# CYBER SECURITY INDEX

For the Broker's Services







# WEAT IS CSIP

#### HOW IT WORK!

Give us your time slots



Scan for vulnerabilities



**O3** Get the report and histories



Review the vulnerabilities continuously improvement



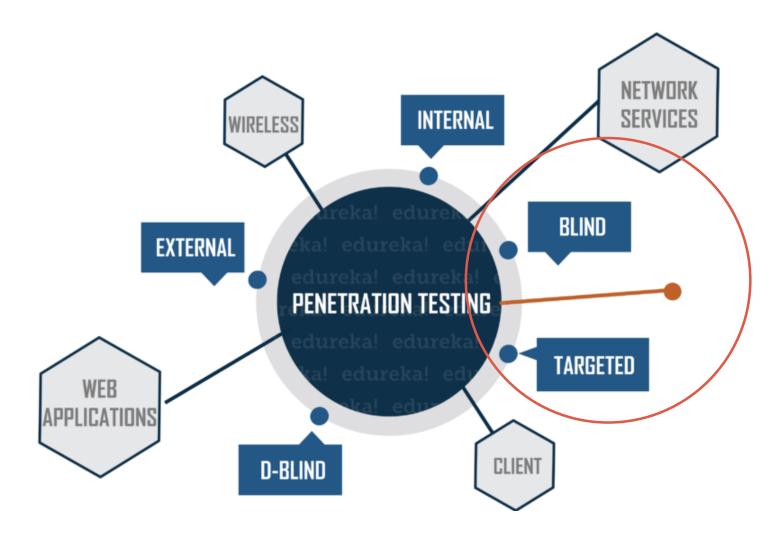
#### **GOAL**

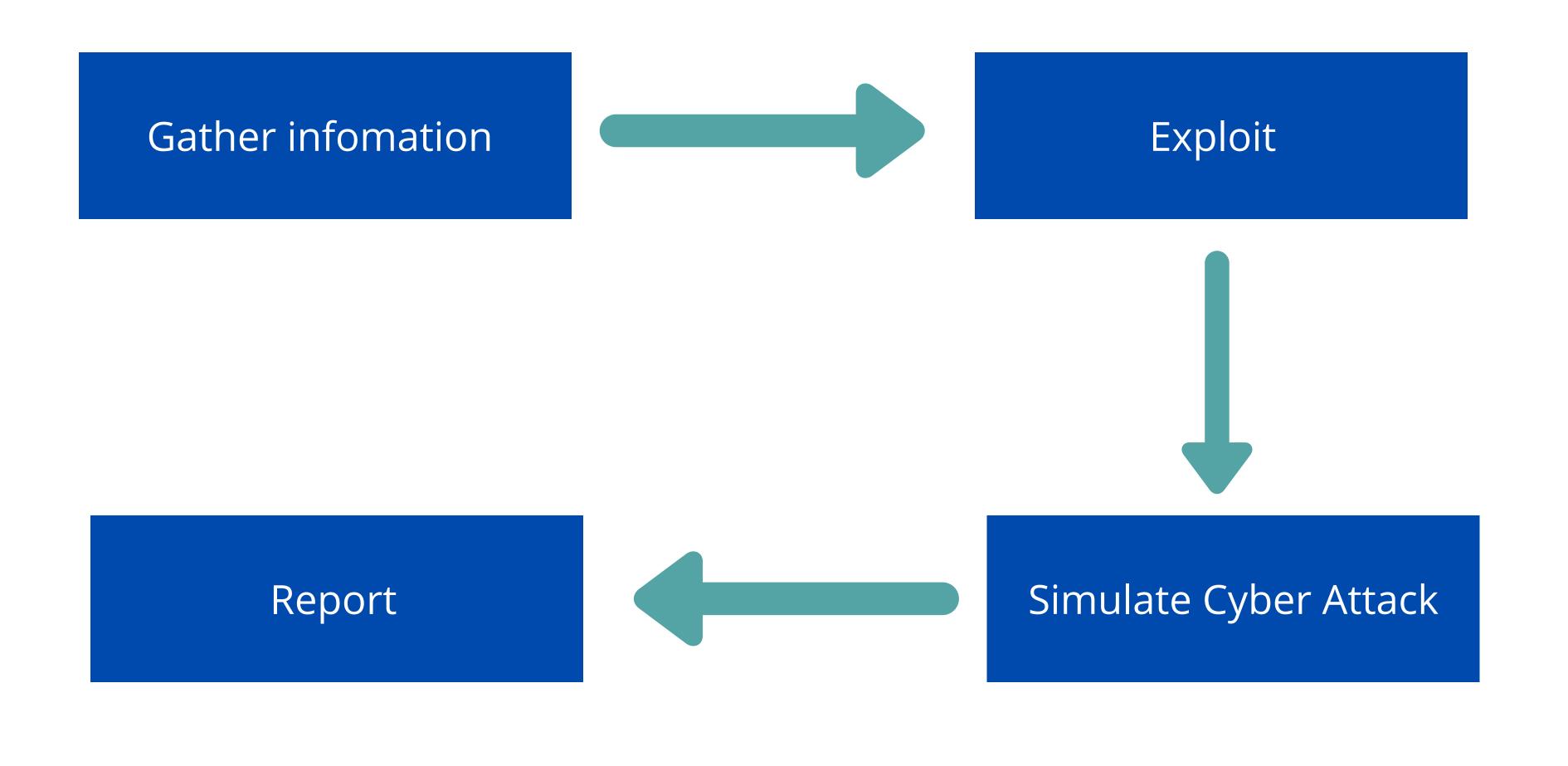
- Automate the security assessment
- Report the result of the security system to its owner. Each report will be auto-generated.
- The security assessment should be able to scale and secure.
- Show information and vulnerabilities of the brokers' security system.

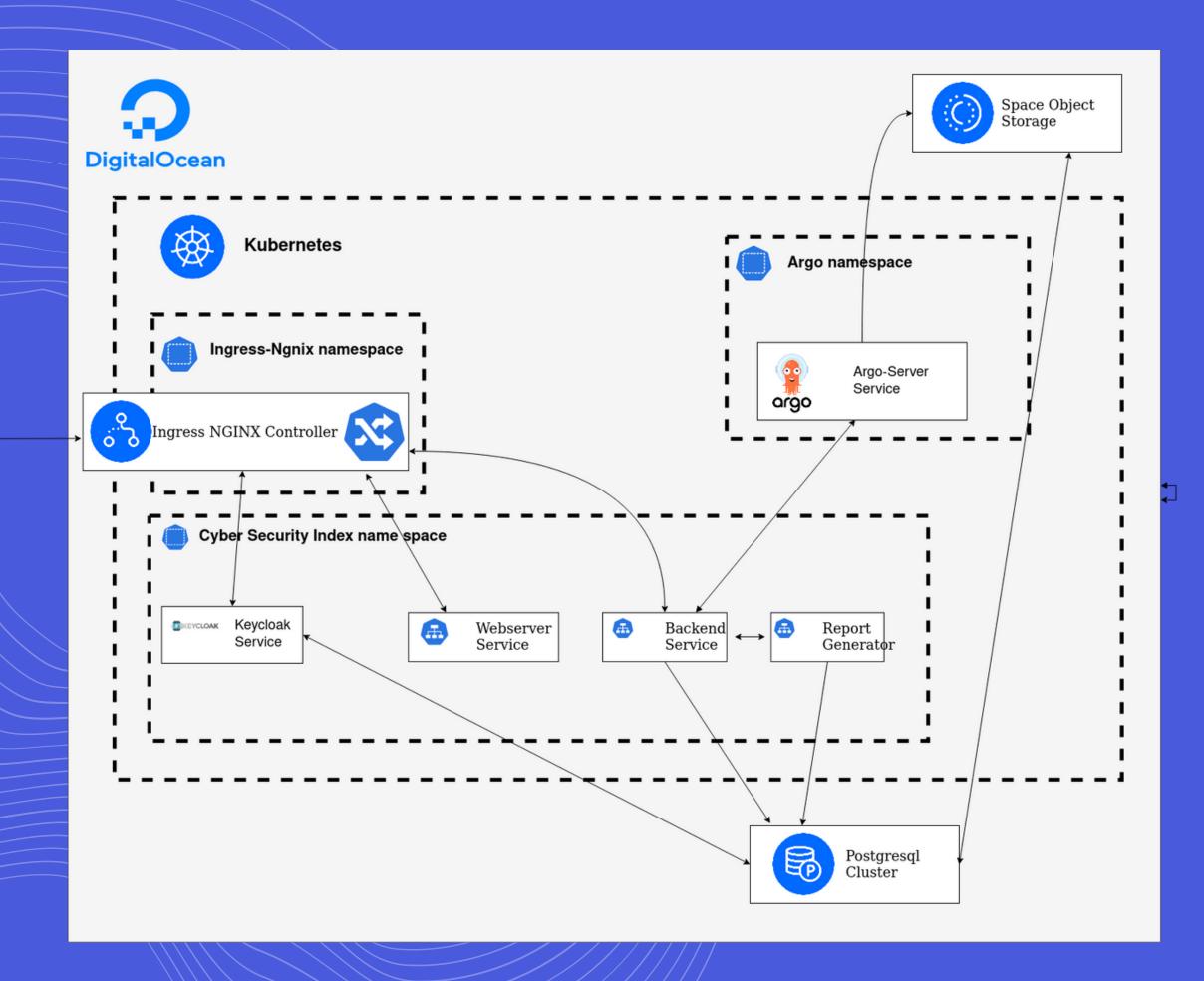
#### Our Security Assessment Types

# Security Accessment TEST CASE - INPUT edureka! Grey - Box Testing Zero Knowledge Some Knowledge Full Knowledge Full Knowledge

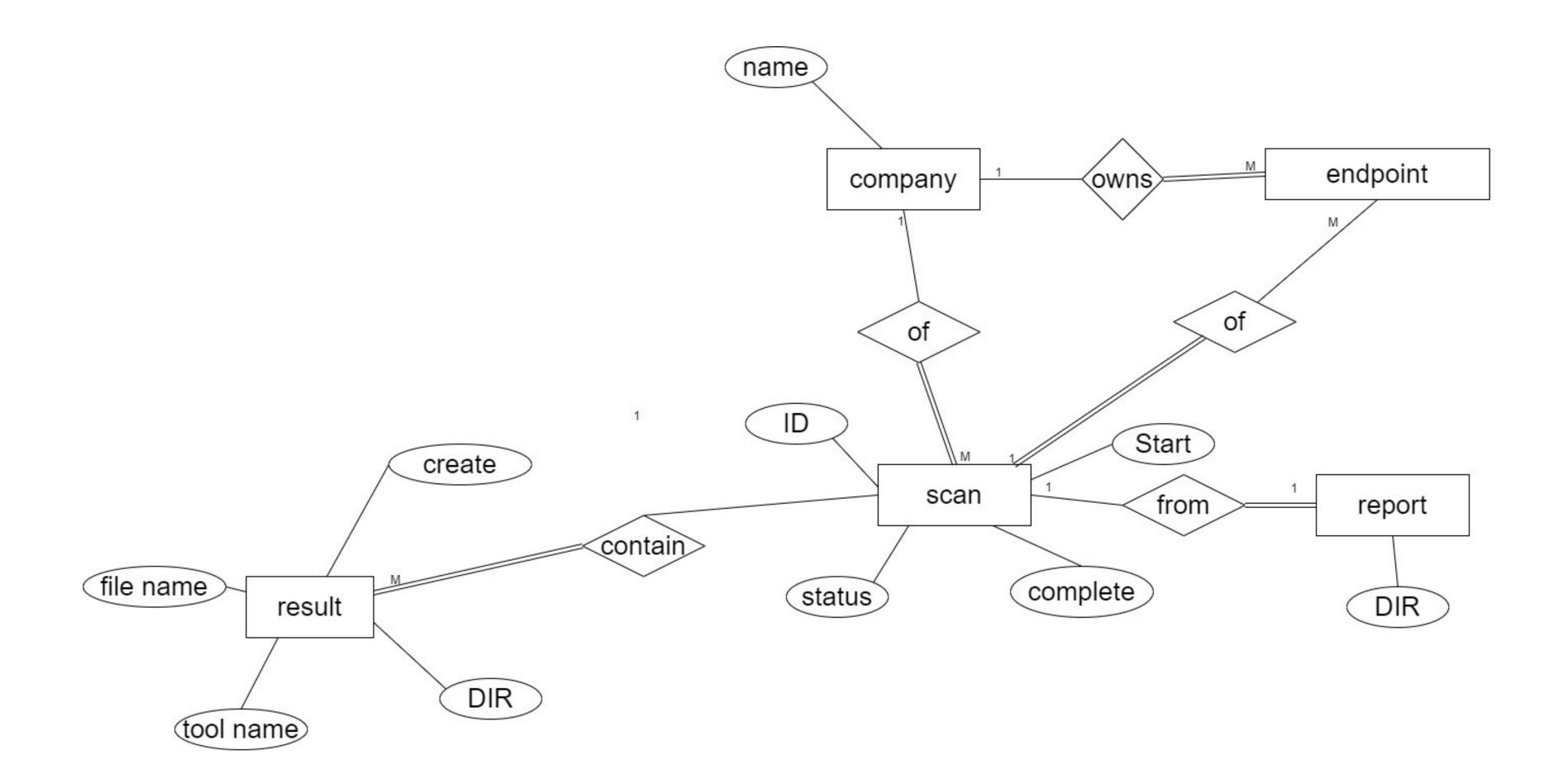
#### Area of the test







#### SYSTEM DIAGRAMS



# EEATURES

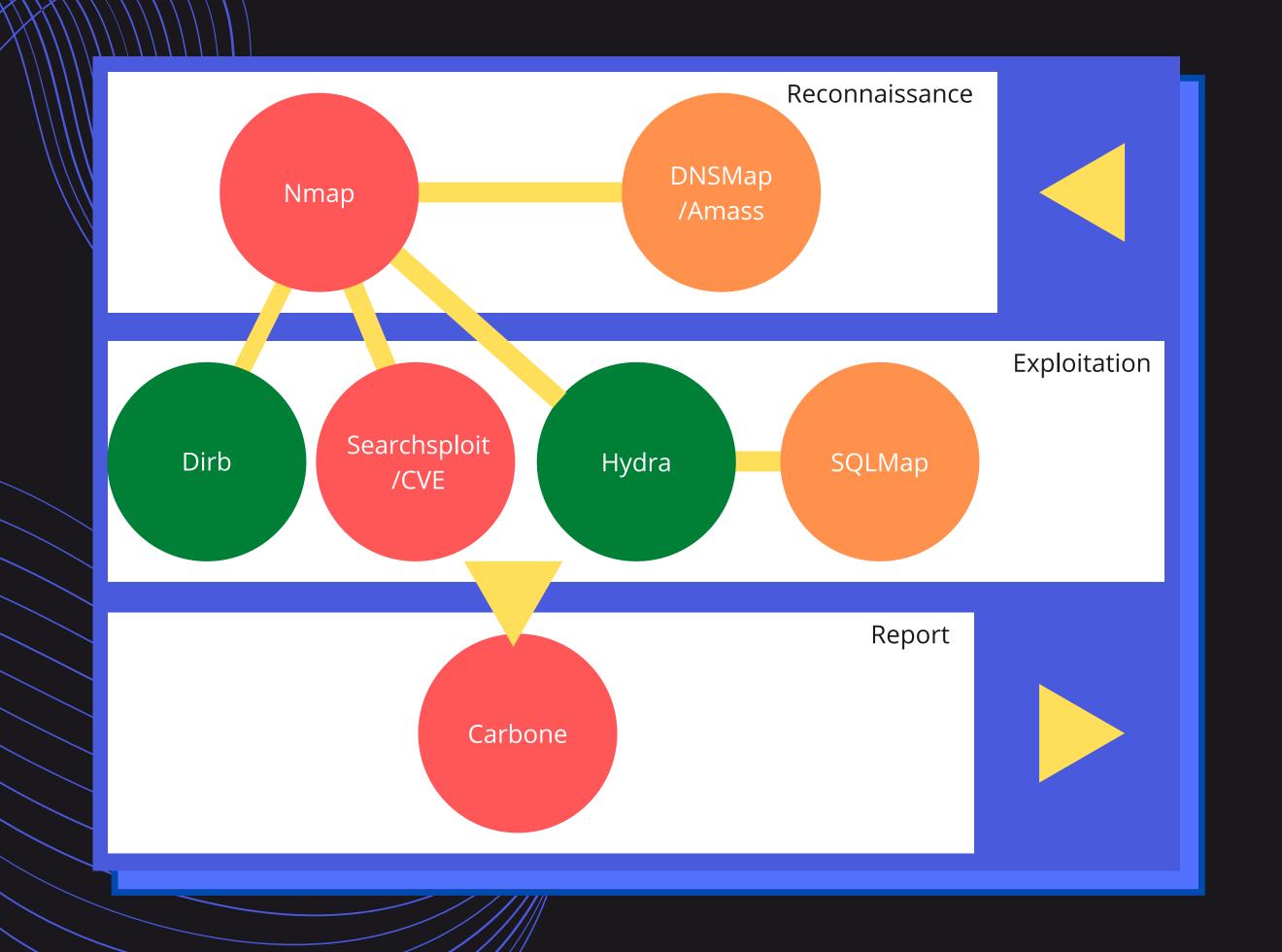
#### **BROKER'S FIRM**

- Add the endpoint and share it a pool within the company
- Get the scan history status record
- Generate the report and down load it

#### **ADMIN**

- Create the scan from the template
- View over all endpoint request from all company

# Core System

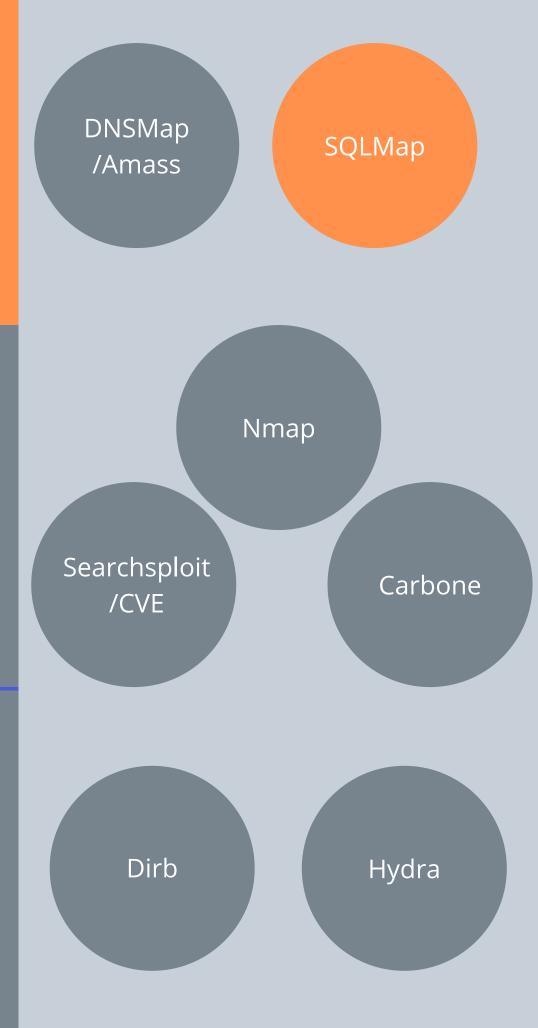


```
cmkl_result - Notepad
File Edit Format View Help
email.cmkl.ac.th
IP address #1: 54.163.206.238
IP address #2: 3.221.95.122
gateway.cmkl.ac.th
IP address #1: 35.227.196.31
login.cmkl.ac.th
IP address #1: 52.12.28.200
IP address #2: 54.71.132.32
IP address #3: 44.228.7.2
www.cmkl.ac.th
IP address #1: 13.115.25.84
IP address #2: 54.250.33.70
IP address #3: 13.112.212.160
```

```
dnsmap_wlist_names - Notepad
File Edit Format View Help
dnsmap cmkl.ac.th -w subbrute/names.txt
dnsmap 0.35 - DNS Network Mapper
[+] searching (sub)domains for cmkl.ac.th using subbrute/names.txt
[+] using maximum random delay of 10 millisecond(s) between requests
www.cmkl.ac.th
IP address #1: 54.250.33.70
IP address #2: 13.115.25.84
IP address #3: 13.112.212.160
info.cmkl.ac.th
IP address #1: 13.112.212.160
IP address #2: 54.250.33.70
IP address #3: 13.115.25.84
event.cmkl.ac.th
IPv6 address #1: 2606:4700:3034::ac43:c95e
IPv6 address #2: 2606:4700:3034::6815:2ca6
event.cmkl.ac.th
IP address #1: 172.67.201.94
IP address #2: 104.21.44.166
ece.cmkl.ac.th
IPv6 address #1: 2606:4700:3034::ac43:c95e
IPv6 address #2: 2606:4700:3034::6815:2ca6
ece.cmkl.ac.th
IP address #1: 104.21.44.166
IP address #2: 172.67.201.94
careers.cmkl.ac.th
IPv6 address #1: 2606:4700:3034::ac43:c95e
IPv6 address #2: 2606:4700:3034::6815:2ca6
```



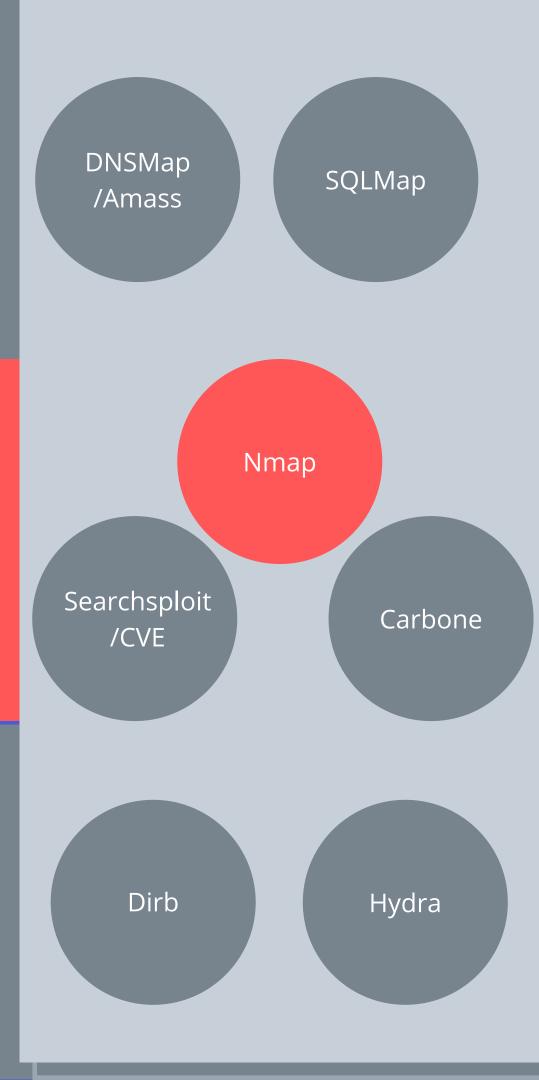


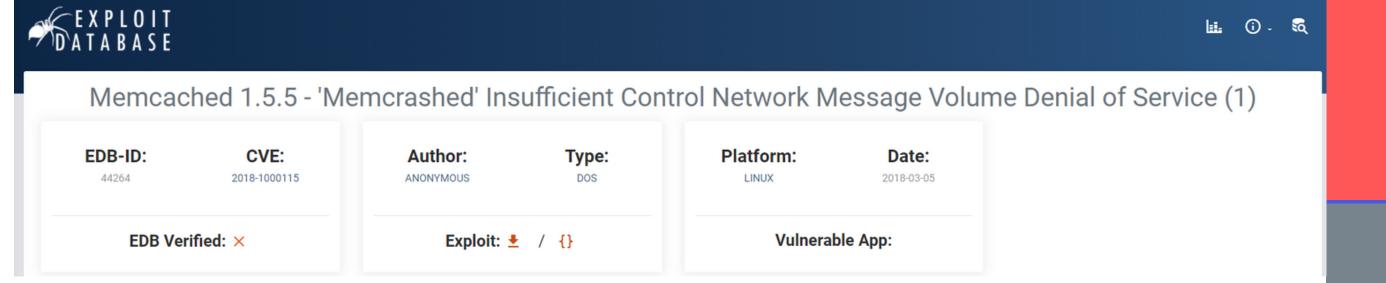


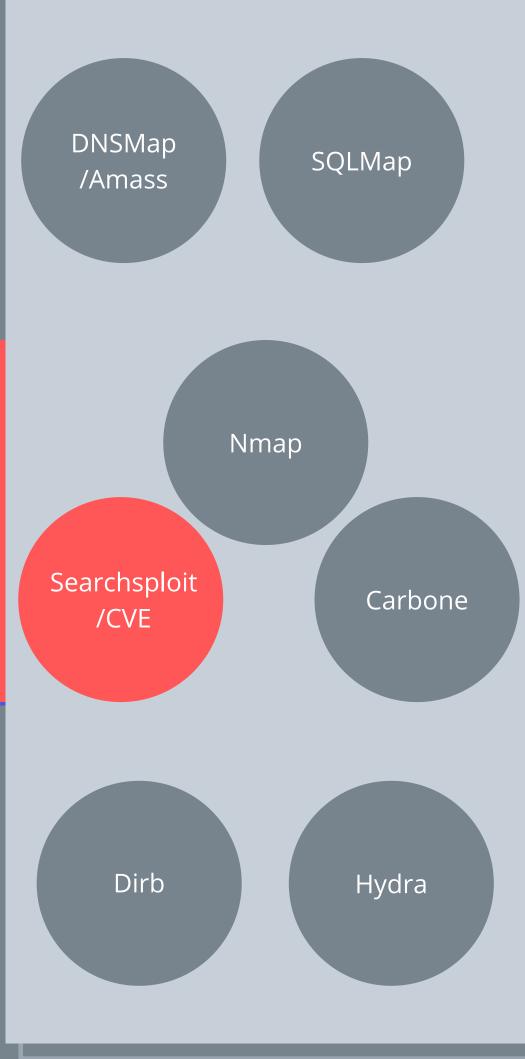




```
# Nmap 7.80 scan initiated Mon Apr 19 06:49:41 2021 as: nmap -v -A -p- -oG dg.txt -oX dx.txt -oN dl.txt -iL ipList.txt
Nmap scan report for
Host is up (0.29s latency).
Not shown: 65528 closed ports
PORT
          STATE
                  SERVICE VERSION
22/tcp
                           OpenSSH 8.2p1 Ubuntu 4ubuntu0.1 (Ubuntu Linux; protocol 2.0)
          open
                   ssh
25/tcp
         filtered smtp
80/tcp
                  http?
          open
                           Golang net/http server (Go-IPFS json-rpc or InfluxDB API)
303/tcp open
                  http
|_http-title: Site doesn't have a title (text/plain; charset=utf-8).
8291/tcp filtered unknown
8728/tcp filtered unknown
11211/tcp filtered memcache
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
Nmap scan report for
Host is up (0.29s latency).
Not shown: 65528 closed ports
PORT
          STATE
                  SERVICE VERSION
                           OpenSSH 8.2p1 Ubuntu 4ubuntu0.1 (Ubuntu Linux; protocol 2.0)
22/tcp
                  ssh
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         filtered smtp
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303/tcp open
                   http
|_http-title: Site doesn't have a title (text/plain; charset=utf-8).
8291/tcp filtered unknown
8728/tcp filtered unknown
11211/tcp filtered memcache
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
Read data files from: /usr/bin/../share/nmap
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
# Nmap done at Mon Apr 19 07:08:53 2021 -- 2 IP addresses (2 hosts up) scanned in 1152.40 seconds
```



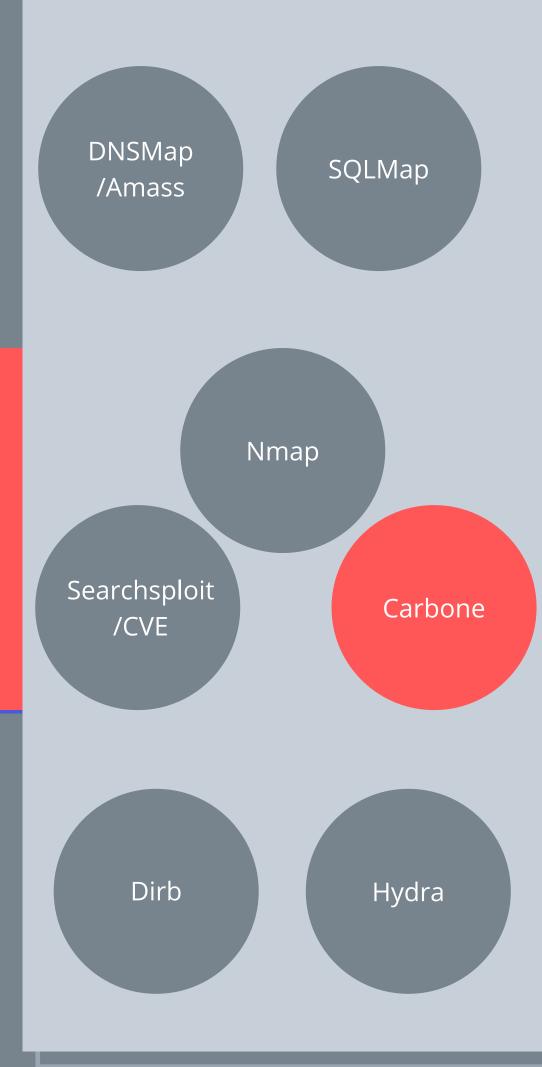




#### FINDINGS

#### Port and Protocol Found

IP Address	Hostname	Protocol / Port
		ssh:22 smtp:25 http:80 http:303 unknown:8291 :8728 memcache:11211
		ssh:22 smtp:25 http:30 http:303 unknown:8291 :8728 memcache:11211
		ssh:22 smtp:25 http:30 http:303 unknown:8291 :8728 memcache:11211
		ssh:22 smtp:25 http:30 http:303 unknown:8291 :8728 memcache:11211



```
GENERATED WORDS: 959
                                                                                            100 Continue
                                                                                                                               100.php
                                                                                            101 Switching Protocols
                                                                                                                               101.php
---- Scanning URL: http://174.138.31.158/ ----
                                                                                            103 Early Hints
                                                                                                                                103.php
+ http://174.138.31.158/admin (CODE:403|SIZE:279)
                                                                                            200 OK
                                                                                                                               200.php
+ http://174.138.31.158/auth (CODE:200|SIZE:58)
                                                                                            201 Created
                                                                                                                               201.php
                                                                                            202 Accepted
                                                                                                                               202.php
                                                                                            203 Non-Authoritative Information
                                                                                                                               203.php
END_TIME: Wed Jan 20 17:19:27 2021
                                                                                            204 No Content
                                                                                                                               204.php
DOWNLOADED: 959 - FOUND: 2
                                                                                            205 Reset Content
                                                                                                                               205.php
                                                                                            206 Partial Content
                                                                                                                               206.php
                                                                                            300 Multiple Choices
                                                                                                                                300.php
DIRB v2.22
                                                                                            301 Moved Permanently
                                                                                                                               301.php
By The Dark Raver
                                                                                            302 Found
                                                                                                                                302.php
                                                                                            303 See Other
                                                                                                                                303.php
                                                                                            304 Not Modified
OUTPUT_FILE: test
                                                                                                                                304.php
START_TIME: Thu Jan 21 18:37:56 2021
                                                                                            307 Temporary Redirect
                                                                                                                                307.php
URL_BASE: http://174.138.31.158/
                                                                                            308 Permanent Redirect
                                                                                                                                308.php
WORDLIST_FILES: test.txt
                                                                                            400 Bad Request
                                                                                                                                400.php
                                                                                            401 Unauthorized
                                                                                                                                401.php
                                                                                            402 Payment Required
                                                                                                                                402.php
                                                                                            403 Forbidden
                                                                                                                                403.php
GENERATED WORDS: 11
                                                                                            404 Not Found
                                                                                                                                404.php
                                                                                            405 Method Not Allowed
                                                                                                                                405.php
---- Scanning URL: http://174.138.31.158/ ----
+ http://174.138.31.158/Root (CODE:200|SIZE:0)
                                                                                            406 Not Acceptable
                                                                                                                                406.php
                                                                                            407 Proxy Authentication Required
+ http://174.138.31.158/admin (CODE:403|SIZE:279)
                                                                                                                                407.php
+ http://174.138.31.158/admin.php (CODE:500|SIZE:0)
                                                                                            408 Request Timeout
                                                                                                                                408.php
+ http://174.138.31.158/auth (CODE:200|SIZE:58)
                                                                                            409 Conflict
                                                                                                                                409.php
==> DIRECTORY: http://174.138.31.158/com1/
                                                                                            410 Gone
                                                                                                                               410.php
+ http://174.138.31.158/com2 (CODE:403|SIZE:341)
                                                                                            411 Length Required
                                                                                                                               411.php
+ http://174.138.31.158/index.html (CODE:200|SIZE:207)
                                                                                            412 Precondition Failed
                                                                                                                               412.php
                                                                                            413 Payload Too Large
                                                                                                                               413.php
---- Entering directory: http://174.138.31.158/com1/ ----
                                                                                            414 URI Too Long
                                                                                                                               414.php
(!) WARNING: Directory IS LISTABLE. No need to scan it.
                                                                                            415 Unsupported Media Type
    (Use mode '-w' if you want to scan it anyway)
                                                                                                                               415.php
                                                                                            416 Range Not Satisfiable
                                                                                                                               416.php
END_TIME: Thu Jan 21 18:37:57 2021
                                                           Permanent Redirect
                                                           Forbidden
                                                           Not Found
                                                           Gone
                                                            Internal Server Error
                                                           Service Unavailable
                                                           Folder
                                                                                     Permission
                                                                                                                Response
                                                                                     644
                                                                                                                200 OK
                                            admin
                                                                                                                403 Forbidden
                                            adamin.php
                                                                                    644
                                                                                                                500 Internal Server Error
                                                                                     666
                                                                                                                200 OK
                                                                                     666
                                            index.html
                                                           com2
                                                                                                                403 Forbidden
                                                            com1
                                                                                    644
                                                                                     644
                                            com1/1
                                                                                                                200 OK
                                            com1/2
                                                                                     644
                                                                                                                200 OK
                                                                                    644
                                            com1/3
                                                                                                                302 Temporary Redirect
                                            com3
```

101

200

201

202

203

204

205

206

300

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401

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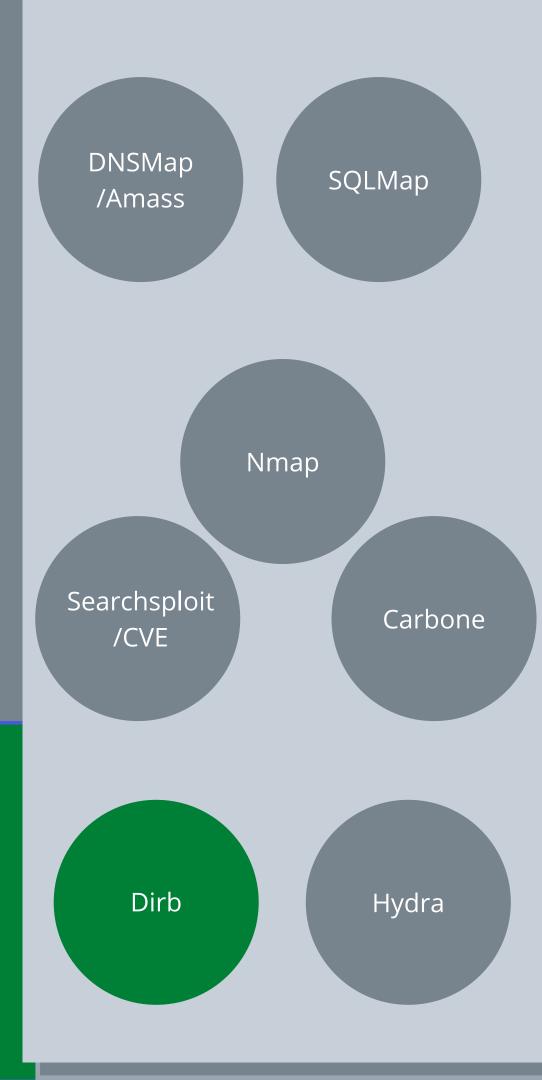
415

416

417

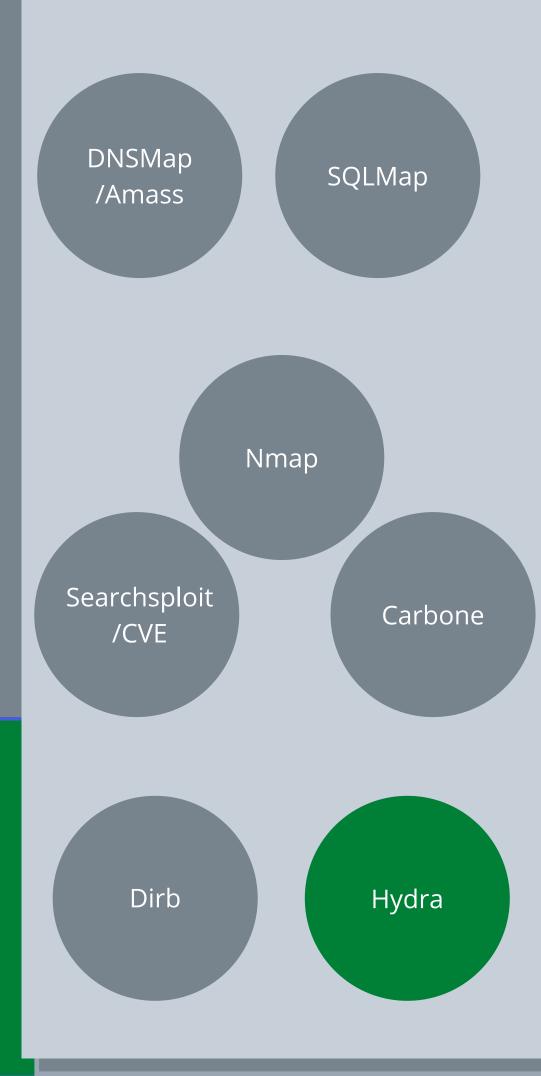
422

404 (There is an option not to show 404)



Hydra v9.1 (c) 2020 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organizations, or for illegal purposes (this i ignore laws and ethics anyway).

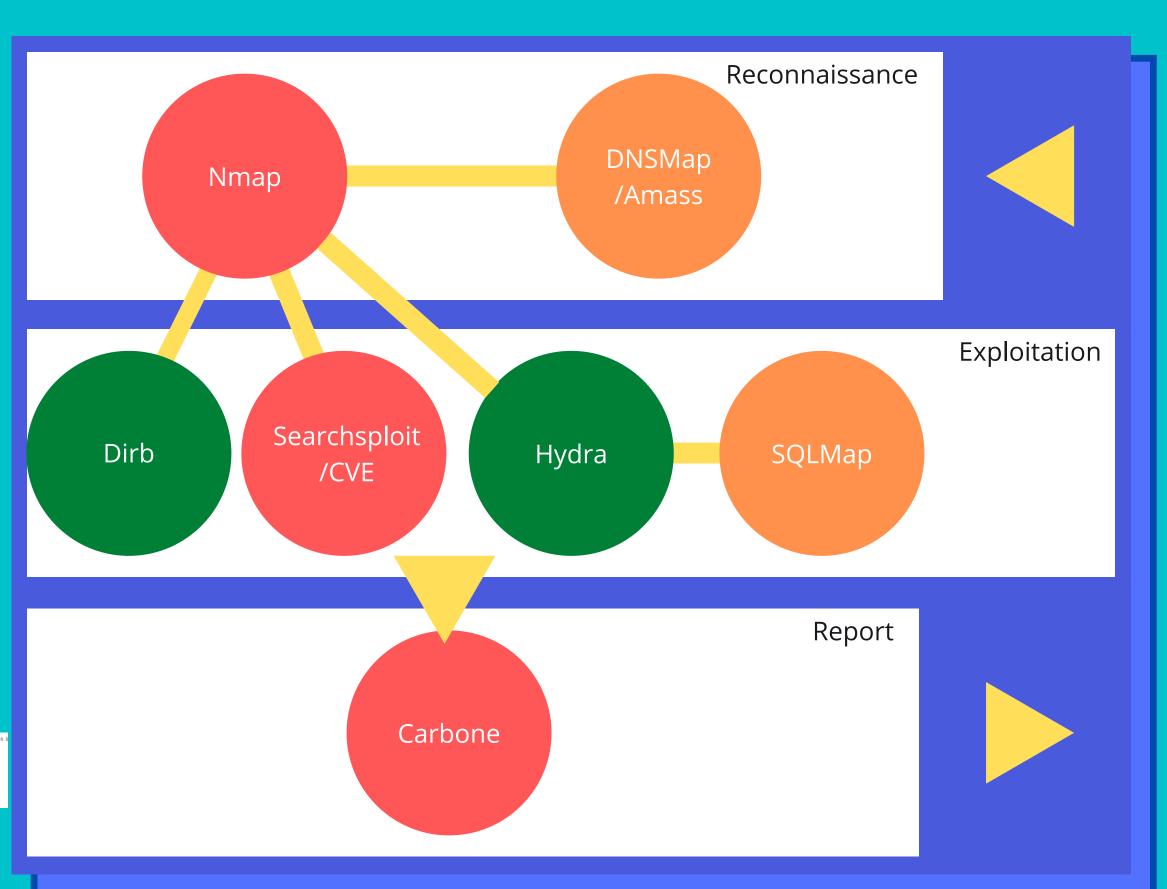
Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2021-02-15 02:54:43 [DATA] max 1 task per 1 server, overall 1 task, 31 login tries, ~31 tries per task [DATA] attacking ftp://128.199.76.131:21/ [STATUS] 21.00 tries/min, 21 tries in 00:01h, 10 to do in 00:01h, 1 active [21][ftp] host: 128.199.76.131 login: user password: pass 1 of 1 target successfully completed, 1 valid password found Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2021-02-15 02:56:10



```
GENERATED WORDS: 959
  ---- Scanning URL: http://174.138.31.158/ ----
+ http://174.138.31.158/admin (CODE:203|SIZE:279)
+ http://174.138.31.158/auth (CODE:200|SIZE:58)
END_TIME: Wed Jan 20 17:19:27 2021
DOWNLOADED: 959 - FOUND: 2
OUTPUT_FILE: test
START_TIME: Thu Jan 21 18:37:56 2021
URL_BASE: http://174.138.31.158/
WORDLIST_FILES: test.txt
  GENERATED WORDS: 11
   --- Entering directory: http://174.138.31.158/com1/ --
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)
```

Hydra v9.1 (c) 2020 by van Hauser/TMC & David Maciejak - Please do not use in military or secret service organizations, or for illegal purposes (this ignore laws and ethics anyway).

Hydra (https://github.com/vanhauser-thr/thc-hydra) starting at 2021-02-15 02:54:43 [DATA] max I task per 1 server, overall 1 task, 31 login tries, -31 tries per task [DATA] attacking fg://28.99-76.331:27() 10 to do in 00:01h, 1 active [23]fftp) host: 22.00 tries/min, 22 tries in 00:01h, 10 to do in 00:01h, 1 active [23]fftp) host: 22.1979-6.331 login: user password pass 1 of 1 target successfully completed, 1 valid password found hydra (https://github.com/vanhauser-thr/thr-th/ydra) finished at 2021-02-15 02:56:10 hydra (https://github.com/vanhauser-thr/thr-th/ydra) finished at 2021-02-15 02:56:10



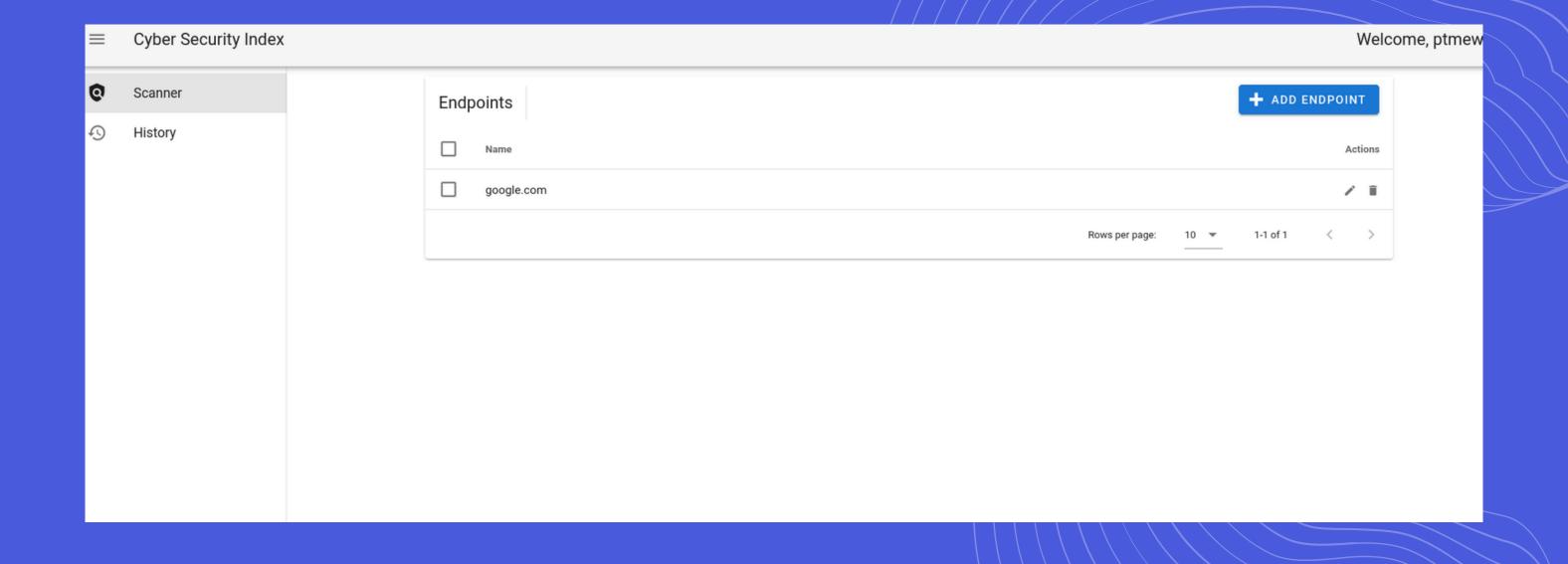
cmkl\_result - Notepad File Edit Format View Help email.cmkl.ac.th IP address #1: 54.163.206.238 IP address #2: 3.221.95.122 gateway.cmkl.ac.th IP address #1: 35.227.196.31 login.cmkl.ac.th IP address #1: 52.12.28.200 IP address #2: 54.71.132.32 IP address #3: 44.228.7.2 www.cmkl.ac.th IP address #1: 13.115.25.84 IP address #2: 54.250.33.70 IP address #3: 13.112.212.160

The Company		a-low-dump-all-lv1risk1 - Notepad							-	O
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Table   Service										
Starties										
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1				*						+
2	user_id	avatar	user	password		last_name	first_name	last_logi	n	fai
2			•	•		•		•		
1	1									
Dities: comb Table: periods Table: periods [ a strip] [ comment_id   case   comment     comment_id   case     comment_id     case     case										
Table: personnel [ setter)		/ Desiry Hecksole/ district and triy - Jpg	amaciny .	1 31400030388703001003170000010133	(passions)	1 SHACE	800	1 2020-22-3	07.42.3	- 10
Table: partition (   tentry    comment_fol_name  comment     comment_fol_name  comme										
interty     commercial   commercial	Database:	dowadb								
Community   Community   Community	Table: gue	stbook								
1   test  This is a test comment.	[1 entry]									
1   test  This is a test comment.		*								
Distinge: Information_inches Table: TableSpacing (a service)	comment_	id   name   comment	1							
Distinge: Information_inches Table: TableSpacing (a service)	*		-+							
Databas: Information_scheaa Table: Tablespaces (a mortes)										
Table: TABLESPACES [0 entries]	•		••							
Table: TABLESPACES [0 entries]		information coheren								
(0 entries)										
NODGOROUP_TD   ENGINE   EXTENT_SIZE   MAXIMUM_SIZE   TABLESPACE_NAME   TABLESPACE_TYPE   AUTOEXTEND_SIZE   LOGFILE_GROUP_NAME   TABLESPACE_COMMENT		·						*		
	NODEGROUP	P_ID   ENGINE   EXTENT_SIZE   MAXIM	UM_SIZE	TABLESPACE_NAME   TABLESPACE_TYPE	AUTOEXTEND	SIZE   LOGF	LE_GROUP_NAM	E   TABLESE	ACE_COMME	NT
+										+
	+							+		+
Database: information_schema	[1 entry]	-Lutatreses								
Table: USER_PRIVILEGES										

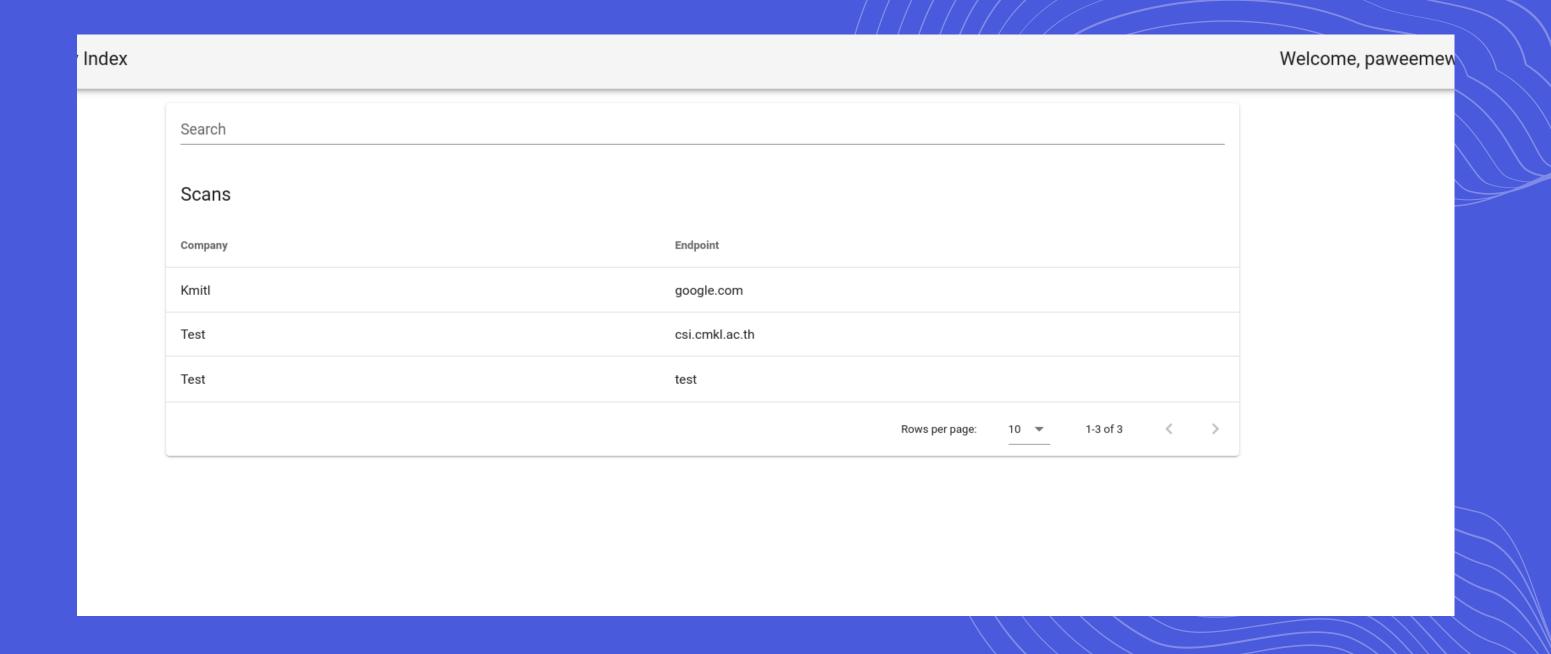


# USAGES AND EXPERIMENTS

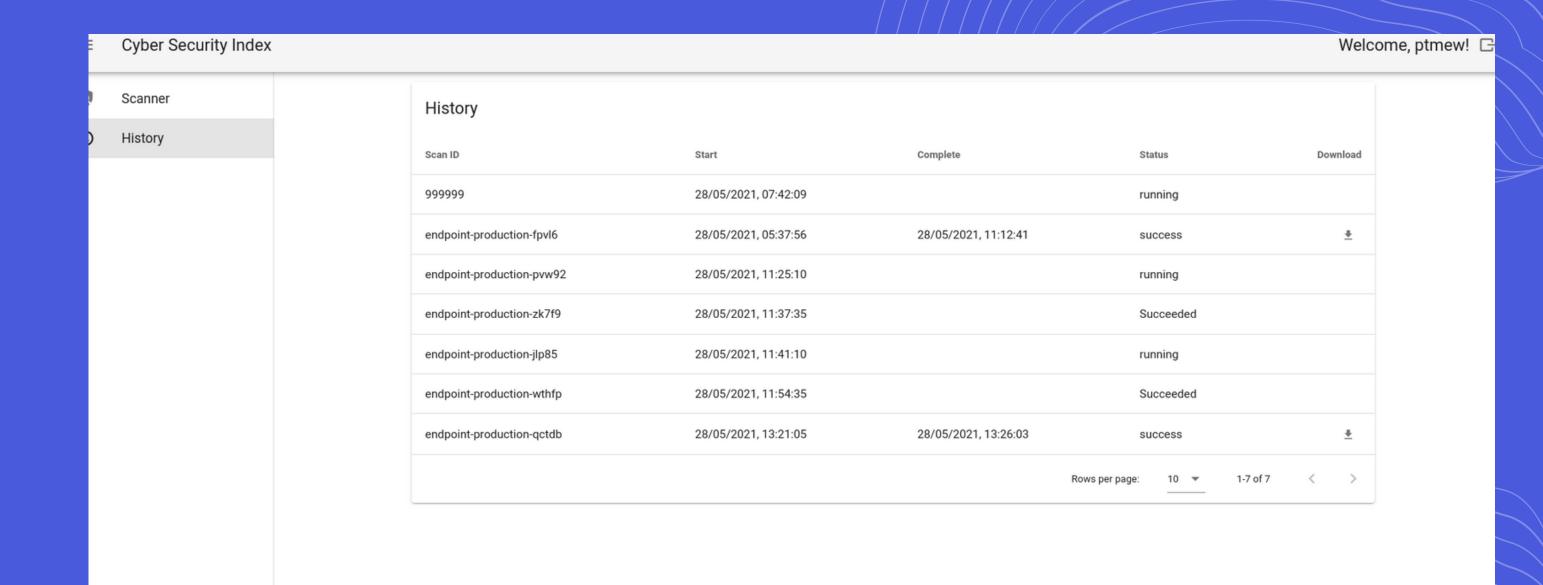
#### COMPANY POOL ENDPOINT



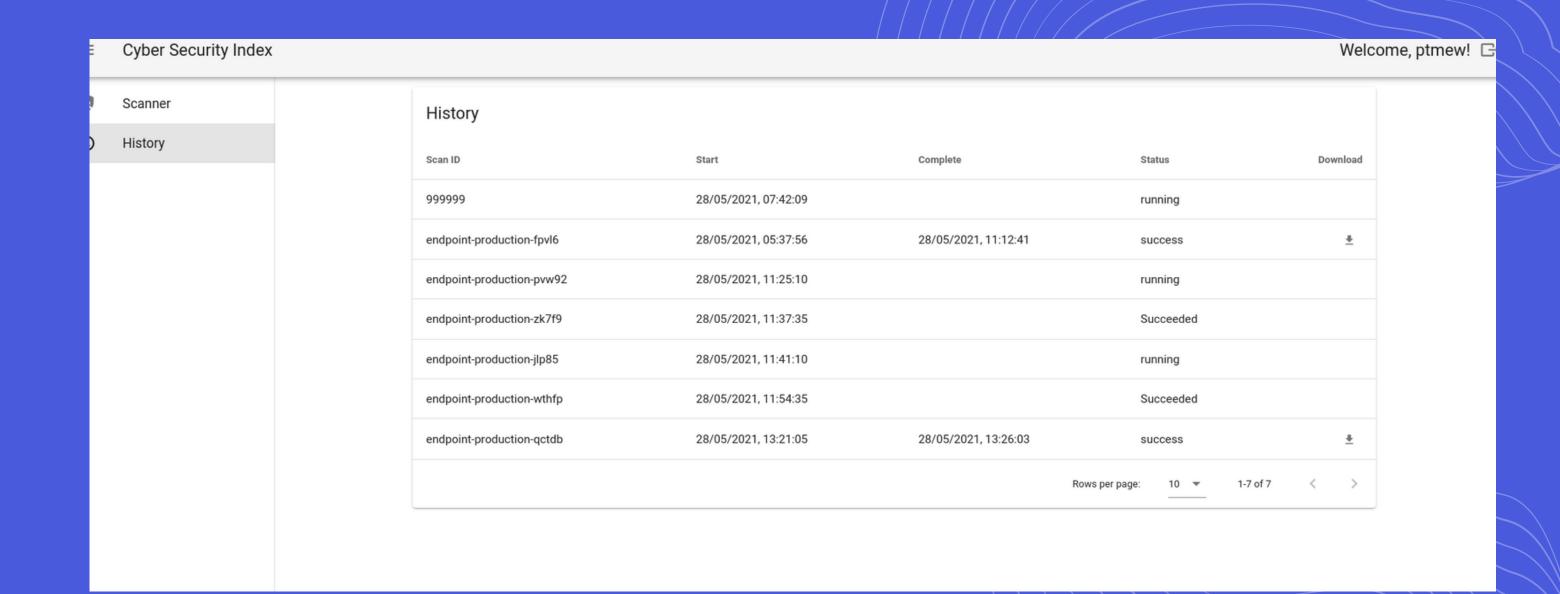
#### **ADMIN PANEL**



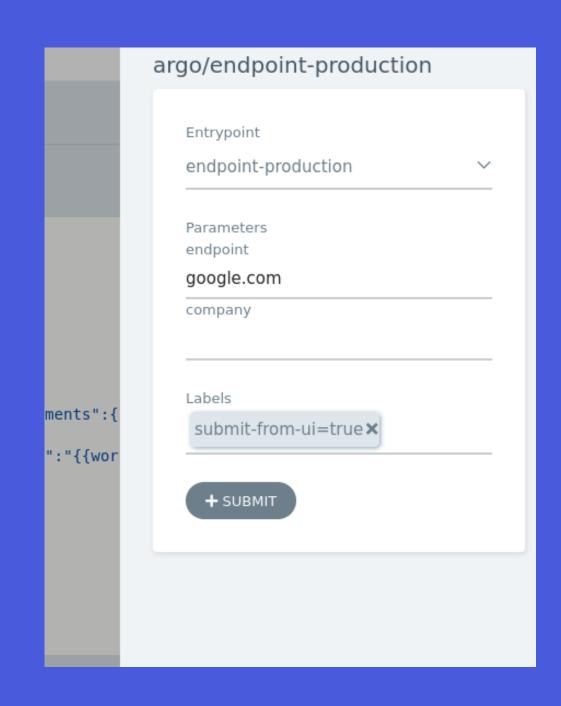
#### **USER'S SCANNING HISTORY**

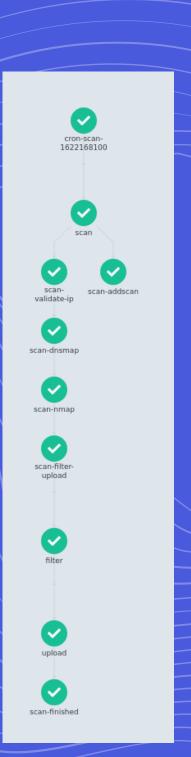


#### **USER'S SCANNING HISTORY**

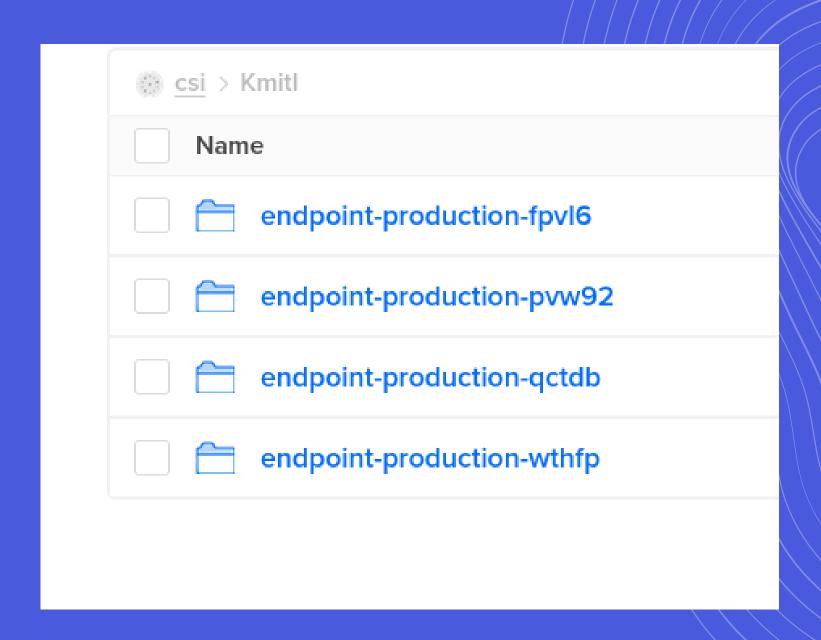


#### INNITIATE SCAN FROM THE TEMPLATE

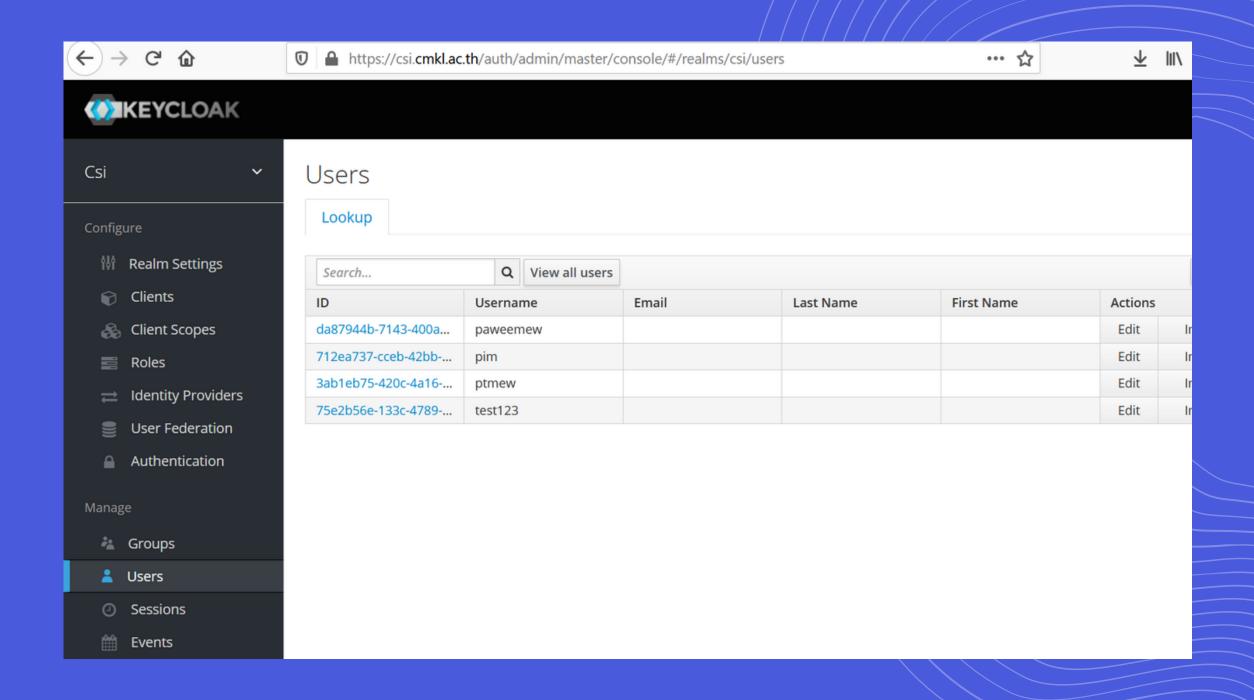




## STORING THE LOG IN OBJECT STORAGE



#### MANAGING ACCOUNT



#### DATA MANIPULATING

#### Log file

```
# Nmap 7.80 scan initiated Wed Dec 9 06:56:56 2020 as: nmap -v -A -p- -oG /tmp/nmp2hydra-raw -oX /tmp/nmap2db.xml -oN /tmp/log -iL /mnt/dnsmap/dnsmap
# Ports scanned: TCP(65535;1-65535) UDP(0;) SCTP(0;) PROTOCOLS(0;)
Host: 150.95.79.133 (v150-95-79-133.a002.g.bkk2.static.cnode.io) Status: Up
Host: 150.95.79.133 (v150-95-79-133.a002.g.bkk2.static.cnode.io) Ports: 443/open/tcp//ssl|http-proxy//HAProxy http proxy 1.3.1 or later/ Ignored State: filtered (65534) OS: Linux 4
# Nmap done at Wed Dec 9 07:03:09 2020 -- 1 IP address (1 host up) scanned in 375.21 seconds
```

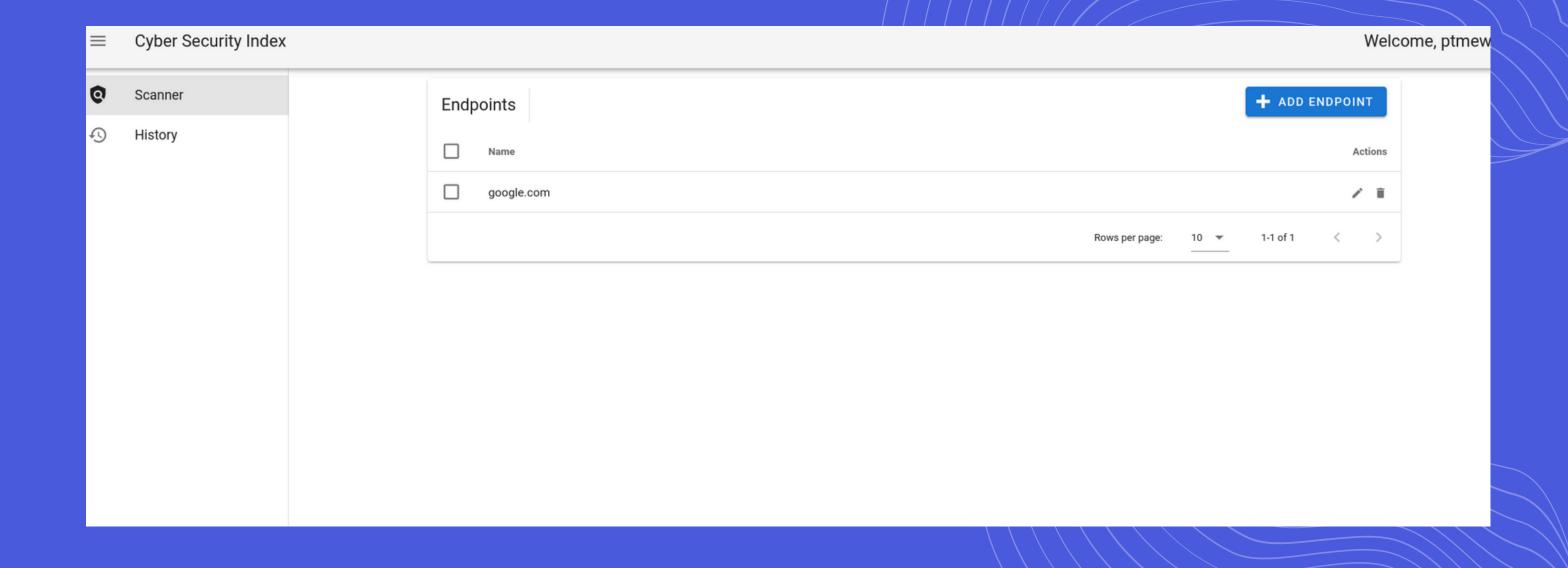
#### Filtered file

```
["http-proxy://58.137.187.99:80",
"http://58.137.187.99:81",
"ssl|http://58.137.187.99:443",
"http-proxy://58.137.187.99:80",
"http://58.137.187.99:81",
"ssl|http://58.137.187.99:443",
"http://202.183.132.102:80",
"http://202.183.132.102:443",
"http://202.183.132.102:443",
"http://202.183.132.102:80",
"http://202.183.132.102:80",
```

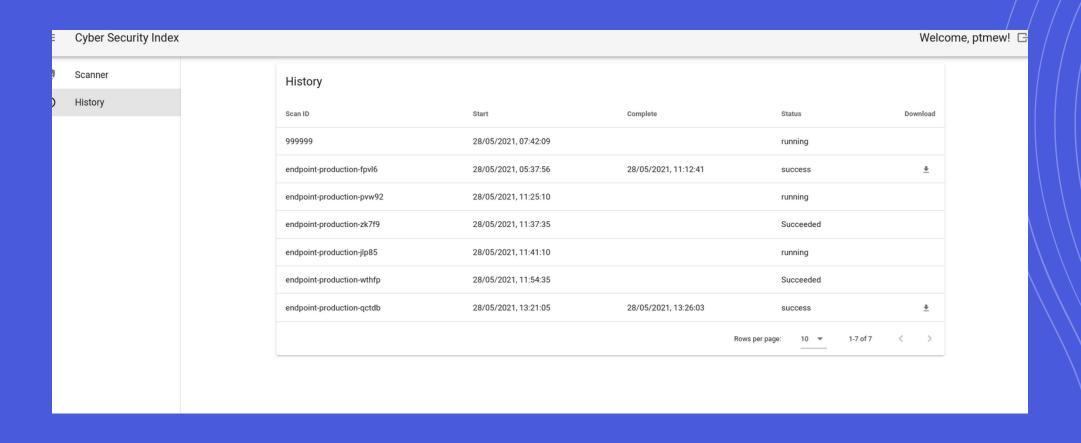


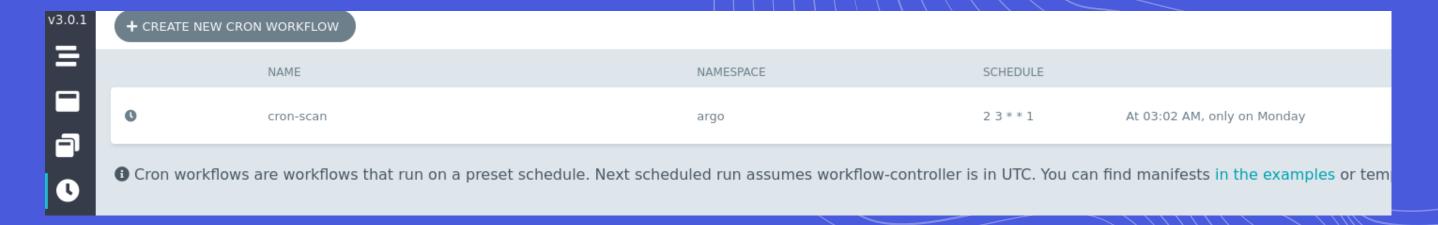
# PROBLEM & MISSING FEATURE

## NO USER FORM TO TELL THE AVAILABLE TIME SLOT



#### NO AVAILABLE TIME SLOT AND CRON SUBMISSION



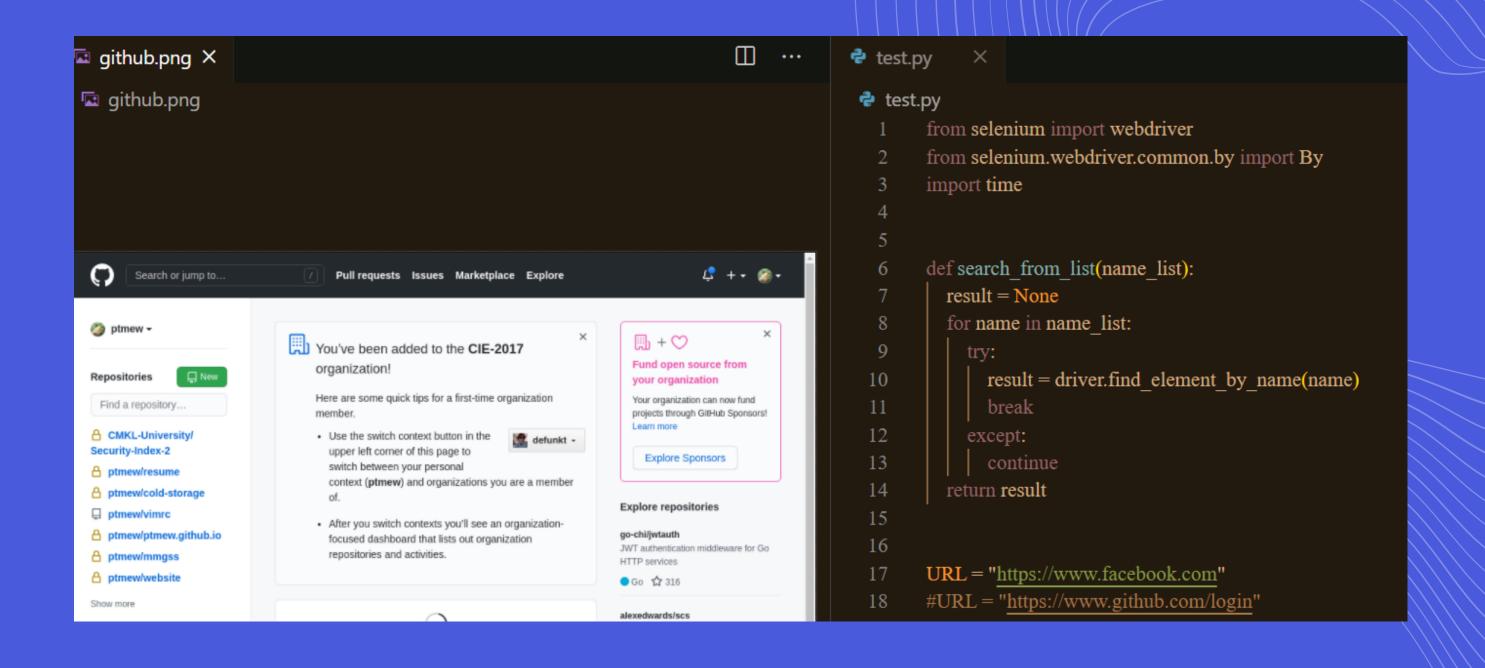


## IDENTIFY THE USER WHEN THE SCAN WAS NOT SUCCESSFUL

cron-scan-1622166300	28/05/2021, 15:45:06	28/05/2021, 15:50:19	success	*
cron-scan-1622167200	28/05/2021, 16:00:05		running	
cron-scan-1622168100	28/05/2021, 16:15:17	28/05/2021, 16:26:40	success	*
		ı	Rows per page: 10 ▼ 1-7 of 7	< >

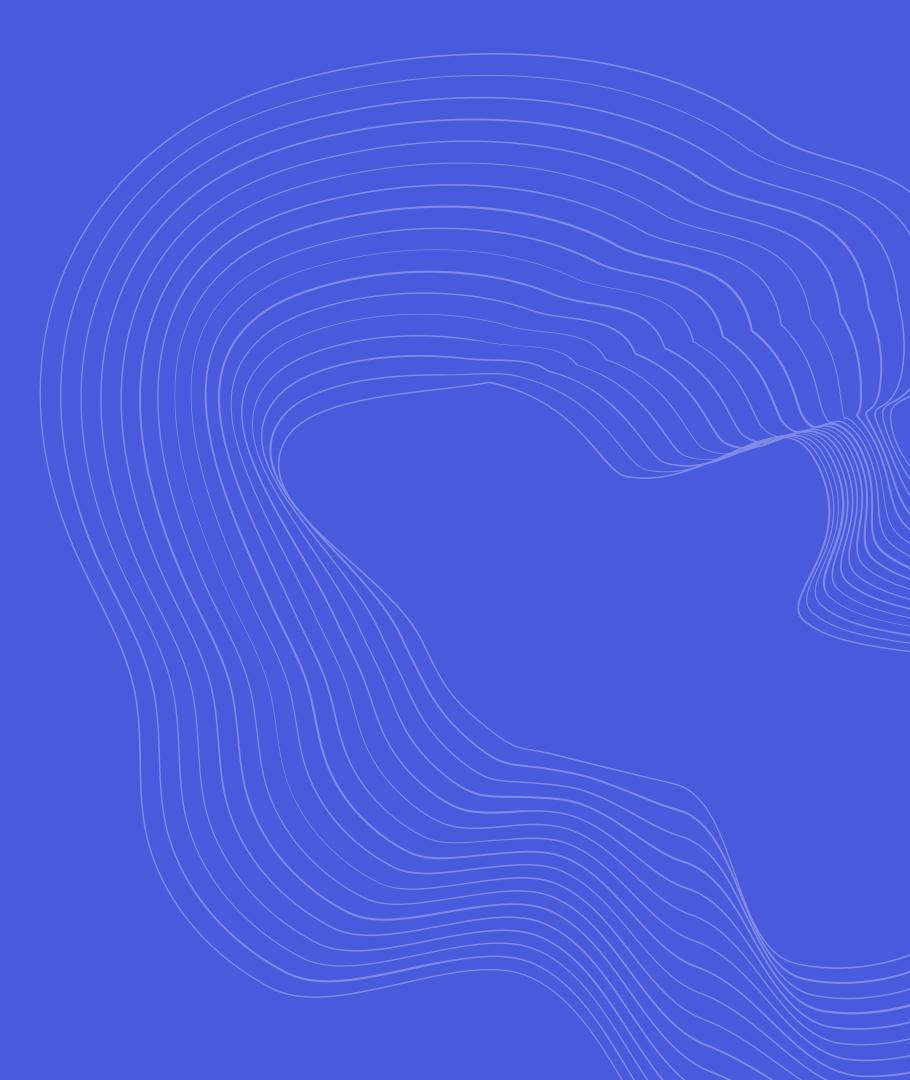
#### **AUTOMATE LOGIN WITH SELENIUM**

<input id="login\_field" class="form-control input-block" type="text" name="login" autocapitalize="noted by the class="position-relative"> ---- /div>



#### ENCRYPT THE REPORT





# Thank you for your attention

