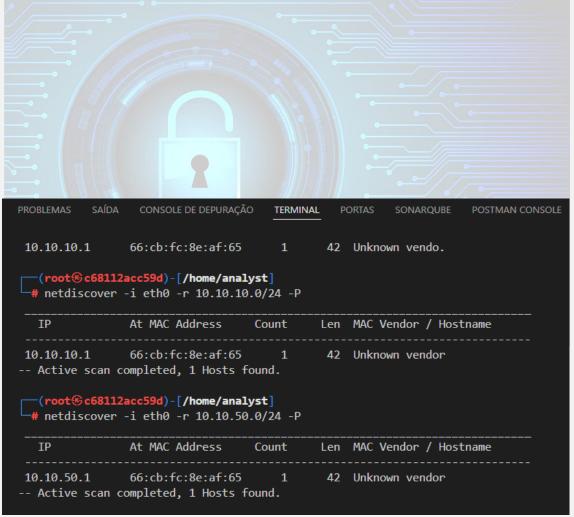
```
SAÍDA CONSOLE DE DEPURAÇÃO TERMINAL
                                                                                                                    TERMINAL
   (root%c68112acc59d)-[/home/analyst]
                                                                              # ping -c 3 10.10.30.0/24
 -# rustscan -a 10.10.30.10 -- -sV
                                                                             ping: 10.10.30.0/24: Name or service not known
                                                                                -(root%c68112acc59d)-[/home/analyst]
                                                                              # ping -c 3 10.10.30.1
                                                                             PING 10.10.30.1 (10.10.30.1) 56(84) bytes of data.
                                                                             64 bytes from 10.10.30.1: icmp_seq=1 ttl=64 time=3.10 ms
                                                                             64 bytes from 10.10.30.1: icmp_seq=2 ttl=64 time=0.078 ms
: https://discord.gg/GFrQsGy
                                                                             64 bytes from 10.10.30.1: icmp_seq=3 ttl=64 time=0.103 ms
: https://github.com/RustScan/RustScan :
                                                                             --- 10.10.30.1 ping statistics ---
Please contribute more quotes to our GitHub https://github.com/ru
                                                                             3 packets transmitted, 3 received, 0% packet loss, time 2233ms
stscan/rustscan
                                                                             rtt min/avg/max/mdev = 0.078/1.093/3.098/1.417 ms
[~] The config file is expected to be at "/root/.rustscan.toml"
                                                                                -(root@c68112acc59d)-[/home/analyst]
                                                                             # ping -c 3 10.10.30.10
[~] File limit higher than batch size. Can increase speed by incr
easing batch size '-b 1048476'.
                                                                             PING 10.10.30.10 (10.10.30.10) 56(84) bytes of data.
Open 10.10.30.10:21
                                                                             64 bytes from 10.10.30.10: icmp_seq=1 ttl=64 time=2.33 ms
[~] Starting Script(s)
                                                                             64 bytes from 10.10.30.10: icmp_seq=2 ttl=64 time=0.152 ms
                                                                             64 bytes from 10.10.30.10: icmp_seq=3 ttl=64 time=0.116 ms
[>] Script to be run Some("nmap -vvv -p {{port}} {{ip}}")
[~] Starting Nmap 7.95 ( https://nmap.org ) at 2025-07-28 02:12 U
                                                                             --- 10.10.30.10 ping statistics ---
                                                                             3 packets transmitted, 3 received, 0% packet loss, time 2234ms
                                                                             rtt min/avg/max/mdev = 0.116/0.865/2.328/1.034 ms
NSE: Loaded 47 scripts for scanning.
Initiating ARP Ping Scan at 02:12
                                                                              (root⊛c68112acc59d)-[/home/analyst]
# ping -c 3 10.10.30.11
Scanning 10.10.30.10 [1 port]
Completed ARP Ping Scan at 02:12, 0.09s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 02:12
                                                                             PING 10.10.30.11 (10.10.30.11) 56(84) bytes of data.
Completed Parallel DNS resolution of 1 host. at 02:12, 0.00s elap
                                                                             64 bytes from 10.10.30.11: icmp seq=1 ttl=64 time=2.16 ms
```

```
TERMINAL
          -(root%c68112acc59d)-[/home/analyst]
        mmap -sn 10.10.10.0/24 -oG - | grep Up
        -sn 10.10.50.0/24 -oG - | grep Up
        nmap -sn 10.10.30.0/24 -oG - | grep Up
       Host: 10.10.10.1 () Status: Up
       Host: 10.10.10.10 (WS_001.projeto_final_opcao_1_corp
        tatus: Up
       Host: 10.10.10.101 (WS_002.projeto_final_opcao_1_cor
        tatus: Up
       Host: 10.10.10.127 (WS_003.projeto_final_opcao_1_cor
        tatus: Up
       Host: 10.10.10.222 (WS 004.projeto final opcao 1 cor
        tatus: Up
       Host: 10.10.10.2 (c68112acc59d) Status: Up
          -(root%c68112acc59d)-[/home/analyst]
        # arp-scan -I eth0 10.10.10.0/24
        Interface: eth0, type: EN10MB, MAC: 36:3d:4a:56:40:d
        WARNING: Cannot open MAC/Vendor file ieee-oui.txt: P
       WARNING: Cannot open MAC/Vendor file mac-vendor.txt:
        Starting arp-scan 1.10.0 with 256 hosts (https://git
       lls/arp-scan)
       10.10.10.1
                      66:cb:fc:8e:af:65
                                             (Unknown: lo
       tered)
       1 packets received by filter, 0 packets dropped by k
sdev@HOME:/mnt/c/Users/Usuário/Desktop/E/formacao-cybersec/modulo
1-fundamentos/projeto_final_opcao_1$ docker ps
CONTAINER ID IMAGE
                                                 COMMAND
       CREATED
                         STATUS
                                                    PORTS
                 NAMES
c68112acc59d projeto_final_opcao_1-analyst "tail -f /dev/null
       18 minutes ago Up 18 minutes
                 analvst
85d96031419c
                                                 "tail -f /dev/null
               ubuntu
       2 hours ago
                         Up 18 minutes
                 laptop-luiz
c9546d973e5b ubuntu
                                                 "tail -f /dev/null
       2 hours ago
                         Up 18 minutes
                 macbook-aline
a89d717077f9 mysql:8.0
                                                 "docker-entrypoint
                        Up 18 minutes
                                                    3306/tcp, 33060
.s.." 2 hours ago
/tcp
                 mysql-server
1cae91680b25
                                                 "tail -f /dev/null
               ubuntu
       2 hours ago
                        Up 18 minutes
                 WS 001
2b6cfe62bce8
               ubuntu
                                                 "tail -f /dev/null
       2 hours ago
                         Up 18 minutes
                 notebook-carlos
b436f892771b ubuntu
                                                 "tail -f /dev/null
```

2 hours ago

Up 18 minutes

```
PROBLEMAS SAÍDA CONSOLE DE DEPURAÇÃO TERMINAL PORTAS SONARQUBE POSTMAN CONSOLE
                                                                                                                                        ≥ wsl + ~ □ 🛍 ··· 🗀 ×
(root@c68112acc59d) - [/home/analyst]
# apt update
Get:1 http://kali.download/kali kali-rolling InRelease [41.5 kB]
Get:2 http://kali.download/kali kali-rolling/contrib amd64 Packag
es [117 kB]
Get:3 http://kali.download/kali kali-rolling/non-free-firmware am
 Currently scanning: Finished! | Screen View: Unique Hosts
 1 Captured ARP Req/Rep packets, from 1 hosts. Total size: 42
                                                                                                                     Len MAC Vendor / H ------ IP
Len MAC Vendor / H -------------
------ 10.10.10.1 66:cb:fc:8e:a
                                                                                             Address
                                                                                                            Count
     Address
At MAC Address Count Len MAC Vendor / Hostname At MAC Address
f:65 1 42 Unknown vendo.
[root@c68112acc59d)-[/home/analyst]
# netdiscover -i eth0 -r 10.10.10.0/24 -P
                  At MAC Address Count Len MAC Vendor / Hostname
 10.10.10.1 66:cb:fc:8e:af:65 1
-- Active scan completed, 1 Hosts found.
                                                       42 Unknown vendor
```



```
PROBLEMAS
           SAÍDA CONSOLE DE DEPURAÇÃO
                                                                         POSTMAN CONSOLE
                                         TERMINAL
-- Active scan completed, 1 Hosts found.
  -(root@c68112acc59d)-[/home/analyst]
 -# netdiscover -i eth0 -r 10.10.50.0/24 -P
   ΙP
                 At MAC Address
                                                Len MAC Vendor / Hostname
                                      Count
 10.10.50.1 66:cb:fc:8e:af:65 1
                                                42 Unknown vendor
-- Active scan completed, 1 Hosts found.
  -(root@c68112acc59d)-[/home/analyst]
 -# netdiscover -i eth0 -r 10.10.10.0/24 -P
   ΙP
                 At MAC Address
                                                 Len MAC Vendor / Hostname
                                      Count
 10.10.10.1
                                                 42 Unknown vendor
                 66:cb:fc:8e:af:65
-- Active scan completed, 1 Hosts found.
       ping: 10.10.10.50.0: Name or service not known
         -(root@c68112acc59d)-[/home/analyst]
        # ping -c 3 10.10.50.0
       PING 10.10.50.0 (10.10.50.0) 56(84) bytes of data.
       From 10.10.50.6 icmp_seq=1 Destination Host Unreachable
       From 10.10.50.6 icmp_seq=2 Destination Host Unreachable
       From 10.10.50.6 icmp_seq=3 Destination Host Unreachable
       --- 10.10.50.0 ping statistics ---
       3 packets transmitted, 0 received, +3 errors, 100% packet loss, time 2286ms
       pipe 3
          -(root&c68112acc59d)-[/home/analyst]
        # nmap -sS -sV -Pn 10.10.10.0
       Starting Nmap 7.95 ( https://nmap.org ) at 2025-07-29 23:37 UTC
       Nmap done: 1 IP address (0 hosts up) scanned in 3.02 seconds
          -(root&c68112acc59d)-[/home/analyst]
        # nmap -sS -sV -Pn 10.10.50.0
       Starting Nmap 7.95 ( https://nmap.org ) at 2025-07-29 23:37 UTC
       Nmap done: 1 IP address (0 hosts up) scanned in 2.11 seconds
```

```
CONSOLE DE DEPURAÇÃO
                                                                      POSTMAN CON
                                       TERMINAL
(root@c68112acc59d)-[/home/analyst]
# ping -c 3 10.10.10.0
PING 10.10.10.0 (10.10.10.0) 56(84) bytes of data.
From 10.10.10.2 icmp_seq=1 Destination Host Unreachable
From 10.10.10.2 icmp_seq=2 Destination Host Unreachable
From 10.10.10.2 icmp_seq=3 Destination Host Unreachable
--- 10.10.10.0 ping statistics ---
3 packets transmitted, 0 received, +3 errors, 100% packet loss, t
ime 2278ms
pipe 3
  -(root@c68112acc59d)-[/home/analyst]
# ping -c 3 10.10.10.50.0
ping: 10.10.10.50.0: Name or service not known
  -(root@c68112acc59d)-[/home/analyst]
# ping -c 3 10.10.50.0
PING 10.10.50.0 (10.10.50.0) 56(84) bytes of data.
From 10.10.50.6 icmp_seq=1 Destination Host Unreachable
From 10.10.50.6 icmp_seq=2 Destination Host Unreachable
From 10.10.50.6 icmp_seq=3 Destination Host Unreachable
--- 10.10.50.0 ping statistics ---
3 packets transmitted, 0 received, +3 errors, 100% packet loss, time 2286ms
pipe 3
```